

The role of Supply Chain Management in South African public entities' influence on taxation expenditure and revenue

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Dissertation accepted in fulfilment of the requirements for the degree *Master of Commerce in Accountancy* at the
North West University

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Graduation ceremony: June 2021

Student number: 25068415

DECLARATION

I, Thato Miloane, declare that this dissertation is my own design, execution, unaided creative work that has not previously been submitted by me for a degree at this or any other university for awarding my qualification. All material contained and used herein has been duly acknowledged. Figures that appear in the text of this dissertation have been duly checked and are accurate.

ABSTRACT

The study aims to understand the role of supply chain management (SCM) in public entities to determine whether these public entities have an influence on South Africa's tax expenditure and revenue through a qualitative research methodology. Gauging the influence of SCM is done by first understanding SCM, particularly in the public sector, and the legislation (PFMA 1999, PPPFA 2000, B-BBEE 2003) which provides a framework for South African SCM. In addition, a contemporary understanding is important to South African SCM developments in order to inform its current standing.

The Auditor-General South Africa (AGSA) reports on the Public Finance Management Act (PFMA) 2014/15 to 2018/19 and the 2015 Public Sector SCM Review provide a credible depiction of SCM in South Africa. In applying purposive sampling, a sample of 40 public entities were purposefully extracted from the AGSA PFMA reports 2014/15 to 2018/19 based on the incurrence of irregular, unauthorised, fruitless and wasteful expenditure. A limitation however hinders the compilation of the sample of 40 public entities from the population of public entities, as some public entities have been unable to publish their annual financial statement to be audited by the AGSA.

The irregular, unauthorised, fruitless and wasteful expenditure is aggregated and through the use of emergent sampling, which is a subset of purposeful sampling, the top 10 public entities that contribute the most to the aggregated expenditure from the period 2014/15 to 2018/19 is composed to extract rich data which is a trait of purposive sampling. These top 10 public entities are identified to extract rich data in relation to the amount of tax revenue allocated to these public entities through tax expenditure that has been misused through the incurrence of irregular, unauthorised, fruitless and wasteful expenditure. The rich data provided by the top 10 also allows the researcher to identify the findings relating to SCM that has resulted in a waste of governments tax expenditure. These findings are supported by numerous news articles published in 2019 to 2021 even on mismanagement of the COVID-19 pandemic funds such as R430 million spent for sanitising schools in Gauteng.

The findings from the study revealed that there is significant non-compliance relating to SCM regulation during the period of 2014/15 to 2018/19. Tax expenditure which is misused creates a reliance on the budget deficit to allow government to continue with its mandate. The findings also reveal that the non-compliance to SCM legislation results in a

deteriorating tax morality, thus affecting governments tax revenue collection. In order to understand the implications of the findings, relevant literature is examined and synthesised so as to highlight the importance of tax morality and its effect on tax revenue collections. The significance of this study is that it aims to add to literature which highlights the consequences of non-compliance to SCM in public entities, specifically the consequence on tax revenue and expenditure.

Keywords

Auditor General, Corruption, Expenditure, Fruitless, Irregular, Non-compliance, Public entities, Supply Chain Management, Unauthorised

ACKNOWLEDGEMENTS

- All praise and glory to the almighty Jah (Lord) for providing me with the opportunity and strength to complete that which was assigned to me.
- My family who were very understanding of the amount of time I had to spend completing this important task.
- Professor M.J. Swanepoel for always believing in me and ensuring that I get the opportunity to prove myself.
- Doctor J.J. Swart for being patient with me, not giving up on me, not compromising his high standard and guiding me to be the best that I can be in fulfilling this task.
- Mrs V. Pelsler-Carstens for all the hard work and effort you put into reviewing my work and providing superb comments to my work.
- Professor H. Janse van Vuuren for your commitment to assisting me with every single question amidst your busy schedule. Observing the manner in which you conduct yourself in fulfilling your duties has proven to me that the true role of leadership is to serve.
- Mrs O. Stumke for all your valuable advice that you have given me through your experience.
- The School of Accountancy for their support and good wishes for me.
- Any other person not mentioned above that contributed, sincerely, thank you.

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LIST OF ABBREVIATIONS

AGSA = Auditor General South Africa

BUSA = Business Unity South Africa

CEO = Chief Executive Officer

CSCMP = Council of Supply Chain Management Professionals

DSSA = Department of Statistics South Africa

DoRA = Division of Revenue Act

DTI = Department of Trade and Industry

GPU = Ground Power Units

MTBPS = Medium Term Budget Policy Statements

PDA = Protected Disclosures Act

PFMA = Public Finance Management Act

PPPFA = Preferential Procurement Policy Framework Act

SA = South Africa

SAAT = South African Airways Technical

SARS = South African Revenue Service

SCM = Supply Chain Management

SAIPA = South African Institute of Professional Accountants

SCC = Supply Chain Council

SCOR = Supply Chain Operations Reference

SCPMS = Supply Chain Performance Measurement System

SOE = State-Owned Entity / State-Owned Enterprises

PA = Performance Agreements

PAA = Public Audit Act

PRASA = Passenger Rail Agency of South Africa

CHAPTER 1: INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

Lu (2011:8) supported by Dulababu *et al.* (2018:1) define supply chain management (SCM) as organisations connected together by the products or services that they separately or jointly add value to, in the aim of delivering the product or service to the end customer. Arrowsmith and Tillipman (2010:1) propose that in a government context, public SCM relates to government's engagement in acquiring and providing goods and services, which are essential in the effective and efficient execution of its mandate. Supply chain management includes sourcing, manufacturing, transporting, financing, and selling physical products or services with the objective of satisfying the end customer (Felea & Albastoiu, 2013:76). Du Toit and Vlok (2014:26) concur with Lu (2011:8) and Dulababu *et al.* (2018:1) that SCM encompasses the interaction between different role players through processes, functions, and activities in delivering the product to the end customer.

Roy (2017) identifies that effective and efficient SCM requires people and processes — people who are equivalently skilled and competent to operate a successful SCM system, and are supported by processes in place within SCM systems, which aim to satisfy the end customer. In a government context, government officials are the responsible people for facilitating the government's mandate; processes in the same context refer to efficient SCM systems that prioritise the public's needs through quality service delivery.

Seemise (2017) assess that service delivery is the provision of a service or good by government to its citizens in the execution of its mandate. Public services delivery should be available to all, regardless of income, physical ability or mental ability. Examples of public service delivery is the provision of electricity, water, education, and health care. The Public Sector SCM Review (2015) outlines that an efficient and effective SCM should deter poor service delivery, inferior quality goods, poor infrastructure, corruption, and a waste of taxpayers' funds.

Engel (2019:2) proposes that one of the best practices that an organisation can establish to deter fraud and corruption in a SCM system is that the organisation should establish appropriate levels of control to minimize risk. Duhadway, Carnovale and Hazen (2017:180) explain that risk mitigation must be accompanied with controls that promote organisations to periodically review their policies and controls to ensure that failures in SCM do not create

bottlenecks for the organisation. The objective is to streamline all organs of an organisation without sacrificing the ability to deter fraud.

