

**AN EXPLORATION OF PROCUREMENT PRACTICES IN THE STATE-OWNED
PASSENGER RAIL AGENCIES IN GAUTENG PROVINCE**

Caxwell Mkhabele

Student Number: 208026738



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Supervisor: Dr. J.P. van der Westhuizen

Co-supervisor: Dr. E. Chinomona

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DECLARATION

I, Caxwell Mkhabele, declare that the dissertation titled: “An exploration of procurement practices in the state-owned passenger rail agencies in Gauteng Province” is my own work. In addition, all sources that I utilised in this research study have been acknowledged by means of complete referencing.

Name: Caxwell

Surname: Mkhabele

Date: December 2018

Signature:

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ABSTRACT

Supply Chain Management (SCM) departments and, specifically, procurement functions, account for the largest expenditure in most organisations. However, their function has been misunderstood, undervalued, and under-capacitated, and their strategic importance not recognised. As a result, the majority of public agencies in South Africa are implementing their procurement practices poorly.

The main research question of this study focused on procurement practices in the state-owned passenger rail agencies in the Gauteng province. A qualitative research method was adopted in which semi-structured interviews were employed to gather data regarding current procurement practices within the procurement function in the state-owned passenger rail agencies. Content analysis was utilised to analyse and interpret data collected from 12 procurement officials employed in the procurement functions within these state-owned passenger rail agencies in the Gauteng province.

The findings of this study indicate that there are poor procurement practices within the state-owned passenger rail agencies in the Gauteng province regardless of government initiatives established to address lack of accountability, inconsistency in application of procurement policies, lack of supporting structures and fragmented processes. The detailed findings indicate that the procurement function is still regarded as an administrative function within the state-owned passenger rail agencies. Due to the procurement function still being regarded as an administrative rather than as a strategic function, the procurement function is still under-rated within the state-owned passenger rail agencies in the Gauteng province. The findings also establish that there is poor contract management during the procurement processes.

Furthermore, the findings established that there is poor implementation of supplier management within multiple stages of the procurement processes in the state-owned passenger rail agencies in the Gauteng province. Due to poor procurement practices within the passenger rail agencies, eleven challenges were identified within the procurement functions. As a result of the above-mentioned challenges, this study recommends strategies that can be used to address the problems identified within the procurement functions of these state-owned passenger rail agencies in the Gauteng province.

Keywords: procurement practices; state-owned; passenger rail agencies; Gauteng.

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LIST OF ACRONYMS

ACRONYMS	DESCRIPTION
AGSA	Auditor General of South Africa
BAC	Bid Adjudication Committee
BBBEE	Broad Based Black Economic Empowerment
BEC	Bid Evaluation Committee
BEE	Black Economic Empowerment
BSC	Bid Specification Committee
BOQ	Bill of Quantities
CEO	Chief Executive Officer
CF0	Chief Financial Officer
CIDB	Construction Industrial Development Board
CIPS	Chartered Institute of Purchasing and Supply
CPAR	Contractor Performance Assessment Report
CPO	Chief Procurement Officer
DTI	Department of Trade and Industry
DOT	Department of Transport
EMAT	Economically Most Advantageous Tender
ERP	Enterprise Resource Planning
EU	European Union
GDP	Gross Domestic Product
GMA	Gautrain Management Agency
HRM	Human Resource Management
HOD	Head of Department
IRMSA	Institute of Risk Management South Africa
KPI	Key Performance Indicator
LTA	Long Term Agreement
MFMA	Municipal Financial Management Act
NAO	National Audit Office
NCSD	National Central Supplier Database
NPPA	National Public Procurement Agency

ACRONYMS	DESCRIPTION
OECD	Organisation for Economic Co-operation and Development
PAIA	Promotion of Access of Information Act
PAJA	Promotion of Administrative Justice Act
PCCA	Prevention and combating of corrupt activities Act
PEPUDA	Promotion of equality and prevention of unfair discrimination Act
PFMA	Public Financial Management Act
PO	Purchase Order
PPPFA	Preferential Procurement Policy Framework Act
PR	Purchase Request
PRASA	Passenger Rail Agency of South Africa
PPSA	Public Protector of South Africa
PUFMARP	Public Financial Management Reform Programme
RFQ	Request for Quotations
RFI	Request for Information
ROI	Return on Investment
RSA	Republic of South Africa
SAHRC	South African Human Rights Commission
SATS	South African Transport Services Act No. 9 of 1989
SCM	Supply Chain Management
SMEs	Small and Medium Enterprises
SMMEs	Small, Medium and Micro Enterprises
ICT	Information Communication Technology
ITS	Information Technology System
UK	United Kingdom
UNIDO	United Nations Industrial Development Organisation

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CHAPTER 1

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION

Most business organisations today spend a large amount of their budget on acquiring goods and on construction work as well as on services required (Burt, Petcavage & Pinkerton, 2010:9; CIPS, 2012:5-6). Since procurement accounts for a large amount of an organisation's expenditure, they should strive to implement best procurement practices, which, will in turn help them achieve their business mandate, save costs, eliminate wasteful expenditure, better service delivery and increase public wealth (Mofokeng, 2012:13; National Treasury, 2015:15). Although procurement accounts for a large amount of an organisation's expenditure, its function has been misunderstood, undervalued, under-capacitated and its strategic importance not recognised (National Treasury, 2015:1).

In South Africa's public sector, procurement is seen as one of the instruments or tools of the state which can be utilised to help improve economic and social development (Pooe, Mafini & Makhubele, 2015:68; National Treasury, 2015:13). Since the advent of democracy in South Africa in 1994, the government has introduced procurement reform processes in the public sector with the aim of promoting the principles of good governance (Ambe & Badenhorst-Weiss, 2012:242; National Treasury, 2015:12). In addition, a reform of procurement processes was introduced to address the lack of accountability, inconsistency in application of procurement policies, lack of supporting structures and fragmented processes. According to Mnguni (2012:1), procurement reform processes were supported by the establishment of legislative measures, such as the adoption of the Preferential Procurement Policy Framework Act No. 5 of 2000 (PPPFA) and Public Financial Management Act No. 1 of 1999 (PFMA).

Regardless of the reform processes in public procurement and utilisation of Supply Chain Management (SCM) as a strategic tool in South Africa, there are still procurement challenges which public organisations face on a daily basis, summarised as follows: non-compliance with SCM policies and procedures, lack of transparency, lack of accountability, lack of training, lack of capacity, unethical behaviour and lack of proper planning (Ambe & Badenhorst-Weiss, 2012:249-250; National Treasury, 2015:15-16; Pooe, Mafini & Makhubele, 2015:71; Munzhedzi, 2016:6).

In South Africa, there are two state-owned passenger rail agencies responsible for providing passenger rail transport services, namely the Passenger Rail Agency of South Africa (PRASA) and the Gautrain Management Agency (GMA). The agencies were established under different Acts and also report to the Department of Transport at different levels. PRASA is the state-owned passenger rail agency established in terms of Section 22 of the legal succession of the South African Transport Services (SATS) Act No. 9 of 1989, as amended in 2008 (PRASA, 2014:10). PRASA is also listed under schedule 3(B) of the PFMA reporting to the National Department of Transport (RSA, 2015:26). GMA is a state-owned passenger rail agency established in terms of the Gautrain Management Agency Act No. 5 of 2006 and is listed under schedule 3(C) of the PFMA as a provincial state-owned passenger rail agency reporting to the Gauteng Provincial Department of Transport (GMA, 2012; RSA, 2015:26).

In the state-owned passenger rail agencies, the policies that control or regulate procurement practices are outlined in terms of section 217(1) of the Constitution (1996). In addition, the SCM policies of those state-owned passenger rail agencies were developed by adopting the Constitution of the Republic of South Africa, which stipulates that procurement of goods, construction work and services should be conducted in a way that is fair, equitable, transparent and competitive as well as in a cost-effective manner. Although the Constitution provides guidance on how procurement practices should be conducted, a number of scholars such as Stemele (2009:84), Mofokeng (2012:5), Makhubele (2014) and Dlamini (2016:204) report that public organisations are not implementing procurement practices properly.

1.2 PROBLEM STATEMENT

SCM departments, specifically, procurement functions, account for the largest amount of expenditure in most organisations (Burt, Petcavage & Pinkerton, 2010:9; CIPS, 2012:5). However, their function has been misunderstood, undervalued, and under-capacitated, and their strategic importance not recognised despite efforts from government, and in particular the National Treasury (2015:1), as well as scholars, such as Mnguni (2012:91), Mofokeng (2012:4) and Matseke (2015:72) who have indicated that organisations could eliminate wasteful expenditure, non-compliance and minimise costs if they implement procurement practices properly. Although treasury reports indicate that most public agencies implement procurement practices poorly, there are a few who are implementing the procurement practices in a proper manner (Dlamini, 2016:12).

The Auditor General of South Africa (AGSA) (2016:4) previously reported that state-owned agencies have incurred irregular expenditure, fruitless expenditure and wasteful expenditure during the 2015-2016 financial year due to poor procurement practices. They further state PRASA as one of the state-owned passenger rail agencies that has the lead on fruitless and wasteful expenditure.

In South Africa, a number of scholars from different universities have conducted research studies on procurement practices (Stemele, 2009; Mnguni, 2012; Mofokeng, 2012; Makhubele, 2014; Matseke, 2015; Dlamini, 2016). However, there is no evidence of studies being conducted in the state-owned passenger rail agencies to explore procurement practices in Gauteng and in South Africa at large, despite reports from Public Protector (Madonsela, 2015); AGSA (2016) and many more (such as in the media) that have indicated poor procurement practices in those agencies in the country. Therefore, this study will close the gap by exploring whether the state-owned passenger rail agencies conduct procurement practices properly in Gauteng. Since the agencies' main aim is to provide services, it is important that those state-owned passenger rail agencies implement their procurement practices efficiently and effectively, which will result in improved services to passengers.

Poor procurement practices such as non-compliance with SCM policies and procedures, lack of training and lack of capacity as well as lack of proper planning (Ambe & Badenhorst-Weiss, 2012:249; National Treasury, 2015:15; Pooe, Mafini & Makhubele, 2015:71; Munzhedzi, 2016:6) pose a danger to the ability of those state-owned passenger rail agencies to achieve their business mandate, which is to provide a competitive and affordable passenger rail service. Currently, the rail industry is unable to compete with road transport due to the lack of investment in the past three decades (PRASA, 2014:21; RSA, 2015:17). According to a report from the Public Protector (Madonsela, 2015:382), poor procurement practices have been identified to be disrupting passenger rail services as the money wasted was supposed to be used to improve rail infrastructure, train set availability (maintenance) and technology such as signals and many more.

1.3 RESEARCH QUESTIONS OF THE STUDY

After a literature review the following research questions were categorised, namely, the main research question and secondary research questions:

1.3.1 The main research question of the study

What are the procurement practices currently practised in the state-owned passenger rail agencies in Gauteng?

1.3.2 The secondary research questions of the study

- Is the value and contribution of procurement understood within state-owned passenger rail agencies for competitive advantage?
- What are the procurement processes that are currently practised by state-owned passenger rail agencies in Gauteng during the acquisition of goods, construction work and services?
- How is supply management being implemented within multiple stages of the procurement process in the state-owned passenger rail agencies in Gauteng?
- What are the procurement challenges encountered during the procurement practices in the state-owned passenger rail agencies in Gauteng?

1.4 RESEARCH OBJECTIVES OF THE STUDY

The objectives of this study consist of three categories, namely, primary, theoretical as well as empirical objectives.

1.4.1 The primary objective of the study

The primary objective of the study is to explore the procurement practices that are currently practised in the state-owned passenger rail agencies in Gauteng. In addition, this study also explores the value and contribution of the procurement function.

1.4.2 The theoretical objectives of the study

In order to achieve the primary objectives, theoretical objectives in this study have been formulated as follows:

- to conduct a literature review on the value and contribution of the procurement function;
- to conduct a literature review on global public procurement practices;
- to conduct a literature review on South African public procurement practices; and
- to conduct a literature review on leading procurement practices.

1.4.3 Empirical objectives of the study

The study addresses empirical objectives to support both the theoretical and primary objectives, as follows:

- to determine the value and contribution of the procurement function in the state-owned passenger rail agencies in Gauteng;
- to determine the current procurement processes followed by state-owned passenger rail agencies in Gauteng during acquisition of goods and construction work as well as services;
- to determine the implementation of supply management within multiple stages of the procurement process in the state-owned passenger rail agencies in Gauteng; and
- to determine the procurement challenges encountered during procurement practices in the state-owned passenger rail agencies in Gauteng.

1.5 THEORETICAL FRAMEWORK

In South Africa, the policies that control or regulate procurement practices in the state-owned passenger rail agencies are outlined in terms of Section 217(1) of the Constitution. The SCM policies that govern them were developed by adopting the Constitution of the Republic of South Africa, which stipulates that the acquisition of goods and construction work as well as services should be conducted in a manner that is equitable, fair, competitive and cost effective as well as in a transparent manner (PRASA, 2016:12; GMA, 2017:10). SCM policies and procedures give a guideline and practical framework for the effective execution of SCM and procurement policies such as preferential procurement and many more (PRASA, 2016:8; GMA, 2017:13). The policies further state that procurement of goods, constructional work and services should be carried out through application of best practices.

The state-owned passenger rail agencies value the continuous review of the procurement and SCM policies to ensure that their procurement practices conform to the National Treasury's documented principles (PRASA, 2016:14; GMA, 2017:45). In compliance with National Treasury rules and regulations, these state-owned passenger rail agencies enforce and promote implementation of a preferential procurement system established to address socio-economic objectives in the public sector in South Africa (Ambe, 2016:279; GMA, 2017:13). This system gives a guideline on which preference point system is to be used during the acquisition of goods, construction work and services in the public sector. In terms of the Preferential

Procurement Policy Framework Act No. 5 of 2000 (PPPFA) updated in 2017, the 80/20 and 90/10 preference point systems are used to evaluate suppliers during the procurement process.

In the state-owned passenger rail agencies, the acquisition of goods, construction work and services may be undertaken through the following seven ways, namely: open or competitive bidding; restricted bidding; term contracts; transversal contracts; participation of contracts arranged by other organs of state; receiving goods or services from other organs of state; as well as petty cash (PRASA, 2016:17). Although there are seven options available to be used to acquire goods or services, except petty cash, request for verbal or written quotations (restricted), open or competitive as well as emergency purchases are the most commonly used in these state-owned passenger rail agencies and other public organisations (GMA, 2017:20).

When restricted and competitive bidding as well as emergency purchases are used, procurement officials of these state-owned passenger rail agencies only source suppliers from the National Central Supplier Database (NCSD). The database is defined by the National Treasury (2015:67) as the source of suppliers offering different goods, constructional work or services to the government institutions maintained by the National Treasury.

In the state-owned passenger rail agencies, procurement officials are required to comply with the National Treasury's code of conduct for SCM employees, and any procurement official found to have violated the code of conduct is subjected to an internal disciplinary hearing (PRASA, 2016:17; GMA, 2017:18;24). Some of the procurement practices that are prohibited include discussions with the potential suppliers during the bidding period, deliberately splitting of goods or services to be purchased in order to remain within restricted bidding with the aim of avoiding competitive bidding and acquiring items with specifications that are being described in terms of conformance rather than performance.

During the acquisition process, state-owned passenger rail agencies' procurement officials and any officials such as a user department involved in the procurement process are required to declare a conflict of interest in compliance with ethical standards set by the National Treasury. The National Treasury (2009:2) practices note No. 7 of 2009/2010 requires the procurement officials or any official involved in the evaluation of a bid during the procurement process to declare any conflict of interest when one of the bidders is a family member, friend, business partner or if they have a private or business interest. As soon as the conflict of interest is declared, the official declaring the conflict must complete the declaration form indicating withdrawal from taking part in the evaluation and awarding of contracts. The declaration form

will be signed by an SCM manager as an approval that the official is withdrawing from taking part in the evaluation and awarding of contracts of goods, construction work or services.

When the procurement official or any other official involved in the procurement process fails to declare a conflict of interest, such an official will have violated the National Treasury practices note No. 7 of 2009/2010, which has been established to guide government procurement officials and other officials involved in the process. Failure to declare when there is a conflict interest will result in such an official facing an internal disciplinary hearing, which may lead to dismissal if necessary (PRASA, 2016:22; GMA, 2017:25). According to the National Treasury (2009:2), the practices note was intended to eliminate corruption or favouritism during the evaluation and awarding of contracts.

In the event where an unsuccessful supplier is unhappy with the conduct of the procurement officials or the procurement process in which they were competing, then such a supplier is encouraged to write a formal letter of complaint to the SCM Manager, informing the organisation about their dispute. Thereafter, the head of SCM will investigate and the awarding can be withdrawn if proven that there were unethical practices in any stage of procurement process. When there is enough evidence that the supplier has gained an advantage over other suppliers through unethical practices such as bribes, misleading procurement with false statements and forgery of documents, then the contract will be cancelled and such a supplier will be recorded on the list of restricted suppliers, which will be submitted to the National Treasury who will restrict the supplier from doing any business with any organ of the state (PRASA, 2016:19; GMA, 2017:36). Thereafter, the acquisition process must be restarted.

After careful discussion on the theoretical framework on procurement practices in the state-owned passenger rail agencies, it becomes questionable on whether these agencies conduct their procurement practices in accordance with their SCM policies and procedures as well as complying with all National Treasury standardised acts, procedures or practice note.

1.6 SIGNIFICANCE OF THE STUDY

This study contributes information to the state-owned passenger rail agencies and Gauteng communities at large in the following ways:

- It gives an understanding of current procurement practices within the state-owned passenger rail agencies in Gauteng.

- It identifies areas that need to be improved within the procurement department in the state-owned passenger rail agencies.
- It recommends best procurement practices which can help eliminate wasteful expenditure if implemented within the state-owned passenger rail agencies.
- It contributes to communities at large by ensuring that the money saved through the reduced wasteful expenditure is used to help improve services, which in turn contributes positively to the economy of the country since passengers will be on time due to improved reliability of trains (train sets), which will result in the passenger rail agencies being able to compete with the road transport industry.
- This study provides a framework which the procurement official should follow during the procurement processes.

1.7 RESEARCH DESIGN AND METHODOLOGY

Before the study begins to discuss research design and methodology, it is important to describe the meaning of research. Research can be defined as the systematic process of collecting and logically analysing data for a given purpose (Castellan, 2010:14). However, this definition is generalised to some degree since many methods are used to investigate a problem or question. Research methods (constituting a research methodology) are the ways in which one collects and analyses data. These methods have been developed for acquiring knowledge, reliably and validly. A research methodology is systematic and purposeful, planned to yield data on a research problem (Choy, 2014:99). This section aims to introduce and explain the rationale for the research methods chosen for the study. The methodology and research design of this study was conducted in two phases, namely the first phase comprises a literature review and phase two consists of an empirical study.

1.7.1 Literature review

A literature review is defined by Zikmund, Babin, Carr and Griffin (2010:65) as a direct search of published works done by others, which include books and periodicals such as articles that examine theory and present empirical results relevant to the study being undertaken. A literature review will be undertaken to explore procurement practices in the state-owned passenger rail agencies in the Gauteng province. The literature review of this study will be built through the use of electronic databases, journals, textbooks, internet and public reports as sources of information.

1.7.2 Empirical study

An empirical study is described by Quinlan (2011:12) as a process that involves drawing conclusions based on experience gained through observation and investigation to collect original evidence. Therefore, the empirical portion of this study will be undertaken in order to explore procurement practices in the state-owned passenger rail agencies in the Gauteng province.

1.7.3 Research design

A research design is defined by Saunders, Lewis and Thornhill (2016:163) as the master or general plan that explains how the researcher will answer the research questions of the study being conducted. Furthermore, it comprises clear objectives derived from research questions, which specify the sources from which the researcher intends to collect data, how the data will be collected and analysed as well as discussing the ethical issues that are unavoidable, which might be encountered. In research, there are three types, namely: exploratory, descriptive and causal, or explanatory, as recommended by Zikmund *et al.* (2010:54). Therefore, this study has adopted an exploratory research design. An exploratory study is defined by Saunders, Lewis and Thornhill (2012:171) as a means of asking in-depth questions of value in order to discover what is happening and gain more insights about a topic of interest. Therefore, an exploratory study will help determine the procurement practices in the state-owned passenger rail agencies in the Gauteng province.

1.7.4 Research approach

In scientific research, there are three approaches, namely: qualitative, quantitative as well as mixed methods research (Saunders, Lewis & Thornhill, 2012:161). Qualitative research is defined by Van Zyl (2018:213) as a behavioural science research method that explores the causes of human behaviour utilising exploratory techniques such as interviews, case studies and surveys. Quantitative research is defined as a research study that requires the curtailment of the process to numerical values to conduct statistical analysis (Smith, 2015:1). Mixed methods research is defined by Saunders, Lewis and Thornhill (2016:169) as a branch of multiple methods research that combines the utilisation of qualitative and quantitative data collection techniques and analytical procedures in a single study.

Therefore, this study has adopted a qualitative research design as a suitable approach. Qualitative research addresses study objectives through techniques that enable the researcher to

provide elaborative interpretations of processes without depending on numerical data or measurement (Zikmund *et al.*, 2010:133). In addition, a qualitative approach helps discover true inner meanings and new insights into a topic being studied. Therefore, the qualitative approach has helped answer research questions about procurement practices in the state-owned passenger rail agencies in the Gauteng province and help discover new insights.

In research, there are three main forms of reasoning, namely: induction and deduction as well as abduction (Saunders, Lewis & Thornhill, 2012:144; Kennedy, 2018:61). An inductive reasoning approach is defined by Zikmund *et al.* (2010:44) as the logical phenomenon of establishing a general proposition based on observation of facts. According to Kennedy (2018:61), induction reasoning in a research study help in the creation of codes, categories theoretical constructs and themes as well as relationships that explain the data. Furthermore, they describe a deductive approach as a reasoning that helps the research analyst to test conclusions at different stages of the research study. In deductive reasoning, there is a search to explain causal relationships between concepts and variables (Saunders, Lewis & Thornhill, 2016:146). Moreover, the inductive approach to reasoning is appropriate for a small sample in which the researcher becomes concerned with the context in which an event occurred, while a deductive approach is concerned with large sampling and a concept need to be operationalised in a manner that enables facts to be measured. Abduction is described as a reasoning that is responsible for yielding a reasonable explanation of the data that accounts for surprises that arise during data collection and analysis (Kennedy, 2018:61).

This study has adopted inductive reasoning as recommended by Yin (2011:94) since most qualitative research applies the inductive approach. The inductive approach to reasoning has helped the researcher to interview a small sample of the population in order to understand the current procurement practices within the state-owned passenger rail agencies in the Gauteng province as recommended by Saunders, Lewis and Thornhill (2016:146).

1.7.5 Research strategy

A research strategy is defined by Saunders, Lewis and Thornhill (2016:177) as a plan of action used by a researcher, which indicates how the research questions (s) of the research study will be answered. Moreover, in research, there are eight research strategies briefly discussed below.

1.7.5.1 Action research

Action research is an emergent and iterative phenomenon of inquiry that is designed to develop solutions to real organisational problems through a participative and collaborative approach, which utilises different forms of knowledge and which will have implications for participants and the organisation (Saunders, Lewis & Thornhill, 2016:189). In addition, the purpose of an action research strategy is to promote organisational learning to yield practical outcomes through identifying issues, planning action, taking action and assessing action.

1.7.5.2 Archival and documentary research

Archival and documentary research has been described by Salkind (2018:173) as archival records and documentation which give the researcher (when available) descriptive data about the composition of an organisation. Furthermore, this type of research strategy allows the researcher to collect data such as communication between individuals, individual records, organisational sources and government sources as well as media sources which can provide meaningful data to the researcher. According to Saunders, Lewis and Thornhill (2016:183), many types of archival and documentary sources mentioned above may be available online and on printed copy.

1.7.5.3 Ethnography

This research strategy basically focuses on exploring topics related to culture within societies and in organisations (Salkind, 2018:173). When an ethnography research strategy is adopted, the research study is characterised by the following four key areas (Salkind, 2016:173; Van Zyl, 2018:199), namely: (1) ethnographers view the group or process being studied in its entirety; (2) ethnographers take advantage of naturalistic orientation in that they actually take up residence in the culture being studied and become a participant observer; (3) this research strategy is characterised by prolonged field activity which generally requires the researcher to spend years within a culture; and (4) an ethnographer should utilise any information on the culture only to give themselves enough familiarity to be able to function, meaning there should be no design of research questions or formulation of hypotheses until observation provides sufficient knowledge to be able to do so after being in place.

1.7.5.4 Case study

A case study is defined by Saunders, Lewis and Thornhill (2012:179) as a study that examines a research subject or processes that occur in reality or real-life problems. In addition, a case

study can answer research questions about the event or situation being studied. Salkind (2016:175) defines a case study broadly as the method utilised to study an organisation or individual in a unique situation in as intense and as detailed manner as possible. Oppong's (2013:202) definition will form the basis for this study: namely, a case study is an in-depth description and analysis of a bounded system.

1.7.5.5 Experiment

Experiment is described as a form of research that owes much to the natural sciences, which features strongly in psychological and social science research (Saunders, Lewis & Thornhill, 2016:178). In addition, the purpose of this research strategy is to study the probability of a change in independent variables causing a change in another dependent variable.

1.7.5.6 Grounded theory

Grounded theory is utilised to develop theoretical explanations of social interactions and processes in a wide range of contexts, including business and management (Saunders, Lewis & Thornhill, 2016:193). Moreover, it provides a systematic approach to collection and analysis of qualitative data (the researcher conducts an interview and analyses it before conducting the next interview). Whereas in quantitative research, it is utilised to collect a complete set of data and then analyse them.

1.7.5.7 Narrative inquiry

Narrative inquiry allows the research to analyse the linkages and relationships as well as socially constructed explanations that take place naturally within narrative accounts in order to understand the complex phenomenon which people utilise in making sense of their organisational realities (Saunders, Lewis & Thornhill, 2016:198). In addition, this research strategy is concerned with small and purposive samples because of its intensive and time consuming nature.

1.7.5.8 Survey

This research strategy attempts to study directly the attributes of populations through the use of surveys (Salkind, 2016:160). Furthermore, survey research is also known as sample surveys and it assesses the frequency and relationships between psychological and sociological variables and taps into constructs such as beliefs, attitudes, prejudices and preferences as well as opinions. During surveys, interviews contain two general types of questions, namely, structured and unstructured questions discussed as follows (Van Zyl, 2018:199). The difference

between the two types is that unstructured questions allow the interviewee to elaborate upon responses, while structured questions have a clear and apparent focus and call for an explicit answer.

Based on the above brief description of research strategies, research strategies associated with qualitative research consist of narrative research, case study, ethnography, action research and grounded theory (Saunders, Lewis & Thornhill, 2012:163). However, research strategies such as experiments and surveys are appropriate when a quantitative research design is adopted. Therefore, the appropriate research strategy utilised in this study is a case study. The case study is an appropriate strategy for this study because it has provided in-depth information on the current procurement practices in the state-owned passenger rail agencies in the Gauteng province.

1.7.6 Target population

Target population is described as every person living in a particular area or group of people belonging to a particular organisation, such as companies, trade unions, communities and many more that possess the attributes required or are of interest to the researcher (Zikmund *et al.*, 2010:390). The population was obtained from both the state-owned passenger rail agencies databases and confirmed by SCM director of GMA and SCM managers of PRASA. The total number of procurement general staff and management in the state-owned passenger rail agencies in Gauteng was fifty-three.

1.7.7 Sampling technique

Sampling in research involves selecting a portion of a population to judge something about the entire population (Thompson, 2012:1). A purposive sampling method under a non-probability sampling technique was utilised in this study and is described as using the researcher's judgement to select cases that help answer research questions and help meet the study objectives effectively (Saunders, Lewis & Thornhill, 2012:287). Furthermore, purposive sampling is associated with selecting targeted participants who are informative and possess knowledge required for the study. Therefore, procurement functions/departments of the state-owned passenger rail agencies consisted of general staff and management who are believed to have the required procurement knowledge and are experienced about procurement practices.

1.7.8 Data collection methods

In this study, the primary data sourced from research participants (procurement officials) was utilised to establish a range to which the state-owned passenger rail agencies have progressed with the adoption of procurement practices as stipulated by the National Treasury of South Africa. Semi-structured questions were utilised to collect primary data through face to face interviews in closed offices at state-owned passenger rail agencies premises. In addition, all interviews were recorded utilising a digital voice recorder and each interview took approximately 30 to 60 minutes. During the interviews, the researcher took notes to record any events that were not captured by audio recording, as recommended by Saunders, Lewis and Thornhill (2012:395). Before the interviews began, permission to record and share the recording with the trained professional was requested from all the participants, as recommended by Yin (2011:155). According to Saunders, Lewis and Thornhill (2012:374), a semi-structured interview allows the researcher to have a list of themes and key questions to be covered and allows additional questions to get more insight into the topic. In this study semi-structured interviews have helped explore the study research questions and objectives to determine procurement practices within the state-owned passenger rail agencies in the Gauteng province. In addition, an interview guide was developed, which covered the following four aspects that are regarded as being critical to procurement in the state-owned passenger rail agencies:

- The value and contribution of procurement;
- implementation of procurement processes;
- implementation of supply management within multiple stages of the procurement process; and
- procurement challenges encountered by procurement officials.

The secondary data used comprises an extensive literature review of those state-owned passenger rail agencies' procurement policies and procedures, public policies and procedure, books, web-based reports and websites, public reports such as from the Auditor General of South Africa (AGSA) and Public Protector's reports as well as articles.

1.7.9 Data analysis

Data analysis is defined by Zikmund *et al.* (2010:70) as the application of reasoning to understand the data that has been obtained or gathered from participants. Since this study is located within the qualitative research approach, qualitative content analysis was utilised to

analyse and interpret data collected through semi-structured questions. Zikmund *et al.* (2010:246) define content analysis as the systematic observation and analysis of a message or content of communication. In this study, data recorded on a digital instrument and notes taken during interviews were submitted to a trained professional who helped translate the voice format into text format, as recommended by Saunders, Lewis and Thornhill (2012:400). As recommended by Yin (2011:178), data in this study was analysed in the following five approaches or stages:

- compiling and sorting of data collected, thereafter breaking compiled data into smaller pieces;
- using substantive themes to re-arrange the disassembled pieces into different groupings and sequences;
- re-arrangement and re-combinations facilitated by depicting the data graphically and through tabulation forms;
- interpretation of data; and
- drawing conclusions that relate or communicate with all first stages.

1.8 MEASURES OF TRUSTWORTHINESS

Qualitative research is associated with accurate measurement and tends to utilise the terms of credibility and trustworthiness rather than reliability and validity (Wagner, Kawulich & Garner, 2012:137). In this study, trustworthiness is described in the following four ways, namely: credibility, conformability, dependability, and transferability, as recommended by Lincoln and Guba (1985:40).

Credibility is defined by Wagner, Kawulich and Garner (2012:147) as the extent to which the evidence is not distorted and sincere, free from mistakes and evasion. In addition, it is concerned with reliability of people who record data during interviews and those who translate recorded data. To ensure credibility in this study, the researcher recorded full interviews which were submitted to a trained professional to analyse.

Conformability is defined by Wagner, Kawulich and Garner (2012:137) as making sure that the findings are a true reflection of data collected rather than being a researcher's opinion and construction. Therefore, after completion of all interviews the researcher sent the transcripts to all participants who participated via email to assure and confirm the trustworthiness of this

study. In addition, the email also expressed appreciation of the participant's effort, time and contribution to the study.