The AGSA PFMA report 2014/15 to 2018/19 highlights that there is a regression in SCM as far as addressing contracts being awarded to employees and their relatives without declaring conflict of interest (AGSA, 2019). There are also vacancies in key positions and instability at board and management levels, which makes it impossible to hold those responsible accountable. Horn and Ragga (2012:80) suggest that the failure in SCM is caused by incidents lacking accountability, political interference in SCM as well as the appointment of inexperienced and unqualified officials. Horn and Ragga (2012:80) further suggest that other causes for the failure in SCM are:

- ◁ the lack of technical expertise in bid committees who are responsible for deciding parties who obtain government contracts;
- ◁ lack of understanding of relevant regulatory framework by government officials; and
- ◁ non-compliance to SCM policy framework.

Moeti (2014) argues that to a certain extent, majority of fraud and corruption within public SCM is facilitated through poor procurement management and control within the SCM system. The consequences of failing SCM systems as illustrated by Moeti (2014) and Horn and Ragga (2012) become evident in the FM Global Supply Chain resilience rankings.

FM Global (2019:3) ranks 130 countries each year on their supply chain resilience ranking. These countries are assessed on several factors such as local control of corruption, corporate finance, productivity, supply chain visibility, and components that could pose a threat to making SCM more efficient. Norway is ranked as the leader due to control of corruption, corporate governance, and political stability. Denmark is placed second due to its improvement in supply chain visibility. Switzerland is ranked third due to quality of infrastructure, quality of local suppliers, and corruption being low. South Africa fell from 39th to 47th in 2019 due to the decrease in corporate governance and increase corruption (FM Global, 2019:3).

The level of corruption, corporate governance failure and financial impact on the fiscus of South Africa will be discussed later in this chapter. The development of legislation will be discussed in the following chapter to which will be followed by SCM failures in the South African government. The AGSA PFMA (2019) report relating to SCM will then be analysed

to determine whether the tax revenue is spent for its intended purpose and the results it may have on the South African Government tax revenue and expenditure.

1.1.1 SCM legislation

South African SCM has evolved since 1994 as reforms were legislated to promote principles of good governance. Ambe (2016a:277) notes that the reform process instituted post 1994 were initiated due to inconsistencies in policy application and fragmented processes. This is because prior to 1994, public procurement in South Africa was geared towards large and established contractors (Ambe & Badenhorst-Weiss, 2012). Public procurement being limited to established contractors resulted in difficulty for newly established contractors to bid for government contracts.

Vabaza (2015:1) reports that in 1996, reforms were implemented by government passing Section 217 of *The Constitution of South Africa Act*. The reforms made requires that any structure of government (whether it is a State Owned Enterprise (SOE)), national, provincial department, local sphere of government or any other institution identified in national legislation) to tenders for bids or services in a fair manner. The *Constitution of South Africa Act* 108 of 1996 in terms of Section 217 stipulates that the allocation of tenders and contracts should be done in accordance with a system which is fair, equitable, transparent, competitive, and cost effective. The Preferential Procurement Policy Framework Act (PPPFA, 2000) was enacted in aid of Section 217 of the Constitution (DTI, 2017) to promote the Broad-Based Black Economic Empowerment (B-BEEE).

The National Department of Trade and Industry (DTI, 2014) proposes that the PPPFA (2000) requires that when government assesses contracts within SCM, it should distinguish eligible bidders on the basis of a preference point system, which highlights price, functionality and reconstruction development programme (RDP) goals (DTI, 2017). In 2003, government also legislated the B-BBEE with the intention of advancing economic transformation and the enhancement of economic participation of black people in the South African economy. To govern the financial management and procurement over public entities, the PFMA of 1999 was legislated.

The B-BBEE (2003), PPPFA (2000), and PFMA (1999) established various requirements for public entities that are similar and are necessary to examine in order to obtain an understanding of the requirements of compliance to the relevant laws and the impact they

may have on government tax expenditure. The relevance between the PFMA, PPPFA and B-BBEE are discussed in the subsequent section.

1.1.2 The Public Finance Management Act of 1999

Vabaza (2015:1) argues that the PFMA Act 1 of 1999 was implemented to regulate and reiterate the constitutional requirements of Section 217 of the Constitution in a financial management context. The PFMA (1999) provides a framework, regulates, and provides processes to be followed in the management of government finances within public entities, whether it be at national or provincial level (SA, 1999). A public entity is an entity regulated and established in terms of legislation. It is also accountable to Parliament as it is funded by the fiscus (Bezuidenhout & Pilane, 2019:3). The PFMA of (1999) sets minimum standards that are to be applied for proper and successful SCM on the five pillars of procurement. These pillars are:

1. Value for money
2. Open and effective competition
3. Ethics and fair dealing
4. Promote accountability
5. Reporting and equity

Section 38 of the PFMA (1999) states that officials of government are required to take appropriate steps to prevent any irregular and wasteful expenditure. According to the PFMA, fruitless and wasteful expenditure is described as expenditure which was deemed futile and could have been avoided had reasonable care been practised. The AGSA (2019) report indicates that irregular and wasteful expenditure increased to R62,60 billion in the 2019 year of assessment.

Section 83 of the PFMA (1999) highlights that when an accounting officer or official of government is charged with financial misconduct, the misconduct must be investigated, heard, and disposed of in terms of the relevant framework to the employee's employment. The AGSA (2019) report indicates that, of the public entities they audited, they found that the accounting officers demonstrated a lack of understanding and awareness with regard to requirements and due diligence of relevant legislation. Ambe (2016b:20) argues that National Treasury acknowledges that even with SCM legislation guidelines and practices in public procurement, the implementation of these guidelines and practices remains a

challenge. These challenges are highlighted in the annual reports that the Auditor-General South Africa publishes.

1.1.2 Auditor-General of South Africa

The AGSA is mandated to audit all public entities, the audit outcomes are then assessed in annual reports to assess compliance with regards to the PFMA (AGSA, 2019). The consolidated AGSA PFMA reports on non-compliance of SCM relating to competitive bids not being invited, quotations not being obtained, preferential procurement regulations not being applied or being incorrectly applied (AGSA, 2019). Table 1.1 serves as summary of the:

- ◁ AGSA Consolidated PFMA reports 2014/15 to 201/19 on irregular and wasteful expenditure;
- ◁ tax revenue allocated by the Division of Revenue Bill; and
- ◁ population statistics obtained from the National Department of Statistics South Africa (DSSA), per year for the years ended 2013/2014 to 2018/2019.

Table 1.1: Irregular and wasteful expenditure as reported by AGSA for public entities

Year of assessment	Irregular and wasteful expenditure R billion	Tax revenue allocated through DoRA R billion	Irregular and wasteful expenditure as a percentage of Tax allocation	Population of South Africa	Irregular and wasteful expenditure rand per capita
2013/14	33.6	1 142.5	2.9%	53.7 million	624.8
2014/15	25.6	1 222.3	2.0%	54.9 million	469.3
2015/16	31.5	1 222.3	2.5%	55.2 million	571.3
2016/17	45.6	1 318.3	3.4%	56.0 million	814.0
2017/18	51.0	1 409.2	3.6%	57.7 million	883.4
2018/19	62.6	1 512.2	4.1%	58.7 million	1 065.0
Total	255.9	7 826.9			4 4278.8

Source Adapted from: AGSA (2014), AGSA (2015), AGSA (2016), AGSA (2017), AGSA (2018), AGSA (2019), DSSA (2014), DSSA (2015), DSSA (2016), DSSA (2017), DSSA (2018) and DSSA (2019)

Table 1.1 seeks to represent irregular and wasteful expenditure as a percentage of tax revenue allocated to determine proportion of tax revenue allocated which is misused. The irregular and wasteful expenditure rand per capita serves as a mere indication of how much each South African would receive were government to distribute this expenditure to its citizens.

In analysing Table 1.1 it can be concluded that from 2013/14 to 2018/19 irregular expenditure almost doubled in value. Irregular expenditure ranges from 2,09% to 4,14% as a percentage of tax revenue allocated. This may seem like a small percentage, but these are billions of rands. The National Department of Basic Education's budget amounts R22.72 billion; the National Department of Health R47.14 billion; and National Department of Human Settlements R32.35 billion (South African Market insights, 2019). The 2018/19 R62.60 billion irregular and wasteful expenditures could fund each one of these departments individually and thereby double these departments' capacity. The AGSA (2019) assesses that the enormous irregular expenditure is as a result of lack of controls relating to compliance with SCM. The AGSA (2018) assesses that the failures in SCM

resulted in irregular expenditure amounting to R51 billion; false declarations of interest by 1 372 suppliers; and not being able to audit procurement of R6.5 billion. Gerber (2019) emphasises that year after year, contracts are awarded to employees and their families without the necessary declarations of interest. The AGSA highlights that the auditees subject to this irregular expenditure demonstrate a lack of understanding and awareness of legislative requirements to a point where the requirements are disregarded.

The accumulated year-end balance of irregular expenditure not dealt with or recovered amounts to R174.88 billion (Omarjee, 2019a). This R174.88 billion is government tax expenditure, which was allocated from the budget to achieve government's mandate. The misuse of funds by public entities due to poor SCM creates a reliance on tax revenue generated by government to ensure their survival. This survival prohibits the development of the country as the country cannot allocate adequate funds for social and economic development. The AGSA (2019) states that even after all the red flags raised, the recommendations to address the non-compliance, unfair, and uncompetitive procurement process, little has been done to correct the red flags. The red flags raised and little being done to implement the recommendations highlight the extent to which fraud has plagued South African public entities SCM systems. The fraud triangle theory is discussed below as part of the aforementioned fraud and corruption.

1.1.3 Fraud triangle

Vos *et al.* (2015:1) define fraud as the intentional and unlawful misrepresentation of information that results in potential or actual prejudice. American criminologist Donald Cressey conceptualised the fraud triangle theory in the 1950s; its purpose is to establish the factors that lead to fraud and other unethical behaviour. The three factors that make up the fraud triangle are pressure, opportunity, and rationalisation (Schuchter, 2016:3; Abdullahi & Mansor, 2015:40). Vos *et al.* (2015:1) propose that most individuals require some form of pressure to commit a criminal act. This may include money problems, greed, gambling, or debt. Pressure is not limited to financial pressure, it may include social or political pressure, however, financial pressure is recognised as the most common factor that will lead to fraud. Abdullahi and Mansor (2015:40) further propose that the opportunity to commit a crime without being apprehended must exist. Opportunity emanates from ineffective internal controls and weak corporate governance. Ineffective controls provide employees with the opportunity to realise the weakness inherent within an organisation. To commit a criminal act, the individual must also rationalise the criminal act by attempting to justify his/her

actions (Crews, 2015). This means that the perpetrator must formulate a morally acceptable reason to justify the unethical behaviour. Abdullahi and Mansor (2015:42) propose that a fourth element is to be added to the fraud triangle, referring to it as the fraud diamond. The fourth element is referred to as capability. Capability means having the necessary traits, abilities and skills to commit fraud (Abdullahi & Mansor, 2015:42). Capability is necessary in converting an opportunity into fraud.

Factors of the fraud triangle become evident in the following cases against government employees who are responsible for facilitating government's mandate with due diligence. Viljoen (2019) reports that in a public entity, an employee handed himself in after being sought by the Hawks — it was alleged that he committed fraud to the amount of R1.3 million. He had been on the run after an internal audit by Eskom found that he submitted numerous false invoices for a tender that was awarded to him in 2013/2014 (Viljoen, 2019). Chirume (2019) reports that a former acting Chief Executive Officer (CEO) of the Passenger Rail Agency of South Africa (PRASA)'s Rail Division was dismissed on charges of fraud, money laundering, and theft amounting to over R1.5 million. The chair of disciplinary inquiry concluded that the former acting CEO: "blatantly undermined the authority of the Board and PRASA management. He abused the recruitment and disciplinary processes of the employer to victimise, harass and make employment for those who did not agree with him intolerable" (Chirume, 2019).

The allegations raised in these two cases highlight some of the factors described in the fraud triangle. Pressure with the respective cases may not have been clearly stated but opportunity may have presented itself to them due to the position they respectively held. The first perpetrator had the opportunity to falsify invoices to the tender he was awarded while in employment of the SOE, he may have also rationalised that if he was on the run he would not be brought to justice. The former acting CEO saw the opportunity for theft and money laundering. The former acting CEO may have rationalised that as the CEO, he could abuse the disciplinary and employment process concerning those who did not agree with him.

The Judicial Commission of Inquiry into Allegations of State Capture (SA, 2018:5) was established to investigate, report, and make recommendations on allegations of corruption and fraud in the public sector including organs of state. The commission is to inquire whether present or previous members of national executive or public officials breached any relevant ethical code or legislation in awarding tenders to benefit other individuals or entities

(SA, 2018:5). The findings of the AGSA, the application of the fraud triangle in the above cases, and the establishment of the Commission of Inquiry illustrates that the tax revenue allocated to organs of government is not used for its intended purpose. Omarjee (2017) argues that income tax, for individuals and companies, are raised year after year only for these tax funds to be misused by those charged to facilitate government's mandate. The misuse of taxpayers' funds does not only constrain government but also inhibits economic growth for the country (National treasury, 2020).

1.1.4 Income tax

The 2018 Medium Term Budget Policy Statements (MTBPS, 2018) projected a 2018/19 tax revenue shortfall of R27 billion; this tax revenue shortfall was later revised to R42.8 billion. Reports by the South African Revenue Service (SARS) Commission highlight maladministration and abuse of tender procedures that occurred at SOE's between 2014 and 2017. The SARS Commission's main finding is that these failings stem from a "massive failure of governance and integrity after the appointment of the entity's previous commissioner in 2014" (Minter Inc, 2019).

Omarjee (2017) reports that Business Unity South Africa (BUSA) CEO Tanya Cohen stated that "South Africa has simply run out of space to increase taxes significantly in the current socio-economic and political environment without doing undue harm to the economy". Omarjee (2017) further elaborates that since 2015/16 measures have been introduced by SARS to increase tax revenue collected. This resulted in SARS increasing tax rates for personal income tax, dividend withholding tax, capital gains tax, and value-added tax. Mandy (2017) states that, "increasing corporate tax rate would further dent investor confidence and economic growth while Value-Added Tax is politically sensitive due to its regressive nature, notwithstanding that this is the one area where large amounts of revenue could be raised across a broad tax base while minimising the damage that further tax increases would do to economic growth".

The South African Revenue Service makes deposits of all taxes, levies, and duties collected into the Revenue fund (PFMA, 1999). National Treasury, through the Division of Revenue Bill (DoRA 2019 Schedule 1), allocates the revenue raised nationally among national, provincial, and local spheres of government. In 2019, the total revenue which was nationally allocated amounted to R1 658 billion, of which SOEs received R1 084 billion

which represents 65% of that funding. Provincial government was allocated R505 billion, and local government was awarded R69 billion (DoRA 2019 Schedule 1).