Transferability is related to making similarity judgements which can be achieved by maintaining all versions of data collected in their original format and by presentation of thick descriptions (Geertz, 1973:5). In this study, transferability was achieved through noting the specific details of the research project/study methods and situation, and thereafter comparing them to similar events in other state-owned passenger rail agencies, as recommended by Lee and Ling (2008:95). In this study, the specifics amongst state-owned passenger rail agencies in the Gauteng province and in South Africa at large were considered comparable, which provides transferability of the results to other contexts in South Africa and abroad.

Dependability is associated with how well a research study can guarantee readers about study findings and the way a conclusion was reached (Corbin & Strauss, 2008:297). In this study, dependability was achieved through triangulation. Triangulation is defined by Yin (2011:313) as an analytic technique utilised during data collection and data analysis to confirm findings with evidence from more than one different source. In this study, triangulation was achieved by utilising data collected from a semi-structured interview with the participants from two state-owned passenger rail agencies, namely, GMA and PRASA.

1.9 ETHICAL CONSIDERATIONS

Ethics in research is defined by Saunders, Lewis and Thornhill (2012:226) as the common practices that provide guidance to the research with regard to or in connection with the rights of those who are affected by the researcher's work. In procurement terms, ethics are defined by Burt, Petcavage and Pinkerton (2010:439) as the moral values and principles that constitute what is right or wrong within the organisation. As the above definitions communicate similar contexts, the ethical considerations of this study are summarised as follows:

- Permission to gain access to PRASA and GMA was requested from management and the access to procurement employees was requested from all the targeted employees on condition of their willingness to participate voluntarily. Therefore, the targeted employees were not forced to participate in this study. In addition, permission to record the interviews and to share the recorded data with a trained professional was also sought from all participants.

- Before data was collected, the volunteer participants were given informed consent forms to sign which included and/or interpreted all terms and conditions of participating in this study. An example of terms and conditions includes amongst others the fact that participants were given a chance to withdraw at any time without giving reasons and were not forced to answer questions.
- Data collected from participants was used for the purpose of this study and also processed fairly and lawfully.
- Participants' responses were without their particulars (names) to ensure their anonymity and confidentiality. Furthermore, any harm to participants might result in risks associated with emotional, physical and/or mental wellbeing (Saunders, Lewis & Thornhill, 2009:234). Therefore, any harm to participants was avoided throughout this study.
- Professionalism was maintained consistently during data collection and analysis, for example, by presenting data that was not attributed to any participant.

1.10 CLASSIFICATIONS OF CHAPTERS

Chapter 1: Introduction and background to the study

This chapter outlines the background of the study, the research problems, research questions and objectives of the study. Furthermore, the theoretical framework and the significance of the study are discussed. The chapter ends by discussing methodology and research design, measures of trustworthiness as well as ethics of the study.

Chapter 2: Review of procurement practices

This chapter presents procurement terminologies as well as the value and contribution of the procurement function. The first part provides an understanding of global public procurement practices. Thereafter, South African public procurement practices are discussed. The chapter concludes by reviewing the leading procurement practices.

Chapter 3: Research Methodology

This chapter covers the research design and method used. Furthermore, sampling techniques, methods of data collection and analysis are discussed. Thereafter, measures of trustworthiness are discussed as well as ethics of the study.

Chapter 4: Results and findings

This chapter analyses and interprets data collected through semi-structured interviews about procurement practices in the state-owned passenger rail agencies in Gauteng.

Chapter 5: Conclusions and recommendations

This chapter provides conclusions and recommendations established from findings about procurement practices in the state-owned passenger rail agencies in Gauteng. The chapter concludes with limitations and implications for further research

CHAPTER 2

REVIEW OF PROCUREMENT PRACTICES

2.1 INTRODUCTION

This chapter presents procurement terminologies as well as the value and contribution of the procurement function. The first part provides an understanding of global public procurement practices, which consists of an overview, principles of public procurement, procurement processes, and legislative frameworks that guide public procurement as well as procurement challenges from a global perspective.

Thereafter, South African public procurement practices are discussed, focusing on an overview, principles of public procurement, committees involved in public procurement processes, the public procurement processes, legislative frameworks that guide procurement practices as well as public procurement challenges from the South African perspective. The chapter concludes by reviewing the leading procurement practices, which can help state-owned passenger rail agencies and other public organisations achieve effectiveness and efficiency, which can in turn help improve service delivery in South Africa.

2.2 DEFINITIONS OF KEY PROCUREMENT TERMINOLOGIES

In the past decades, procurement was known as purchasing and supply management in most organisations, when the use of these terms was frequently interchangeable (Lysons & Farrington, 2012:359; Burt, Petcavage & Pinkerton, 2010:2; Monczka, Handfield, Giunipero & Patterson, 2016:11). Researchers state that supply management involves cross-functional activities, which is more strategic or provides wider scope than purchasing, which only focuses on commercial-based and transactional relationships. Kraljic (1983:109) also supports the change from purchasing to supply management because the latter provides a wider scope. Due to this change caused by the change in the procurement scope from passive through to proactive, a number of terminologies such as procurement, purchasing, supply management, supply chain and supply chain management were established.

Although some of these terminologies such as procurement, supply management and purchasing are used interchangeably, a number of authors have demonstrated the differences between those terms (Burt, Petcavage & Pinkerton, 2010:6; Monczka *et al.*, 2016:11). Procurement involves a pre-award stage and post-award stage, while purchasing only focuses

on the post-award stage. The pre-award stage includes defining the requirement of goods, construction work and services, tendering, supplier selection and contract awards, while the post-award stage involves ordering, receipt and payment (CIPS, 2012:97). Hence the majority of the organisations in both the public and private sector have adopted the term procurement (Lysons & Farrington, 2012:359). These terminologies established during the development of procurement practices are summarised in Table 2.1.

Table 2.1: Terminologies established during the development of procurement practices

Authors	Definitions
CIPS (2012:3)	Procurement is defined as the phenomenon of obtaining goods, construction work as well as services required in the organisation through purchasing, hiring, leasing and borrowing.
Burt, Petcavage and Pinkerton (2010:6)	Purchasing is defined as the phenomenon of buying goods, construction work as well as services required from other organisations in a legal as well as in an ethical manner. In addition, proficient purchasing will cover the following summarised five rights: right item or service, right quality, right quantities, right price and right time.
Burt, Petcavage and Pinkerton (2010:6)	Supply management is defined as a five-stage process, which consists of identification of need, identifying suppliers, establishing a fair and reasonable price, developing purchasing contract, and management of the relationship to ensure that the required item or service is delivered on time in the correct quantities and of correct quality
Burt, Petcavage and Pinkerton (2010:315)	A supply chain is defined as group of individuals or organisations who are directly included in the downstream and upstream flow of goods, which include money and services as well as information from the raw material stage through to end-user or customer.
Baily, Farmer, Crocker, Jessop and Jones (2008:	Supply chain management is defined as the management of any functions, knowledge and financial resources as well as information related to the flow and storage of goods,

66); Turner (2011:15)	construction work and services from suppliers to buying organisations until they reach the customers. Moreover, the goods and services must meet customer requirements in terms of cost effectiveness and quality.
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Source: Researcher's own compilation (2017)

This section, including Table 2.1 shows the terminology established during the development of the procurement function. The literature points out that before the procurement function was established, the function was known as the purchasing and supply management department. Moreover, during these stages, the functional activities were narrowed to reactive buying of goods and services. However, the development of the procurement function has led to the function covering a wider scope within organisations which has helped the function to be proactive to the organisation's requirements. Lastly, the next section of this study discusses the value and contribution of the procurement function within the organisation after the procurement function has developed, as discussed in this section.

2.3 THE VALUE AND CONTRIBUTION OF THE PROCUREMENT FUNCTION WITHIN ORGANISATIONS

According to Dlamini (2016:48), the value of the procurement function within an organisation is important for maintaining growth and sustainability. On the other hand, the contribution of the procurement function is gradually being recognised by many organisations as a strategic tool to be utilised to gain competitive advantage (Van Weele, 2010:3). This is due to a larger amount of the organisation's budget that is spent within the procurement function. Although the procurement function accounts for a large amount of the organisation's expenditure (Burt, Petcavage & Pinkerton, 2010:9; CIPS, 2012:5) it contributes little to the overall profitability of the organisation. According to Abdelhadi (2017:32), the procurement function contributes little to overall profitability because it does not contribute in the final execution of the final output or product as it is only responsible for extraction of raw inputs. However, departments that are responsible for execution of the final output depend on the ability of the procurement function to acquire goods and services required to produce and support execution of final output.

Although the procurement function contributes little (bottom line) to an organisation's overall profitability, it is considered as a strategic tool to gain competitive advantage in a business or organisation's operation (Abdelhadi, 2017:31). Since it only contributes to extraction of raw

materials, a question may arise on how it adds competitive advantage to operations. According to Turner (2011:89) and CIPS (2012:33), the procurement function can add competitive value to the organisation through cutting costs and or by securing operational efficiency. They further state that it can contribute to the two objectives of cutting costs and securing operational efficiency by means of the following six activities:

- improves quality of inputs through selection of potential suppliers and managing them properly;
- negotiates the effective management of procurement processes in order to reduce cost of inputs;
- ensures efficient management of procurement practices in order to reduce the cost of transactions;
- ensures effective communication with user departments in order to improve procurement or inputs specifications so that business needs are fulfilled effectively and efficiently;
- instils effective management of inventory in order to minimise the costs of acquiring and holding inputs; and
- works with key supply chain partners in order to eliminate non-value adding activities in the supply process.

The above activities are performed within the procurement function in order to give an organisation competitive advantage over competitors. By adopting them, organisations keep their output price at a lower price and cut costs at an operational level to remain competitive. It is therefore necessary for the procurement function to be effective and efficient within the organisation.

2.4 PUBLIC PROCUREMENT PRACTICES: EMPIRICAL EVIDENCE FROM A GLOBAL PERSPECTIVE

This section presents an overview of global public procurement, the principles of global public procurement, public procurement processes and legislative frameworks that govern public procurement across the globe. Thereafter, public procurement challenges in the public sector across the world are discussed.

2.4.1 Overview of global public procurement

Public procurement in developed as well as in developing countries aims at achieving two objectives, namely, procurement and non-procurement objectives (Komakech, 2016:21; Thai, 2016:3). Furthermore, a procurement objective includes cost saving, lead times, quality, minimising business, financial and technical risks, maximising competition, and maintaining integrity, while non-procurement objectives aim to achieve economic objectives such as local production and contents, environmental protection or green procurement and international relations.

However, according to Grandia and Meehan (2017:302), nowadays public procurement has been used by governments to address and achieve different purposes across the globe such as addressing unemployment, improving working conditions throughout the international supply chain, providing opportunities for Small and Medium Enterprises (SMEs), promotion of local production and stimulating innovation as well as stimulating the market for sustainable goods and services. For example, public procurement in countries like India, Ghana, China and many more is used to promote and sustain economic growth and socio-economic development (Chen, 2013:5; UNIDO, 2017:9; Koul, Kumar, Kumar & Verma, 2017:110). While, in Vietnam, public procurement aims at achieving general principles of public procurement, namely: competitiveness, fairness and transparency as well as efficiency, which are directly linked to the above-mentioned procurement objectives (Hai & Watanabe, 2014:28). Due to failure by public organisations to achieve the procurement objectives (procurement and non-procurement objectives) in both developed and developing countries, such as Ghana and Vietnam in the past (Andrews, 2013:2). Procurement has been through reforms' processes to improve the efficiency and effectiveness of procurement functions in the public sector (Berko, Nkuah & Nangpiire, 2014:121-122; Marius, 2017:58).

In China, public procurement reforms introduced to achieve non-procurement objectives resulted in the establishment of the Preferential Treatment Law of 2002 aiming at promoting (Small Medium Enterprises) SMSs (Chen, 2013:13). Moreover, the law enforced the government to reserve 30 percent of the procurement budget for SMSs. However, China has failed to achieve its initiatives to the fullest, due to flaws in the regulations established through reform processes and corruption as well as fraud during procurement practices (Zhang, Le & Skitmore, 2017:22).

In Ghana, reforms in public procurement resulted in the creation of new procurement legislation that have put in place new institutional frameworks through which procurement is expected to be managed (Dza, Fisher & Gapp, 2013:51). In 1996, government of Ghana launched the Public Financial Management Reform Programme (PUFMARP) with the purpose of improving financial management (Ameyaw, Mensah & Osie-Tutu, 2012:55). Moreover, in support of PUFMARP, the government of Ghana also established the Public Procurement Act No. 663 of 2003 as a comprehensive legislative designed to eliminate public procurement challenges. The Procurement Act No. 663 of 2003 was established to address weaknesses in public procurement (Bamfo-Agyei, Hackman & Nani, 2015:533). According to Sarfo and Baah-Mintah (2013:97), the Procurement Act No. 663 of 2003 has brought fairness and competition into the procurement process in Ghana. Furthermore, although the Act brought fairness and competitiveness, it also causes delays in the procurement process as well as in the payment of suppliers. Although new laws or legislative frameworks, policies and procedures were established during reform the processes in Ghana, the country is failing to champion the public procurement reforms due to lack of leadership to drive the reforms and political will or interference (Dza, Fisher & Gapp, 2013:51).

In Indonesia, public procurement is centralised, meaning central government, through public procurement reforms, introduced new regulations, processes and capacity as well as organisations in order to increase the effectiveness and efficiency of the procurement system (Sacks, Rahman, Turkewits, Buehler & Saleh, 2014:1). Furthermore, central elements of the reform comprises the following four components, namely: (1) the establishment of a National Public Procurement Agency (NPPA), which is responsible for development of public procurement policies; (2) the roll-out of e-procurement throughout the procurement process with the aim of eliminating corruption; (3) establishment of compulsory certificate for procurement officials in the country aimed at equipping procurement officials with skills and knowledge; and (4) establishment of procurement units responsible for conducting public procurement procedures on behalf of the government technical departments and national offices. According to Nurmandi and Kim (2015:214), synergy in implementing the above-mentioned public procurement reforms between the Indonesian central government and local government has helped improve service delivery in the local government. Although service delivery has improved in Indonesia due to public procurement reforms, Wacaksono, Urumsah and Asmui (2017:7) assert that fraud in public procurement is still current due to ineffective implementation of e-procurement. While, according to Sacks *et al.* (2014:4), although it was

mandatory for procurement officials to obtain a certificate in procurement, there were no salary incentives for obtaining the required accredited certificates.

Public procurement in countries such as Austria, Chile, Italy, Mexico, Portugal, Switzerland and many more, affiliated to the Organisation for Economic Co-operation and Development (OECD) is a major component or element of government spending, with a sizable impact on total demand of a domestic economy (Cernat & Kutlina-Dimitrova, 2015:1). In addition, public procurement expenditure represents about one third of total government expenditure in 35 countries who are members of the OECD. According to Mahmood (2010:107), government or public procurement in Bangladesh represents approximately 18.42 percent of the world's Gross Domestic Product (GDP).

Public procurement world-wide is increasingly recognised as a profession that plays an important role in the successful management of government resources and a number of countries such as China and Indonesia have become more alert to the importance of procurement as a function that is vulnerable to mismanagement and corruption (Mahmood, 2010:103; Turner, 2011:15; Davis, 2014:123; Said & Alarm, 2015:225; Zhang, Le, Xia & Skitmore, 2017:22). Since public procurement is vulnerable to mismanagement and corruption, countries must strengthen their procurement reform processes and also ensure that government procurement practices be conducted in line with its general principles.

2.4.2 Principles of global public procurement

In the public sector in China, Ghana, Malaysia, Uganda and Vietnam, the reforms' process introduced in each country was intended to achieve their general principles of public procurement (Dza, Fisher & Gapp, 2013:52; Hai & Watanabe, 2014:22; Sacks *et al.*, 2014:2). In African countries like Zimbabwe, Kenya, Nigeria and Tanzania, public procurement practices have been subjected to common principles, namely: value for money, accountability, transparency, fairness and competitiveness as well as professionalism during procurement practices (Dza, Fisher & Gapp, 2013:49; Thuo & Njeru, 2014:71; Uromi, 2014:56; Akaninyene, Unaam & Mark, 2015:171; Komakech, 2016:22). These principles were introduced to complement the reform process that was introduced (policies, legislative and acts), which aimed at eliminating corrupt activities and inefficiency as well as non-transparency during procurement practices in the public sector (Berko, Nkuah & Nangpiire, 2014:120). In India, the principles of public procurement comprise of transparency, responsiveness professionalism, constitutionality, multiplicity and accountability as well as

transactional evaluation (Koul *et al.*, 2017:102; Srivustava & Agrahari, 2017:59). This study adopted value for money, transparency, ethics, equality and accountability as common general principles across the globe as recommended by Thai (2016:1). These principles are briefly described in the next section.

2.4.2.1 Value for money

Value for money in the procurement function in the public sector is a good measure of an economy and efficiency with which public resources are converted into acquisition of quality goods and construction work as well as services (Uromi, 2014:55). In UK countries (England, Wales, Scotland and Northern Ireland), value for money is at the forefront of their public procurement policy, and as result they can maintain savings on goods, constructional work and services by considering a whole life cycle when making purchases (Loader, 2015:104). Between 2012 and 2014 the central government in UK countries (England, Wales, Scotland and Northern Ireland) spent approximately €64 billion (Approximately R1 176 billion in South Africa currency) each financial year and were able to save €5.4 billion (Approximately R99 billion in South Africa currency) through implementation of efficiency and reform programmes (NAO, 2014:3). The National Audit Office (NAO) (2014:15) further reported a €1.490 million (Approximately R27 million in South Africa currency) saving during the 2013-2014 financial year, achieved through centralising purchasing of common goods and services, renegotiating contracts and consolidating requirements in order to achieve economies of scale (discounts) as well as reduce spending in some areas such as advertising and consultation.

2.4.2.2 Ethics

Ethics is described by Komakech (2016:26) as a value which is a general term associated to those things which people regard as good, bad, justifiable or desirable. Ethics obliged the public procurement officials to do what is promised and to avoid improper or corrupt practices (Koul *et al.*, 2017:102). In China, the government and private sector procurement suffered from fraud and corruption (Zhang, Le & Skitmore, 2017:22). Moreover, unethical practices as a result of fraud and corruption in public procurement include flawed regulation systems, lack of professional ethics and codes of conduct as well as illegitimate gains. While, in Russia, unethical practices that occurred in public procurement as a result of fraud and corruption comprise manipulation of tender requirements in order to restrict competition, bid rigging and distortion of quality ranking as well as manipulation of quality and quantities during contract fulfilment (Balsevich & Podkolzina, 2014:9).

In England, Wales, Scotland and Northern Ireland, such unethical practices as mentioned above happened occasionally. However, after the establishment of the Anti-Bribery Act No. 23C of 2010 under a new government, these unethical practices in public procurement were reduced due to its enforcement to hold the wrong-doer accountable (Ryznor & Korkor, 2011:7). Due to this Act that aims to eliminate corruption in public procurement, the UK countries (England, Wales, Scotland and Northern Ireland) are regarded as some of the countries with lower fraud and corruption rates. The annual fraud and corruption rates for UK countries in procurement in the public sector were reported to be at 4.78 percent, which was below the European Union (EU) average rate of fraud and corruption in procurement (Experian, 2016:13). Although most countries across the globe have strong Acts and preventative measures to deal with unethical practices in public procurement, the difference in countries such as China, Uganda and Russia as well as others with unethical procurement practices is that they are not aggressive in the implementation of their acts, policies and procedures (Komakech, 2016:20). Therefore, procurement officials in countries with unethical practices need to be held accountable for their wrongdoing in accordance with each country's procurement Act or law established during reforms as recommended by Ryznor and Korkor (2011:7).

2.4.2.3 Equity

Equity in the procurement context is described by Zitha, Sebola and Mamabolo (2016:66) as the implementation and observation of public procurement policies, which are designated to advance previously disadvantaged persons or individuals who were hampered by unfair discrimination. In the past, in the UK countries (England, Wales, Scotland and Northern Ireland), there were concerns from SMEs who indicated that public procurement processes were disadvantaging them against market leaders (Loader, 2015:103). In addition, some of their challenges were overly prescriptive qualification criteria and poorly written tender specifications as well as prohibitive resource requirements. However, these challenges were addressed by introducing initiatives to help SMEs in 2010. These include encouraging on-time payment, relaxing rules and regulations applicable to SMEs, reducing the tax burden, providing grants to assist SMEs in rural areas or areas of industrial decline as well as providing information, advice and support (CIPS, 2012:147).

In China, the government through reforms of public procurement started to promote SMEs in 2012 (Chen, 2013:9). Furthermore, the promotion of SMSs resulted in a development fund that can be utilised to support SME credit guarantees, technology innovation and professional enhancement. Moreover, the China preferential procurement treatment reform is ineffective

due to large enterprises fronting to gain SME status in an illegal manner. While, in Brazil, 25 percent of the total government budget was allocated to SMEs as part of promotion of economic empowerment (Pereira & Schwind, 2017:338). Therefore, based on the above background, most countries worldwide are trying their best to implement public procurement objectives such as social-economic empowerment established during reforms.

2.4.2.4 Transparency

Transparency refers to making sure that procurement practices are open for public scrutiny in all spheres of public organisations (Akaninyene, Unaam & Mark, 2015:172; Koul *et al.*, 2017:102). European countries such as Portugal, Slovakia as well as UK countries such as England, Wales, Scotland and Northern Ireland, and many more have invested in technology to help improve open and effective competition or transparency of their procurement practices. Information technology tools such as e-procurement and e-catalogues as well as e-business are utilised to help increase transparency during procurement practices as measures to strengthen openness and effective competition across the globe (Nicholas & Fruhmann, 2014:343). According to CIPS (2012:168), the UK countries (England, Wales, Scotland and Northern Ireland) achieve open and effective competition by making sure that compulsory competitive tendering is designed to ensure fair, non-discriminatory and competitive supplier selection based on equality of access to tender information and accountability for procurement decisions, which include giving feedback to unsuccessful bidders. Transparency is an integral part of good governance in public procurement, however Akaninyene, Unaam and Mark (2015:172) assert that transparency does not significantly promote good procurement in the public sector in Nigeria. According to Nurmandi and Kim (2015), the use of e-procurement in public procurement prevents corruption by enhancing transparency and accountability. Therefore, the use of e-procurement in public procurement should be compulsory worldwide in order to eliminate corrupt practices associated with manual transactions.

2.4.2.5 Accountability

In the procurement concept, accountability is concerned with proper documentation of procurement practices or activities (Akaninyene, Unaam & Mark, 2015:171; Komakech, 2016:22). Moreover, accountability in the public sector allows openness in the procurement process and brings defaulters to book. While, according to Koul *et al.* (2017:102), accountability in procurement practices is about holding procurement officials accountable to official bodies in the country. In Malaysia, the government has introduced various control systems to restrict mismanagement of funds and to ensure accountability in public procurement

(Said & Alam, 2015:226). These control systems include the establishment of the Malaysian Institute of Integrity Plan in 2004 which was aimed at developing a nation of high integrity, resilience and universal good values. Furthermore, although the Malaysian Institute of Integrity Plan was established to enhance accountability in public procurement, accountability is still weak (Said & Alam, 2015:235). In Nigeria, there is poor accountability of procurement officials due to corruption and fraud that prevents procurement practices from being perfect (Akaninyene, Unaam & Mark, 2015:171). According to Nurmandi and Kim (2015:200), one of the drivers of corruption in public procurement is lack of accountability. Therefore, in order to increase effectiveness and efficiency within organisations, stakeholders and management must hold procurement officials accountable for any unethical procurement practices.

2.4.3 Global public procurement processes

A procurement process is defined by Mofokeng and Luke (2014:2) as a set of activities that when performed together will result in the achievement of business goals by converting required input to the desired output. Nowadays, the public procurement process is the engine of the procurement system in public organisations, as its practices are the main drivers or determinants of final performance and can support or hinder policy level decisions (Patrucco, Luzzini & Ronchi, 2017:252). However, public procurement functions worldwide are still far from maturity as asserted by Patrucco, Luzzini and Ronchi (2017:259), and are still regarded as a more supporting than strategic function (Burt, Petcavage & Pinkerton, 2010:2; Lysons & Farrington, 2012:359). According to Marius (2017:58), the procurement process is a key function and its impact can be either negatively or positively felt on service delivery.

Public procurement processes vary as the principles that influence public procurement vary. The procurement process in the public sector is fundamentally regulated by the public procurement laws across the globe (Koul *et al.*, 2017:102; Patrucco, Luzzini & Ronchi, 2017:252). Some of the public procurement principles that guide the implementation of the procurement processes are non-discrimination, equal treatment and transparency as well as proportionality (Hai & Watanabe, 2014:28), and many more, as mentioned in the previous section. Although public procurement processes differ, they consist of three common stages, namely: pre-tendering, tendering, and post-tendering (CIPS, 2012:97). According to Mantzaris (2014:70), these three phrases or procurement processes inter-relate to each other.

In Kenya, the public procurement process comprises need identification, defining the need, conducting risk assessment, seeking or advertising of the need and evaluating alternative

solutions, contract award and delivery of goods, work and services as well as payment for these goods, construction work or services (Kiama, 2014:175). While, in Zimbabwe, the public procurement process encompasses procurement planning, setting up procurement and creating solicitation, soliciting vendor, bid evaluation, documentation and negotiation, preparing a contract, issue purchase order, delivery, inspection and acceptance of goods, construction work or service as well as verification and payment of invoice (Shonhe & Bayat, 2017:161). Although there is no common procurement process worldwide, Patrucco, Luzzini and Ronchi (2017:253) highlight an international procurement process, summarised as follows in this section. It comprises budget and demand planning, requirements definition, supplier scouting, bid design, bid evaluation or supplier selection, negotiation and awarding, contract management and supplier relationship management as well as vendor rating.

According to Srivastava and Agrahari (2017:58), public sector organisations worldwide acquire goods, construction work and services through the following different procurement methods, namely: open-cry auction and competitive bidding through Request for Quotation (RFQ) as well as agreement through negotiation. In Indonesia, public procurement processes (from start to the end) are conducted electronically, specifically through e-procurement (Sacks *et al.*, 2015:4). Therefore, any acquisition of goods, construction work and services is advertised on e-procurement, which makes it accessible to public. In Spain, evaluation and awarding of contracts by procurement officials and other officials involved in the procurement process or cycle depends on the Economically Most Advantageous Tender (EMAT) (Fuentes-Bargues, Gonzalez-Cruz & Gonzalez-Gaya, 2017:4). Furthermore, these criteria that constitute EMAT encompasses price, quality, technical merit, aesthetics and functional attributes, environmental attributes, running costs, profitability, customer service, technical assistance and delivery date as well as execution time. While, in Vietnam, the evaluation and awarding of contracts is driven by price only (Hai & Watanabe, 2014:34). However, due to lack of bidders, past performance considerations and lack of risk assessment considerations, Vietnam public organisations are encountering poor performance of sub-contractors and insufficient fulfilment of bid proposal commitments as well as claims for change of orders. After evaluation of bids, successful bidders are notified and then publicised on the public procurement websites (Komakech, 2016:22). Moreover, all unsuccessful bidders will be debriefed (giving them feedback on areas that they failed and for improvement in future).

International procurement processes are being sometimes bypassed (Davis, 2014:82; 122). Davis (2014:122) asserts that irregular procurement processes in the public sector provide the

loophole for mismanagement of public resources as well as corrupt activities. Proper implementation of procurement processes in public organisations result in better service delivery and reduction in resource waste, and furthermore increases public wealth (Mofokeng & Luke, 2014:1). Therefore, public organisations from executive level need to treat the procurement function as a strategic function and ensure that it complies with regulations, policies and procedure in order to achieve the established governance procurement objectives, which will, in turn, improve service delivery.

2.4.4 Legislative frameworks that govern procurement practices across the globe

A significant percentage of GDP is spent on public procurement as mentioned (Quinot & Arrowsmith, 2013:349; Koul *et al.*, 2017:102) and as such, it occupies a key role in service delivery and performance of public organisations (Dzuke & Naude, 2015:1). It is important therefore that spending must comply with detailed legislative frameworks that govern it in order to ensure that goods, construction work and services are purchased in line with defined public policies, standing orders and statutory procedures as recommended by CIPS (2011:214).

In Brazil, the public procurement system is governed by several legislative frameworks, namely: Law No. 8 666 of 1993; Law No. 10.520 of 2002 and Law No. 12.232 of 2010 as well as Law No 12.349 of 2010 (Pereira & Schwind, 2017:339). Moreover, all public organisations (government departments, local government, government agencies and any other organ of the state) are guided or governed by the above-mentioned procurement legislatures during procurement practices. While, in Zimbabwe, public procurement practices are governed by the following main legal frameworks, namely: The Constitution of Zimbabwe (Amendment No. 20 of 2013); The Procurement Act No. 2 of 2002; The Procurement Regulations of 2002 and The Procurement (Amendment) Regulation No. 2 of 2003 as well as Urban Councils Act of 1995 (revised in 1996) (Chigudu, 2014:24).

Legislative frameworks that govern public procurement pursue several goals across the globe, which differ based on the distinctive historical and cultural background of each country (Dzuke & Naude, 2015:1). In addition, their main historical aim was to eliminate traditional, home based procurement and remove inappropriate barriers to national market access. For example, in countries like Lithuania (based in Europe) and India, the legislative frameworks established during procurement processes were initiated to promote the principles of good governance and address socio-economic objectives (Koul *et al.*, 2017:110).

In the past, legislative frameworks that govern public procurement have been strengthened through reform processes aimed at improving efficiency and effectiveness of public procurement everywhere (Berko, Nkuah & Nangpiire, 2014:121; Marius, 2017:58). However, the reforms in Sub-Saharan African countries such as Angola, Cameroon, Ivory Coast, and Uganda as well as Ethiopia are still at an infancy stage (Engida & Bardill, 2013:7; Komakech, 2016:20). This is due to complicated legislative frameworks, lack of awareness about the benefits of public procurement and its laws, regulations, guidelines, procedures and regulatory instruments (Uromi, 2014:59; Popescu, Onofrei & Kelley, 2016:81). For example, in Malaysia and Zimbabwe, a number of authors (Berko, Nkuah & Nangpiire, 2014:144; Davis, 2014:122; Said, Alam & Abd Aziz, 2015:235; Dzukey & Naude, 2015:8) have reported that non-compliance with public procurement regulations and policies as well as procedures were common public procurement challenges. These non-compliance public procurement challenges are briefly discussed in Section 2.4.5. According to Tukamuhabwa (2015:41), compliance to public procurement legislations foster low corruption and enhance corporate governance. Therefore, public procurement functions with low corruption rates and improved corporate governance are likely to meet user requirements, which, in turn, increases service deliveries.

2.4.5 Global public procurement challenges

An effective and efficient public procurement practice is necessary for good governance within public organisations. An improper procurement practice results in delays in implementation of government projects, which, in turn, increases cost and leads to poor performance of a project during implementation as well as a delay in the delivery of benefits to international beneficiaries (Berko, Nkuah & Nangpiire, 2014:130).

In both developed and developing countries such as China, India, Russia and Indonesia, a number of authors (Mahmood, 2010:103; Balsevick & Podkolzine, 2014:2; Koul *et al.*, 2017:109; Zhang, Le, Xia & Skitmore, 2017:1) who conducted a study on corruption in public procurement have identified it as the main cause of poor procurement practices in the public sector. Corruption in the public sector takes place when government officials, entrusted with procurement collude with the contractor or supplier and each, or both, break the law with the aim of personal gain or interest, which involves bribery and fraudulent activities (Popescu, Onofrei & Kelley, 2016:81). According to Zhang *et al.* (2017:22), corruption in China takes place in the procurement function or process due to interference by stakeholders, appointment of inexperienced and unqualified procurement officials, qualified technical and professional

experts who are not members of the respective bid committee, ignorance and lack of knowledge as well as capacity, non-compliance and unethical behaviour (failure to declare the conflict of interest). Beside corruption, Vietnam is encountering the following public procurement challenges, namely: lack of supplier past performance and qualification information during bid evaluations, lack of risk plans and key person assessments, lack of competition, ineffective evaluation methods, low accountability, poor skilled consultants and procurement officials and biased decision making (Hai & Watanabe, 2014:35).

Although public procurement reform processes discussed earlier in Section 2.4.1 were introduced across the globe, countries such as Ghana, Tanzania, Zimbabwe, Kenya, Vietnam and India are still experiencing procurement challenges during procurement practices in the public sector (Hai & Watanabe, 2014:22; Uromi, 2014:58; Berko, Nkuah & Nangpiire, 2014:212; Dzuke & Naude, 2015:8; Popescu, Onofrei & Kelley, 2016:81; Koul *et al.*, 2017:109). Through reforms processes, public procurement has been subjected to strong anti-corruption acts to eliminate corruption within public procurement although there is poor implementation of these acts in countries like Bangladesh and in countries mentioned above (Mahmood, 2010:105).

On the other hand, a number of countries such as England, Germany, India and Canada have been able to implement their procurement reform successfully and as such are regarded as some of the countries with world class procurement in both the public and private sector (Bloom, Genakos, Sadun & Van Reenen, 2012:10; Marali & Searcy, 2013:652; Koul *et al.*, 2017:106). For example, the United Kingdom (UK) countries such as England, Scotland, Northern Ireland and Wales have been able to implement their establishment anti-bribery Act No. 23C of 2010, which deals with unethical practices in public procurement (Ryznor & Korkor, 2011:7). Due to this Act that aims to eliminate corruption in public procurement, the countries in the UK are regarded as some of the countries with the lowest fraud and corruption rates. The annual fraud and corruption rate for UK countries in procurement was reported to be at 4.78 percent, which is below the European Union average rate of fraud and corruption in procurement (Experian, 2016:13). Meanwhile, India maintains best practices by shifting from paperwork to e-procurement as well as penalising (with imprisonment and fines) individuals and organisations found to have committed fraud and corruption in public procurement (Koul *et al.*, 2017:106).

The World Bank estimates that 2 to 3 percent of GDP growth is lost due to corruption activities during procurement practices across the globe (Mahmood, 2010:105). In addition, corrupt activities prevent government's efforts to reduce poverty and also destroy a citizen's faith in government. Therefore, all stakeholders of public procurement (as mentioned) need to hold public organisations, specifically procurement officials, accountable in order to ensure that the public receive expected value on goods and construction work as well as the services being purchased.

2.5 PUBLIC PROCUREMENT PRACTICES: A SOUTH AFRICAN PERSPECTIVE

This section presents an overview of public sector procurement in South Africa. It outlines the pillars or principles of public procurement and committees involved in South African public procurement processes and their responsibilities during the process. It discusses the public procurement processes applicable to state-owned passenger rail agencies in South Africa and its regulation, and the Act governing it, as well as public procurement challenges in South Africa.

2.5.1 Overview of public procurement in South Africa

In South Africa, before procurement became subject to the constitution, the acquisition of goods, construction work and services in the government at national, provincial and local government level as well as within the public agencies were governed by the State Tender Board Act (Nkwe, Singh & Karodia, 2015:95). In addition, all aforementioned public organisations were only required to conduct acquisition of goods, construction work and services through the use of the State Tender Board and were not authorised to make any ad hoc procurement decisions.

In 1994, after the change of the governing party in South Africa, the new government initiated a series of budgetary and financial reforms on procurement (Ambe & Badenhorst-Weiss, 2012:245; Nkwe, Singh & Karodia, 2015:109). The aim of initiating the procurement reforms process was to modernise the management of the public sector by making sure that it was friendly and sensitive to meeting the needs of communities at large.

In the public sector in South Africa, procurement is seen as one of the instruments or tools of the state that can be utilised to help improve economic and social development (Pooe, Mafini & Makhubele, 2015:68). Since the advent of democracy in 1994, the government has initiated procurement reform processes in 1995 in the public sector with the aim of promoting the

principles of good governance and the establishment of a preference system to address socio-economic objectives in the country (Ambe & Maleka, 2016:658; Selomo & Govender, 2016:1).

The South African procurement reform processes were incorporated in Section 112 of the Municipal Financial Management Act (MFMA) No. 56 of 2003 and in Section 76(4) of the Public Financial Management Act (PFMA) No. 1 of 1999 as well as in the Preferential Procurement Policy Framework Act (PPPFA) No. 5 of 2000 (Ambe & Badenhorst-Weiss, 2012:245; Ngcamphalala & Ambe, 2016:1208; Anthony, 2018:41). In 2001, the government of South Africa, through the National Treasury, conducted a joint Contractor Performance Assessment Report (CPAR) with the World Bank to assess procurement practices in the entire public sector. The results established deficiencies in the procurement practices related to governance and implementation of the PPPFA No. 5 of 2000 as well as its associated regulations (Ambe, 2016:279).

Due to deficiencies established by joint CPAR in 2001, the government of South Africa introduced SCM in the public sector as a policy implementation tool (Ngcamphalala & Ambe, 2016:1208). In 2004, the government, through National Treasury, established the public sector SCM legislative framework that provides for decentralisation of its policies and resources in line with PFMA No.1 of 1999 and MFMA No. 56 of 2003, with the aim of allowing managers to manage (National Treasury, 2015:9). However, according to Ambe and Badenhorst-Weiss (2012:242), SCM was established to manage the procurement process with the intention of adding value at each stage of the procurement process.

Although the government, through National Treasury, initiated various procurement reform processes, which include the establishment of SCM in order to improve its effectiveness and efficiency, its past deficiencies are still current (Nkwe, Singh & Karodia, 2015:108; Ngcamphalala & Ambe, 2016:1204). These include non-compliance with the SCM policies and procedures, lack of transparency, lack of accountability, lack of training, lack of capacity, and lack of proper planning (Uromi, 2014:59; Bizana, Naude & Ambe, 2015:679; Munzhedzi, 2016:6). The discontinuity of these practices in the procurement function is due to these policies and regulations often being confusing (Nkwe, Singh & Karodia, 2015:108) and some are out-dated (Masete & Mafini, 2018:10).

In South Africa, public procurement reforms were aimed at introducing best procurement practices, with the purpose of eliminating ineffectiveness and inefficiency in public sector organisations (Ambe, 2016:279). However, due to the resistance of public organisations to

ensure strict compliance with public procurement legislative frameworks (to be discussed in Section 2.5.5) and other materials such as National Treasury practices notes, circulars, internal SCM policies and procedures established during reform processes, the public procurement function has failed to be effective and efficient in the country.

2.5.2 Pillars or principles of public procurement in South Africa

Procurement practices are guided by five pillars of government procurement policy as stipulated in terms of Section 217(1) of the Constitution (1996). These general principles or pillars are briefly discussed below.

2.5.2.1 Value for money

Value for money refers to being cost effective when acquiring goods or services within public organisations, as stipulated by the General Procurement Guidelines issued by the National Treasury (2005:4). According to Zitha, Sebola and Mamabolo (2016:65), best value for money is the best available results or outcome when all relevant costs and benefits over procurement processes have been considered. Therefore, procuring goods and construction work as well as services in the public sector without making sure that the public receives good quality for the amount spent can ruin service delivery, which in turn increases service delivery protests.

In the public sector in South Africa, value for money is not achieved because of the inefficiency of a preferential procurement system or an increase in fraud and corruption (Fourie, 2015:38). During the 2013-2014 financial year, the public sector in South Africa spent approximately R500 billion on acquiring goods and construction work as well as services (National Treasury, 2015:3; Ambe, 2016:287), but R30 billion was lost due to fraud and corruption in construction only. Although there is an increase in corruption in public procurement in South Africa, the government has introduced an improved legislature that has led to the establishment of units such as the Scorpions, the public protector, commercial crime units and internal audit units to deal with fraud and corruption in procurement (Pillay, 2017:4). Although special units to eliminate corruption have been introduced to help prevent fraud and corruption these special units are not effective due to political interference.

2.5.2.2 Open and effective competition

Open and effective competition is defined by Munzhedzi (2016:5) as being transparent, by standardising laws, policies, practices and procedures that make them easily accessible to public scrutiny. In all spheres of government (National, local and municipal, as well as in state-owned agencies) in South Africa, the dedicated legislation, namely, PFMA No. 1 of 1999 and

MFMA No. 56 of 2003 require the use of fair and transparent procurement procedures during procurement practices (Ambe, 2016:283). These legislations require pre-disclosure of tender evaluation and adjudication criteria and the publication of procurement opportunities as well as the disclosure of a conflict of interest. Although the SCM legislation requires procurement practices to be fair and transparent/open, such legislation has not been implemented to the fullest (Ngcamphalala & Ambe, 2016:1204; Masete & Mafini, 2018:10). This is due to the following challenges, namely: some tenders are still awarded without being advertised; there are no minutes or recordings of bid committees; minutes of the bid committees are not publicised on a website; and results of tenders are not advertised (National Treasury, 2015:18). While, according to Kramer (2016:6), openness and effective competition has not been achieved in South African public procurement because 45 percent of procurement practices or activities are conducted manually, which results in an increase in the above-mentioned procurement challenges associated with lack of openness and effective competition. Therefore, the lack of openness prevents government from achieving equal treatment of suppliers and also effective competition in the country. Moreover, openness and effective competition in public procurement in South Africa can be achieved using e-procurement (e-Tender portal) as recommended by Anthony (2018:46). Therefore, the use of e-procurement/e-Tender will help improve competition and openness as well as value for money.

2.5.2.3 Ethics

Ethics in procurement terms is defined by Nevondwe, Odeku and Raligilia (2014:662) as the study of moral judgements and right and wrong conduct of procurement officials. Although the South African government has introduced legislative frameworks, policies and procedures, ethical practices by all stakeholders involved in procurement is questionable in the public sector. The unethical conduct of public procurement stakeholders during procurement practices or processes include awarding tenders without advertising, changing evaluation criteria during bid evaluation and adjudication, conflict of interests are not declared, political interference, manipulation of scores and detailed tenders are not documented, and accounting officers ignore the Bid Evaluation Committee (BEC) recommendations (Mantzaris, 2014:67; Nkwe, Singh & Karodia, 2015:109; Zitha, Sebola & Mamabolo, 2016:65). An increase in unethical practices in South Africa is attributed to lack of compliance and accountability from SCM unit managers to accounting officers (Ambe & Badenhorst-Weiss, 2012:252). The Institute of Risk Management South Africa (2015:16) has reported that the fraud and corruption rate in procurement is approximately at 25 percent. It further asserts that this high rate undermines government

legitimacy, service delivery, competition, and increases the cost of doing business as well as decreases the ease of conducting business.

2.5.2.4 Accountability and reporting

Accountability and reporting in procurement terms refer to the accountability of all concerned through openness and transparency in any activity during procurement practices (Munzhedzi, 2016:5). While, according to Abib-Pech (2013:309), accountability is described as a clear understanding of the consequences of an action and demonstrated consequence management. It ensures that individuals and organisations are answerable for their plans and actions as well as outcomes, as stipulated by General Procurement Guidelines issued by the National Treasury (2005:7). In public organisations, an accounting officer is accountable for all procurement decisions and should ensure that decisions made are justifiable and in the best interest of the public at large (Zitha, Sebola & Mamabolo, 2016:65). Failure of holding each other accountable from the procurement officer to the accounting officer increases fraud and corruption as well as procurement decisions that serve the individual interest.

In the public sector in South Africa, there are few consequences taken against those who fail to perform below the required level in the procurement function (National Treasury, 2015:5). The Auditor General of South Africa (AGSA) (2016:4) reported that there is poor monitoring and oversight of procurement practices due to failure of leadership to hold their subordinates and themselves accountable. Due to lack of accountability, fraud and corruption increases continuously on daily basis (Fourie, 2015:38).

2.5.2.5 Equity

Equity in procurement terms in the public sector in South Africa refers to the advancement of a person or categories of persons who were previously disadvantaged by unfair discrimination (Munzhedzi, 2016:5). The government has established the Preferential Procurement Policy Framework Act (No. 5 of 2000) to give advantage to people who were previously disadvantaged as a way of addressing equity (Zitha, Sebola & Mamabolo, 2016:66). Introduction of this preferential procurement system was initiated to support Small, Medium and Micro enterprises (SMMEs), create opportunities for women, historically disadvantaged individuals and people with disabilities, as well as for purchasing of local products as commitment to economic growth (PPPFA No. 5 of 2000). However, unethical practices during the procurement process such as fronting, forgery, and collusion are currently preventing the effectiveness of equity in the country (Mantzaris, 2014:78; Nevondwe, Odeku & Raligilia,

2014:663). As a result, only a few individuals are benefiting from the preferential procurement system (Rogerson, 2013:140). Furthermore, in promoting SMEs, the government has also introduced procurement systems which ensure that suppliers are paid on time that also promote and enforce big companies or main contractors to subcontract SMEs (Cassim, Soni & Harodia, 2014:38). The inability of the procurement staff to comply with the principle of equity prevents government from achieving its objective of distributing the wealth equally in the country.

2.5.3 Committees involved in procurement processes in the public sector in South Africa

The SCM regulations enforce that there must be a committee system for competitive bids in the public sector. The committees consist of a bid specification committee and bid evaluation committee as well as adjudication committee. Members should only participate in one committee to avoid influencing the outcome of a decision, especially in the adjudication committee. The identified committees are briefly discussed below.

2.5.3.1 Bid specification committee

The bid specification committee is chosen by an accounting officer in the state-owned passenger rail agencies. It is responsible for compiling terms of reference or bid specifications for the acquisition of goods, construction work and services by the organ of the state (National Treasury, 2015:68). It is also responsible for verifying availability of funds prior to initiating the procurement cycle; determining the sourcing strategy, setting of conditions as well as determining evaluation criteria. The compiled bid specification should not refer to any brand name, patent design, specifying the producer, unless there is no sufficient and precise manner of describing the attribute of the goods, work or service. In the case where there is no sufficient and precise way of describing an attribute, the reference to be used must be accompanied by the term equivalent (Bizana, Naude & Ambe, 2015:671).

2.5.3.2 Bid evaluation committee

The Bid Evaluation Committee (BEC) is a form of a panel compiled by the SCM and approved by an accounting officer (Volmink, 2014:53). Furthermore, the team/panel consists of procurement staff and user department representatives. They evaluate and verify bids received in terms of specification or terms of reference and conditions (National Treasury, 2015:68). In addition, it also verifies and evaluates the capability of the bidders against requirements drafted by the BSC to execute contracts. After evaluating the bidders' capabilities, they compile a report to the Bid Adjudication Committee (BAC) recommending a successful bidder (Bizana, Naude & Ambe, 2015:671).

2.5.3.3 Bid adjudication committee

The Bid Adjudication Committee (BAC), also appointed by an accounting officer, is responsible for considering the BEC report and recommendation (National Treasury, 2015:68). Thereafter, it approves specification or terms of reference and conditions as well as awarding the resultant of BEC in the case of bids. The committee consists of at least four senior managers, which should include the Chief Financial Officer (CFO) who will be the chairperson of the committee, a technical official who is an expert in specifications to ensure compliance with specifications and a senior procurement or SCM manager to ensure compliance with SCM policy (Bizana, Naude & Ambe, 2015:671).

2.5.4 The procurement process in the public sector in South Africa

Public procurement has three key stages, namely: pre-tender, tendering, and post tender (National Treasury, 2015:16). The pre-tender stage includes need identification and assessment, planning, which includes budgeting and development of specifications as well as selecting the most suitable procurement strategy. The tendering stage includes the invitation of tender, evaluation and adjudication of bids, while the post tender stage includes debriefing, contract and relationship management and ordering and payment (Mantzaris, 2014:70). While, according to Naude, Ambe and Kling (2013:4), the procurement process in the public sector in South Africa includes: developing a plan as to how goods, construction work and services are to be acquired, preparing bid documents, advertising these bids, determining the criteria as to how the bids will be evaluated, selecting the preferred bidders or suppliers and preparing the contract documentation as well as signing the relevant contracts. These processes applicable in the state-owned passenger rail agencies are briefly discussed below, and cover both selective and competitive tendering:

2.5.4.1 Identify the need

In the public sector, this stage begins by identifying the needs for goods, construction work and services that cannot be met within the organisation, but they are already available in the market (Bizana, Naude & Ambe, 2015:672; Bolton, 2016:12). These goods and/ or services arise at the user department as non-stock to be purchased, utilising capital budget or in the SCM inventory as stock items to be purchased, utilising the operational budget. After the need has been identified by the user department, they are defined in the form of specification development (Naude, Ambe & Kling, 2013:3).

2.5.4.2 Defining the need

The need for goods and construction work or services are defined by user departments through development of specification. A specification is defined by Lyson and Farrington (2012:268) as a statement of requirements to be satisfied by the procurement function through acquisition of external resources. In the public sector in South Africa, there are two types of specifications used to acquire goods, construction work or services, namely, performance and conformance specifications (Bolton, 2016:12). Although there are two types of specifications, MFMA No. 56 of 2003 recommends that specifications must be described in terms of performance requirements rather than conformance during design in the public sector. After the need has been defined, the user department communicates the need to the procurement function through the use of one of four documents: purchasing requisition; travelling requisition; materials list; and Kanbans (Hugo & Badenhorst-Weiss, 2011:48).

2.5.4.3 Preparing and processing of the purchase requisition

The identified needs are described in terms of specification, quantities and estimated cost using these documents, which will have to be approved by the head of requestor and finance for availability of funds (Bizana, Naude & Ambe, 2015:672). This stage is performed to ensure that the purchasing requisition processed to the procurement function is detailed with relevant/required information and approval for commencing with the acquisition (PRASA, 2016:33). After the need has been received in the procurement function, all stakeholders involved in the BSC are invited by the SCM.

2.5.4.4 Reviewing requirements

When competitive bidding is used after receiving a user's request, the procurement functions invite BSC members into a meeting to comment and advise on specifications drafted by the user department that gives an opportunity to the user department to justify their need, as stipulated by policy strategy to guide uniformity in procurement reform processes in government (Molver & Gwala, 2015:267). In addition, scope of work, terms and conditions of the contract (such as quantities in the form of Bill of Quantities (BOQ), quality and lead time for delivery as well as other factors relevant to the purchase and usage of the goods such as warranties and after sales maintenance), and evaluation criteria are usually done in the following three stages as stipulated in terms of section 5 of the PPPFA of 2000 (updated in 2017) and delineated by Ambe (2016:288):

- **Compliance evaluation:** this includes confirmation of tax matters, nationality of company owners (through submission of ID documents), confirmation of company registration;
- **Functionality/technical evaluation and local content and production threshold determination:** confirmation of potential bidder's capacity and capability to handle the project by requesting reference letters/completion certificates from previous clients, requesting financial statements to confirm whether the potential bidder has the financial muscle to handle the project; and
- **Broad-Based Black Economic Empowerment (BBBEE) status of the bidder:** this includes confirmation that enterprises that are empowered through preferential procurement are owned by black people in South Africa, specifically, woman, workers, youth and people with disabilities as well as people living in rural areas.

After the requirement has been reviewed during the BSC meeting, the contract is developed in-line with goods, construction work or services to be purchased.

2.5.4.5 Developing the contract

The development of procurement contracts for goods and construction work as well as for services is important to ensure that the terms and conditions are appropriate so as to ensure the best value for money (Mchopa, 2015:131). In the public sector in South Africa, for both selective and competitive tendering, most organisations normally use a standard contract developed by a cross-functional team, which includes, a legal team, procurement function and user departments (PRASA, 2016:54). Moreover, the legal team will develop different types of contracts to be aligned with the goods or services being purchased. After the contract has been developed, the sourcing processes begin.

2.5.4.6 Sourcing

In the private sector in South Africa and globally, the procurement officials conduct market research in order to make a spend analysis of overall expenditure for each item during this stage (Cox, 2015:718). However, in the public sector in South Africa, the procurement officials source suppliers from the National Central Supplier Database (NCSD) when selected tendering is utilised (Naude, Ambe & Kling, 2013:4; Anthony, 2018:46). The NCSD was established to improve the procurement efficiency and cost-effectiveness as well as to eradicate corruption activities in the public procurement functions (Ambe, 2016:287). While, according to Naude, Ambe and Kling (2013:4), the purpose of the NCSD is to give all prospective suppliers an

equal chance or opportunity to submit quotations to the relevant organ of the state and to improve transparency as well as equality. In a situation where goods and construction work or services will be purchased through the use of competitive bidding, potential suppliers are sourced through advertising tender to the public (Anthony, 2018:46).

2.5.4.7 Invite quotations or tenders

During this stage, the buying organisations invite suppliers through Request for Quotation (RFQ) or competitive bidding. The decision to use competitive bidding (open tender) or RFQ (selective tendering) is determined by an estimated threshold or value of an item to be purchased, as guided by the organisation's procurement policy (Burt, Petcavage & Pinkerton, 2010:247; Molver & Gwala, 2015:267). When a restricted or selected tender is used, the buyer requests a minimum of three suppliers from the NCSD to compete in the supply of goods or services (Mathonsi & Thwala, 2012:5385; Naude, Ambe & Kling, 2013:4).

On the other hand, when competitive bidding is used, the buying organisation invites all suppliers in the market through public advertisement (Mathonsi & Thwala, 2012:5385; Kramer, 2016:5). The main purpose of advertising a tender to the public is to provide a wide and timely notification of tendering opportunities so as to attain maximum competition by informing all potential suppliers, which, in turn, will be afforded equal opportunities (Berko, Nkuah & Nangpiire, 2014:127; Anthony, 2018:46). E-tender or e-procurement allows the procuring entity to publish an invitation to tender as well as announcing the winning bidder (Anthony, 2018:41). Furthermore, a published invitation to tender includes: closing date of the tender, scope of work or specification, contact details of procurement official, clearly articulated evaluation criteria to be used during evaluation, cost and location of acquiring the bid documents if applicable, general condition of contract, date, time and location of briefing, list of returnable documents from suppliers and location of delivery of goods, construction work or services.

2.5.4.7.1 Issuing tender documents and briefing bidders

As soon as the tender is advertised, the tender documents will be issued from the procurement office and such documents must be recorded as well as reconciled against the number of bid documents issued, as stipulated by PRASA's (2016:41) SCM acquisition directives, which are also obtainable on the organisation's website. The briefing of tender is conducted in two parts, namely, the commercial and technical presentation (PRASA, 2014:23). During the commercial presentation, the procurement function/official will be detailed in what they expect from

bidders and the criteria to be used to evaluate the tenders. On the other hand, during the technical presentation, the user department will show all bidders present in the meeting the scope of work or site visit. Any technical or commercial questions will be answered to clarify matters for all bidders during briefings as stipulated by the Construction Industry Development Board (CIDB, 2017:37), according to the standard for uniformity in construction procurement.

2.5.4.7.2 Receiving the bid

After the closing date and time of receiving bid applications, all late applications received will not be considered (CIDB, 2015:41). When the selected or restricted tender is used, the procurement official will record all quotations received in the quotation register (PRASA, 2016:34), thereafter the analysing of quotations will commence. On the other hand, when competitive tendering is used during this stage, the procurement function/officials, together with the user department officials will open and register all bids received at the same time to ensure transparency and fairness in the process (Bizana, Naude & Ambe, 2015:672). Thereafter, all bidders will be checked against the list of defaulters on the national treasury database to ensure that they are eligible to do business with government organisations. Any bidder who is found to be on the National Treasury database list of defaulters will be disqualified from continuing with the procurement process (Molver & Gwala, 2015:268). Thereafter, the procurement function will set up a BEC meeting for evaluation and prepare all documentation to be utilised by the BEC (Bizana, Naude & Ambe, 2015:672; GMA, 2017:40).

2.5.4.8 Pre-qualifying the suppliers

Pre-qualifying suppliers is described by Mohamed and Majeed (2016:77) as the process of comparing the supplier criteria against the buying organisation's criteria. In the public sector in South Africa, this stage occurs when a selective or competitive bidding requires functionality as criteria and/or promotion of local production, and content as part of Broad Based Black Economic Empowerment (BBBEE) is a pre-requisite to the tender (GMA, 2017:23). Therefore, when the functionality and local production and content are not relevant, this stage is eliminated in the procurement process.

The functionality criteria include demonstration of knowledge of the project or work to be done, relevant experience of the bidder and qualifications of key personnel as well as transfer of knowledge, which must all be included in tender documents submitted (Ambe, 2016:287). During this stage, bidders must meet required or specified scores for functionality before proceeding to be evaluated on the basis of price and preference points (Bolton, 2014:1). On the

other hand, when local production and content is utilised, only bidders who meet specified BBBEE points for local production and content will proceed to the next evaluation stage (Ambe, 2016:286; UNIDO, 2017:20). All bidders who fail to succeed at this stage due to failure to meet the required points for functionality or local content will be disqualified before the evaluation stage.

2.5.4.9 Analyse quotations and select the most promising supplier

When selected tendering is used due to the threshold being within the limit of selected tendering, then the 80:20 principle is utilised (Nkwe, Singh & Karodia, 2015:95). Eighty percent will count for price and other requirements, such as functionality when relevant, and twenty will count for BBBEE status during evaluation by procurement officials (Ambe, 2016:283). Thereafter, the selection begins of the most promising bidder, who scores the highest points due to the combination of charging the lowest price and having high points on the BBBEE status. The bid will then be approved by a delegated authority (such as the SCM manager or procurement manager) before the procurement official awards a purchase order (PO) to the successful bidder (PRASA, 2016:36).

When competitive tendering is used due to the threshold being above the limit of selected tendering, the procurement officials will summarise and prepare a comparative schedule, then submit it for analysis by the BEC (PRASA, 2014:13). The BEC will evaluate the prepared bid against criteria set by the BSC, which were also included in the tender advert/document using the 90:10 principle (Nkwe, Singh & Karodia, 2015:109; Bolton, 2016:21). Ninety percent will count for the price and other requirements such as functionality when relevant, and ten percent will count for BBBEE status. Thereafter, the BEC will compile and submit the report recommending a successful bidder to the BAC to be considered for awarding the business to (PRASA, 2014:14; Ambe, 2016:283).

2.5.4.10 Awarding the contract

A contract award is defined by Marius (2017:64) as a formal decision and approval to establish a contract in the form of a Purchase Order (PO) or Long-Term Agreement (LTA) with a successful bidder based on independent review of the procurement phenomenon in the limits of the awarding authority. The main aim of conducting an independent review before issuing an award is to ensure that procurement processes were conducted fairly and followed the appropriate procedures as well as policies.

When selective tendering is utilised, the delegated authority (such as the SCM manager or sourcing manager) will approve the evaluation conducted by a procurement official (GMA, 2017:34). Thereafter, the procurement official will award the PO to the successful bidder, attaching the terms and conditions set during contract development.

When competitive tendering is utilised, the BAC will consider recommendations from a BEC report (Bizana, Naude & Ambe, 2015:671). Thereafter, it approves specifications or terms of reference and conditions as well as awarding the resultant contract in the case of bids.

Before the contract is awarded, the procurement officials will firstly conduct a vendor assessment. This includes assessing supplier financial status, past performance, capacity and capabilities and legal compliance with taxation, labour as well as corporate laws (Bolton, 2016:19). Once the vendor assessment is complete, the service level agreement or contract will be prepared to be signed off by the accounting officer. Thereafter, the tender will be awarded by the procurement function to the successful bidder who has to first accept the award. After the awarding and acceptance of the contract by the successful bidder, the contract is managed by procurement officials and a project manager (from the user department) during implementation or contract deliverance (GMA, 2017:34).

2.5.4.11 Contract management

Contract management is defined as the phenomenon that binds both parties (the buying organisation and supplier) to a contract to meet their obligations in order to deliver the main objectives required in the contract (Mchopa, 2015:131; Rasheli, 2016:547). At this stage, a formal contract document will be drawn up utilising the agreed terms and condition signed by both parties, namely, the buying organisation and supplier (Berko, Nkuah & Nangpiire, 2014:128).

According to AGSA (2016:4) and Mazibuko and Fourie (2017:110) there is inadequate contract management in public procurement in South Africa. They further point out that this was due to lack of proper record keeping and management for tenders and failure to safeguard documentation to support tender procedure affects contract management. In public organisations, without proper contract administration and management, these organisations might find themselves facing legal disputes or entering into contracts that are not necessarily satisfying their requirements (Ziqubu, Dlamini & Thaba, 2018:3085).

In both selective and competitive tendering, the user department normally rates supplier performance on a continuous basis since they have technical knowledge of the quality of

goods, construction work or services being performed. Thereafter, the scores are submitted to the procurement function who will conduct a supplier performance evaluation report (covering elements such as quality, delivery, cost, innovation and improvement), relying on the users' scores and other information available at the procurement database (PRASA, 2016:55).

In a situation where the supplier performs below the acceptable standard of the agreed terms and conditions of the contract, then such performance can result in being given warnings and breach of contract for continuous failure in an on-going contract, especially in competitive tendering (Bolton, 2016:23; GMA, 2017:19). However, should the bidder fail to perform as per agreed in the selected tender, then such a bidder can be sanctioned from receiving business opportunities in future, since most select tendering is for once-off purchases. At the end of the contract duration, the procurement function manager or SCM manager, contract manager and accounting officer as well as the supplier representative will sign off the contract and it will be closed (PRASA, 2016:55).

2.5.5 Key legislative frameworks that govern procurement practices in the public sector in South Africa

This section provides a summary of legislatures that govern procurement practices in state-owned passenger rail agencies and in South Africa at large (Watermeyer, 2011:3; National Treasury, 2015:10-11). These legislative frameworks include:

- The Constitution of the Republic of South Africa No. 108 of 1996, Section 217(1);
- Public Finance Management Act No. 1 of 1999;
- Preferential Procurement Policy Framework Act No. 5 of 2000;
- Broad-Based Black Economic Empowerment Act No. 53 of 2003;
- Promotion of Administrative Justice Act (PAJA) No. 3 of 2000;
- Promotion of Access to Information Act (PAIA) No. 2 of 2000;
- Construction Industry Development Board (CIDB) Act No. 38 of 2000;
- Prevention and Combating of Corrupt Activities Act (PCCA) No. 12 of 2004; and
- Promotion of Equality and Prevention of Unfair Discrimination Act (PEPUDA) No. 5 of 2000;

Table 2.2 indicates legislative frameworks and what they do within the procurement function in the public sector in South Africa.