Madlopha (2016) suggests that empirical evidence highlights that there is a correlation between economic growth and government spending, thus the lower tax revenue collection has detrimental effects on the economy as government has less tax expenditure to utilise in growing the economy. Madlopha (2016) further proposes that corruption increases the tax expenditure required to fulfil governments mandate and reduces tax revenue, thus it can be concluded that corruption has some contribution to the large budget deficit. Khumalo (2019) proposes that this is evident as the budget deficit for the first quarter of the 2019/20 financial year increased to R57.5 billion from the 2018/19 financial year which recorded a budget deficit of R27.59 billion.

1.1.5 Budget deficit

A budget deficit occurs when a government spends more money than it collects (Trading Economies, 2018:5). Riley (2021) suggest that numerous governments operate on a persistent annual deficit, this results in governments resolving to seek assistance from financial lenders to continue afloat. Omarjee (2020b) posit that public entities are increasingly depending on government to acquire funding from financial lenders in the form of government guarantees to be able to fulfil their strategic objectives. National Treasury (2019) reports that the “Additional financial support to Eskom and the preliminary indication of tax revenue shortfall relative to the 2019 Budget has resulted in a revised funding strategy and an increase in government borrowing requirements for 2019/20”.

Swart and Swanepoel (2019:11) conclude that billions of rands in tax revenue are distributed to unauthorised recipients. This results in poor service delivery and the destruction of infrastructure by disgruntled communities. There are numerous instances of non-compliance with significant monetary consequences. The tax revenue lost through government’s irregular and wasteful expenditure is money which was allocated to facilitate government’s mandate and serve the public at large (Corruption Watch, 2021). This lost revenue could have been used, for example, to fund programs such as free education for all citizens or the proposed National Health Bill. South African SCM systems are faced with many challenges that vary from fraud and corruption to incompetent staff being appointed to facilitate government’s mandate. These challenges have a direct effect on government tax

spending and collection. This study will therefore seek to uncover the impact of these failing SCM systems on government tax spending and collection.

1.2 Problem statement

Legislation over the years has provided a framework to government regarding SCM, however, the PFMA AGSA reports 2014/15 to 2018/19 have repeatedly over the years raised red flags concerning material irregularities in public entities' SCM processes. These concerns by the AGSA are emphasised by various authors in the form Swart and Swanepoel (2019:11), Madlopha (2016), Viljoen (2019) and SA (2018:5). The Medium-Term Budget Policy Statement (2019) identifies that the tax revenue estimates have been revised down on a consistent basis since 2014/15. National Treasury (2019) highlights that in combating the declining tax revenue, tax increases have been instituted; the concern now is whether public entities' SCM operations have an influence on government tax revenue and expenditure. There is an abundance of literature on South African SCM, however, there is a lack of literature on the impact of these SCM systems on tax revenue and expenditure.

1.2.1 Research question

The research question that needs to be answered is: What is the role of supply chain management in South African public entities and its influence on taxation expenditure and revenue? This answer to this question is important as there are public entities which provide goods and services that cater to basic human rights, this means that public entities specifically in the human rights sector must operate in an effective and efficient manner. The influence on tax is also needs to be determined as taxpayers' funds are utilised to fund governments mandate, this means taxpayers must get value for money

1.3 Objectives of the study

The following objectives have been formulated for the study:

1.3.1 Primary objective

The primary objective is to obtain, from PFMA Consolidated General reports issued by the AGSA 2014/15 to 2018/19 reports, an understanding of SCM in public entities and their historical performance with the aim to determine whether public entities' SCM operations have an influence on tax expenditure and tax revenue collection.

1.3.2 Secondary objectives

1.3.2.1 Theoretical objectives

- ◁ Conduct content and document analysis of relevant legislation to gain a legal basis for the study (Chapter 2).
- ◁ Analyse a variety of literature through content and document analysis to gain an understanding of what SCM is and what its role in the public sector is (Chapter 2).
- ◁ Review literature on SCM to determine appropriate elements that should be in place for efficient and effective SCM systems (Chapter 2).
- ◁ Examine the 2015 public sector SCM review and AGSA reports 2014/15 to 2018/19 to gain insights into the current standing of South African SCM and determine whether it is effective and efficient or not (Chapter 2).
- ◁ Determine the application of the fraud triangle on South African corruption allegations (Chapter 2 and Chapter 4).

1.3.2.2 Empirical objectives

- ◁ Formulate a database of 40 public entities, which will provide amounts of irregular, unauthorised, fruitless, and wasteful expenditure from the consolidated AGSA PFMA reports 2014/15 to 2018/19. This database will also be of value in aggregating this expenditure to determine how much tax expenditure has been misused (Chapter 4).
- ◁ Summarise findings on SCM reported on by the Auditor-General for the period 2014/15 to 2018/19 to determine what the trend has been over the years 2014 to 2019 (Chapter 4).
- ◁ Extract the top 10 public entities from the database of 40 which will be based on public entities that have contributor the most to the aggregated expenditure to establish the amount misused by these 10 and cause for SCM non-compliance within these public entities (Chapter 4).
- ◁ Analyse tax revenue collections and tax revenue shortfalls from 2015/16 to 2019/20 to determine whether there is a relation to how public entities' SCM performs (Chapter 4).

1.4 Research design and methodology

A qualitative research methodology approach will be adopted as Hancock, Ockleford and Windridge (2013) argue that qualitative research involves an explicit and systematic approach in broadening or understanding how things came to be. Qualitative research

focuses on the interpretation of literature or data with the aim of understanding organisational processes and development of new concepts. A qualitative approach will be of benefit as it is meant for research involving large volumes of text. Austin and Sutton (2015:229) and (Bowen, 2009:28) explain that a qualitative research approach is required to draw on multiple (at least two) sources of evidence. This means that secondary data will be relied on in the form of: previous researcher's work; Auditor-General reports; PFMA legislation; and frameworks on SCM. The use of a qualitative approach to secondary data will allow the researcher to:

- ◁ Analyse a variety of literature to gain an understanding of SCM and its role in the public sector.
- ◁ Determine best practices of SCM in comparison to the performance of South African public entities.
- ◁ Summarise finding of the AGSA on SCM and the public SCM review to gain an understanding of SCM in South African public entities.
- ◁ Determine through the use of literature whether there is a connection to public entities SCM performance and tax revenue and expenditure.

The examination of these secondary sources will aid the researcher in seeking convergence and corroboration through the use of different data sets leading to an interpretive paradigm.

According to Babbie (2016:328) content analysis is a process of transforming data into a standardised form of information. Content analysis is usually utilised in analysing public documents such as annual reports, legislation, policies, editorials in newspapers, and political speeches. Content analysis is closely linked with document analysis as document analysis is a systematic procedure for reviewing or evaluating documents, whether it be electronic or printed (Bowen, 2009:27). Through content analysis, an examination of the AGSA PFMA from 2014/15 to 2018/19 will be executed with the aim of determining the amount of government tax expenditure lost by the public entities in this study, through the incurrance of irregular, unauthorised, fruitless and wasteful expenditure. The PFMA (1999) sets a legislative benchmark for public entities to achieve effective and efficient SCM systems. Examining the AGSA PFMA consolidated reports released annually, will aid in determining the root causes of ineffective and inefficient SCM. Beland and Howlett (2016:224) demonstrate that analysing policies, especially when comparing compliance within government departments, should be done when a crisis emanates. Through the

process of research, it will be determined if South African SCM systems within public entities are in a crisis and if such a case affects tax revenue and expenditure.