Table 2.2: Summarised legislative frameworks that govern public procurement practices

Act	What it does within the procurement function
The Constitution of the Republic of South Africa No. 108 of 1996, Section 217(1)	Stipulates that procurement of goods, construction work and services should be conducted in a way that is fair, equitable, transparent and competitive as well as in a cost-effective manner.
PFMA No. 1 of 1999	Provides a regulatory framework for the SCM function, which includes procurement in provincial and national departments as well as in state-owned agencies.
PPPFA No. 5 of 2000	Provides a supporting structure in which preferential procurement policies are to be executed.
BBBEE Act No. 53 of 2003	Determine or entrench a code of good practices to inform the: <ul style="list-style-type: none"> • advancement of qualifications or prerequisite criteria for issuing of concessions or licenses, the sale of state-owned agencies as well as for partnering with the private sector; and • advancement and execution of a preferential procurement policy.
PAJA No. 3 of 2000	Provides fair administrative procedures and permits any person affected by unfair administrative action to seek justification. Furthermore, it also stipulates the judicial review of administrative actions and remedies in proceedings for judicial review, which includes the banning of an unfair administrative action, correcting the defective action as well as ordering the administrator to pay reimbursement or damages.
PAIA No. 2 of 2000	This Act give the constitutional right to access any information related to any procurement activities, which range from tendering opportunities and tendering processes held by an organ of the state.
CIDB Act No. 38 of 2000	Determines the way in which the board can promote and enforce execution of policies and programmes as well as projects, which include those that address procurement reform,

	<p>uniformity and standardisation in procurement documentation and practices as well as procedures within the framework of the procurement policy of state through the establishment of:</p> <p>A national register of service providers or contractors to help facilitate and manage public procurement risk; a register of projects above selected threshold with data associated to contracts awarded and completed and leading practice project evaluation scheme, and leading practices. Secondly, it determines a code of conduct for both parties (buying organisation and supplier) engaged in construction work procurement activities.</p>
PCCA Act No. 12 of 2004	<p>Constitutes corruption and fraud as well as associated activities an offence. It enforces that any person or organisation found in breach of this Act should be registered in order to be placed on a restricted list of persons or organisations not allowed to do business with the state.</p>
PEPUDA No. 5 of 2000	<p>It bans the government or any person from discriminating against any person on the grounds of gender or race through the refusal of access to contractual opportunities for rendering services.</p>

Source: Adapted from Watermeyer (2011:3)

Table 2.2 shows key legislative frameworks that government procurement officials in the public sector in South Africa adopted during the procurement process discussed in Section 2.5.4 of this study. Any failure by procurement officials, or any other employee within organisations involved in the procurement process, to comply with these key legislative frameworks and other materials such as National Treasury practices notes, circulars, internal SCM policies and procedures may result in a breach in the of code of conduct, which will in turn lead to disciplinary proceedings.

2.5.6 Challenges faced during implementation of procurement practices in the public sector in South Africa

According to Dlamini (2016:12), only a few organisations are implementing procurement practices in a proper way in the public sector. This means that most organisations implement procurement practices poorly. The above statement triggers the question of what is preventing the implementation of proper procurement practices in the public sector in South Africa, which includes state-owned passenger rail agencies. Martzaris (2014:67); Uromi (2014:59); AGSA (2016:4); Ambe (2016:288) and Munzhedzi (2016:6) cite the challenges preventing implementation of proper procurement practices as follows:

2.5.6.1 Lack of proper knowledge and skills as well as capacity

Lack of proper knowledge, skills and capacity is also known as lack of training. Training is defined as the phenomenon of enhancing employees' skills, capabilities and knowledge for performing a particular duty or job (Manyathi & Niyimbanira, 2014:233). In both the public and private sector in South Africa, the SCM functions are encountering a common challenge of shortage of skills and knowledge about procurement practices (Mathu, 2014:138; Pillay & Mafini, 2017:6; Masete & Mafini, 2018:10). According to Nkwe, Singh and Karodia (2015:122), the government of South Africa embarks on training programmes to equip SCM staff in the public sector, but there is no proper method of implementation. Some of the procurement practices attributed to lack of proper knowledge and skills in procurement, include incorrect application of the preferential procurement system, misinterpreting SCM legislature and use of incorrect procurement processes in relation to threshold values for quotations and competitive bidding (Pooe, Mafini & Makhubele, 2015:68).

Lack of procurement skills and knowledge is attributed to the legal aspect of the procurement function, not given enough attention at tertiary level, and results in employees with academic knowledge who struggle to link academic with practical knowledge in the workplace (Bolton, 2016:24). In order to enhance the competency of procurement officials in both the public and private sector in South Africa, training and development is required (Pillay & Mafini, 2017:10). Specifically, the training should help procurement officials to embrace the use of best practices in SCM as tools for both decision making and problem solving. Moreover, Manyathi and Niyimbanira (2014:232) describe training as important for organisational development and success. Due to skills and knowledge as well as capacity shortages, the

procurement function has been characterised by ineffectiveness and inefficiency in both the public and private sector in the county.

2.5.6.2 Lack of proper planning

Procurement planning is described by Bizana, Naude and Ambe (2015:672) as a cycle, which involves ensuring that the organisational needs identified during the demand management process are carried out according to the strategic plan and are within the budget. However, due to lack of skills and knowledge in SCM, public organisations are experiencing poor procurement planning on a daily basis (Mathu, 2014:138; Selomo & Govender, 2016:9; Pillay & Mafini, 2017:6). According to Bizana, Naude and Ambe (2015:679), lack of proper planning in the procurement function results in lack of capacity to investigate the market thoroughly, poorly drafted specifications, an increase in deviations and price escalations as well as emergency purchases. According to Zitha, Sebola and Mamabolo (2016:67), lack of proper planning in the procurement function has a negative impact on service delivery in the country. In order for the procurement function to improve on effectiveness and efficiency, public organisations should ensure that there is proper procurement planning, which will help reduce delivery delays, eliminate recurring contracts and unnecessary extensions as well as eliminate emergency purchases. Moreover, proper planning can be achieved when procurement officials attend regular training aimed at improving their skills, knowledge and capacity.

2.5.6.3 Non-compliance with SCM policies and regulations

Supply Chain Management (SCM) is guided by more than 80 different legal instruments in the public sector in South Africa (National Treasury, 2015:10). According to Munzhedzi (2016:1), compliance with these SCM legal instruments is a big problem in public organisations. As a result, public sector organisations are experiencing the following non-compliance practices in the procurement function, namely: awarding quotations and tenders to close family of procurement officials and members of bid committees, lack of documentation of the awarded tender, awarding tenders to employees of government institutions; not using competitive quotes and extensions to contracts without following SCM policy; emergency purchases without valid reasons; and sole supplier arrangements (Horn & Raga, 2012:80; Nkwe, Singh & Karodia, 2015:109; AGSA, 2016:5-6; Mazibuko & Fourie, 2017:109). Furthermore, failure to declare a conflict of interest, cancellation of bids and failure to verify recommended bidders before the awards were some of the non-compliance practices (Zitha, Sebola & Mamabolo, 2016:67). An increase in non-compliance increases irregular expenditure, which was approximately R46 billion during the 2013-2014 financial year (AGSA, 2016:5). Non-compliance with

government legislature is a punishable offence since it prevents the procurement process from achieving the five principles of public procurement discussed early in this chapter, namely: value for money, transparency, accountability and reporting, equity and equality.

2.5.6.4 Unethical behaviour

Ethics is described by Munzhedzi (2016:7) as the moral principles that guide individuals or groups of people to behaviour or conduct themselves in a particular way within the organisation. Unethical behaviour normally starts with organisational leadership and such irresponsible behaviour reduces the morale of committed junior public servants as well as influencing others to engage in similar practices (Mafunisa, 2013:761). In the public sector in South Africa, there is common unethical behaviour in the procurement function such as failure to declare conflicts of interest, collusion and bid rigging, discriminatory treatment, and interference from leadership and politicians with the intention of influencing tender award decisions (Nkwe, Singh & Karodia, 2015:109; Zitha & Mathebula, 2015:23; Pillay, 2017:11; Ziqubu, Dlamini & Thaba, 2018:3091). In South Africa, unethical behaviour is due to government failure to implement anti-corruption acts (The Institute of Risk Management South Africa, 2015:16). As a result, fraud and corruption is increasing in South Africa (Fourie, 2015:20). In general, any unethical practices in the procurement function must be eliminated as they amount to fraud and corruption. When these practices are identified, procurement function management must act immediately against these practices in order to prevent re-occurrence.

2.5.6.5 Ineffectiveness of Broad-Based Black Economic Empowerment (BBBEE)

Broad-Based Black Economic Empowerment (BBBEE) has been defined by the Department of Trade and Industry (2018:7) as the viable economic empowerment of all black people in South Africa, specifically, woman, workers, youth and people with disabilities as well as people living in rural areas, through diverse but integrated socio-economic strategies that include preferential procurement from enterprises that are owned by black people. In South Africa, the provision of Black Economic Empowerment (BEE) was adopted by government to empower all who were previously disadvantaged rather than a small group of black investors in the public sector (Ambe, 2014:1541; Nkwe, Singh & Karodia, 2015:109). As a result, the BBBEE Act No. 53 of 2003 was adopted, which calls for expanded opportunities for employees, small enterprises and more representative ownership and management. However, the system has been ineffective due to unethical practices such as fronting (Ziqubu, Dlamini & Thaba, 2018:3085). Fronting, in procurement terms, is described as an arrangement or other act that directly or indirectly undermines the achievement of the objectives of the BBBEE Act (DTI, 2018:12).

Fronting in the form of manipulating BEE scores prevented the effectiveness of the BBBEE Act, only a small number of people are benefiting from the empowerment (UNIDO, 2017:24). Besides fronting practices that prevent the effectiveness of the BBBEE Act No. 53 of 2003, the points scoring system based on empowerment and price is biased in favour of established businesses in the country (Ziqubu, Dlamini & Thaba, 2018:3085). Therefore, in order to eliminate fronting, the government should introduce a special unit that verifies the accuracy of BEE scores during the registration and upgrading of BEE. Moreover, organisations and any business owner found guilty of fronting must be restricted from doing business with the state.

2.5.6.6 Inadequate measures for monitoring and evaluation of SCM

Monitoring and evaluation are fundamental functions of management, which help ensure that there are enough controls to enforce implementation of SCM policies and procurement procedures to prevent irregularities within an organisation (Mantzaris, 2014:76). Therefore, to achieve accountability and transparency, procurement procedures need to include effective controls in the organisation. In South Africa, the AGSA (2016:4) reported that public organisations are experiencing irregular, fruitless and wasteful, as well as unauthorised expenditure, due to lack of effective controls to monitor implementation of procurement policies and procedures. Furthermore, this problem was attributed to lack of leadership and governance from executive leadership and managers in the public sector (Mantzaris, 2014:76; Selomo & Govender, 2016:9). Therefore, government from the office of the presidency and National Treasury need to make sure that all government organisations hire skilled procurement and SCM management with leadership skills who will instil good governance within public organisations.

2.5.6.7 Fraud and corruption

Fraud and corruption are described by Munzhedzi (2016:1) as an abuse of official authority within an organisation with the intention of personal gain. Fraud and corruption in the procurement function in the public sector is higher than in any other function within the organisation (Mantzaris, 2014:67). This is because procurement is where the opportunities to engage in corrupt activities are greater and where rewards from corrupt practices can be achieved. Although various forms of legislature were established to eliminate fraud and corruption, there is a continuous increase in these practices such as bribery, theft of resources, extortion, document manipulation or computer fraud, collusion and bid rigging as well as misappropriation of economic wealth in the country (Mantzaris, 2014:67; Zitha & Mathebula, 2015:21). According to Ngcamphalala and Ambe (2016:1204) and Mazibuko and Fourie

(2017:115), the continuation of fraud and corruption as well as related activities in the procurement function is attributed to the strong laws that were established not being implemented to their fullest extent and also due to lack of accountability and lack of transparency in the public sector. Due to the lack of implementation of the government acts, policies and procedures, fraud and corruption in the procurement function has been reported to be at approximately 25 percent, which is classified amongst the highest in the world. This means that public organisations' executives and management as well as other stakeholders (such as political leaders) are also involved in procurement fraud and corruption, hence there is no progress on the elimination of this practice regardless of special organisations introduced to deal with this practice such as The Scorpions and the Office of the Public Protector of South Africa.

2.5.6.8 Decentralisation of procurement functions

Decentralisation has been defined by Engida and Bardill (2013:3) as the process that involves delegation of greater authority to the district administration or regional officials working in the field or closer to the problem. While, Sorte Junior (2013:61) simply defines decentralisation in procurement as a process of acquiring goods, construction work and services at each division independently and without the intervention of a centralised agency or body. Moreover, decentralisation of the procurement function has the following benefits, namely: (1) procurement function/officials have a deeper knowledge of the local employees' needs; (2) it has the capacity to reduce the scope for large scale corruption, mistakes and overspending, and (3) decentralisation may increase the efficiency of public expenditure, as the local government will be able to acquire goods, construction work and services according to the demand, achieving a closer match between supply and demand. The government of South Africa has introduced public SCM legislature that provides for decentralisation of policies and resources (Munzhedzi, 2016:3). The aim of decentralising procurement policy and resources was to allow managers to manage as recommended by Engida and Bardill (2013:5). However, due to skills and knowledge shortage of public procurement officials as well as lack of leadership, decentralisation has resulted in ineffectiveness and inefficiency of the procurement function. If the government could adopt a centralised system, they may save a reasonable share of unnecessary costs by embarking on bulk purchase of common goods or services (Munzhedzi, 2016:3). Although the procurement functions have been decentralised in the public sector in South Africa, cost saving is not maintained due to poor management, corruption and fraud as discussed earlier in this section (2.5.6.7).

2.5.6.9 Resistance to use Information Communication Technology (ICT) systems or E-procurement

E-procurement has been defined by the Organisation for Economic Co-operation and Development (OECD, 2016:22) as a digital system that is utilised for information and communication technology in public procurement, which helps increase transparency, facilitate access to public tenders, reduce direct interaction between procurement officials and companies as well as allowing easier detection of irregularities and corruption within the procurement cycle. In the public sector in South Africa, forty-five per cent of SCM practices are performed manually, regardless of review by national treasury, which indicates that the use of electronic systems in SCM has great potential to increase the effectiveness and efficiency of processes which impact on government spending (Kramer, 2016:6). Should the government of South Africa digitalise its procurement function activities, the following benefits recommended by Kramer (2016:3) and Anthony (2018:42) could be attained, namely: (1) reduced administrative cost; (2) reduced procurement staff (reduction in salaries budget); (3) enhanced communication through speedier access to information; and (4) reduced corruption. Moreover, although there are more benefits to adopting E-procurement in the procurement function, there are also the challenges of using digital systems, namely: (1) quality and socio-economic considerations may be given insufficient attention; (2) investing in e-procurement might be costly; and (3) more mistakes might be made during the teething stage. According to Uromi (2014:56), effective utilisation of Information Communication Technology (ICT) or e-procurement in procurement processes improves all five key pillars of procurement, as stipulated in terms of Section 27 of 1996 in the Constitution of the Republic of South Africa, namely: value for money, accountability, transparency, ethics as well as equity.

2.5.6.10 Inadequate remuneration of procurement officials

Fair remuneration systems within an organisation play a vital role in improving compliance in the public sector (Zitha, Sebola & Mamabolo, 2016:73). According to Fourie (2015:30), when the procurement official is under-paid, the higher the chance of such an official being involved in fraud and corruption in the procurement process in order to supplement their salary. Inadequate remuneration of procurement results in practices such as kickbacks, which prevent the government from receiving value for money on goods or services purchased as suppliers will overcharge in order to cover kickbacks and profits (Osei-Tutu, Badu & Owusu-Manu, 2010:244). In addition, the practice of kickbacks due to inadequate remuneration is attributed to weak internal control systems to detect, prevent and eliminate such corrupt practices in the

procurement function in the public sector. Therefore, this study concludes that inadequate remuneration of procurement officials contributes to officials being involved in fraud and corruption. With procurement functions moving from administration to strategy as discussed early in this chapter, public organisations must re-evaluate and upgrade procurement officials' salaries considering the risk and vulnerability of their functions.

2.6 PROCUREMENT BEST PRACTICES

In this study, the twelve leading elements of procurement practices were identified in numerous articles (Quesada, González, Mueller & Mueller, 2010:518; Dlamini & Ambe, 2013:105; Davis, 2014:87; Mofokeng & Luke, 2014:2; Barasa, 2014:63). These twelve leading elements of procurement practices that are recommended in the state-owned passenger rail agencies and other public organisations are briefly described as follows:

2.6.1 Organisational design of a procurement function

The procurement function is one of the crucial functions within the organisation due to its ability to be responsible for spending a large amount of the organisation's budget (Brandmeier & Rupp, 2010:5; Burt, Petcavage & Pinkerton, 2010:9; CIPS, 2012:5). Therefore, it is important that it is designed in line with overall organisation strategies, objectives and goals (Worren, 2016:775). Organisational design is defined by Rudzki and Trent (2011:64) as the phenomenon of evaluating and selecting a suitable structure, formalising a viable communication system, dividing labour and coordination as well as controlling labour.

Organisational design is treated as one of the leading elements of procurement practises due to its ability to attain a higher level of effectiveness, especially when the procurement function has been designed in a proper manner (Worren, 2016:775). Organisational design focuses on assigning the authority and responsibility necessary for the attainment of the organisational objectives and goals (Handfield, Monczka, Guinipero & Patterson, 2011:157). In addition, it involves positioning the procurement function to contribute positively to the success of the entire organisation. In this study, procurement function design includes elements such as reporting line and organisational structures, discussed in detail below.

2.6.1.1 Reporting lines

The level or position of the procurement function in the organisational structure influences the procurement function's ability to function optimally in the decision-making process (Burt *et al.*, 2010:32; Hugo & Badenhorst-Weiss, 2011:30). In most organisations, there is no ideal

procurement reporting structure; as a result procurement functions often report to finance and or the operations department (CIPS, 2012:148).

2.6.1.2 Organisational structures

Van Weele (2010:283) and Sorte Junior (2013:60) have identified three organisational structures of the procurement function in an organisation, namely: centralisation, devolved and hybrid structures. The decision to centralise or decentralise the procurement function depends on elements such as the nature and size of the organisation (Engida & Bardill, 2013:5). Centralising the procurement function is when the procurement process is carried out in a central office by procurement staff (Sorte Junior, 2013:60). On the other hand, devolved is when the procurement process is carried out within the branches by procurement staff without intervention from central office, while the hybrid structure is when the organisation combines both centralisation and devolvment within the organisation (Hugo & Badenhorst-Weiss, 2011:31).

Although Sorte Junior (2013:61) conducted an assessment on the efficiency of centralisation procurement, he made conclusions without indicating which structure is best. Hugo and Badenhorst-Weiss (2011:31) point out that multi-plant organisations in South Africa are implementing a hybrid approach. In addition, they further predict that there will be changes in future due to new approaches and strategies currently under way. Since there is no evidence that determines the best strategy, this study will present both benefits and limitations of centralisation and devolvment in Table 2.3.

Table 2.3: Benefits and limitation of centralised and devolved procurement structure

Types of procurement structure	Benefits	Limitations
Centralised	<ul style="list-style-type: none"> • Specialisation of procurement staff • Potential for the consolidation of customer requirements • Greater coordination of procurement activities • Greater standardisation of specifications, which may improve quality and efficiency • More effective control of procurement activities 	<ul style="list-style-type: none"> • There is a slow response time to branches • There is resentment from geographically dispersed business unit management • There is a tendency to bypass the central procurement office • There is less integration with user department • Staff structure is top heavy • There is lack of deep insight into the user requirements

	<ul style="list-style-type: none"> • Avoidance of conflict between business divisions • Duplication of effort is eliminated 	
Devolved	<ul style="list-style-type: none"> • Better communication and coordination between procurement and user departments • Customer focus • Quick response to user requirements • Knowledge and building of relationship with local based suppliers • Smaller purchase quantities • Freeing central procurement office to focus on higher-level and value-added tasks 	<ul style="list-style-type: none"> • There is a loss of economies of scale • There is duplication of facilities and staff • Suppliers are confused by dealing with many offices • Difficult to maintain control • Characterised by communication breakdown • There is focus on local units and under-emphasis on strategic issues

Source: Hugo and Badenhorst-Weiss (2011:31); CIPS (2012:170-171)

Table 2.3 discusses two types of procurement structures, namely, centralised and devolved or decentralised by providing its advantages and limitations. Based on this table, there is no best procurement structure between the two structures, namely, centralisation and devolved. However, the nature and size of the organisation influences the structure to be used as recommended by Engida and Bardill (2012:5) early in this section. The third procurement structure, which is hybrid was not discussed in the table as it combined both centralisation and decentralisation. Therefore, hybrid benefits and limitations are a combination of the two.

2.6.2 Leadership

A number of researchers, such as Mofokeng and Luke (2014:41) and Dlamini and Ambe (2016:54) have pointed out that leadership is one of the leading procurement practices. Leadership is defined by Armstrong and Taylor (2014:322) as the practice of inspiring people to do their best in order to achieve desired results. In addition, leadership involves developing and communicating a vision for the future and motivating people as well as securing their engagement.

Leadership is regarded as one of the leading procurement practices due to its ability to provide direction and vision as well as changing the organisational culture if necessary (Abib-Pech,

2013:11). In addition, organisational leaders have a responsibility to set the corporate agenda, define and communicate an organisation's culture and values as well as remove barriers that block organisational change. Therefore, procurement leaders must influence their departmental or procurement staff performance by setting the department's direction, aligning staff with changes and motivating and inspiring staff as recommended by Abib-Pech (2013:22). According to Marques (2010:312), the attributes of a good leader include conforming to morality and values, honouring integrity, having high ethics, being honest and trustworthy, having vision, respect, commitment, compassion, kindness, justice, forgiveness, courage and love, being a good listener, being inspired and inspiring, having authenticity and a multi-dimensional approach as well as being amendable to change.

Based on these attributes of leadership, the procurement function does not only require management with procurement knowledge and skills, but also management with leadership qualities in order to drive the department in the right direction to achieve its ultimate goal (Aziz *et al.*, 2015:167). When the organisation has management that does not possess attributes of good leadership, it demotivates subordinates to perform, which impacts negatively on the overall functional and organisational performance. Therefore, organisations should strive to employ powerful and visionary management with leadership skills who can set direction, culture and perception as well as encourage the organisation to work in an integrated fashion toward common goals.

2.6.3 Procurement Planning

Procurement planning plays a vital role in influencing uninterrupted flow of goods, construction work and services required to support the user departments within the organisation (Khemiri, Elbedoui-Maktouf, Grabot & Zouari, 2017:5325). Procurement planning performed in the demand section within the procurement function is defined as the decision-making process that allows departments to acquire goods, construction work or services at the right time and at the right place as well as at the right cost (Ogubala & Kiarie, 2014:2). Planning involves defining the activities, scheduling and sequencing, planning the requisite manpower and staff required in sufficient quantities and quality (Barasa, 2014:52). Moreover, it also involves estimating that money should be spent in a time-phased manner as well as planning the information system necessary for effective communication to enhance monitoring and control during the acquisition and contract performance

Procurement planning is regarded as one of the best procurement practices due to its ability to influence the effectiveness of the procurement function (Barasa, 2014:66). Therefore, it requires top management involvement (strategic planning), cross functional departments and proactive, skilled procurement staff to ensure that there is proper procurement planning within the procurement function.

Procurement planning facilitates effective and efficient service delivery within public sector organisations (Davis, 2014:87). Procurement planning requires the development of a procurement plan. It helps buying organisations achieve maximum value for expenditures on goods or services to be delivered and enables the organisations to identify and address all relevant issues concerning procurement before they publicise their procurement notices to potential suppliers of goods and construction work as well as services (Davis, 2014:87).

Procurement plans indicate what acquisitions an organisation will undertake in the short, medium and long-term (National Treasury, 2015:16), and proper planning in the procurement function helps reduce delivery delays, eradicates recurring contracts and unnecessary extensions, and eliminates the need for emergency procurement as well as informing suppliers about future opportunities.

Procurement planning requires a competent, professional workforce equipped with defined skills and knowledge (Davis, 2014:87). A lack of knowledge and skilled procurement staff may cause the procurement function to be ineffective due to poor planning, and result in the development of poor specifications, wrong decisions taken about an item to be acquired and unrealistic cost estimates (Bashuna, 2013:269). An organisation with procurement and user officials (junior officials) who are competent, good Information and Communication Technology (ICT) tools to support officials and management that supports procurement functions, and excellent budgeting procedures will have a good procurement plan in place.

2.6.4 Customer focus

Frequent changes in global customer behaviour require agile answers from an organisation and its supply chain partners (Naoui, 2014:786), which has led to organisations focusing on customer-oriented business missions rather than being product-oriented. A customer focus is defined by Villiers, Nieman and Niemann (2008:287) as a phenomenon of identifying and establishing, maintaining, enhancing and, if appropriate, terminating relationships with customers and other stakeholders (internal, external and connected stakeholders).

The purpose of customer focus in procurement and the SCM function is to drive financial performance and foster supply chain relational capabilities (Lado, Paulraj & Chen, 2011:203). Lado, Paulraj and Chen (2011:203) further indicate that these supply chain relational capabilities include development of long-term relationships, fostering of collaborative communication and design and use of cross-functional teams as well as involvement of supply-chain partners in order to create and deliver strategic value to customers.

Supplier involvement is one of the elements of supply-chain relational capabilities that has a positive link to new product development (Melander & Lakemond, 2014:17). Involving the supplier in product development enhances quality, reduces lead times and also enables the buying organisation to access and utilise the suppliers' competencies for mutual benefits (Lado, Paulraj & Chen, 2011:203). In addition, through the involvement of suppliers in other strategic and operational efforts, supply-chain partners will be able to develop a greater understanding that ultimately increases their prospects for strategic vitality and viability.

Customer service contributes to superior performance within the organisation (Lado, Paulraj & Chen, 2011:203). They further outline the following four benefits resulting from becoming responsive to customer needs, namely: customers are more loyal; customers will pay a premium, and customers will purchase more goods and services as well as the organisation becomes strategically advantaged when it serves the demanding customer through continual improvement of its product delivery system.

In conclusion, Mofokeng (2012:41) and Mofokeng and Luke (2014:4) have indicated that customer focus is one of the leading procurement practices, although they do not elaborate on how customer focus has become one of the leading procurement practices. Although the above authors, namely, Mofokeng (2012:41) and Mofokeng and Luke (2014:4) do not mention much about customer focus, this study concludes that it is one of the leading procurement practices due to supply chain partners' ability to develop and leverage the relational competencies needed to create and deliver superior value to customers.

2.6.5 Human resource management

Human resource management (HRM) is defined by Armstrong and Taylor (2014:5) as a strategic, integrated and coherent approach to employment and development as well as contributing to the well-being of the employees working in the organisation. In addition, HRM covers functions of strategic HRM, knowledge management, human capital management, corporate social responsibility, resourcing (which includes workforce planning, recruitment and

selection, and talent management), learning and development, employee relations, performance and reward management systems, and employee well-being as well as the provision of employee services (Stahl, Bjorkman, Farndale, Morris, Paauwe, Stiles, Trevor & Wright, 2012:8; Bloom, Genakos, Sadun & Van Reenen, 2012:3).

The main purpose of HRM is to support the organisation in achieving its objectives by developing and implementing human resource strategies that are integrated with overall business strategy, that contribute to the development of a high-performance culture and ensures that the organisation has talented and skilled employees and can create employment relations (Armstrong & Taylor, 2014:5; Mofokeng & Luke, 2014:2).

Organisations that implement best human resource management practices are likely going to achieve their organisational objectives more than an organisation which does not implement proper human resources management (Moideenkutty, Al-Lamki & Murthy, 2011:242; Bloom, Genakos, Sadun & Van Reenen, 2012:5). These best human resource practices, which can help organisations achieve their business mandate include staffing and recruitment, training and development, and pay, as well as performance appraisal (Thai, 2009:51; El-Ghalayini, 2017:76).

The HRM practices, namely: training and development, compensation and reward systems as well as performance appraisal contribute positively to employee commitment, motivation and satisfaction (El-Ghalayini, 2017:76). Although HRM practices have clear benefits to organisational performance, Mofokeng and Luke (2014:5) point out that there is inconsistency in the implementation of HRM practices in the public sector in South Africa.

Although there is inconsistent implementation of HRM practices within the procurement functions, Dlamini and Ambe (2013:110) indicate that procurement positions require education attachments for both junior and senior positions in the public sector in South Africa. They further indicate that training programmes are offered to procurement staff. Although procurement training and development programmes are in place, there is a lack of skills, knowledge and capacity in the procurement function in the public sector in the country (Ambe, 2016:26; Fourie & Chimusoro, 2018:145). Human resources is regarded as one of the leading procurement practices due to its ability to enhance procurement function performance when implemented consistently (Moideenkutty, Al-Lamki & Murthy, 2011:247). Human Resource Management (HRM) practices enhance the procurement function by sourcing the right talent, training and developing employees, retaining skilled officials and motivating as well as

rewarding officials. Moreover, all these practices are the core activities required to implement leading procurement practices. Failure to implement any of the above mentioned HRM practices will result in an organisation failing to implement leading procurement practices.

2.6.6 Procurement information technology systems

Information technology systems (ITS) are tools that provide organisations with the power and ability to capture and store as well as manipulate business data (Mehrjerdi, 2009:55). Utilisation of ITS help organisations make informed decisions that complement organisational goals (Mofokeng & Luke, 2014:2). Expectations at an organisational level are that ITS enhances efficiency, lowers cost and gains access to large as well as new markets (Kiveu & Ofafa, 2013:35). Moreover, the use of ITS is prioritised in the procurement and marketing functions, due to the ability of the two functions to beat competitors with the help of ITS.

The purpose of adopting ITS in the procurement function is to enhance the effectiveness of the procurement processes (Bashuna, 2013:271), which, in turn, helps promote accountability, transparency and efficiency as well as value for money, especially in the public sector (Popescu, Onofrei & Kelley, 2016:87; Anthony, 2018:43). Since there is a clear benefit to be gained from using ITS in the procurement function, organisations should adopt integrated systems such as Enterprise Resource Planning (ERP), defined by Jagoda and Samaranayeke (2017:91) as the type of business process management software which combines multiple applications to collect, store and manage as well as interpret data from various business processes. These include product planning, order management procurement, HRM, inventory management, finance, production, customer relationship management and many more (Ogubala & Kiarie, 2014:9).

Effective management of ITS, especially ERP, leads to the strengthening and improvement of acquisition systems, improved data sharing, shorter lead times, effective leadership, employees' strengthening, representative administration, and a decrease in items stock-out rate (Naveed, Ahmad & Ahmad, 2016:38; Anthony, 2018:42). While, according to Wacaksono, Urumsah and Asmui (2017:1), the utilisation of ITS such as e-procurement throughout the procurement process help improve transparency and accountability, which, in turn, reduces corruption risk. Although there are benefits to be gained from investing in information technology, there are also costs and risks of implementing ITS, which include high capital investment that may not be available, especially for small and medium enterprises (SMEs), higher cost of training staff and compatibility issues, for example, trusted suppliers may not

have funds to invest in technology which will allow sharing of information (Quesada *et al.*, 2010:519; Naveed, Ahmad & Ahmad, 2016:38).

Organisations that do not view ITS as leading procurement practices have traditionally relied on paper-based processes. According to Laryea *et al.* (2014), these procurement processes are inefficient in dealing with the demands and complexities of contemporary procurement activities. In addition, paper-based processes are slow, time consuming, labour intensive, and attract high transactional as well as operational costs associated with poor data management. Bashuna (2013:272) also points out that lack of effective ITS in the procurement function increases corruption and the misuse of funds, especially in the public sector.

Therefore, it is necessary for procurement and SCM functions to invest in ITS in order to ensure that there is effective and efficient flow and storage of goods and services as well as related information within the organisation (Colin, Galindo & Hernandez, 2015:839).

2.6.7 The procurement process and policies

Policies and processes in the procurement function include the basic principles that regulate the way an organisation performs its procurement practices (Mathonsi & Thwala, 2012:5385). A process is defined as a collection of associated and sequential activities (each with specific inputs and outputs) through process management and more specifically through planning, execution and controlling as well as continuously improving the processes to ensure that quality goods or services are produced (Psomas, Fotopoulos & Kafetzopoulos, 2011:441). These functions are implemented by integrating different methods and tools as well as resources such as human capital, finance and technology (Van Weele & Van Raaij, 2014:60). Policies are defined by Lysons and Farrington (2012:68) as the body of principles written or assumed to exist, laid down in order to direct an organisation towards its objectives that guide executives in decision making.

The purpose of the procurement process and policies is to ensure that goods, construction work and services are acquired through utilisation of the correct sourcing options, which must complement organisational procurement policies and procedures in order to meet customer's changing requirements (Mofokeng & Luke, 2014:48).

Organisations with leading procurement practices coordinate their procurement process by clearly defining how the process should be implemented or performed (Psomas, Fotopoulos & Kafetzopoulos, 2011:441). In addition, these organisations engage in process planning,

overseeing that a process is carried out on daily basis as well as learning from leading organisations. They also regularly review their procurement policies and processes and make alignments when appropriate.

Processes and policies provide the flow of decisions and information as well as indicate responsibilities and roles within the organisation (Psomas, Fotopoulos & Kafetzopoulos, 2011:445). Therefore, the organisation should always design its processes and policies in a correct manner and maintain control. The researchers further indicate that leading process management enhances quality and efficiency, which, in turn, increases revenue and reduces unnecessary costs within an organisation, while adherence to policies and regulations enhances effectiveness and efficiency of procurement practices (Nurmandi & Kim, 2015:203). Although there are clear benefits to be gained from having best processes and policies, they need continuous alignment and people involvement in order for the organisation to implement processes and policies successfully.

2.6.8 Benchmarking best practices

Nowadays, the procurement function is responsible for spending approximately 60 percent of the organisation's budget (Brandmeier & Rupp, 2010:5). This has triggered most organisations in the competitive sector to invest much effort on benchmarking their procurement function in order to ensure continuous improvement. Benchmarking is defined as the practice of comparing an organisation's performance against others in the same industry to stimulate improvements in operating practices (Camp, 1989:10). Best practices are associated with superior performance in the activities, regardless of sector, leadership and operational approaches that lead to excellent performance (Mishra & Sharma, 2014:13). Historically, benchmarking practices, demonstrated by Watson (1993:2), include reverse engineering, competitive benchmarking, process benchmarking and strategic as well as global benchmarking.

The purpose of conducting benchmarking within the procurement function is to improve the performance of the procurement function in order to strengthen an organisation's competitive advantage (Gangurde & Chavan, 2016:1751). Brandmeier and Rupp (2010:5) also support the above authors by pointing out that benchmarking procurement performance has a positive impact on overall organisational performance.

Although there is a limit to recent procurement articles that identify benchmarking as one of the leading procurement practices, organisations that treat it as one of the crucial procurement

practices benefit from identifying and adopting new practices, which can be established in best performing organisations (De Castro & Frazzon, 2017:764).

2.6.9 Procurement performance management

Performance management is defined by Ovidiu-Iliuta (2014:1158) as a strategic and integrated approach to attain continuous success for the organisation by enhancing the performance of the employees and also developing the capabilities of the individuals and teams. In addition, performance management helps ensure that goals are consistently met in an efficient and effective way within the organisation. According to Armstrong and Taylor (2014:334), performance management elements include agreement, measurement, feedback and positive reinforcement as well as dialogue. They further indicate that performance management is a valuable means of getting better results by providing the means for individuals and teams to perform well within an agreed framework as per planned goals, standards and competency requirements.

The purpose of performance management from a procurement perspective is to measure and evaluate the effectiveness and efficiency of the procurement function in producing its outputs and services such as lead times, cost and reliability, response rate on customer orders, and many more (Banomyong & Supatn, 2011:22). These procurement function performance measures should be conducted using Key Performance Indicators (KPIs) for internal and external supply chain partners. A key performance indicator (KPI) is associated with quantifiable aspects that measure the performance of a system when it comes to operations within the organisation (Banomyong & Supatn, 2011:23).

The performance of the procurement function should be linked to the overall organisation's strategies and goals (CIPS, 2012:99). Therefore, procurement function leadership should use KPIs to monitor and review its departmental and individual performance based on the agreed performance targets. The use of KPIs to measure performance helps remove barriers and motivate its employees (Ovidiu-Iliuta, 2014:1158). On the other hand, the use of KPIs on supplier performance helps promote on-going monitoring and regular review of service levels, supports problem solving and improves planning, and also fosters better understanding and trust between procurement and its suppliers (CIPS, 2012:106).

Procurement functions of the organisations that are implementing leading practices, regularly monitor and review their departmental performance as well as other stakeholder's performance such as finance and external client or supplier performance. The aim of being interested in

stakeholder's performance is because procurement performance depends on others' performance (Quesada *et al.*, 2010:521). In addition, the dependability of the procurement function on other stakeholders has resulted in procurement performance criticism such as the functions being based too much on financial performance and inflexibility.

2.6.10 Supplier management

Supplier management practice is defined by Narasimhan and Schoenherr (2012:1189) as effective utilisation of the supplier's expertise, capability and high-quality input required for yielding the final products as well as the appropriate exploitation of the supplier's reputation for the durability and reliability of its product. On the other hand, Mofokeng and Luke (2014:2) describe supply management as a sequence of coordinated functions used to select potential suppliers to help the organisation achieve its goals. In today's business, supplier management practices are critical in satisfying customers' changing requirements (Chuah, Wong, Ramayah & Jantan, 2010:724). Due to customers' changing requirements, buyers are pushing suppliers to respond more quickly to their requirements (Sinkovics, Jean, Roath & Cavusgil, 2011:194).

The purpose of supplier management practices is to ensure that the procurement function and suppliers are responsive in providing prompt and reliable delivery of higher quality goods and services at the lowest cost (D'Amico *et al.*, 2017:218-219). According to Wong and Wong (2008:34), responsiveness of the procurement function does not depend on its departmental performance only, but it also depends on its supplier performance. It is crucial therefore to consider supplier management as one of the leading procurement practices.

A number of authors: Chuah, Wong and Jantan (2010:725); Narasimhan and Schoenherr (2012:16) and Gualandris, Golini and Kalchschmidt (2014:260) have unpacked and summarised leading supplier management practices that consist of supply base reduction, supplier selection and development as well as supplier collaboration. These leading supplier management practices have been unpacked early in this study; therefore an in-depth discussion will not be conducted to avoid duplication.

According to D'Amico *et al.* (2017:218), supplier management practices increase performance within the organisation. Effective and efficient implementation of these supplier management practices as one of the leading procurement practices, therefore, leads to an uninterrupted supply of goods and services within the organisation, which helps improve overall organisation performance.

2.6.11 Consortium procurement

Nowadays, consortium procurement has gained increasing attention due to its ability to lower sourcing costs in the organisation (Dewi, Baihaqi & Widodo, 2015:479). Research conducted in private sector organisations indicates that consortium procurement can save between 10 to 15 percent and even more (Nollet & Beaulieu, 2005:12). Consortium procurement is defined as a group of separate organisations that combine their requirements for the purpose of acquiring goods or services (Dewi, Baihaqi & Widodo, 2015:478).

The purpose of consortium procurement is to reduce or save costs of acquiring goods and services (Dewi, Baihaqi & Widodo, 2015:479). Consortium procurement maintains cost saving through the access of powerful negotiators, and ordering and shipping is also done by an agent of the consortium team on behalf of its members (Bryde, 2015:988; Dewi, Baihaqi & Widodo, 2015:479). Meaning, in the organisations whereby procurement activities are performed by non-procurement employees or user departments, then such an organisation may benefit from being in the consortium team. In addition, organisations that lack resources and skilled procurement employees may also benefit as well (Bryde, 2015:988).

Consortium procurement is regarded as one of the leading procurement practices due to its ability to enhance an organisation's competitiveness through procurement practices (Dewi, Baihaqi & Widodo, 2015:479). Consortium procurement enhances an organisation's competitiveness through the following benefits, namely: it increases bargaining power, which also helps the team obtain discounts, and reduces administration and contracting costs, as well as the time it takes to search and order standard items (Bryde, 2015:988; Dewi, Baihaqi & Widodo, 2015:485).

In summation, this study supports the article by Dlamini and Ambe (2013:106), which has identified consortium procurement as one of the leading procurement practices, regarded as such due to its ability to save costs in the acquisition of goods or services within organisations.

2.6.12 Risk management

Risk is defined by Hugo and Badenhorst-Weiss (2011:97) as the variability or deviation of actual results from anticipated results. Therefore, risk management has been established in the procurement and SCM functions to manage these deviations that may cause disruption in the organisation. According to Wieczorek-Kosmala (2014:134), a risk management issue grows both a financial and non-financial hardened business environment within organisations.

The purpose of implementing risk management as one of the leading procurement practices in an organisation is to ensure that disruption in procurement and SCM activities is avoided and prevented as well as mitigated (Bandaly, Satir, Kahyaoglu & Shanker, 2012:250). In the procurement function, disruption can be caused by natural disasters, wars and terrorist attacks as well as strikes (Kumar, Himes & Kritzer, 2014:873). In addition, failure of the organisation to manage risk may result in revenue losses and even shut down operations. Therefore, disruption from the abovementioned activities may cause suppliers' failure to deliver goods or services as scheduled, which, in turn, may cause disruption in the buying organisations' operations.

Organisations applying risk management as one of leading procurement practices develop contingency plans or crisis management to respond proactively to disruption before it occurs (Kumar, Himes & Kritzer, 2014:876). The proactive response would require tools and infrastructure to be used to detect disruption early, which would help enable faster reaction and recovery, and minimise revenues and profitability. Although risk must be prevented and reduced, the focus should be only on the critical items identified by operation and supply chain employees (Kumar, Himes & Kritzer, 2014:886).

The tools and infrastructure used to detect risk is to leverage social media (Kumar, Himes & Kritzer, 2014:876). The researchers further indicate that help from social media can quickly obtain external intelligence on major events such as weather, politics, legislation and the economy. Bandaly *et al.* (2012:250) mention information technology as second tool that can be utilised to reduce disruption in procurement by enabling sharing of information among members of the supply chain. For example, if the contracted supplier of a certain item is affected by a strike in operation, then information sharing allows the procurement function to make contingency plans by checking other suppliers that may have the required item on hand.

Risk management processes, as one of the leading procurement practices, should be conducted and reviewed regularly (Wieczorek-Kosmala, 2014:136). The aim of regular monitoring and review is to maintain sustainability and improve the efficiency of the whole risk management process, which will have a positive impact on the procurement function's performance. Kumar, Himes and Kritzer (2014:888) state that organisations should deploy a strategy for assessing risk associated with the supply chain, and design and implement strategies that mitigate these risks.

2.7 CONCLUSION

In accordance with the primary objective of this study, which seeks to explore how the state-owned passenger rail agencies conduct their procurement practices in Gauteng, this chapter has defined key procurement and related terminologies as well as discussed the value and contribution of the procurement function. It discusses global public procurement practices, focusing on an overview of public procurement, the principles of public procurement, legislative frameworks that govern public procurement across the globe and procurement processes as well as global public procurement challenges. The literature review establishes that corruption is at the forefront of these challenges that prevent public procurement from being effective and efficient across the globe.

An overview was done from a South African perspective on public procurement, public procurement principles, committees involved in procurement processes, the public procurement processes and legislative frameworks that govern public procurement as well as challenges preventing public procurement practices from being effective and efficient in South Africa. Some of these challenges include lack of accountability and reporting, lack of skills and knowledge, fraud and corruption, unethical practices, ineffectiveness of preferential procurement systems, lack of evaluation and monitoring, non-compliance and lack of adequate remuneration for procurement officials. After reviewing procurement practices in this chapter, the next chapter presents research design and methodology adopted in exploring procurement practices in the state-owned passenger rail agencies in Gauteng.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

This chapter begins by restating the research problem, provides a philosophical positioning of qualitative research and a description of the research design. A research strategy associated with the qualitative approach (adopted here) is a case study, the concepts of which are described in detail. This chapter further identifies and describes the population, sample, research instruments and methods of data collection utilised. It also provides a description of how the data was analysed and discusses the issue of measures of trustworthiness as well as ethical considerations pertaining to the study. It concludes with a summary of the chapter.

3.2 RESEARCH PARADIGM

It is important to philosophically position qualitative research among other forms of research. Such a positioning entails what one believes about the nature of reality (ontology), and the nature of knowledge (epistemology) (Creswell, 2013:55). Traditional research paradigms make certain assumptions about the world. They assume that there is an objective reality that researchers ought to try and uncover as they conduct their research (Rahi, 2017:1). Further, it is also assumed that the role of the researcher is neutral and that the main purpose is to discover the objective reality. These are referred to as positivist paradigms. A positivist orientation assumes that reality exists ‘out there’ and that it is observable, stable and measurable (Felix, 2015:74). However, it became evident that capturing a reality that was ‘out there’ was difficult, if not impossible, to achieve. This led to a post-positivist point of view, which held that researchers should strive to capture reality using multiple methods. In such a way, reality might be moved toward the results (Lichtman, 2006:143).

A research paradigm is described by Flanagan (2013:4) as the commitments, values, beliefs and methods shared across a discipline. Saunders, Lewis and Thornhill (2012:140) describe a paradigm as a term regularly used in social sciences, which is defined as a way of examining a social situation that is observed to exist, from which particular understandings of situations can be gained and attempted to be explained.

In research, a study begins with formulating the research topic and a research paradigm that reflects the framework of beliefs and values for investigating the research topic (Wagner, Kawulich & Garner, 2012:58). Thereafter the design of the research study begins. Farrimond

(2013:7) and Rahi (2017:1) have also identified four paradigms, namely: positivism, interpretive, transformative, as well as an indigenous research paradigm. According to Saunders, Lewis and Thornhill (2016:133), a research paradigm encompasses four paradigms, namely: functionalist paradigm, radical structure, radical humanist paradigm, and interpretive, which are discussed briefly below. In addition, a positivist paradigm is discussed here.

3.2.1 Positivist paradigm

A positivist paradigm asserts that observation and reason are the best ways of understanding human behaviour (Antwi & Hamza, 2015:218). In simple ways, this paradigm believes that true knowledge is based on experience of senses, which can be obtained or acquired through observations and experiments. According to Rahi (2017:1), positivist paradigms are associated with selecting a scientific method to help produce knowledge required for study. In addition, this paradigm is associated with scientific method, empirical science and post positivist as well as quantitative research.

3.2.2 Functional paradigm

When the research study adopts a functional paradigm, the researcher focuses on rational explanations and establishes sets of recommendations within the current structure (Saunders, Lewis & Thornhill, 2016:132). The main aim of this paradigm is to ensure that the research study contributes or adds value to organisations through identifying gaps and recommending improvements within the organisation. According to Kelemen and Rumens (2008:124), functionalist theories and models of management (for example, business process re-engineering) are sometimes generalised to other contexts, with the aim of being utilised universally, provided they are correctly implemented and monitored. In this paradigm, the research assumes that organisations are rational entities in which rational explanations provide solutions to rational problems.

3.2.3 Interpretive paradigm

This research paradigm aims at understanding the way in which the researcher or human being attempts to make sense of the world around us (Saunders, Lewis & Thornhill, 2016:134). This means that when the research study is undertaken within organisations, it will focus on understanding the fundamental meanings attached to organisational life. According to Rahi (2017:1), the researcher in this paradigm focuses on deep understanding of the concept and explores the understanding of the world in which they live. In this paradigm, the researcher understands the concept by interviewing or acquiring data from experienced individuals

(potential participants) who are experts on the topic being explored (Antwi & Hamza, 2015:219).

3.2.4 Radical structuralist paradigm

When the research study is conducted within this paradigm, the researcher will be concerned with a view to achieving fundamental change based upon an analysis of organisational processes such as structural power relationships and patterns of conflict (Saunders, Lewis & Thornhill, 2016:135). Basically, the researcher needs to be involved in understanding the structural pattern relation (such as hierarchies and reporting relationships) and the extent to which these yield structural domination and oppression. In addition, research studies utilising this paradigm are often underpinned by a critical realist philosophy.

3.2.5 Radical humanist paradigm

This paradigm's main concern is with the issues of power and politics characterised by domination and oppression within an organisation (Saunders, Lewis & Thornhill, 2016:135). In addition, this paradigm is located within the subjectivist and radical change dimension. According to Kelemen and Rumens (2008:124), the radical change dimension absorbs a critic's perspective on organisation life.

Based on the above five research paradigms, this study has adopted the interpretive paradigm as a suitable paradigm. The interpretive paradigm is regarded as the most suitable paradigm due to its ability to gain in-depth understanding through explorations, as recommended by Rahi (2017:1). This paradigm has therefore helped the researcher to explore procurement practices within the state-owned passenger rail agencies in the Gauteng province. As highlighted by Antwi and Hamza (2015:219), as interpretive paradigms collect data from experienced, potential participants, this study has collected data from procurement officials employed in the procurement functions within the state-owned passenger rail agencies in the Gauteng province.

3.3 RESEARCH DESIGN

A research design is defined by Zikmund (2010:66) as the master or general plan, which explains the methods and procedures for collecting and analysing the required information. In addition, it also provides a plan of action on how the research will be undertaken. Yin (2009:76) describes research design as a logical blueprint. In addition, a logical blueprint from a research design perspective comprises links among the research questions, data to be

collected and strategy for analysing the data in order to ensure that the study's findings address the intended research question. According to Saunders, Lewis and Thornhill (2012:171), the research design comprises the sources from which one intends to collect data, how it was collected and analysed, ethical issues as well as credibility and trustworthiness. When qualitative research is adopted, different parts of the research design can be ignored and even changed during the course of the study (Yin, 2009:76). As there is no fixed research design to be adopted in qualitative research studies, this study adopted the following research onion diagram.

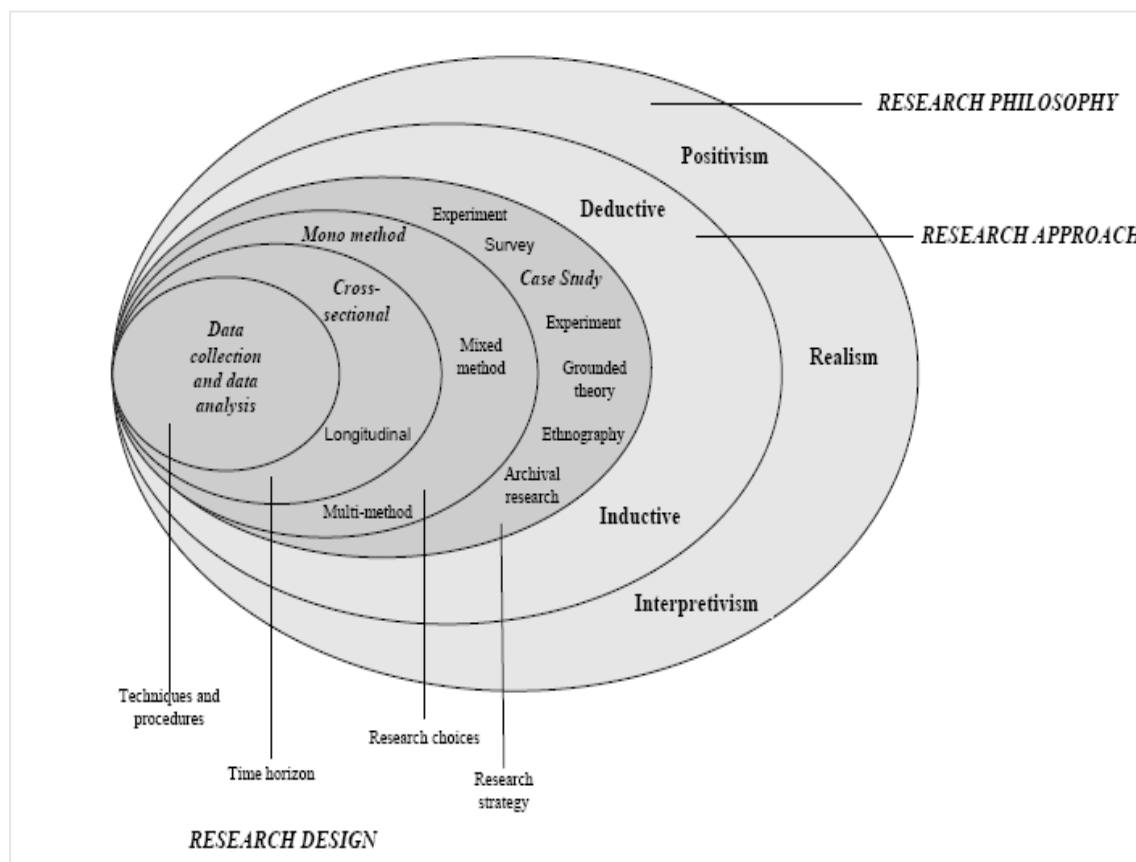


Figure 3.1: The research onion

Source: Saunders, Saunders, Lewis and Thornhill (2011:143)

There are three types of business research to be considered during the research design, namely: exploratory, descriptive, and causal or explanatory, as recommended by Zikmund *et al.* (2010:54). Therefore, this study adopted an exploratory research design. An exploratory study is defined by Saunders, Lewis and Thornhill (2012:171), as the valuable means of asking in-depth questions in order to discover what is happening and gain more insights about a topic of

interest. Therefore, an exploratory study has helped explore the procurement practices in the state-owned passenger rail agencies in the Gauteng province.

3.3.1 RESEARCH METHODOLOGICAL CHOICE

There are three types of research methodological choices, namely: quantitative, qualitative and mixed method research (Saunders, Lewis & Thornhill, 2016:165). The authors further elaborate that the two types are differentiated in terms of numerical data (such as numbers) and non-numerical data (such as words, video clips and images). According to Creswell (2013:19), qualitative research utilises more open-ended questions or approaches, whereas, quantitative research utilises more closed-ended questions or an approach in which the inquirer identifies set response categories (i.e. strongly disagree, disagree, moderately agree, agree and strongly agree). Wagner, Kawulich and Garner (2012:162) also support that qualitative research collects non-numerical data, whereas quantitative research collects numerical data. According to Saunders, Lewis and Thornhill (2016:169), a mixed method research study combines both qualitative and quantitative in a single research study. According to numerous authors, namely, Salkind (2016:173), and Welman, Kruger and Mitchell (2005:188), quantitative research can be more useful in hypothesis testing whereas qualitative research studies can be utilised successfully in the description of an organisation and small groups and segments within communities.

Qualitative research is appropriate for addressing research problems in which the researcher does not know the variables and needs to explore further (Creswell, 2013:16). In addition, the literature review might produce little information about the process or phenomenon of the study and the researcher needs to learn from participants through interviews and observation (i.e. exploration). In quantitative research, the researcher identifies a research problem based on market trends in order to explain why something occurs (Hoy & Adams, 2015:172).

Based on the aforementioned three research types, this study adopted a qualitative research approach. Qualitative research is appropriate for this study as its results are established based on the participants' responses that emerged from the research question about procurement practices in the state-owned passenger rail agencies in the Gauteng province. In addition, utilising qualitative research also helped discover new insights into the implementation of procurement practices within the state-owned passenger rail agencies in the Gauteng province. In order to increase the understanding of qualitative research, this study has unpacked detailed descriptions or meanings of qualitative research, types of qualitative research strategies and the

benefits as well as drawbacks which should be considered when conducting qualitative research.

3.3.1.1 Qualitative research

Etikan, Musa and Alkassim (2016:4) describe qualitative research as research that begins with assumptions, a worldview, the possible use of a theoretical lens and the study of research problems inquiring into the meaning individuals or groups ascribe to a social or human problem. This definition stresses the importance of assumptions and worldviews that provide the basis of the design. Davies (2011:279) refers to this type of research as ‘naturalistic inquiry’, which implies that participant observational techniques result in a more natural approach than do those tests and surveys used in the more traditional quantitative approaches. Creswell and Poth (2017:54) suggest that qualitative research offers opportunities for conducting exploratory and descriptive research that uses the context and setting to search for a deeper understanding of the person(s) being studied. Qualitative research is a way of knowing that assumes that the researcher gathers, organises and interprets information (usually in words or in pictures) using his or her eyes and ears as filters. It is a way of doing that often involves in-depth interviews and/or observations of humans in natural and social settings (Choy, 2014:99). Basically, qualitative researchers are interested in understanding the meaning people have constructed, that is, how people make sense of their world and the experiences they have in the world (Crescentini & Mainardi, 2009:1).

Another strategy to understand the complexity of qualitative research is to determine its fundamental characteristics. As with many of the concepts in education, different writers have emphasised different characteristics, although there is some overlap. According to Merriam and Tisdell (2015:465), the following four characteristics are identified by most as the key to understanding qualitative research: (1) the focus is on process, understanding and meaning; (2) the researcher is the primary instrument of data collection and analysis; (3) the process is inductive; and (4) the product is richly descriptive. A distinguishing characteristic of qualitative research is that behaviour is studied as it occurs naturally. There is no manipulation or control of the behaviour, nor are there any externally imposed constraints (McMillan & Schumacher, 2011:123). As qualitative researchers are interested in how people interpret their experiences, construct their worlds, and attribute meaning to their experiences, an understanding of the situational context is very important.

Qualitative researchers, therefore, need to have context sensitivity, as any explanation of behaviour that does not take into consideration the context is assumed to be incomplete (Creswell & Poth, 2017:54). In qualitative research, the researchers themselves are the primary instruments of data collection and analysis. Qualitative researchers spend a large amount of their time engaging with the participants and documents, thus enabling them to be immediately responsive and adaptive. However, the human instrument has shortcomings and biases that might have an impact on the study (Saunders, Lewis & Thornhill, 2016:203). The qualitative research process is inductive. Researchers gather data to build concepts, hypotheses or theories, rather than deductively testing hypotheses as in positivist research (Salkind, 2016:173; Merriam & Tisdell, 2015:34). Theory is developed from the bottom up, from detailed particulars, rather than in a top down manner. This approach is important, because qualitative researchers want to be open to new ways of understanding (Hoy & Adams, 2015:34). Lastly, the product of a qualitative study is richly descriptive. The descriptions are generated in the form of words or pictures rather than numbers. The descriptions capture what has been observed in the same form in which they occurred naturally in a particular context. In addition, the qualitative researcher may use data in the form of quotes from documents and interviews in support of the findings of the study (Jamshed, 2014:87).

3.3.1.2 Types of qualitative research strategies

The diversity of forms of qualitative research strategies have been organised in various ways. Kothari (2013:186) presents five strategies, namely: narrative research, phenomenology, grounded theory, ethnography, as well as the case study. Maher, Markey and Ebert-May (2013:345) present an extensive summary of ten approaches: ethnography, grounded theory, phenomenology, the case study, feminist theory, generic approach, narrative analysis, postmodernism, post-postmodernism, and mixed methods. Saunders, Lewis and Thornhill (2016:178) present six qualitative research strategies, namely: case study, archival and documentation research, ethnography, action research, grounded theory, as well as narrative inquiry. These strategies have some similarities although they each have a different focus, sample selection, data collection, analysis and write up (Martin & Bridgmon, 2012:211). Finally, the chosen qualitative research strategy for this study is briefly discussed in section 3.3.2 of this chapter.

3.3.1.3 Benefits of qualitative research method

Qualitative research has several benefits identified by Wagner, Kawulich and Garner (2012:125). These strengths are briefly described as follows: (1) The first strength of

qualitative research is the richness and depth of exploration and description of data, when the skills and knowledge of the researcher become the instruments through which the data are collected and analysed as well as interpreted; (2) exploration of phenomena and or systems that are best understood through interacting with targeted participants or those involved in the process; and (3) describing the lived experience of participants in a certain situation.

Maxwell (2013:79) advocates that qualitative research works with the universe of meanings, motives, aspirations, beliefs, values and attitudes, which correspond to a deeper space of relationships, processes and phenomena that cannot be reduced to the operationalisation of variables. A qualitative research approach produces the detailed description of participants' feelings, opinions, and experiences; and interprets the meanings of their actions (Denzin & Lincoln, 2011:453). In terms of language testing, for example, Bachman (2000:71) showed in his study that qualitative research results provide the relationship of information processing specifically with performance. Chalhoub-Deville and Deville (2008:18) also argue that qualitative approaches are employed to achieve deeper insights into issues related to designing, administering, and interpreting language assessment. There are some who argue that the qualitative research approach (interpretivism) holistically understands the human experience in specific settings (Saunders, Lewis & Thornhill, 2016:134). Denzin and Lincoln (2011:111), for example, mention that qualitative research is an interdisciplinary field which encompasses a wider range of epistemological viewpoints, research methods, and interpretive techniques of understanding human experiences. From the epistemological perspective, any language assessment cannot be set apart from context, culture and values of where it was used (McNamara, 2011:45); and language assessment researchers began to employ a qualitative research methodology to focus on issues that need an analysis of content-related variables, such as the influence of test-takers' characteristics on test performance, the strategies used to respond to assessment tasks, and so on (Tsushima, 2015:651).

Interpretivism research is regarded as an ideographic research, the study of individual cases or events (Kelin & Myers, 1999:89); and it has abilities to understand different people's voices, meanings and events. The source of knowledge in this approach is the meaning of different events (Richardson, 2012:85). Qualitative research allows the researchers to discover the participants' inner experience, and to figure out how meanings are shaped through culture (Corbin & Strauss, 2008:69). For instance, in assessing written assignments as satisfactory, good, or 60 marks out of 100 made by the assessors, an investigation might be made to understand the meaning of satisfactory or good or to elicit the features of content or text

displayed in students' scripts (Leung, 2012:89). Studies using a qualitative approach can so help us understand the markers' working assumption about what is to be assessed, and the meaning of the score or grade.

3.3.1.4 Drawbacks of qualitative research method

When the qualitative research method is utilised, information gathered by means of primary or secondary sources is subjected to internal and external criticism (Queiros, Faria & Almeida, 2017:369). In addition, internal criticism deals with the credibility of the contents of the source, whereas, external criticism relates to the authenticity of a source. Therefore, both internal and external criticism described by numerous authors (Welman, Kruger & Mitchell, 2005:188; Queiros, Faria & Almeida, 2017:385) are summarised as follows:

- The author or the researcher may be biased, which may result in inaccurate reporting.
- The originality of the data can be questionable or there was cheating in data collection.
- The eyewitness or targeted participants may lack the educational level to respond or portray the situation accurately.
- Hard to generalise the research findings from a small number of case studies.
- Difficult to establish cause-effect connection or causal relationship.
- Collection of data is time consuming and involves high cost.

3.3.2 RESEARCH STRATEGY

Qualitative research is associated with research strategies such as case study, narrative and ethnography (Wagner, Kawulich & Garner, 2012:126; Saunders, Lewis & Thornhill, 2012:163) whereas quantitative research is associated with research strategies such as experiment and survey. A mixed method research which combines both qualitative and quantitative is associated with research strategies such as mixed methods and action research (Wilson 2014:28). The appropriate research strategy utilised therefore in this study is a case study. According to Saunders, Lewis and Thornhill (2012:179), a case study has the ability to answer research questions about the event or situation being studied. According to Van Zyl (2018:217), a case study is directed at understanding the uniqueness and idiosyncrasy of a particular case in all its complexity. They further indicate that the objective of a case study is usually to investigate the dynamics of social nature and practice such as a family, community and organisation/s. A case study was an appropriate strategy for this study because it helped answer research questions aligned with the research problems identified in the state-owned

passenger rail agencies in the Gauteng province and in public procurement at large in South Africa.