1.5 Literature review

Ajayi (2017:2), supported by Hofstee (2006:51), proposes that secondary sources are based on primary sources that someone else has interpreted or analysed. Literature in the form of theses, dissertations, books, journals, publications, and the Internet will be relied on to formulate a view on the impact of SCM on government taxes. Legislation will be examined with reference to SCM in respect to national public entities.

1.5.1 Target population

The focus of the study will be based on public entities, which is defined as an entity regulated and established in terms of legislation that is accountable to Parliament as it is funded by the fiscus (Bezuidenhout & Pilane, 2019:3). There is currently a total of 41 national departments and 128 provincial departments of which SOEs are subsidiaries of national and provincial departments according to the respective departments (AGSA, 2019).

1.5.2 Sample method

Moser and Korstjens (2018) explain that qualitative sampling is the process of selecting participants or context which/who provide rich data of the phenomenon of interest/study. Gentles *et al.* (2015:12) propose that sampling is the selection of specific data sources from which data is collected to address the research objectives. Qualitative sampling begins with organising large amounts of data into smaller and manageable units. This is an imperative characteristic of qualitative sampling as it will assist the researcher in extracting data from each of the AGSA PFMA reports 2014/15 to 2018/19 to create a sample of 40 public entities which will then be filtered down to 10 for purposes of the study in achieving the empirical objectives.

Swart (2018:201) illustrates that a small sample size using qualitative purposive sampling can provide rich data for the researcher to analyse in achieving the objectives of the study. In his study he finds that 30% of his sample constitute 75% of the data to be analysed for his study, and therefore filters his sample size to the 30% which provide rich data for his study. This is the premises for further extracting a sample of 10 public entities from the initial 40 public entities, the top 10 public entities constitute 25% (10 out of 40) of the total

sample size of 40 public entities. The aggregate irregular, unauthorised, fruitless, and wasteful expenditure of these 10 public entities however constitute 70% (R94 210,6 million out of R134 548,3 million) of the aggregate expenditure.

In applying purposeful sampling, a sample of 40 public entities will be purposefully extracted from the PFMA AGSA reports 2014/15 to 2018/19 based on the incurrence of irregular, unauthorised, fruitless and wasteful expenditure. The irregular, unauthorised, fruitless and wasteful expenditure will then be aggregated and through the use of emergent sampling, which is a subset of purposeful sampling, the top 10 public entities that contribute the most to the aggregated expenditure from the period 2014/15 to 2018/19 is composed to extract rich data on the root cause of this exorbitant expenditure in relation to public entities SCM operations.

Lopez and Whitehead (2013:125) define theoretical sampling as sampling that occurs sequentially and alongside data analysis. Theoretical sampling involves secondary data guiding the selection of data that needs to be collected next in the fulfilment of the researcher's objectives. Assessment of these SCM systems will be based on the findings of the AGSA PFMA consolidated reports from 2014/2015 to 2018/2019 to determine the extent of the effect of public entities' SCM on South African tax.

1.5.3 Sample size

The PFMA (1999) classifies public entities as national departments, provincial departments, and SOEs; this classification will also be applied to the examination of the secondary data for the purpose of this study. This study will include SOEs, national departments, and provincial departments mentioned within the AGSA PFMA. Vasileiou, Barnett, Thorpe and Young (2018:5) argue that that there is no straightforward answer to the question of how many participants should be included in a sample size?

Question pro (2020) explains that in qualitative research sample sizes tend to be small in order to support the depth of case-oriented analysis that is fundamental to this mode of inquiry. This is of particular importance to qualitative purposive sampling, this is because the participants are selected by virtue of their capacity to provide richly textured information, relevant to the phenomenon under investigation. Moser and Korstjens (2018) however argues that it is necessary in qualitative sampling to sample to the point where a researcher reaches data saturation.

Mason (2010) highlights through his/her study that the minimum sample size for all qualitative research should include a minimum sample size of 15 participants. Van Rijnsoever (2017:12) proposes that in conducting purposive sampling different scenarios dictate the minimum sample sizes required but it is advisable to attempt to keep sample size below 50 participants due to time constraints of a given study. Hagaman and Wutich (2017:33) propose that sample sizes of 20 to 40 participants achieve data saturation of meta-themes that cut across research fields. The views of Manson (2010), Rijnsoever (2017:12) and Hagaman and Wutich, result in the sample size of this study to amount to 40 public entities from provincial to national with the aim of achieving data saturation and meet the sample requirements of qualitative research.

Researcher in the field of SCM seem to focus more on explaining concepts of SCM rather than engage in the process of analysing public entities financial data, literature pertaining to this limitation is displayed by Mkhwanazi (2019:20), Ambe (2019:132), Bezuidenhout and Pilane (2019), Boshmane (2015), Dzuke and Naudé (2015). However, Swart and Swanepoel (2019:5) successfully make use of a sample 10 public entities to illustrate the numerous instances of financial misconduct and non-compliance relating to the PFMA from the period 2014 to 2019. The lack of analytical data in public entities finances by numerous researchers and the successful approach take on by Swart and Swanepoel (2019:5) inform the decision to filter down sample of 40 public entities sample to 10 public entities based on the aggregate incurrence of irregular, unauthorised, fruitless and wasteful expenditure. These entities will then be analysed to determine the factors present in public entities SCM that has resulted in a waste of tax expenditure.

1.6 Ethical considerations

The research is qualitative in nature and will be based on secondary resources. The documents are all in the public domain and access is thus not limited. The ethical considerations concerning secondary data will be to ensure that the secondary data being used is reliable and valid. All relevant ethics clearance documentation was submitted and approval was granted. The ethics number issued for this study is: NWU-00784-20-A4.

1.7 Chapter classification

Chapter 1: Introduction and background to the study

The background, problem statement, and research objectives are discussed.

Chapter 2: Literature review

A review of relevant literature is offered in this chapter.

Chapter 3: Research design and methodology

This chapter offers a review of research methods used in this study.

Chapter 4: Results and findings

The results of analysis are presented along with the findings of this study.

Chapter 5: Conclusions and Recommendations

This chapter concludes all the findings.

CHAPTER 2: SUPPLY MANAGEMENT AND LEGISLATION LITERATURE REVIEW

2.1 Introduction

Chapter 1 serves as introduction to public entities and their irregular and wasteful expenditure, it also encompasses the objectives, problem statement, and methodology that will be adopted in the study. With the aim of gaining further understanding of SCM, public entities and taxation, literature in the form of theses, dissertations, books, journals, publications analysed are included in this study to formulate a view on the impact of SCM on government taxes. Legislation will be examined with reference to SCM in respect to national public entities.

Thus, in Chapter 2, through content and document analysis, an examination of relevant legislation will be done to establish a legal basis for the study. Content and document analysis will also aid in gaining an understanding of what SCM is and what its role is in the public sector. In the understanding of SCM and its role in the public sector, it will be important to review literature on SCM to determine appropriate elements that should be in place for efficient and effective SCM systems. The Public Sector SCM Review (2015) and consolidated AGSA PFMA reports will provide suitable analysis to establish current standing of South African SCM and determine whether or not it is effective and efficient.

The literature review is hereafter set out in Chapter 2 and will delve into relevant literature that is applicable to the study. The literature review aims to identify the relevant legislation which governs SCM and seeks to establish the current standing of South African SCM. Figure 2.1 is an illustration of the content of Chapter 2.

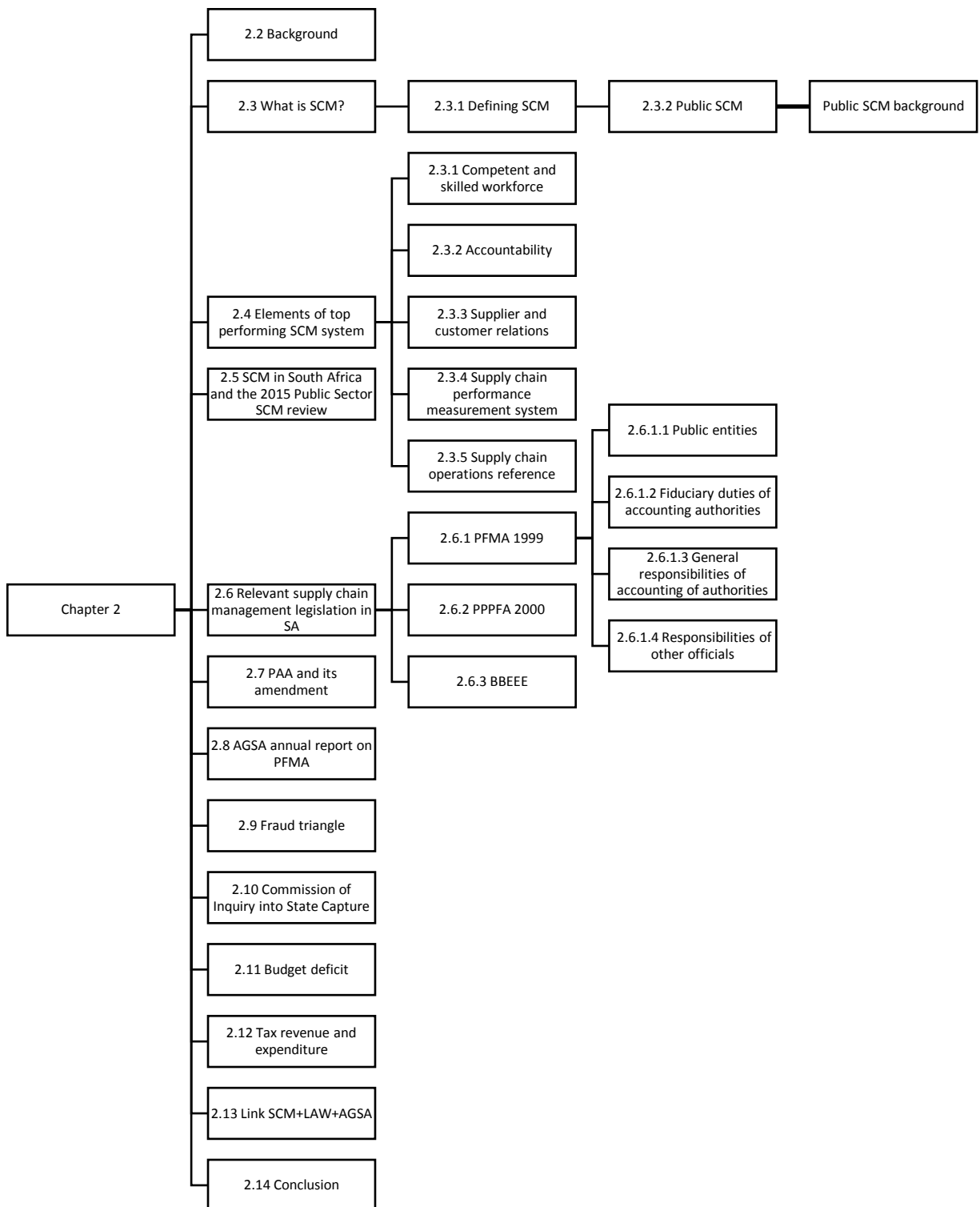


Figure 2.1: Summary of Chapter 2 framework

2.2 Background

The structure of literature to be analysed in Chapter 2 is depicted by Figure 2.1. This literature analysis will go through a process of defining the concept of SCM and how it

relates to the public sector. These definitions will then be followed by relevant legislation (PFMA 1999, PPPFA 2000, B-BBEE 2003) which is most applicable to public SCM in government. The consolidated AGSA PFMA reports are also incorporated into the study as their annual reports are based on the compliance with relevant legislation. In Chapter 1 it was determined that during 2019 FM Global (2019) ranked South Africa's 47th out of 130 based on the countries SCM. South Africa was ranked 47th due to non-compliance with SCM legislation and increasing corruption levels. This is also evident from the Auditor-General's findings relating to non-compliance remaining high year after year with its findings not being acted on with regard to relevant legislation (AGSA, 2019).

The AGSA (2019) attributes the non-compliance to a number of factors, these factors exhibit characteristics of the fraud triangle, which summarises fraud into three elements. Table 1.1 in Chapter 1, which is a summary of the Auditor-General reports of public entities expenditure from 2014/15 to 2018/19, exhibits the allocated tax revenue lost as a consequence of increasing corruption and decreasing corporate governance.

The allocated tax revenue lost through misappropriated expenditure is illustrated through the R62.6 billion irregular and wasteful expenditures for the 2018/19 year of assessment, which is enough to double the budgetary capacity of some of government's departments (AGSA, 2019). It is clear from Chapter 1.1.5 that the collection of irregular and wasteful expenditure has an impact on the ever-increasing government budget deficit; to combat the budget deficit, measures have been implemented by increasing tax rates evident in Chapter 1.1.4. The desired solution has been achieved as the revised tax revenue projected shortfall for 2018/19 by the Medium Term Budget Policy Statements (MTBPS) amounts to R42.8 billion.

In Chapter 2 it will be important for the researcher to further examine literature on what SCM is by examining other researcher's literature on SCM to gain an understanding of SCM. Subject to the understanding of SCM, it will be of benefit to identify elements of effective and efficient SCM to be able to determine whether South African public entities exhibit these traits. The supply chain operations reference (SCOR) model will be referenced as it is a standard benchmark for organisations to test the effectiveness and efficiency of their SCM (Galea-Pace and Brand, 2020:16). The PFMA will also be examined as it is the legislative framework for public entities in South Africa. The 2015 public sector SCM review will be analysed to gain an understanding of the state in which South African SCM currently

stands in comparison to legislative requirements. The 2015 public sector SCM review is utilised as it is the most recent review of public SCM.

2.3 Supply chain management and its relation to the public sector

2.3.1 Defining SCM

Supply chain management does not have one single definition as it is interpreted from various perceptions by a number of different authors. Therefore, to understand the concept of SCM, these various perceptions need to be analysed in order to establish a common understanding of what SCM is. The common traits found in each author's explanation of SCM will be of great relevance in understanding the public sector SCM in relation to this study. Table 2.1 offers an overview of the varying definitions related to SCM.