3.3.2.1 Case study

A case study refers to the study of the singular, the particular, the unique (Maxwell, 2013:587). In the literature on the case study type, different authors (Saunders, Lewis & Thornhill, 2016:185; Van Zyl, 2018:217) refer to a case study as a method, strategy and approach. For the purposes of this research, the study used Merriam and Tisdell's (2015:78) preference for the term's definition. They indicate that the case study has a research intent and methodological purpose which affects which methods are chosen to gather data. The primary purpose for choosing a case study is to explore the particularity of a single case, in this instance, procurement practices within state-owned passenger rail agencies in the Gauteng province. Salkind (2016:175) defines a case study broadly as the method utilised to study an organisation or individual in a unique situation in as an intense and as detailed a manner as possible. Oppong's (2013:202) definition will form the basis for this study, namely, a case study is an in-depth description and analysis of a bounded system. Part of the confusion surrounding case studies is that the process of conducting a case study is conflated with both the unit of the study (the case) and the product of this type of study (Ponelis, 2015:17). The aim of using a case study approach is to gain a rich, detailed understanding of the case by examining aspects of it in detail. This is in line with the aims of this study, which was to provide an in-depth understanding or to explore procurement practices within the state-owned passenger rail agencies in the Gauteng province. The single most defining characteristic of case study research lies in delimiting the object of the study, the case (Smith, 2015:2). According to Mouton (2015:149), case studies characterised by research questions are exploratory or descriptive in nature. In addition, in application, it involves case studies of organisations for business studies and for social work research, it involves small communities, families and households. A case study is an in-depth exploration of a bounded system. Being bounded means being unique, according to place and time and participant characteristics (McMillan & Schumacher, 2011:113). In this study, the researcher uses the term to refer to a qualitative case study.

3.3.2.2 Strengths and limitations of case study design

According to Salkind (2016:175), the following four strengths of a case study design are identified: (1) it encourages the utilisation of several different techniques in order to gather the necessary information, ranging from researcher observations to interviews of others who might

know the focus of the research; (2) it helps gather richer data on what is occurring or an event more than any other research strategy; (3) the case study suggests direction for further study which helps the organisation or individuals being studied to consider researching the area that needs to be researched and identified by the research study rather than by testing hypotheses; and (4) it focuses on one thing (individual, organisation or industry), which allows a very close evaluation and scrutiny as well as the collection of a great deal of detailed data.

In addition to strengths or benefits of case study design described above, numerous authors supported the benefits mentioned, and provided additional benefits. According to Mori and Nakayama (2013:7), a case study offers a means of investigating complex social units consisting of multiple variables of potential importance in understanding the phenomenon. The main benefit of using a case study approach is that the focus on one or a few instances allows the researcher to deal with the subtleties and intricacies of complex social situations (Moriarty 2011:86). This results in a rich and holistic account of a phenomenon. According to Mouton (2015:150), a case study provides high construct validity and in-depth insights as well as establishing a rapport with research participants or subjects. Lastly, a case study is flexible. It is neither time dependant nor constrained by method. It is responsive to shifts in focus and unanticipated consequences (Merriam & Tisdell, 2015:65).

According to Salkind (2016:176), the following five drawbacks or limitations of a case study design are identified: (1) what the people see is not always what the researcher will get, meaning, the case study might look to be simple to do, but only to find that it is difficult and time consuming for the researcher; (2) the notes that the researcher records during interviews may accurately reflect only one reality, which means that other realities are ignored; (3) it does not allow the researcher to establish any casual relationships between variables; (4) the generalisation of a case study is limited within the targeted population (Mouton, 2015:150); and (5) although a case study provides depth, it loses in breadth.

Further limitations involve the issues of reliability and validity as well as generalisation. Case studies are often perceived as producing 'soft' data and lacking the degree of rigour expected of social science research (Ponelis, 2015:535). Also, access to documents, people and settings can lead to ethical considerations such as confidentiality. Lastly, it is difficult for case study researchers to achieve their aim of investigating situations as they naturally occur without any effect arising from their presence. Observer effects need to be considered during data collection and analysis (Saunders, Lewis & Thornhill, 2016:364).

3.3.3 TIME FRAME

Time horizon has been described by Saunders, Lewis and Thornhill (2012:190) as one of the critical elements to be considered during research project design. In addition, they further indicate that whether the study must be cross-sectional or longitudinal, should be determined by the research questions of the study. Cross-functional studies seek to describe the incidence of processes or to explain how factors are related in different organisations (Salkind, 2016:200; Saunders, Lewis & Thornhill, 2016:200). They further allude that it is suitable for research strategies such as a case study (i.e. interviews conducted over a short period of time), whereas longitudinal studies are suitable for studies which contribute to change and development within organisations, communities and other related structures (Salkind, 2016:199; Saunders, Lewis & Thornhill, 2016:190-191; Welman, Kruger & Mitchell, 2005:95). This design will require the researcher to collect the data at different time intervals in order to establish the changes and development over the topic being investigated. This study has adopted cross-sectional studies because the interviews were collected over a short period of time due to the pressure to complete them within the standard duration.

3.3.4 POPULATION OF THE STUDY

Population is described by Salkind (2016:85) as the group of potential participants to whom the researcher wants to generalise the findings of the research study. Zikmund *et al.* (2010:390) define population as every person living in a particular area or group of people belonging to particular organisations such as companies, trade unions, communities and many more that possess the attributes required or are of interest to the researcher. Saunders, Lewis and Thornhill (2016:174) simply describe population as a full set of elements or cases from which a sample is taken. In the Gauteng province and in South Africa at large, there are two state-owned passenger rail agencies, namely, PRASA and GMA. Therefore, the targeted population in this study is composed of the procurement function with general staff (such as buyers, senior buyers and procurement specialists) and management (such as sourcing manager, contract manager, SCM manager and senior finance manager) within the aforementioned state-owned passenger rail agencies in Gauteng.

3.3.5 SAMPLING TECHNIQUE

There are two types of sampling in research, namely, probability and non-probability sampling identified by a number of authors (Van Zyl, 2018:96; Saunders, Lewis & Thornhill, 2016:175; Rasinger, 2013:11; Wagner, Kawulich & Garner, 2012:89). In addition, probability sampling

comprises simple random samples and stratified random samples as well as cluster samples, whereas non-probability samples comprise accidental or incidental samples, quota samples, purposive samples, snowball samples and self-selection samples as well as convenience samples. Purposive sampling under the non-probability sampling technique was adopted as the most suitable technique for this study. In addition, purposive sampling has helped the researcher select targeted participants who are experienced and possess required knowledge about the implementation of procurement practices within the state-owned passenger rail agencies in the Gauteng province. Therefore, the procurement function's general officials (buyers, senior buyers and procurement specialists) and management (sourcing manager, contract manager, SCM manager and senior finance manager) were identified to partake in this study.

3.3.6 SAMPLE SIZE

In qualitative research there are no rules concerning the most appropriate sample sizes, unlike in quantitative research because qualitative research focuses on deep and rich research data collected over time and in context (Saunders, Lewis & Thornhill, 2012:283). Although there are no rules concerning the appropriate sample sizes for qualitative research, Manias and McNamara (2015:235) stipulate that a minimum of five to twenty-five is regarded as a suitable sample size for non-probability sampling when semi-structured interviews are utilised. In recapturing the total population of this study, the procurement general staff and management in the state-owned passenger rail agencies in the Gauteng province was fifty-three (53) as stipulated in section 1.7.6 (Chapter One). Based on the abovementioned total population, this study interviewed twenty-three percent (twelve participants), which is acceptable for a qualitative research study as they are above the minimum of five participants as recommended by Manias and McNamara (2015:235) as well as five per cent as recommended by Saunders (2012:65).

3.3.7 DATA COLLECTION METHODS

In this study, both primary and secondary data sources were used to establish a range to which the state-owned passenger rail agencies have progressed with the adoption of procurement practices as stipulated by the National Treasury of South Africa. Semi-structured questions were utilised to collect primary data through face to face interviews at the premises of those state-owned passenger rail agencies. In addition, all interviews were recorded utilising a digital voice recorder and each interview took approximately 30 to 60 minutes. During the interviews,

the researcher took notes to record any events that would not be captured by audio recording as recommended by Saunders, Lewis and Thornhill (2016:411). Before the interviews began, permission to record and share the recording with the trained professional (data analyst) was obtained from all the participants as recommended by Yin (2011:155). According to Saunders, Lewis and Thornhill (2012:374), a semi-structured interview allows the researcher to have a list of themes and key questions to be covered and allows additional questions (sub-questions) as well as follow-up questions to get more insight into the topic. In this study, semi-structured interviews helped to explore the study research questions and objectives to determine procurement practices within the state-owned passenger rail agencies in the Gauteng province. In addition, the interview guide that was developed has covered the following four aspects that are regarded as being critical to procurement in the state-owned passenger rail agencies, namely:

- the value and contribution of procurement;
- implementation of procurement processes;
- implementation of supply management within multiple stages of the procurement process; and
- procurement challenges encountered by procurement officials.

The secondary data used in this study comprises an extensive literature review of those state-owned passenger rail agencies' procurement policies and procedures, public policies and procedures, books, public reports such as the AGSA's and Public Protector's reports as well as articles. Both primary and secondary sources of collecting data as stipulated above for this study are tabulated in the summary in Table 3.1.

Table 3.1: Summarised data collection sources

Primary sources	Secondary sources
Face to face semi-structured interviews	Academic literature such as textbooks, articles, journals, conference proceedings, theses and dissertations
Observations and notes taken during the interviews	Government documents such as public procurement acts, policies and regulations
State-owned passenger rail agencies	State-owned passenger rail agencies website

policies	
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Source: Researcher's own compilation (2018)

3.3.8 DATA ANALYSIS

Qualitative content analysis has been defined by Tsushima (2015:105) as the study of recorded human communications, and it has been defined by Saunders, Lewis and Thornhill (2016:608) as an analytical technique that is utilised in a qualitative study to code and categorise qualitative data, which also allows the researcher to analyse data quantitatively within the qualitative research study. In addition, qualitative content analysis allows the researcher to analyse content from a variety of sources, namely: documents (such as agendas, minutes of the meetings, emails and many more), newspapers, television, radio, digital recordings as well as recordings (applicable in this study). In addition, the term content describes words, meanings, pictures and symbols as well as a theme or any message that can be communicated. Therefore, since this study collected data through face to face recorded interviews, qualitative content analysis becomes the best suitable tool or approach because it comprises searching-out of underlying themes in the data being analysed. The basic technique of content analysis involves counting the frequencies and sequencing of particular concepts, words or phrases in order to identify themes and keywords (Welman, Kruger & Mitchell, 2005:221). In this study, data recorded on the digital instrument and notes taken during interviews were submitted to a trained professional to help translate the voice format into text format, as recommended by Saunders, Lewis and Thornhill (2016:572). After the recorded data was translated to text, the researcher presented the qualitative data utilising his own words, as recommended by Saunders, Lewis and Thornhill (2012:563). Using the researcher's words rather than quoting the participants' words was regarded as appropriate for this study as it helped maintain confidentiality and anonymity by presenting findings that are not attributed to any of the participants, as stipulated in section 1.9 (Chapter One). The data collected was analysed using the qualitative content analysis approach of Yin (2011:178).

The second step indicates that if the researcher wishes to analyse the data of a case study by means of qualitative content analysis, then the participants should be defined. Therefore, the universe of the participants was defined through demographic information during presentation of these findings in Chapter Four of this study. According to Saunders, Lewis and Thornhill (2016:611), a qualitative content analysis follows a step-by-step or sequential process during

analysis. Therefore, the step-by-step qualitative content analysis approach of Yin (2011:1789) was adopted in this study and is described as follows:

- The first step requires clear definition of the processes to be analysed. Therefore, the research problems investigated within the state-owned passenger rail agencies in the Gauteng province were clearly stated.
- The second stage involves compiling and sorting of data collected. Thereafter the data were deciphered and compiled into smaller subsets.
- The third stage includes using substantive themes to rearrange the disassembled pieces into different groupings and sequences.
- The fourth stage includes rearrangement and re-combinations which was facilitated by depicting the data graphically and through tabulation forms.
- The fifth stage requires interpretation of data.
- The last stage involves drawing conclusions and recommendations from the theme that relates and communicates with all first stages.

3.4 MEASURES OF TRUSTWORTHINESS

Qualitative research is associated with accurate measurement and tends to utilise the terms of credibility and trustworthiness rather than reliability and validity (Wagner, Kawulich & Garner, 2012:137). In this study, trustworthiness is described in the following four ways, namely: credibility, conformability, dependability, and transferability.

3.4.1 Credibility

Credibility is concerned with reliable people who record data during the interview and those who translate recorded data (Manias & McNamara, 2015:235; Wagner, Kawulich & Garner, 2012:147). To ensure credibility in this study, the researcher recorded full interviews and submitted them to a trained professional to help analyse the data collected. In addition, participants were selected using a purposive approach under non-probability sampling, which helped ensure that only state-owned passenger rail agencies procurement function officials were selected to participate as per the study objectives.

According to Saunders, Lewis and Thornhill (2016:400), in-depth and semi-structured interviews can help achieve a high level of credibility if conducted carefully using clarifying questions, probing meanings and by exploring the participant's responses from a variety of angles. Therefore, since this study adopted semi-structured interviews, a high level of

credibility was achieved by asking follow-up questions to state-owned passenger rail agencies procurement officials in order to help determine exactly how the procurement function conducts their procurement practices in the Gauteng Province.

3.4.2 Conformability

Confirmability is defined by Wagner, Kawulich and Garner (2012:243) as the way of ensuring that the research findings are grounded in the data and determines the degree of biases present to demonstrate that the data and findings were derived from events rather than being the researcher's assumptions. In this study, after completing the data collection, the researcher sent the transcripts to all participants who participated via email to assure and confirm the trustworthiness of this study as recommended by Rasinger (2013:55). Confirmability was also achieved by storing the recordings and noting them in a folder that required a pin number on the computer as well as storing in Dropbox to be available for auditing within the first five years, from the day of this study's completion.

3.4.3 Transferability

Transferability in research contexts has been simply defined by Wagner, Kawulich and Garner (2012:243) as the basis for making similarity judgements. In this study, transferability was achieved through noting the specific details of the research project methods and situation. Thereafter, they were compared to similar events occurring or which had occurred in the other provinces outside Gauteng (such as Kwa-Zulu Natal, the Western Cape and Eastern Cape) within the state-owned passenger rail agencies, as recommended by Lee and Lings (2008:156). In this study, since one agency implemented their procurement practices better than the others, the results can only be transferable within the same agency within Gauteng.

3.4.4 Dependability

In this study, dependability was achieved through triangulation. Triangulation has been defined in Section 1.8 (Chapter one) by Yin (2011:313) as an analytical technique utilised during data collection and data analysis to confirm findings with evidence from more than one source. Triangulation was obtained by utilising data collected from semi-structured interviews with participants from the only two state-owned passenger rail agencies in Gauteng and in South Africa at large, namely, GMA and PRASA. Although this study has explained how dependability was achieved, Saunders, Lewis and Thornhill (2016:239) describe varying views, by stipulating that dependability of findings established from semi-structured interviews the

research findings are not necessarily intended to be replicated since they reflect reality at the time they were collected, and the situation might change or might not be the same when collected for the second time.

3.5 ETHICAL CONSIDERATIONS

Ethical considerations are important to any research study, especially when they involve organisations (both public and private sector) and individuals as employees or in their personal capacity. In recapturing the meaning of the term ethics, Saunders, Lewis and Thornhill (2016:239) define it as the common practice that provides guidance to the research with regard to or in connection with the rights of those who are affected by the researcher's work. In this study, the following ethical issues adopted from a number of authors (Saunders, Lewis & Thornhill, 2012:231; Wagner, Kawulich & Garner, 2012:66) were considered, namely: gatekeeping, informed consent, anonymity and confidentiality, preventing harm, reciprocity, power and social justice.

3.5.1 Gatekeeping

Wagner, Kawulich and Garner (2012:64) define gatekeepers as people who have rights to give permission to the researcher to conduct a research study within an organisation or community. These people are normally part of the organisation and community leadership as well as elected leaders. Therefore, permission to gain access to both state-owned passenger rail agencies was granted by management who both assigned an employee responsible for supervision, or monitoring that the researcher act as per the signed ethical commitment. In addition, the assigned supervisor was responsible for making sure that any challenges that the researcher encountered were resolved immediately.

After both state-owned-passenger rail agencies granted the researcher permission to conduct research within their procurement function, an email together with a consent form was sent to all targeted participants or procurement officials (both junior and management) to request them to participate voluntarily. Permission to record the interviews and to share the recorded data with a trained professional was also sought from all participants.

3.5.2 Informed consent

As mentioned, the consent form was sent with an invitation letter via email. Before data was collected, the volunteer participants were given informed consent forms to sign, which

included and/or interpreted all terms and conditions of participating in this study. The informed consent consisted of the following: purpose of the study, the researcher's brief introduction, duration of the study, procedures, any potential risks or benefits to the participants, how recording would be handled, stored or maintained, an explanation of confidentiality and anonymity, how the participants or the state-owned passenger rail agencies would get a copy of results, contact information to enable participants to ask any important questions; and a statement that participation is voluntary and that refusal to participate would not incur a penalty, as recommended by numerous authors (Salkind, 2016:79; Wagner, Kawulich & Garner, 2012:66).

3.5.3 Anonymity and confidentiality

Anonymity in research is associated with records not linked with participant's names (Salkind, 2016:86). Elsewhere, confidentiality is associated with maintaining what has been learned about research participants in the strictest confidence. According to Van Zyl (2018:86), anonymity from a research perspective means that no other person should be able to match the results presented with the particular participants besides the researcher in qualitative research, meaning others would not be able to match them. They further allude that any documents such as consent forms with participants' names are kept under lock and key to ensure that maintenance of privacy is maintained. In this study, during data collection and analysis, participants' responses were without their particulars and organisations' names to ensure anonymity and confidentiality of the participants as well as the organisation, as recommended by Saunders, Lewis and Thornhill (2012:231). Therefore, both participants and the organisation were given unique numbers to be used instead of their names.

3.5.4 No harm to participants

In research, participants or respondents must be prevented from incurring any physical or psychological harm which may be due to participating in a research study, as recommended by numerous authors (Van Zyl, 2018:85; Saunders, Lewis & Thornhill, 2012:231). They further allude that should there be a sign of harm identified during evaluation of risk and benefits of the research study at the gateway or request for permission, then such a study should not be approved. According to Saunders, Lewis and Thornhill (2012:231), any harm to participants or respondents that can occur due to a research study may cause stress, embarrassment, discomfort and pain as well as conflict. In this study, therefore, any harm to participants was avoided throughout by presenting data that was not attributed to any participant.

3.5.5 Reciprocity

Reciprocity in research is described by Wagner, Kawulich and Garner (2012:66) as a transactional exchange in which the researcher gives something back to one or more participants who participated during data collection. Therefore, the researcher did not enter into any transactional exchange agreement such as giving gifts (monetary value and non-monetary value) or promising to share research results with any participant in order to influence them to participate.

3.5.6 Power and social justice

Modern research has included power and social justice as one of the ethical issues considered in the research process, shared between the participants and researcher (Wagner, Kawulich & Garner, 2012:67). Therefore, the participants were not selected because they are of different social class, minority group or mentally incapable of refusing to participate. Furthermore, as recommended by Wagner, Kawulich and Garner (2012:68), each decision made during the recruitment of participants to participate as well as the development of research questions adopted from past studies and interpretation of research results were scrutinised carefully to avoid injustice and misrepresentation of power.

3.6 CONCLUSION

The research design and methodology employed in this study was presented in this chapter. The design and methodologies employed consisted of the research paradigms or research philosophy, research approach, methodological choice, techniques and procedures and research time horizon as well as research ethics.

Numerous research paradigms were discussed, namely: functionalist paradigm, radical structure, radical humanist paradigm and interpretive as well as positivist paradigms. The interpretive paradigm was regarded as the best, most suitable paradigm due to its ability to gain in-depth understanding about procurement practices within the state-owned passenger rail agencies in the Gauteng province. After presenting the research paradigms, the research design followed, namely, the research methodological choice adopted is qualitative research involving a case study research strategy. Data collected from experienced procurement officials adopting purposive sampling under non-probability sampling were analysed, utilising qualitative content analysis. Data analysed through qualitative content analysis was collected from twelve

procurement officials employed within the procurement functions of the state-owned passenger rail agencies in the Gauteng province.

The research design and methodologies demonstrated how the research project was carried out in order to produce a completed project. Furthermore, measures to ensure credibility and trustworthiness as well as ethical considerations were presented. Trustworthiness, credibility, conformability and dependability as well as transferability were discussed, Gatekeeping, informed consent, anonymity and confidentiality, preventing harm, reciprocity, power and social justice were discussed under ethical considerations. The next chapter presents an analysis and interpretation of the data collected through semi-structured interview questions about procurement practices in the state-owned passenger rail agencies in Gauteng.

CHAPTER 4

ANALYSIS AND INTERPRETATIONS OF THE FINDINGS

4.1 INTRODUCTION

The previous chapter presents literature related to the research methodology used in this study, which includes the design, methods employed, and data techniques utilised in capturing responses from participants. This chapter aims to present the data collected from semi-structured interview questions as stipulated in the previous chapters to interpret and analyse the results. The semi-structured interview questions are divided into two sections, namely, Section A and B. Section A represents the general demographic information of the participants while Section B represents six questions utilised to gather answers to the main research questions and objectives of the study.

The results of the study were analysed and interpreted in word format and not attributed to any participant, as recommended by Saunders, Lewis and Thornhill (2012:231). The results are summarised and interpreted in the form of tables, bar and pie charts, and figures. The analysis established that figures were only used on the demographical information. In addition, statistical measures were also adopted to help analyse the demographic information of the participants although the study is qualitative.

As mentioned in the previous chapter, the empirical study involved the collection of primary data through face-to-face interviews. The data collected through interviews was conducted from May 2018 through June 2018 as per scheduled interview (Appendix A). Before the interviews began, participants were briefed about their roles and the purpose of the study was defined. In addition, all respondents also signed consent forms as per requirements of the study (Appendix B).

4.2 DEMOGRAPHIC INFORMATION OF THE PARTICIPANTS

This section outlines the demographic information of the participants established from Section A of the interview questions. To ensure the anonymity of the participants, each participant and the agency were allocated a number, which was used during data collection and analysis. The demographic information of this study is summarised in Table 4.1, as provided by the participants for Section A of the interview guide.

Table 4.1: Summarised demographic information

The state-owned passenger rail agencies number	Participants number	Age	Position	Gender	Ethnicity	Highest qualification completed	Years working in procurement
1	1	34	Junior procurement official	Female	black	Diploma	7
1	2	41	Junior procurement official	Male	black	B-Tech	7
1	3	57	Junior procurement official	Male	black	Matric	16
1	4	48	Junior procurement official	Female	black	Diploma	7
1	5	32	Management	Female	black	B-Tech and CIPS	8
1	6	39	Management	Male	black	Diploma, degree in leadership and CIPS	18
1	7	30	Junior procurement official	Female	black	B.Com	3
1	8	40	Junior procurement official	Female	white	B-Tech	15
1	9	29	Management	Male	black	B-Tech	6
1	10	39	Management	Male	black	B.Com	10
1	11	29	Junior procurement official	Female	black	B.Com (Accounting) and enrolling for CIPS	6
2	12	33	Junior procurement official	Male	black	B.Com (SCM) and enrolling for CIPS	8

4.2.1 Agencies' distributions

This section represents the demographical profile of different state-owned passenger rail agencies based in the Gauteng province. In this section, participants were asked to reveal their

employer. In addition, in ensuring that confidentiality is maintained as stipulated in Section 3.5.3 of Chapter Three of this study, participants' employers were described as agencies one and two. The results regarding the agencies' distribution of participants are depicted as follows in Figure 4.1 and interpreted below.

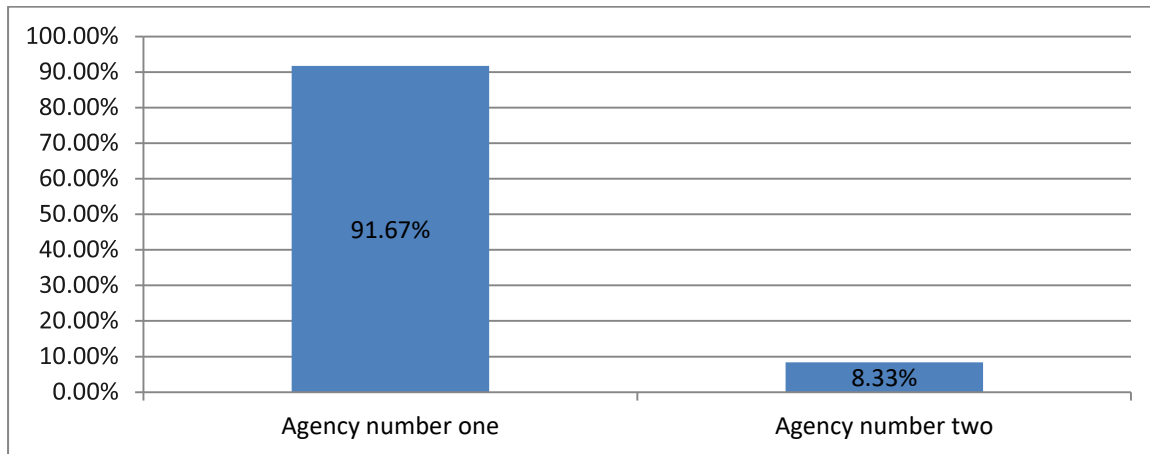


Figure 4.1: Agencies' distributions

This study explored procurement practices in the state-owned passenger rail agencies, namely, agency number one and agency number two in Gauteng. Based on Figure 4.1, it is evident that agency number one participants had the highest representation with 91.67% and agency number two were much lower with an 8.33% representation. Although agency number two's participants were significantly lower, based on their total procurement team, the 8.33% that participated amounted to 33.33% of the agency's total population within their procurement function whereas only 22% of agency number one's total population within their procurement function participated despite having the majority of participants. This figure confirms that agency number one is in exclusive control of a large market share of passenger rail services in South Africa as stipulated in the National rail green paper (RSA, 2015:30), while agency number two operates on a small scale in the Gauteng province only (GMA, 2017:27).

4.2.2 Age distribution of participants

This section represents the age categories of the respondents who participated in this study. The participants were asked to reveal their age in order to establish the age group classification in this study. The results regarding the age classification of participants are depicted as follows in Figure 4.2 and interpreted below.

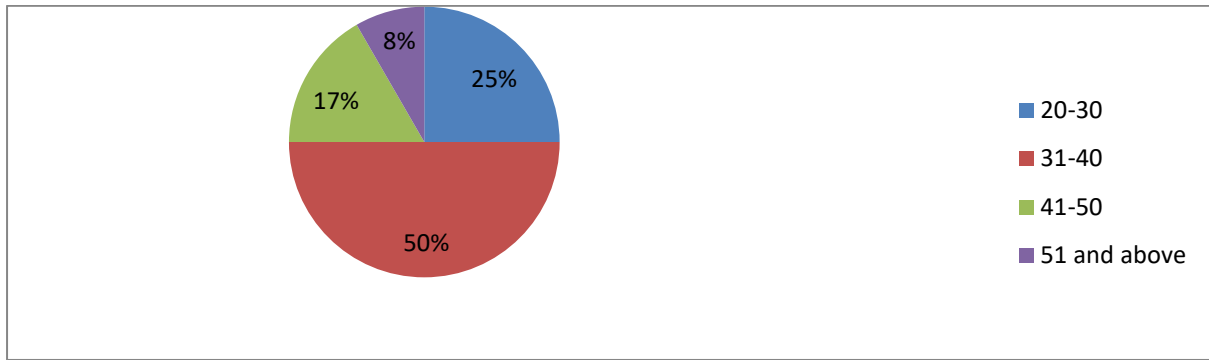


Figure 4.2: Age group distribution

Figure 4.2 represents the age categories of the participants. It shows the age distribution, which ranged from 29 to 57 years. The results indicate that participants between the ages of 29 to 30 represented 25% of the population while participants between the ages of 31 to 40 were the highest representation with 50%. In addition, participants between the ages of 41 to 50 were represented by 17% of the population. Only 8% of the participants were older than the age of 51. Given the dominance of participants within the age group of below 40, these findings can validate and support that the majority of the participants are fledgling and still at a lower level and middle level of management.

4.2.3 Gender distribution

This section of demographical information represents the gender distribution of respondents in this study. In this section, the participants were asked to reveal their gender. The results regarding the gender distribution of participants are depicted as follows in Figure 4.3 and interpreted below.

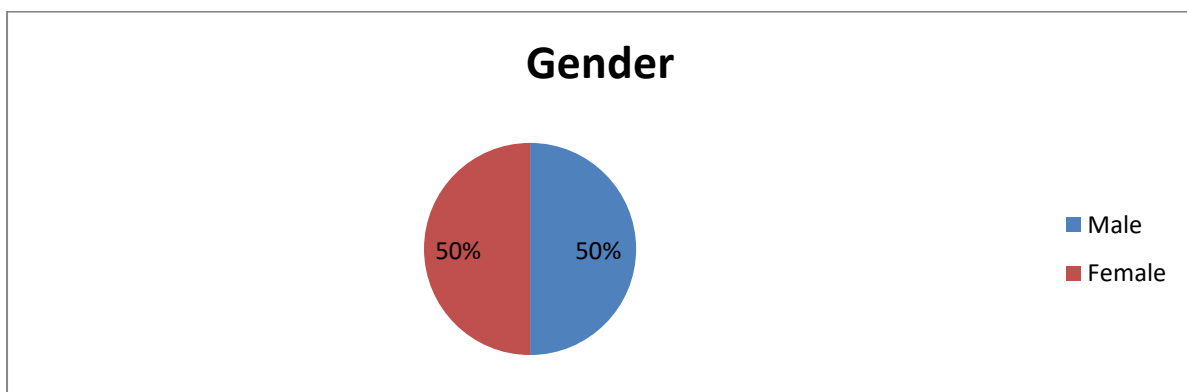


Figure 4.3: Gender

The gender distribution of this study indicates that out of twelve participants, 50% (n=6) were male and the remaining 50% (n=6) were female. These results are confirmatory of the previous

study by the SAHRC (2017:24), which stipulates that most organisations have implemented the principle of gender equality in the workplace. Therefore, this study presents equality, shown statistically, by providing these percentages (see Figure 4.3).

4.2.4 Ethnicity distribution

This section of demographical information represents the ethnicity distribution of respondents in this study. In this section, the participants were asked to reveal their ethnicity. The ethnicity profile of the participants consists of blacks and whites. In addition, no Indian and Coloured candidates were represented in this study as per Figure 4.4.