Table 2.1: SCM definitions

Authors	SCM Definitions
Christopher (2016:3) supported by Hugos (2018:3)	"The management of customers and suppliers with the aim of delivering superior customer value at less cost to the supply chain".
Monczka <i>et al.</i> (2015:13)	"SCM is a strategic approach for acquiring an organisations' current and future needs through effectively managing the supply chain. It is a process of identifying, evaluating, selecting, managing, and developing suppliers to perform better than competitors in aim of delivering quality goods or service to the end customer".
Council of Supply Chain Management Professionals (CSCMP) (2015)	"SCM encompasses the planning and management of all activities involved in sourcing, procurement, conversion, and logistics management. It also includes the co-ordination and collaboration with suppliers, intermediaries and customers".
Hugos (2018:5)	"SCM is the activities management performs to influence and co-ordinate the flow of products and services to best serve the ultimate customer".
Fredendall and Hill (2016:12)	"A system of closely linked processes which delivers products or services to the end customer, an entire supply chain stretches from the creation of raw materials to the delivery of finished goods".
Prakash <i>et al.</i> (2013:55)	"SCM is used as a tool to gain a competitive advantage by an organisation by creating a network of connected interdependent organisations. These organisations are mutually and co-operatively working together to manage, control and improve the flow of material and information from suppliers to end customer. SCM is a systematic co-ordination of traditional business functions".

Source: Listed in Table 2.1.

A possible conclusion that can be drawn from the definitions in Table 2.1 is that SCM, in essence, is about providing the customer with a quality product or service at less cost to the supply chain. This is achieved by effectively managing the procurement system. Fredendall and Hill (2016:12) proposes that it is essential to have a closely linked network between suppliers and customers as this results in a competitive advantage for an organisation. Supply chain management is of particular importance to government, as it is a tool used to achieve its mandate. Matolong (2015:9) suggests that public SCM is an essential practice in the management of public resources. It is, therefore, important to understand how SCM relates to the public sector in aim of achieving the theoretical objectives.

2.3.2 Public SCM

The public SCM review (2015) explains that SCM in the public sector is crucial for the delivery of goods and services to its citizens. Public SCM is a tool that facilitates the delivery of quality goods and services at a fair price, at the right time, and delivered to the correct location. Manzizi *et al.* (2019:119) assess that public SCM is perceived as the provision of goods and services by government to its citizens. Public entities are thus mandated to supply goods or services in a cost effective, equitable, transparent, and fair manner. Government is thus responsible for establishing a SCM model that ensures value for money in the process of procuring goods or services necessary for the fulfilment of its mandate.

Mantzaris (2016:123) explains that in the public sector, procurement is directly related to state administrative activities, primarily concentrating on the purchasing of goods and services that government needs in fulfilment of its mandate to the public. Dzuke and Naudé (2015:1) explain that traditional business functions such as procurement that falls under SCM involves market research, supplier identification and selection, negotiating, and purchasing. Dzuke & Naudé (2015:1) further explain that procurement in the public sector has proven to play a key role in service delivery and the performance of public entities. Supply chain management in the public sector has provided a guideline for government in the acquisition of goods and services for the public sector. Furthermore, SCM performs a strategic role in the public sector's ability to deliver services such as the:

- ◁ construction of roads;
- ◁ supply of water;
- ◁ supply of sanitation and sewerage systems; and

◁ the provision of electricity.

Therefore, SCM is recognised as a dominant mechanism for managing state procurement activities in SA. Mafini (2016:257) classifies SCM as an important instrument that facilitates policy implementation within government structures.

2.3.2.1 Public SCM background

Facing History and Ourselves (2020) proposes that it is essential to remain cognisant that during the apartheid era, government prioritised the needs of citizens according to race, which means that taxpayer's funds were also allocated in this manner. This left the majority of the population who were suppressed not receiving the equal distribution of goods and service as the minority population would.

Gumede (2014:4) proposes that the minority population were provided with free education in well maintained government schools. The minority population was also provided with excellent healthcare in public hospitals; and lived in suitable infrastructure which was regularly maintained. Michie and Padayachee (2018:2) explain that contrary to the minority population, the majority population was subject to poor education, health. The majority population resided in temporary dwellings called shacks; an inequality that still exists even after a change in government. Gumede (2014:4) explains that the transition of government came with a daunting challenge for the new government as they had to improve the quality of housing for the majority population, and correct the gross inequalities embedded within the education and health systems. Michie and Padayachee (2018:2) argues that this meant that significant amounts of investments were required to address the inequalities the majority population faced. In raising funds for investment the new government had to consider how heavily it could tax the country's wealthy minority population. Levying too steep taxes on the wealthy minority population would result in them migrating themselves and their wealth outside the republic.

Facing History and Ourselves (2020) suggests that the economic legacies of apartheid have also proven difficult to overcome, this is because the former government insisted on many wealth protection measures for the minority population in transition governments considering how this wealth was acquired during the apartheid regime. These protection measures included, but are not limited to, the retention of the minority population's land and industries; this further hindered the new government's ability to provide for all citizens.

Facing History and Ourselves (2020) further suggests that the transition of government to historically disadvantaged races meant that government needed to change its SCM systems to facilitate its mandate to all citizens and not primarily on the basis of race. Funds needed to now be equally distributed for equal benefit of all citizens. In order to achieve this mandate those in power needed to have had the necessary competencies to carve a future that aimed to balance socio-economic objectives while providing value for money for taxpayers. The best approach to achieve these socio-economic objectives was through a decentralised procurement system which would create new opportunities for all citizens and redistribute the country's wealth equally.

Hawkins *et al.* (2011:569), however, argue that SCM still remains a misconstrued and unappreciated system by government. Pooe and Mathu (2011) assert that the fundamental issue is the detrimental influence an ineffective public SCM system has on an economy, which affects taxes and leads to a catastrophic end. The Public Sector SCM review (2015) highlights that some of the negative effects of inconsistency in public SCM include:

- ◁ exorbitant prices being charged by suppliers while there are cheaper suppliers;
- ◁ receiving substandard quality of goods and services contracted from contracted suppliers; and
- ◁ corruption and waste of taxpayers' money by government officials.

Mols *et al.* (2012:880) state that the private sector, in contrast, realises the strategic importance of SCM practices, which leads to large investments in the area of SCM to maximize shareholder wealth. The public sector, therefore, faces the challenge of emulating the private sector (Ambe & Badenhorst-Weiss, 2011:1117).

2.4 Elements of effective and efficient SCM

Elements of an effective and efficient SCM based on the 2015 Public Sector SCM review will be established to determine, if some of these elements are present in South African public entities' SCM systems.

2.4.1.1 Competent and skilled workforce

Monczka *et al.* (2015:16) state that the Vice President of Procurement & SCM at CSX Transport, effectively and efficiently manages a procurement and SCM team, which manages over \$5 billion in annual purchases. The CSX Transport team has to purchase

over 100 000 unique items that are necessary to keep the organisation performing at its optimal level. Monczka *et al.* (2015:17) state that in order to operate an efficient and effective SCM, the skill level of the vice president's organisation must meet global standards.

The vice president requires all current and new employees develop their skill set to attain the credential of Certified Professional in Supply Chain Management (CPSCM). Since the appointment of the vice president, 70% of his employees have attained their CPSCM. Fredendall and Hill (2016:12) explain that a highly trained workforce provides a platform for employees to assume responsibility and are equipped with necessary skills to quickly adapt and make decisions and take actions required to co-ordinate the supply chain. It is clear from the above that effective and efficient management of a supply chain is not only a matter of size but is also a matter of the systems in place to manage the SCM system.