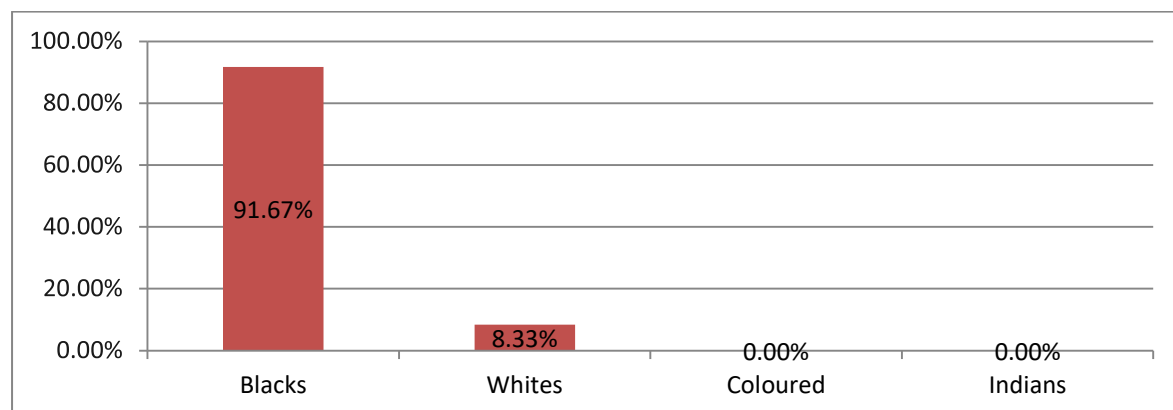


Figure 4.4: Ethnicity distribution

Based on the evidence from Figure 4.4, blacks were the most highly represented at 91.67% and white respondents were much fewer with an 8.33% representation. This study also invited possible candidates from the Coloured and Indian population group working as procurement officials within the state-owned agencies, but they never responded to the invitation. Given the above results, 91.67% is representative of the current population in South Africa, which stipulates that blacks are in the majority and whites the minority, therefore in most cases blacks will dominate.

4.2.5 Qualifications of the participants

This section of this study presents the qualifications of the participants. The participants were asked to reveal their academic qualifications related to their positions and the procurement function at large. The results regarding the qualifications of the participants are depicted in Figure 4.5 and interpreted below.

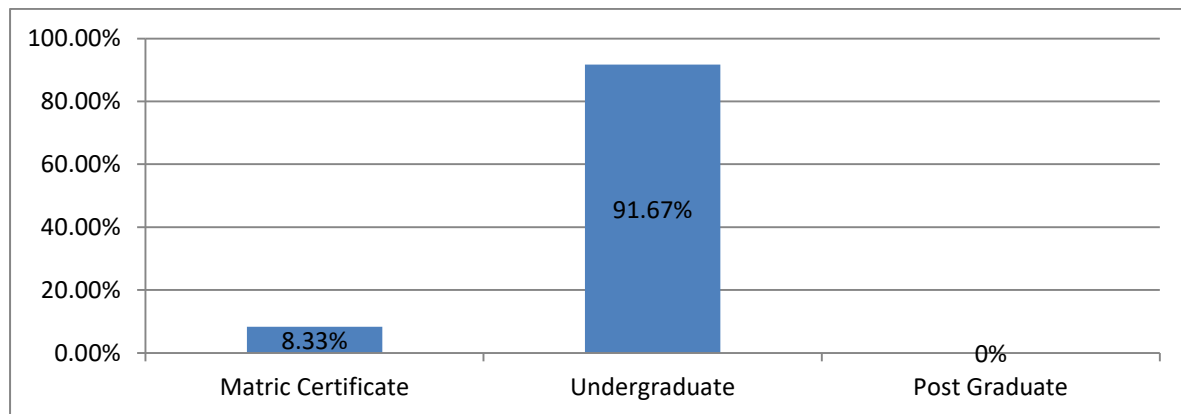


Figure 4.5: Qualifications' distribution of the participants

The highest qualifications were categorised into three groups, namely: matric certificate, undergraduate qualifications and post graduate qualifications. The participants' qualifications range from matric certificate, diploma, national diploma, Bachelor of Commerce (B. Com) and Baccalaureus Technologiae (B-Tech). Based on the evidence presented in Figure 4.5, 8.33% of the participants had received matric certificates and 91.67% obtained an undergraduate qualification while there were no participants with post-graduate qualifications. Therefore, one can conclude that the majority of procurement employees obtained an undergraduate educational qualification. Although there were no participants with post graduate qualifications, 54.55% of the participants were studying towards the Chartered Institute of Purchasing and Supply's (CIPS) course, specialising in procurement. This indicates that procurement employees are aiming to improve their skills and qualifications in the procurement discipline. Furthermore, from the results provided regarding their qualifications; they need development in theoretical knowledge regarding the procurement context, thus additional training and workshops are required.

4.2.6 Experience of participants

This section of this study presents the job profile of the participants. The participants were asked to reveal the number of years they have been working in the procurement function within the state-owned passenger rail agencies and in other organisations in order to establish their

knowledge about procurement practices. The results regarding the experience of participants are tabulated as follows in Table 4.2 and interpreted below.

Table 4.2: Experience of participants

Experience distribution	Participants	Percentages (%)
1-6 years	3	25
7-12 years	6	50
13 years and above	3	25
Total	12	100%

The participants' years of experience working in procurement were categorised into three groups, namely: from 1-6 years, 7-12 years, and 13 years and above. Based on Table 4.2, participants with 1-6 years' experience in procurement were 25%; those with 7-12 years were 50%; and 13 years and above were 25%. The results indicate that the procurement officials with 7-12 years working experience were in the majority by a large margin over those with 1-6 years and 13 years and above. Although the results show that the majority of the respondents have more than 5 years of experience within their positions, it is evident that they hold junior positions, limited to the broader context of procurement.

4.2.7 Summary of demographic information

The demographic information of the participants from the two state-owned passenger rail agencies consisted of both junior procurement officials and management. The balance of the two levels was important and required in order to get operational or tactical and strategic information. In addition, junior procurement officials provided tactical information on how they conduct procurement practices, and management provided both operational and strategic views on how the procurement practices should be conducted. However, since the study was aimed at understanding the implementation of procurement practices, a majority of junior procurement officials were interviewed or targeted. The age of the participants ranged from 29 to 57 years. Coincidentally, 50% of the participants were male and the remaining 50% were female. Although there was an equal balance of gender, the males still dominated in management positions. On ethnicity, the main participants were black with only one white participant, while there were no Coloureds or Indians represented regardless of the initiative to get a representative from both Coloureds and Indians. Regarding qualifications, the majority (91.67%) of participants had undergraduate qualifications and 54.55% had additional or second

qualifications, specialising in procurement. The experience of the participants working in the procurement function ranges from 3 years to 18 years, which means the state-owned passenger rail agencies' procurement functions appear to have experienced officials to conduct procurement practices in a proper manner.

4.3 EXPLORING PROCUREMENT PRACTICES

This section presents the results of section B of the interview questions, which consists of six in-depth questions that participants were requested to answer during face-to-face interviews. In addition, the structured interview questions utilised were formulated from the literature review. The structured research questions also represent the research objectives of the study and are classified into the following four clusters:

- the value and contribution of procurement;
- implementation of procurement processes;
- implementation of supplier management; and
- procurement challenges.

Table 4.3 shows the classification of the research objectives and their related interview questions.

Table 4.3: Classification of research objectives and related semi-structured interview question

Classification derived from objectives	Semi-structured interview questions
Value and contribution of procurement	<ol style="list-style-type: none"> 1. Kindly explain to me what you understand by the term procurement? 2. Please tell me about the value and contribution of the procurement function within your agency?
Implementation of procurement processes	<ol style="list-style-type: none"> 3. Please tell me about the current procurement process and the procedures followed in the typical acquisition of goods, construction work and services within your agency?

Implementation of supplier management	<p>4. Explain to me what you understand by the term supply management?</p> <p>5. Please explain to me how supply management is being implemented within multiple stages of the procurement process within your agency?</p>
Procurement challenges	<p>6. What are the procurement challenges that you encounter in your department?</p>

4.3.1 Question 1 (Understanding of the meaning of the term procurement)

This question was seeking to probe the participants' understanding of the meaning of the term procurement. Based on the data gathered, they provided varying views on their understanding of this term, and their understanding was grouped into two clusters, namely, basic and comprehensive understanding, discussed briefly below:

4.3.1.1 Limited understanding

Participants who were classified under this category are participants who understand procurement but who were not able to cover all the elements of the procurement function.

The findings of this study have identified that participants with limited understanding of the term procurement define procurement as the acquisition of the goods and services from the external market while other participants define the term procurement as the fulfilment of the client's requirements through acquiring goods and services. In most cases, junior procurement managers are not given the major procurement responsibilities and therefore lack the collaboration between stakeholders and these employees, which limits their in-depth knowledge.

4.3.1.2 Comprehensive understanding

Participants who elaborated on their full understanding of the term procurement were classified under this category. Those participants were able to link the general definition with public procurement as they are state-owned procurement employees. The findings of this study reveal that procurement is defined as the acquisition of goods and construction work as well as services from the right supplier or place, at the correct time with the right quality and quantity as well as price. They further indicated that the goods, construction work and services acquired must be aligned with the strategic objectives of the organisation and be done in a manner that

promotes the five pillars of public procurement in South Africa as stipulated in the constitution of the country. The constitution stipulates that procurement should be done in a transparent manner, be value for money, have equality and be effective and efficient.

4.3.2 Question 2 (The value and contribution of the procurement function)

This section presents the second analysis or findings of Section B of the interview questions. These questions aimed at understanding whether the value and contribution of the procurement function was understood within the state-owned passenger rail agencies. Based on the analysis of the findings, the following themes emerged from this section/question, namely, understanding the value of the procurement function and its contribution to operations and to the mandate of state-owned passenger rail agencies at large.

4.3.2.1 Understanding the value of the procurement function

The participants were asked if the value of the procurement function within the state-owned passenger rail agencies was understood. The findings of this study established that the procurement function within the two state-owned passenger rail agencies was still regarded as an administrative function. This was due to the lack of strategic planning from top management within the procurement function, which prevents the procurement function from developing from an administrative to a strategic function. As a result, the procurement function was reactive to user's requirements rather than being proactive within the agencies. Relatively, the respondents tend to be isolated in the way they operate within the department resulting in specialisation of their activities without valuing the whole procurement process.

4.3.2.2 Contribution of the procurement function to operations

The common findings were identified on how the procurement functions contribute to the operations departments in the state-owned passenger rail agencies. Most participants revealed that the procurement function contributes through cost saving by buying in bulk, which helps gain quantity discounts, negotiating prices and other contract terms such as lead times to minimise delays. In addition, participants also mentioned that the procurement function prevents disruption by acquiring quality materials, which helps prevent out-of-stock in operations. This is rather than buying poor quality stock, which can be disposed of without being used or sent back to the supplier while sitting with zero stock waiting for the supplier to correct the rejected stock. A few participants indicated that the procurement function contributes by acquiring the required goods or services at the right price, right time, and right place, right quality and right quantities within the state-owned passenger rail agencies.

4.3.3 Question 3 (The procurement process)

The procurement process provides a procedure that should be followed during the acquisition of goods, construction work and services. By this question, the study was intending to find out the procurement processes followed in the typical acquisition of goods, construction work and services within the state-owned passenger rail agencies in Gauteng. The findings indicate that both state-owned passenger rail agencies implemented common procurement processes, summarised as follows:

- identifying the need;
- defining the need;
- preparing and processing of the purchase requisition;
- reviewing requirements;
- developing a contract;
- sourcing suppliers;
- inviting quotations or tenders;
- pre-qualifying the suppliers;
- analysing the quotations and selecting the most promising supplier;
- awarding the contract; and
- contracting management.

These procurement processes are briefly discussed as follows:

4.3.3.1 Identifying the need

The first stage of the procurement stages is identification of the need by the user department and/ or by the materials requirement planner within the state-owned passenger rail agencies. The findings of the study indicate that new goods, whether stock or non-stock, are identified by the user department while the items being stored in the SCM warehouse are identifiable by the Materials Requirement Planner (MRP). The findings further establish that MRP's rely on the system to determine when it is the right time to order, and if it is, they then create the purchasing request electronically. Meanwhile, the user department creates a maintenance plan during this stage, which they process manually and electronically after the need has been defined in the form of a specification.

4.3.3.2 Defining the need

After the need has been identified, the findings of this study have established that goods, construction work and services, whether stock items or non-stock items, are defined by the user department. Although goods, construction work and services are defined by the user department, the procurement function has a duty to advise on specifications drafted. According to the policies and directives of these agencies, the specification should be defined in terms of performance rather than conformance (PRASA, 2016:18; GMA, 2017:29). The procurement officials, therefore, have a duty to ensure that all specifications have been defined in terms of performance and all conformances are not processed until they are corrected.

4.3.3.3 Preparing and processing of the purchase requisition

After the needs have been defined by the user department in the forms of specifications, the user processes the needs to the procurement function, which will receive the specification and electronically purchase the request. The completed specification and purchasing request should include the description of the items to be purchased, the quantities, unit of measures and any other specific requirements in relation to the goods and services. After the procurement function has received the purchase request when the competitive tendering is utilised, they invite Bid Specification Committees (BSC) to review the technical and commercial parts of the requirements as well as determine the criteria used to evaluate the item required.

4.3.3.4 Reviewing requirements

The findings of this study reveal that after the electronic Purchase Requisition (PR) and specifications have been received by the procurement functions, they invite the BSC's to a cross-functional team meeting to review the specifications and requirements to be fulfilled. During this stage, the BSC determines the criteria used to evaluate the need, which should also be included in the bid document. However, when selective tendering is utilised, it is the responsibility of the procurement official to review the requirements.

4.3.3.5 Developing a contract

The findings of this study reveal that after the need has been received and approved by relevant authorities, the contract used as a legal document between the buying organisation and the winning bidder is determined within the state-owned passenger rail agencies. During this stage, the study has established that the two state-owned passenger rail agencies implement this stage differently. Both agencies use a standard contract but agency number two reviews the terms and conditions as if they are applicable or effective to the items to be purchased and align them

to the standard contract to best suit the goods, construction work and services to be purchased. Furthermore, they also involve the legal team when they make changes to standard contracts to ensure that the contract is in order, whereas agency number one uses the contract terms drafted by their legal team, and do not necessarily align those standard terms and conditions to the goods, constructional work and services being purchased.

4.3.3.6 Sourcing suppliers

The findings of this study reveal that the procurement functions in the state-owned passenger rail agencies source suppliers from the national central supplier database when acquiring goods, construction work and services that are within selected tendering in terms of the threshold. They further reveal that although suppliers are sourced from the National Central Supplier Database (NCSD) for selected tendering, the construction work was advertised on the Construction Industry Development Board (CIDB) website regardless of the threshold. When goods, construction work and services are acquired through competitive tendering due to thresholds within competitive tendering, the suppliers are sourced by advertising the tender in the public domain (such as agency website, Government Gazette, Tender bulletin, public newspapers, etc.). The study also established that it is compulsory for procurement functions to advertise competitive tendering on agencies in this manner.

4.3.3.7 Inviting quotations or tenders

The findings of this study reveal that when selective tendering is utilised to acquire goods, construction work and services, the suppliers are invited through email within the state-owned passenger rail agencies. Furthermore, the suppliers are requested to respond by email and carbon copy an email address created specifically for the tender, to monitor, keep transparency, and audit the trail and fairness of the process. During this stage, if suppliers submit their applications after the closing date and time, their applications are not considered or are immediately disqualified from the procurement process. Although late applications are not considered, procurement officials do not inform suppliers of this. However, when competitive tendering is utilised, the procurement functions receive the bid documents in the tender box. After the closing date and time of the advertised tender (business opportunity), the procurement function, together with the cross-functional team (such as protection services and user's representatives) move the tender box away from public access immediately within the state-owned passenger rail agencies.

4.3.3.8 Pre-qualifying the suppliers

The findings of this study reveal that the procurement functions within the state-owned passenger rail agencies are pre-qualifying the suppliers when it is necessary to do so. All suppliers or bidders were pre-qualified in the form of commercial criteria (such as BBBEE and tax clearance certificates), and other criteria such as functionality, local content and production were not compulsory but only used for specific items stipulated in the department of trade and industry guidelines. The findings also reveal that when the supplier or bidder does not meet the pre-requisite criteria, then such a supplier is eliminated from continuing competing for the business. The study also establishes that the pre-qualification criteria are set at a BSC level for competitive tendering and before the procurement officials send the RFQ to potential bidders when selected tendering is utilised.

4.3.3.9 Analyse quotations and select the most promising supplier

After the bid documents have been pre-qualified, if necessary, the suppliers who were successful in the pre-qualification are evaluated. The findings of this study revealed that when selected tendering is utilised within the state-owned passenger rail agencies in Gauteng, the procurement officials evaluate the bidders based on pricing and the BBBEE status of the supplier. Thereafter, the bidders who score the highest points when suppliers are evaluated through competitive schedules win the business. The points scoring will require evaluation of the supplier's BBBEE level and pricing when selected tendering is utilised. However, the findings further reveal that competitive tendering requires that all criteria set during the BSC that were in the bid documents are used to evaluate the potential bidders. Some of the criteria used to evaluate competitive tendering within the state-owned passenger rail agencies in Gauteng are BBBEE, pricing, lead time, experience and educational qualifications of the bidders.

4.3.3.10 Awarding the contract

The findings reveal that after the procurement officials have analysed manual quotations received from prospective bidders when goods, construction work and services are acquired through selective tendering in the state-owned passenger rail agencies, they create an electronic purchase order. The process of creating a purchase order will require a procurement official to attach the manual evaluation documents, which the sourcing manager and SCM manager must review in order to ensure that the official has complied with the agency procurement policies and directives as well as with National Treasury regulations, before they approve the purchase order created by the procurement officials.

After the sourcing manager and/or SCM manager (depending on threshold) has approved the electronic purchase order, the procurement officials issue a purchase order with contract terms and conditions, which require the successful bidder to respond to the receipt of the business via email as evidence that the bidder has accepted the buying organisation's terms and conditions. After the successful bidder has accepted the business, the procurement officials (buyers) are supposed to inform the unsuccessful bidders that they were unsuccessful. However, such notifications are not currently implemented within the state-owned passenger rail agencies when selective tendering is utilised.

The findings of the study further indicate that after the successful bidders have been identified during the Bid Evaluation Committee (BEC) - as per the last two stages when competitive tendering is utilised in the state-owned passenger rail agencies - the results are submitted to the Bid Adjudication Committee (BAC) who oversee BEC recommendations and determine if the proper procurement processes were followed from identification of the item up to evaluation of bidders. If it was not followed or floated, then the BAC will nullify the process and provide the reasons why they rejected the process, which will include the BEC recommendations.

However, should the BAC be satisfied with the procurement process and BEC recommendations, the chairperson of the BAC will approve them within the state-owned passenger rail agencies. After they have been approved, the buying organisation will conduct verification or screen checks to the successful bidder. Should the successful bidder fail the verification checks, such a bidder will not be awarded any business. However, should the screen or verification report be successful, the negotiation of contract terms and conditions begins. After both parties have reached an agreement on the terms and conditions, they will both sign the contract.

4.3.3.11 Contract management

The findings of the study reveal that when both selective and competitive tendering are utilised, there is poor contract management and no performance evaluation tools to measure the supplier's performance within the state-owned passenger rail agencies in the Gauteng province. In selective tendering, the study has established that there is no document that is signed or documented as evidence of dissatisfaction or satisfaction with supplier performance during goods, construction work and services delivery within the state-owned passenger rail agencies in the Gauteng province. Furthermore, the procurement function does not implement contract terms and conditions accurately in selected tendering. For example, the suppliers can cancel the

purchase orders after accepting the contract or purchase order and even after the delivery lead times have lapsed with no claim of reimbursement for direct and consequential losses due to cancellation of order. In addition, the supplier who cancelled the purchase order can still be invited to take up other opportunities after cancelling the purchase order. However, there are no guidelines for direct procurement officials on how to manage such challenges, due to lack of supplier performance rules within the state-owned passenger rail agencies in Gauteng.

When competitive tendering is utilised, the project manager or project owner documents supplier progress although these are not submitted to the procurement function on a regular basis within the state-owned passenger rail agencies in the Gauteng province. Failure of the procurement function to be in control of the supplier's progress or performance is associated with poor contract administration. Although the project owner does not submit the documents regularly, should the supplier fail to deliver as per contract, then the procurement function will register the supplier on the list of restricted suppliers. This is submitted to the National Treasury who will restrict the supplier from doing business with an organ of the state in South Africa. Moreover, when a supplier that has been awarded a contract fails to perform when competitive tendering is utilised within the state-owned passenger rail agencies, these agencies claim reimbursement for their losses and penalise the supplier for poor performance by terminating the contract if necessary.

4.3.4 Supplier management

The research questions in this section were intended to see if the procurement officials – both management and junior officials - understand the meaning of supplier management and its implementation within the procurement processes in the state-owned passenger rail agencies in Gauteng.

4.3.4.1 Question 4 (Understanding the meaning of supplier management)

The findings based on the participants' understanding reveal varying views on the meaning of the term supplier management. The varying views were categorised into four groupings: no understanding; limited understanding; basic understanding; and comprehensive understanding, which are briefly discussed below:

4.3.4.1.1 No understanding (of supplier management)

The findings on supplier management represents participants who were struggling to express their understanding on the meaning of the term within the state-owned passenger rail agencies in Gauteng. Some of them stated clearly that they are clueless on the meaning of supplier

management. Elsewhere, some used the meaning interchangeably with the term supply chain management and purchasing management and were unable to provide a meaningful definition.

4.3.4.1.2 Limited understanding

The participants with limited understanding about the meaning of the term supplier management within the state-owned passenger rail agencies are participants who were unable to provide any elements of supplier management. These few participants simply defined the term as the management of suppliers or external service providers. In addition, these participants were unable to provide insight on how those external service providers are managed within the state-owned passenger rail agencies.

4.3.4.1.3 Basic understanding

The participants with basic understanding in the procurement function within the state-owned passenger rail agencies were few and able to provide the elements of supplier management. They described the term supplier management as a four-stage process that consists of identification of suppliers, establishing a fair and reasonable price; development of a purchasing contract, and management of the relationship to ensure that the required item or service is delivered on time in the correct quantities and quality.

4.3.4.1.4 Comprehensive understanding

Participants with a clear understanding who were able to define supplier management were few in the procurement function within the state-owned passenger rail agencies and were able to demonstrate their understanding on its meaning and elements. They defined supply management as a phenomenon of identifying potential suppliers in the market, accessing and positioning them to be proactive in providing their requirements as well as management of resources (both the agencies resources and supplier resources) and related capabilities required within the organisation to help the agencies achieve their operational and strategic objectives.

4.3.4.2 Question 5 (Implementation of supplier management)

This sub-section of supplier management was intended at understanding how supplier management is being implemented within the multiple stages of the procurement processes within the state-owned passenger rail agencies in Gauteng. Since the majority of the participants struggled to provide a comprehensive definition of the term, the semi-structured questions developed were utilised to help the researcher maintain consistency, which in turn helped get more insight on how supplier management is implemented within the passenger rail

agencies. The questions covered all supplier management elements, namely: supplier base rationalising, supplier selection, development and management of relationships.

4.3.4.2.1 Supplier base rationalising

The participants were asked if they were involved in the management of the database that they use to source suppliers as they had previously mentioned that they source suppliers from the NCSD established by the National Treasury. The findings reveal that the state-owned passenger rail agencies' procurement officials are not involved in the management of the database they use to acquire goods, construction work and services. Therefore, they do not have direct power to eliminate suppliers from the NCSD. They can only submit to the National Treasury a list of suppliers who failed to perform, or for reasons of unethical behaviour. The National Treasury could then restrict such suppliers from competing in the public sector in the country.

4.3.4.2.2 Supplier selection and development

The findings reveal that the procurement functions of the state-owned passenger rail agencies do not have supplier development programmes. Due to this lack, suppliers to be developed were not selected. Although the state-owned passenger rail agencies were without a strategic and operational plan on how suppliers should be developed, few procurement officials demonstrated that they only develop suppliers in their individual capacity without the agencies' guidelines or directives. They indicated that they develop suppliers by providing information on their processes and provide opportunities to local suppliers through implementation of local contents and production established by the Department of Trade and Industry (DTI) in compliance with the PPPFA, updated in 2017.

Although currently there are no development programmes aimed at developing suppliers within the state-owned passenger rail agencies, in the past those agencies attempted to develop the suppliers; the programmes were called "Women in rail". Even though it was established, the findings reveal that there was no implementation plan on how the procurement functions should develop the companies that were under these programmes, and such initiatives were never implemented.

4.3.4.2.3 Supplier relationships

The findings of the study reveal that the relationships developed between the agencies and its suppliers, executed by procurement officials, are guided by what is acquired. For example, when the procurement officials acquire goods, construction work and services through once-off

purchases, a transactional relationship is applied within both state-owned passenger rail agencies. However, when the passenger rail agencies enter into a long-term contract with suppliers, the two agencies manage the relationship differently. This study has also established that the procurement function at agency number one was not managing its suppliers at all, while agency number two had hired a third-party service provider to manage its suppliers' relationships or tiering.

One of the structured sub-questions developed under supplier relationships was to understand how the procurement function within the passenger rail agencies involved the supplier from early product development. This study has established that the state-owned passenger rail agencies involve suppliers in the early development of a product or improve its existence by inviting suppliers to provide ideas and solutions to the passenger rail agencies through a process called Request for Information (RFI) in compliance with their procurement policies and National Treasury regulations. Thereafter, the suppliers submit their solutions in response to the agencies' RFIs. After the closing date and time of accepting the supplier applications, the cross-functional team of the buying organisation would evaluate the applications and select the best solution to their problems.

After the successful solution has been provided by the supplier who is an expert in the industry, such a supplier would be required to work hand-in-hand with state-owned passenger rail agencies during the required implementation of supplier solutions. Working this way helps both the buying organisation and the supplier to achieve active knowledge exchange or inter-firm learning. Besides suppliers being invited in the early stage of the development of the product through RFI, the supplier can initiate new products or improvements in the existing product through a process called unsolicited proposal. According to the procurement policies of the state-owned passenger rail agencies, this is when the service provider submits or markets its ideas that could add value to their agencies (PRASA, 2016:19; GMA, 2017:24). The procurement policies further indicate that the state-owned passenger rail agencies are not obliged to consider an unsolicited proposal, but they can consider it when a comprehensive and relevant project feasibility study has established a clear business case; the proposed products or services should involve an innovative design and present a new as well as cost effective method of service delivery.

4.3.5 Challenges encountered by the procurement function within the state-owned passenger rail agencies in the Gauteng Province.

The last interview question sought to explore the challenges encountered by the procurement function within the state-owned passenger rail agencies in Gauteng. The findings of the study have established the following summarised challenges: lack of proper planning; lack of strategic support; lack of continuity in the executive leadership; poor specifications; ineffective BBBEE; ineffective central supplier database; lack of training and development of staff; inadequate resources; interference from the end-user and suppliers; delays in the approval of purchase requisitions and purchase orders; and ineffective communication. Moreover, the study also established that all the procurement functions' challenges were applicable in agency number one and only two, namely, ineffective BBBEE and interference are applicable in the state-owned passenger rail agency number two.

4.3.5.1 Lack of proper planning

The first challenge that emerged from the interview is lack of proper planning. The findings established that most participants attributed lack of proper planning to lack of knowledge and skills from the employees responsible for planning. Regarding the lack of knowledge and skills, the participants indicated that users' departments are always demanding emergency purchases when there is poor planning, even when the item to be purchased does not qualify to be classified under emergency purchases. Furthermore, lack of strategic planning within the agency (procurement function and user departments) also emerged as one of the main causes for poor planning. The supporting evidence emerging from this study reveals that the procurement or demand plans received from the user's department are uninformed and not aligned with actual demand. As a result, procurement functions or officials are still forced to acquire goods, construction work and services, not on a submitted procurement or demand plan.

4.3.5.2 Lack of strategic support

The findings reveal that there are no operational strategies to help guide the procurement function within one state-owned passenger rail agency, agency number one. Few participants who mentioned this as the problem, stated that there is no single procurement strategy being implemented at the operational level, which has a direct link to their agency goals, vision and mission statement. The participants attributed lack of strategic support to lack of continuity in key positions such as Chief Procurement Office (CPO) in the past few years. Besides the lack

of operational strategies, the procurement function reverted to the procurement policy, which was approved and implemented approximately a decade ago and is currently out-dated.

4.3.5.3 Lack of continuity in the executive leadership

One of the unique findings that emerged from the interview is lack of continuity in the executive positions. A few participants who identified this challenge indicated that the chairperson of the BAC and other BAC committee members were always changing within their agency. They indicated that such changes impact negatively on their ability to complete the procurement process in time as the new chairperson will usually request the process to be restarted as they were not in that position when the process began. The participants further indicated that the executive positions, which are always changing and are directly involved in procurement, are the chief procurement officer (CPO), the chief financial officer (CFO) and the chief executive officer (CEO) within agency number one.

4.3.5.4 Poor specifications

The poor specifications drafted by users' departments were mentioned to be one of the leading challenges within the procurement function in one of the state-owned passenger rail agencies. Most participants revealed that the procurement officials always advise user departments when the specification is not clear, although the end-users' department always indicates that they do not have the personnel responsible for drafting specifications. Due to the lack of personnel responsible for drafting a perfect specification, the procurement function is sometimes forced to continue with sourcing or processing unclear specifications. They further indicated that unclear specifications are biased as they give competitive advantages to suppliers that have been working with these agencies and disadvantage new entrants as they will have to rely on the sample provided with no functional criteria.

4.3.5.5 Ineffective BBEE

Ineffective BBEE was mentioned as one of the leading challenges encountered by procurement functions within one of the state-owned passenger rail agencies. The few participants who mentioned that it was not effective, indicated that companies or suppliers are fronting to get a high level of BBEE so that they can have the advantage of scoring full points during evaluation of bidders. They further indicated that due to fronting, the BBEE policy was not able to help distribute the business equally. This study described fronting by suppliers from a procurement perspective as the illegal practice of placing someone (could be a woman

and blacks as well as youth) in a management position with the intention to gain a higher BBEE level or rating rather than intending such a person to perform a management function.

4.3.5.6 Ineffective National Central Supplier Database (NCSD)

The first common challenge encountered in the procurement function within both state-owned passenger rail agencies that emerged from the interview is the ineffective NCSD. The study has established that the NCSD introduced by the National Treasury is not effective. For example, most participants noted that suppliers indicated that they specialised in specific products, but when the procurement officials called for or requested a quotation from some of those suppliers, they were unable to quote them due to lack of knowledge about the product. The participants indicated that the NCSD was not effective because there is no verification of supplier information, competency assessment or supplier visits to check on the correctness of the supplier profile. Most participants stated that before the NCSD was established, their agencies used to verify supplier information by visiting supplier offices unannounced as a way of verifying what is provided on the supplier profile.

4.3.5.7 Inadequate training and development of staff

The study has established that there is no training and development of staff within the procurement function in the state-owned passenger rail agency, specifically within agency number one. Most of the participants indicated that the agencies requested an employee training plan, which they submitted each time, but they never attended the courses they indicated on the training plan. A follow-up question was made with management to establish the main reasons the procurement officials did not receive training and development. The participants revealed that this was due to the lack of funding and that budgets reside with the training and development department. Due to the lack of control over training and development, the management indicated that they were unable to measure junior procurement officials' performance and were failing to provide training to help equip them.

Although most participants indicated that there is inadequate training and development, a few participants indicated that they did attend the National Treasury courses aimed at improving their understanding on the new procurement legislation that governs their functions in the public sector. Although they attended these courses, they indicated that this training and development occurred infrequently.

4.3.5.8 Inadequate resources

One of the challenges encountered by the procurement function within one of the state-owned passenger rail agencies was the lack of resources. The findings reveal that most procurement officials (both management and junior officials) are affected by this problem. In addition, they further revealed that the resources that were scarce, included un-serviced printers and a shortage of printer cartridges, un-serviced computers and lack of laptops and computers within the state-owned passenger rail agency number one. A lack of the abovementioned resources impacted negatively on the performance of the procurement officials and function at large. The findings established that these unavailable resources were due to budget constraints in the ICT department.

4.3.5.9 Interference from the end-user and suppliers

Interference emerged as the second most common unethical behaviour that occurred in both state-owned passenger rail agencies. The findings reveal that end-users were in most cases trying to influence the procurement official to invite and award the suppliers of their choice or their preferred supplier. The participants further indicated that when the suppliers who were preferred by end-users failed to win the business, the winning bidder did not receive a conducive environment to help them perform. In addition, the end-users also give negative reports about that supplier but when their initial preferred supplier wins the business, the end-user will not complain even when the service being offered is of poor quality.

4.3.5.10 Delays in the release of purchase requisitions and purchase orders

Delays in the approval and rejection of PRs and POs by management were some of the challenges mentioned by junior procurement officials within one of the state-owned passenger rail agencies, specifically agency number one. Most participants indicated that the Head of Department (HOD) for the users' function was amongst the management that delayed the release of PRs for non-stock items. In addition, sourcing and SCM managers were also at fault for delaying the approval and rejection of POs created by junior procurement officials. The findings reveal that the delays in approvals result in a short lead time being expected from suppliers in order to prevent an out-of-stock situation, which can disrupt operations.

4.3.5.11 Inadequate remuneration

The findings of this study reveal that remuneration packages of both junior and management procurement officials were inadequate within agency number one. Most participants pointed out that their salaries were far below that of procurement officials working in the other state-

owned agencies, not operating in passenger rail in South Africa. Others pointed out that their agency did not reward them enough in terms of basic benefits such as housing allowance and medical aid. The findings reveal that inadequate remuneration for both junior procurement officials and management contributed negatively to their performance, meaning that their remuneration packages were not serving as reward systems within agency number one.

4.4 CONCLUSION

This chapter presents the analysis on exploration of the procurement practices within the state-owned passenger rail agencies in Gauteng. The analysis emerged from the data collected through face-to-face interviews using semi-structured questions analysed through content analysis, stipulated in Chapters One and Three. This chapter was divided into two, namely, Section A (demographic information) and Section B (procurement practices). Section A analysed and interpreted the participants' general information while section B analysed and interpreted the open-ended questions answered by the participants. The findings of Section B established that the two state-owned passenger rail agencies were implementing similar procurement practices, but they varied in implementation in some areas, although they were governed by similar legislature or regulations. The varying implementation of the procurement practices resulted in agency number two implementing the procurement practices in a better manner than agency number one. The next and final chapter provides a discussion of this study, a detailed conclusion and recommendations emerging from it, together with findings which help clarify the differences between the two state-owned passenger rail agencies in terms of implementation of procurement practices.

CHAPTER 5

DISCUSSIONS, RECOMMENDATIONS, LIMITATIONS, CONTRIBUTION, CONCLUSIONS AND IMPLICATIONS FOR FUTURE RESEARCH

5.1 INTRODUCTION

The previous chapter presented an analysis of the findings. This chapter begins by presenting the summary of the study and the conclusions that emerged from each research question. Thereafter, it presents the recommendations that can or need to be adopted by state-owned passenger rail agencies to improve their procurement functions. The study's overall conclusions, limitations and implications for future research are also discussed.

5.2 DISCUSSIONS BASED ON SECONDARY RESEARCH QUESTION OF THE STUDY

In this section, the discussion was drawn from the following secondary research questions, outlined in Section 1.3, (Chapter One) as recommended by Creswell (2013:212) that qualitative research answers the research question:

5.2.1 Research question 1

- Is the value and contribution of procurement understood within state-owned passenger rail agencies for competitive advantage?

The objective of this question was two-fold, namely, to determine the understanding of the term procurement and determine the value and contribution of the procurement function within the state-owned passenger rail agencies in the Gauteng province. The analysis of the empirical evidence revealed that all procurement officials were able to define the term procurement although a few of them provided a basic definition without a clear link to public sector procurement practices. Most participants provided a comprehensive understanding of the term, which included how it should be implemented in the public sector; they were able to introduce the general principle of public procurement in South Africa as well as provide procurement objectives through unpacking their understanding of the term procurement. The study concludes that most participants were able to provide a detailed definition due to their educational background, which is aligned to their daily or procurement functions as tabulated in Table 4.1 of Section 4.2 (Chapter Four).

The second objective emerging from the first research question was sought to determine the value and contribution of the procurement function within the state-owned passenger rail agencies in the Gauteng province. The analysis of the empirical evidence revealed that the procurement functions contribution was still tactical rather than strategic. The tactical approach includes buying goods, work and services utilising the RFQ process, negotiating reduction of price and lead times and many more. The conclusion of the analysis revealed that the procurement functions' contribution was still tactical and administrative due to lack of strategic support from top management. Due to the procurement function being reactive to user requirements, the procurement function was under-valued within the state-owned passenger rail agencies.

5.2.2 Research question 2

- What are the procurement processes that are currently practised by state-owned passenger rail agencies in the Gauteng province during the acquisition of goods, construction work and services?

The second objective of this study sought to determine the current procurement processes followed by procurement officials during the acquisition of goods, construction work and services. The analysis of the empirical evidence revealed that both state-owned passenger rail agencies' procurement officials followed their agencies' procurement processes when acquiring goods, construction work and services. Therefore, the officials complied with their agencies' procurement policies and procedures as well as the National Treasury's legislative frameworks (such as the Constitution of the Republic of South Africa No. 108 of 1996, Section 217(1); PFMA No. 1 of 1999; PPPFA No. 5 of 2000; BBBEE Act No. 53 of 2003; PAJA No. 3 of 2000; PAIA No. 2 of 2000; CIDB Act No. 38 of 2000; PCCA Act No. 12 of 2004; and PEPUDA No. 5 of 2000), tabulated in Table 2.2 (Chapter Two) and the general principles of public procurement in South Africa (such as value for money, accountability and reporting, ethics, open and effective competition, transparency and equity), discussed in Section 2.5.2 (Chapter Two), Department of Trade and Industry guidelines, discussed in Section 4.3.4.7 (Chapter Four), as well as many other instructions issued for public sector organisations in the country.

Although the procurement officials followed proper processes, the agencies' procurement processes had a gap in contract management when both selected and competitive tendering is utilised. Specifically, they were without guidance on how the procurement officials should

manage suppliers when they failed to deliver on time, cancelled the awarded POs after accepting the offer, to name a few issues when selected tendering is utilised. On the other hand, the study also established that there were no formal, standard documents utilised and shared between project owners and the procurement functions to score supplier performance when competitive tendering is utilised. As a result, the procurement functions have no documented evidence of supplier performance. The study concludes that lack of consequences for management when selecting tendering transactions as well as poor contract administration were the main gaps emerging from procurement processes/cycle in state-owned passenger rail agencies in the Gauteng province.

5.2.3 Research question 3

- How is supply management being implemented within multiple stages of the procurement process in the state-owned passenger rail agencies in Gauteng?

The third objective of this study was two-fold, namely, to determine the understanding of the term supply management and the implementation of supply management within multiple stages of procurement processes in the state-owned passenger rail agencies in the Gauteng province. The analysis of empirical evidence established varying views about the understanding of the term supply management. These varying views were categorised into four, namely: no understanding, limited understanding, basic understanding, and comprehensive understanding as discussed in Section 4.3.4.1 (Chapter Four). The empirical evidence indicated that most participants lack understanding about the meaning of the term supply management. Those who lack understanding about the term were using it interchangeably with the terms such as supply chain management and purchasing management, stipulated in Section 2.2 (Chapter Two) of the literature review. The analysis also established that the few who were able to provide basic and comprehensive understanding had a national diploma and an additional qualification specialising in procurement (such as CIPS, depicted in Table 4.1).

The second objective emerging from the third research question sought to determine the implementation of supply management within multiple stages of the procurement processes in the state-owned passenger rail agencies in the Gauteng Province. The analysis of the empirical evidence revealed that both state-owned passenger rail agencies in the Gauteng province were not implementing supplier management in a proper manner. Although they were not implementing it in a proper way, agency number two was still busy developing and implementing some of the supplier management strategies, such as supplier tiering. Although

they were implementing supplier tiering, there was still not enough evidence to conclude on the success of the strategy being implemented. Besides supplier tiering, both agencies were not implementing any other supply management strategies and programmes. As a result, there were no tools used to measure a supplier's performance and no adequate inter-firm learning as well as no supplier development programmes aimed to improve suppliers' performance. The study concludes that due to lack of supply management strategies, which stems from the procurement functions being administrative rather than strategic, the procurement functions were still reactive to user requirements rather than proactive (which requires proper implementation of supplier management).

5.2.4 Research question 4

- What are the procurement challenges encountered during the procurement practices in the state-owned passenger rail agencies in Gauteng province?

The last objective of this study sought to determine the procurement challenges encountered during procurement practices within the state-owned passenger rail agencies in the Gauteng province. The analysis of the empirical evidence revealed the following procurement challenges are encountered during procurement practices, namely: lack of proper planning, lack of strategic support, lack of continuity in the executive leadership, poor specifications, ineffective BBBEE, ineffective central supplier database, lack of training and development of staff, inadequate resources, interference from the end-user and suppliers, delays in the approval of purchase requisitions and purchase orders, ineffective communication, and inadequate remuneration for procurement officials (both junior officials and management) as presented in Section 4.6 (Chapter Four). This study concludes that most of the procurement challenges established within the state-owned passenger rail agency number one in the Gauteng province are due to poor procurement management. Only three procurement challenges, namely: ineffective BBBEE, ineffective central supplier database and interference from the end-user and suppliers were established within the state-owned passenger rail agency number two.

5.3 RECOMMENDATIONS OF THE STUDY

5.3.1 Recommendations regarding the value and contribution of the procurement function in the state-owned passenger rail agencies in the Gauteng Province

This study has established that the procurement function is still administrative and regarded as paper pushing within the state-owned passenger rail agencies in the Gauteng province. This is due to procurement functions being reactive to the user's requirements, which is associated with poor implementation of supplier management strategies and approaches in this study. According to a number of authors (Burt, Petcavage & Pinkerton, 2010:20; Lysons & Farrington, 2012:359; Monczka, Handfield, Giunipero & Patterson, 2016:11), supply management involves cross-functional activities and a more strategic approach to procurement. Therefore, this study recommends that the state-owned passenger rail agencies should implement supplier management strategies and approaches such as Kraljic's procurement portfolio matrix, supplier tiering, supplier preference model, Pareto principles, buyer-supplier relationships, supplier development programmes and supplier performance metrics. The implementation of these strategies and approaches will help the procurement function within the state-owned passenger rail agencies to be pro-active and responsive to user requirements, as recommended by Sinkovics, Jean, Roath and Cavusgil (2011:194), who stipulate that procurement performance depends on supplier responsiveness.

This study further established that procurement functions were not contributing enough to the overall objectives of the state-owned passenger rail agencies. As a result, the value of the procurement function within the state-owned passenger rail agencies was undervalued and misunderstood. It is therefore recommended that state-owned passenger rail agencies move from administrative (paper pushing) to strategic procurement. According to Van Weele (2010:3), when an organisation utilises the procurement function as a strategic tool, the organisation gains competitive advantage.

According to Turner (2011:89) and CIPS (2012:33), the procurement function can add competitive value to the organisation through cutting costs and/or by securing operational efficiency. Against this background, this study recommends that the procurement functions within the state-owned passenger rail agencies improve the quality of inputs through selection of potential suppliers and manage them proactively, encompassing but not limited to the following by:

- negotiating effective management of procurement processes to reduce cost of inputs;

- negotiating efficient management of procurement practices to reduce the cost of transactions;
- negotiating effective communication with user departments to improve procurement or input specifications so that business needs are fulfilled at a lower cost but with quality goods or services;
- negotiating effective management of inventory to minimise the cost of acquiring and holding inputs; and
- working with key supply chain partners to eliminate non-value adding activities in the supply process.

5.3.2 Recommendations regarding current procurement processes followed by state-owned passenger rail agencies in Gauteng during acquisition of goods, construction work and services

The study has established that there is poor contract management, specifically contract administration during the procurement process or cycle when goods, construction work and services are acquired through selected and competitive tendering within the state-owned passenger rail agencies. According to CIPS (2016:43), poor contract management is due to procurement officials paying less attention to the management of supplier relations and performance once the contract is awarded. When there is poor contract management within the organisation, a range of violations may occur (National Treasury, 2015:45). These contract violations range from quality of goods, work or services being compromised, use of sub-standard materials and abuse of the variation procedures.

In order to eliminate poor administration of contracts and violations and those identified by the findings of this study (i.e. suppliers who cancelled the purchase orders after accepting the contract and even after the delivery lead times have lapsed when selected tendering is utilised) within the passenger rail agencies, the procurement officials, together with the user department, have to establish synergy with suppliers, as recommended by CIPS (2016:43). The establishment of synergy between parties (buying organisation and supplier) in the contract will not aim at finding fault, but focus on identifying problems and finding solutions, as recommended by Marius (2017:66).

As contract management aims to establish good relationships between the buying organisation and supplier, this study recommends that the state-owned passenger rail agencies' procurement functions should prioritise this stage during the procurement cycle. Prioritising this stage will

require the management of supplier relations and performance by procurement officials within these agencies, as recommended by CIPS (2016:43). Management of supplier relations (relationship) and performance has a number of value-added benefits, recommended by CIPS (2016:43) and Mchopa (2015:131), which these state-owned passenger agencies might gain should they implement the findings of this study. These range from (1) there is less risk of supplier failure or poor performance if performance standards are regularly agreed upon and monitored as well as managed properly; (2) suppliers may be more motivated to give their best performance; (3) a motivated supplier may be willing to co-invest in system integration, and research and development, which might benefit the buying organisation; (4) goodwill developed with a positive relationship may earn preferential treatment or flexibility from suppliers in the event of an emergency; and (5) quality and other problems can be ironed out progressively, and continuous improvement made during a period of feedback, problem-solving and co-operation.

Poor contract management (such as lack of consequences management by suppliers who fail to meet minimum customer expectations and poor contract administration) within the state-owned passenger rail agencies prevents the train's passengers from receiving reliable transport services, which, in turn, prevents them from receiving value for money, as recommended by Mchopa (2015:131). The state-owned passenger rail agencies should relook their contract management process and make urgent improvements in order to advance its operations.

5.3.3 Recommendations regarding the implementation of supply management within multiple stages of procurement process in the state-owned passenger rail agencies in Gauteng Province

In this study, numerous authors, such as Chuah, Wong and Jantan (2010:725), Narasimhan and Schoenherr (2012:16), Gualandris, Golini and Kalchschmidt (2014:260), have summarised five supplier management practices, namely: (1) supply base reduction; (2) supplier selection; (3) supplier performance monitoring; (4) supplier development; and (5) supplier collaboration. Based on these practices, this study has established that there are no tools used to measure supplier performance, no implementation of supplier development and no supplier tiering. Therefore, the recommendations in this section will only address supplier performance measurement and supplier development as well as supplier tiering (relationship).

The first recommendation to be made in this section is regarding supplier performance measurement. The purpose of performance management from a procurement perspective is to

measure the effectiveness and efficiency of internal (procurement official) performance and external (supplier) performance in order to improve buying organisation performance (Banomyong & Supatn, 2011:22). The procurement functions' performance measures should be conducted using Key Performance Indicators (KPIs) for internal and external supply chain partners. Therefore, this study recommends that these state-owned passenger rail agencies use KPIs to measure the effectiveness and efficiency of their supplier performance and also their procurement function performance. The use of KPIs to measure performance within these state-owned passenger rail agencies will help remove any barriers, promote on-going monitoring and regular review of service levels, support problem solving and improve planning and also foster better understanding and trust between procurement and its suppliers, as recommended by Ovidiu-Iliuta (2014:1158). This study further recommends that supplier performance metrics or measurements need to be adopted within the state-owned passenger rail agencies. These performance measurements are sub-divided into three different levels, namely: operational, tactical and strategic, as depicted in Table 5.1.

Table 5.1: Supplier performance measurement at different levels

Strategic	Tactical	Operational
Lead time against norm	Efficiency of ordering cycle	Delivery performance
Quality status and aspirations	Quality assurance methodology	Quality conformance or non-conformance rates
Future growth, innovation, and integrated potential	Capacity flexibility	Technical support levels
Cost saving initiatives and potential	Cash-flow management	Speed of response to change in planned requirements
Risk management processes		

Source: CIPS (2016:91)

The proper implementation of the above supplier performance metrics at different levels within the state-owned passenger rail agencies will help or enforce suppliers to be responsive to users' requirements, which would help improve these agencies' performance as recommended by numerous authors such as Lawson *et al.* (2009:2652), Sinkovics *et al.* (2011:194), and D'Amico *et al.* (2017:218).

As stipulated earlier by CIPS (2016:90), proper implementation of supplier performance metrics leads to the buying organisation identifying suppliers that need to be developed. Supplier development is described by CIPS (2016:204) as the activity that the procurement officials undertake to improve a supplier's capability in order to meet the buying organisation's short-term and long-term supply needs. Therefore, this study recommends the following depicted nine-stage approach to implement a supplier development programme in these state-owned passenger rail agencies.

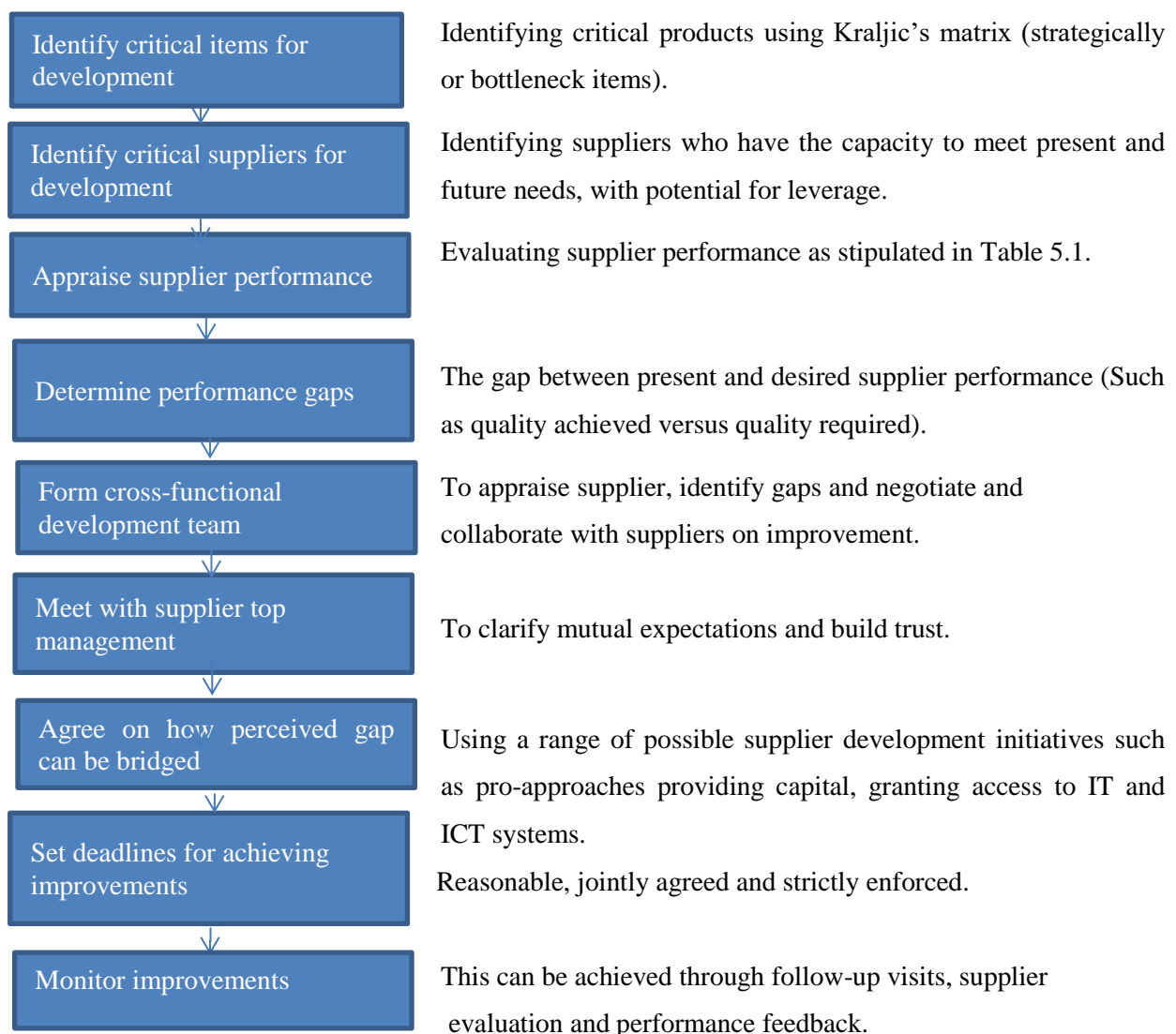


Figure 5.1: Nine stages in a supplier development programme

Source: Lysons and Farrington (2012:252)

In this study, lack of knowledge and poor implementation of supplier management is associated with inadequate training and development of procurement officials within the state-owned passenger rail agencies in the Gauteng province, as outlined in Section 4.3.5.7 (Chapter Four). The study therefore recommends that these state-owned passenger rail agencies should conduct induction and refresher training programmes aimed at educating procurement officials about supplier management and how it should be implemented. Furthermore, procurement executive management must ensure that these policies and directives clearly detail the implementation of supplier management within their agencies, which would be encouraged to adopt the depicted approach in addressing implementation of supplier development programmes.

The last recommendation to be made in this section is supplier tiering, which is associated with management of relationships between the buying organisation and supplier network. During its implementation, the first-tier supplier is a direct supplier or service provider responsible for management of a high cost and complicated project (Lysons & Farrington, 2012:136). Therefore, this study recommends that state-owned passenger rail agencies, specifically agency number one, should start to implement this strategy or supply management approach which will help improve the supplier's responsiveness and promote procurement sustainability. These could be improved by making sure that the first tier is involved in managing other tiers in the supply chain network, which helps understand the market challenges as well as suppliers are being developed (CIPS, 2016:152).

In implementing this supplier management strategy, the relationship between the first tier of a supplier becomes a strategic joint venture, which would help detect and address supplier network challenges such as delays in deliveries, original manufacturer challenges (stock-out) and many others at an early stage (Lysons & Farrington, 2012:136). Implementation of supplier management elements such as supplier development and supplier tiering within the state-owned passenger rail agencies would help promote supplier development (development of local and small suppliers) in line with the PPPFA No. 5 of 2000, which aims to promote small businesses (previously disadvantaged people) as recommended by numerous authors (Pooe, Mafini & Makhubele, 2015:68; National Treasury, 2015:13; Zitha, Sebola & Mamabolo, 2016:66).

5.3.4 Recommendations regarding the procurement challenges encountered during procurement practices in the state-owned passenger rail agencies in the Gauteng Province

This study has established numerous procurement challenges encountered during procurement practices within the state-owned passenger rail agencies in the Gauteng province. Its findings reveal that most of the procurement challenges established within the state-owned passenger rail agency number one are due to poor procurement management. Three procurement challenges, namely: ineffective BBBEE, ineffective central supplier database, and interference from the end-user and suppliers were established within the state-owned passenger rail agency number two. In addition, only one challenge, namely, interference from the end-user and suppliers established at state-owned passenger rail number two would need to be managed (prevented) by management. The other two challenges established within the state-owned passenger rail agency number two, namely, ineffective BBBEE and ineffective central supplier database was beyond their control as NCSD is managed by National Treasury and BBBEE is one of the legislative acts established within the country.

This study recommends therefore that state-owned passenger rail agencies' procurement function leadership (such as chief procurement officer and senior SCM managers) should enforce that the agencies adopt leading procurement practices to help eliminate the established procurement challenges. Numerous authors such as Quesada, González, Mueller and Mueller (2010:518); Dlamini and Ambe (2013:105); Davis (2014:87); Mofokeng and Luke (2014:2) and Barasa (2014:63) identify a range of leading procurement practices recommended to address procurement practices established in this study, namely: organisational design, procurement planning, procurement information technology systems, procurement process and policies, human resources management, benchmarking, procurement performance management, supplier management and risk management. The implementation of these leading procurement practices would help the state-owned passenger rail agencies in the Gauteng province to achieve consistency and continuously improve spending and supplier base optimisation, which will in turn increase Return on Investment (ROI) and sustain the bottom line and long-term growth, as recommended by Dlamini and Ambe (2013:113). In short, implementing procurement practices conducted in a proper manner within the state-owned passenger rail agencies in the Gauteng province and in South Africa at large will lead to better services (reliability of train services) and reduction of resource wastage as well as an increase public wealth, as recommended by Mofokeng and Luke (2014:1).

5.4 LIMITATIONS OF THE STUDY

In this study, two key limitations were established. Firstly, since this study utilised qualitative research, the researcher did not collect any numerical data, which might have helped establish questions and answers such as percentages of cost saving maintained by the procurement functions and other numerical data (as the procurement officials indicated that they contribute to their organisation through cost saving in Section 4.3.2 of Chapter Four). Secondly, since it was limited to the Gauteng province within the state-owned passenger rail agencies, its findings were not extended to the other provinces in South Africa in the passenger rail agencies as well as in the other public sector organisations such as municipalities, government departments and other government agencies not operating in passenger rail. This is due to concerns surrounding the generalisability of qualitative research findings based on the utilisation of a small and unrepresentative number of cases, as recommended by Dayton and Holloway (2011:80), and Saunders, Lewis and Thornhill (2012:383).

5.5 CONTRIBUTION OF THE STUDY

Since this study cannot be generalised to an unrepresented population as stipulated in Section 5.5 of this chapter, it will contribute to the state-owned passenger rail agencies within the Gauteng province (internal stakeholders) and to the academic fraternity as well as to all other stakeholders (i.e. external and connected stakeholders) at large in the following ways:

- It provides an understanding of current procurement practices within the state-owned passenger rail agencies in the Gauteng Province.
- It has identified and recommended areas that need to be improved by management within the procurement functions in these state-owned passenger rail agencies in the Gauteng Province.
- It recommends best or leading procurement practices, which can help eliminate irregular/unauthorised expenditure, fruitless and wasteful expenditure as well as other challenges if implemented within the state-owned passenger rail agencies in the Gauteng province.
- It contributes to communities at large by ensuring that the money saved through the elimination of fruitless and wasteful expenditure is used to help improve services, which in turn contributes positively to the economy of the country since passengers will be on time due to improved reliability of trains resulting in passenger rail

agencies being able to compete with the road transport industry. Currently, rail transport is unable to compete with road and air transport (RSA, 2017:17). As a result, there is congestion in road transport due to a lack of alternative reliable transport.

5.6 CONCLUSION

This chapter begins by presenting a brief introduction of the entire chapter. It discusses the summary of the study and a conclusion emerging from each research question. It presents the recommendations needed to be adopted by these state-owned passenger rail agencies to improve their procurement functions. In addition, limitations, significance or contribution of the study, conclusions and implications for future research are discussed.

Based on the primary or main objective of this study, which was seeking to explore the implementation of procurement practices within the state-owned passenger rail agencies in the Gauteng province, it has established that there are poor procurement practices due to procurement functions still operating as administrative functions rather than strategic functions, poor contract management during contract deliverables (i.e. lack of consequence management for selected tendering and poor tender administration) specifically when goods, construction work and services are acquired through selected tendering (closed tendering), and poor implementation of supplier management (specifically the lack of tools to monitor and measure supplier performance). Although both state-owned passenger rail agencies' procurement functions are still at an administrative level or function, one agency (i.e. agency number two) was attempting initiatives to move from an administrative to a strategic function, but there are no initiatives to improve their procurement practices in the other agency (i.e. agency number one).

Due to the lack of initiatives to improve their procurement practices, the following procurement challenges encountered by procurement officials were established, namely: lack of proper planning, lack of strategic support, lack of continuity in the executive leadership, poor specifications, ineffective BBBEE, ineffective central supplier database, lack of training and development of staff, inadequate resources, interference from the end-user and suppliers, delays in the approval of purchase requisitions and purchase orders, and ineffective communication as well as inadequate remuneration for procurement officials (both junior officials and management). This study also revealed that all the procurement functions'

challenges occurred in agency number one, while only three, namely: ineffective BBBEE, NCSD, and interference from end-user and suppliers occurred in the state-owned passenger rail agency, number two.

5.7 IMPLICATIONS FOR FUTURE RESEARCH

In this study, several suggestions for future research have emerged. The first suggestion is that further research should be conducted to examine the implementation of leading procurement practices to establish management initiatives and address procurement challenges (addressing poor contract management during procurement cycle, poor implementation of supplier management within multiple stages of the procurement cycle and procurement challenges encountered by procurement officials established in Section 4.7 Chapter Four). Moreover, further studies should be conducted focusing on identifying procurement or sourcing strategies that they might need to adopt in order to develop from administrative to strategic procurement functions.

The second suggestion for future research is associated with the National Central Supplier Database (NCSD) reported to be ineffective, as outlined in Section 4.3.5.6 (Chapter Four) of this study. Further studies focusing on the effectiveness and efficiency of the NCSD should be conducted at the National Treasury of South Africa to help identify the detailed challenges and benefits of using such a system as well as finding systematic ways to improve or replace the system with the best one for the benefit of all the NCSD users (procurement officials) in the public sector in South Africa.

The last suggestion for future research indicates that since this study utilised qualitative research methodology, a further study should be conducted utilising a mixed method approach in order to collect both non-numerical and numerical data rather than collecting single data, which could help the researcher ask questions that require both, namely, numerical (i.e. to trigger questions that require percentages of cost saving and many other numerical data) and non-numerical data.

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Appendix 1: Interview questions

SECTION A: GENERAL INFORMATION

1. Agency no.:
2. Demographic information
 - 2.1 Participant no.:
 - 2.2 Age:
 - 2.3 Position:
 - 2.4 Gender:
 - 2.5 Ethnicity:
 - 2.6 Highest qualification completed:
 - 2.7 Years of experience working in procurement:

SECTION B: PROCUREMENT PRACTICES

1. Kindly explain to me what you understand by the term procurement?
2. Please tell me about the value and contribution of the procurement function within your agency?
3. Please tell me about the current procurement process and the procedures followed in the typical acquisition of goods, construction work and services within your agency?
4. Explain to me what you understand by the term supply management?
5. Please explain to me how supply management is being implemented within multiple stages of the procurement process within your agency?
6. What are the procurement challenges that you encounter in your department?

QUESTIONS?

.....

THANK YOU FOR PARTICIPATING IN THIS STUDY

PARTICIPANT:

DATE:

Appendix 2: Turnitin report

project

by Caxwell Mkhabele

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Appendix 3: Declaration by language editor

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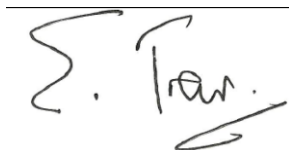
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10 December 2018.

LANGUAGE EDITING

This is to certify that I language-edited the dissertation “An exploration of procurement practices in the state-owned passenger rail agencies in Gauteng province,” by Caxwell Mkhabele for the M.Tech degree in Logistics, in the Faculty of Management Sciences, Vaal University of Technology.

A handwritten signature in black ink, appearing to read 'E. Trew', is written over a horizontal line.

Elizabeth Trew

Trew.eliz@gmail.com

021 424 6135

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