It is encouraging that large organisation who manages over \$5 billion in annual purchases can manage their SCM system in an effective and efficient manner, this mean that South Africa public entities have the potential to immolate such SCM performance. Converted into ZAR, the \$5 billion amounts to more than R8 trillion, while the budgeted expenditure for South Africa is expected to reach R1.83 trillion, with the bulk (R1.1 trillion) going to social services (Businessstech, 2019).

2.4.1.2 Accountability

Boshomane (2015:42) explains that accountability represents an essential pillar to public procurement. The lack of transparent and accountable systems means that the vast resources channelled through SCM are in danger of being misused and only increase the corruption rate within public entities as perpetrators feel comfortable. Ferry, Eckersley and Zakaria (2015:354) suggest that accountability requires individuals to account for their actions to a higher authority than themselves. Boshomane (2015:42) adds that accountability first needs to be demonstrated within Parliament for it to be filtered down to public entities. Ferry *et al.* (2015:355) propose that accountability is a pre requisite for good governance. Ferry *et al.* (2015:355) also proposes that public accountability mechanisms must be established to ensure:

- ◁ the prevention of corruption and abuse of power; and
- ◁ improve public confidence in governance procedures.

2.4.1.3 Supplier and customer relations

Galea-Pace and Brand (2020:16) argue that a key factor in effective and efficient SCM is to transform relations with suppliers from transactional relationships to business partners. This means that organisations are connected within their individual SCM systems, synergising focus on shared growth through innovation and joint long-term planning. Brand (2020:20) argues that although organisations are aware of maintaining visibility over their supply chain, the reality is that due to complex and disparate network of partners that are engaged in a variety of activities on behalf of an organisation, the transparency within SCM systems seems to be deteriorating.

Hugos (2018:5) states “that effective SCM requires simultaneous improvements in both customer service levels and internal operating efficiencies of the companies in the supply chain”. Ameritas (2020) explains that customer service entails fulfilling customer orders on time and attaining a low rate of products returned due to poor quality. Internal efficiency for an organisation means receiving a rate of return on inventory and other assets invested in the progress of SCM; this is achieved through performance measurement systems. These systems must best suit an organisation’s objectives and strategic goals (Manuela, Cristina & Molina-Morales, 2021)

2.4.1.4 Supply Chain Performance Measurement System (SCPMS)

Galea-Pace and Brand (2020:20) argue that Supply Chain Performance Measurement System (SCPMS) increase the implementation of sound controls around demand planning, materials ordering, procurement, and inventory management. Such sound controls are crucial to stop the leakage of profits out of the business. Sentino and Ambe (2016:387) argue that in government, SCPMS are not linked to the business objectives, but are rather regarded as a subsection of the National Department of Finance and not a standalone department. Setino and Ambe (2016:382) state that the implementation of SCM in government and its entities is decentralised, thus, public entity managers have autonomous authority and powers to design their own SCPMSs in line with the PFMA, which rarely exist in South African public entities.

Lundu and Shale (2015:3) elaborate on how globally, governments are investing resources in their SCM systems to streamline and improve public SCM. Governments are implementing new SCM systems which allow them to manage tenders through a web site.

Lundu and Shale (2015:3) further explain that this is geared towards enhancing accessibility of tenders, increasing efficiency, saving costs in government SCM, and improving transparency with the aim of reducing corruption. Jamehshooran, Shaharoun and Haron (2015:1) explain that the forms of SCM investment employed by organisations include incorporating the Supply Chain Operation Reference (SCOR) model with an entities' SCM system. Weyers (2017:55) suggest that models such as the SCOR model are promoted as a guideline for organisations in ensuring effectiveness and efficiency in the process of SCM.

2.4.1.5 Supply Chain Operations Reference (SCOR) model

Jamehshooran *et al.* (2015:1) expound that the SCOR model provides a systemic approach for identifying, evaluating, and monitoring supply chain performance. The SCOR model is endorsed by the Supply Chain Council (SCC) as the cross-industry standard diagnostic tool for SCM. Prakash *et al.* (2013:56) explain that the SCOR model contains:

- ◁ “a standard description of management processes;
- ◁ a framework of relationships among the standard processes;
- ◁ standard metrics to measure process performance; and
- ◁ management practices that produce best-in-class performance”.

The model enables organisations to benchmark themselves against other organisations in order to improve business processes in five distinct functional areas: plan, source, make, delivery, and return.

Hugos (2018:3) explains that planning involves analysing information and forecasting customer needs. Analysing information such as what products customers want, also considering the quantity, which is required, and the time it will take to produce products. Sourcing deals with acquiring materials, inventory and infrastructure which are necessary in fulfilling the SCM process. Make refers to the manufacturing of the goods produced by an organisation. Delivery is the process of providing finished goods and services that will reach the end customer. Return refers to how the customer would return the goods if not satisfied with the goods delivered.

Prakash *et al.* (2013:56) further note that the SCOR model is based on:

- ◁ *Reliability*: Fulfilling the customer's order on schedule without incurring any damages.
- ◁ *Responsiveness*: Duration of the time between the customer placing their order and fulfilling the customer's order.
- ◁ *Agility*: Responding to a short term change in demand or supply. The ability to handle disruptions smoothly.
- ◁ *Cost*: Objective measurement of all aspects of the cost of the supply chain.
- ◁ *Assets*: Resources used to fulfil customer demand.

In recognition of examining the SCOR model and understanding the elements of effective and efficient SCM practices, it is important to determine where public SCM stands in South Africa. It is also important to determine whether or not South African SCM depicts the traits mentioned in Chapter 2.3. Thus an examination of the public sector SCM review followed by AGSA findings is necessary as these two reports depict the current affairs of South African SCM.

2.5 SCM in South Africa and the 2015 Public Sector SCM Review

Mantzaris (2017:125) suggests that corruption in South African SCM has been a plague throughout the public spectrum and at all governmental layers. Political agendas and business administration functions often collide, which leads to fraud and corruption. Mantzaris (2017:125) further suggests that this has become a dominant factor in the procurement systems and processes. Boshmane (2015:42) observes that corruption and fraud with South African SCM emanates in practices of embezzlement, extortion, fronting, irregular or unwanted purchases, and ghost suppliers. Political interference and bribery have surfaced over the years, specifically in sectors where the government is the key provider of services such as providing electricity, transport, and water. Boshmane (2015:42) summarises the elements that plague South African SCM as being:

- ◁ a lack of appropriate bid committees;
- ◁ use of unqualified suppliers;
- ◁ incorrect utilisation of procurement process;

- ◁ insufficient controls and procedures in handling tender bids;
- ◁ appointment of bid committee members not aligned to policy requirements; and
- ◁ inappropriate motivation for deviations in SCM process.

Rajin (2017:1) and Camerer (2009:8) are mindful that the public sector SCM in South Africa has many imperfections. Constant allegations of corruption and inefficiency are reported in South African public entities. Service delivery protests signify that people feel that are not receiving value for money from the goods and services provided by government. The public sector SCM review (2015) documents that the negative effects of an inefficient public sector SCM results in:

- ◁ suppliers charging excessive prices for goods and services which are of poor quality and unreliable; and
- ◁ corruption and waste of taxpayers' money.

The public sector SCM review (2015) emphasises that officials within the South African SCM system “fail to understand the economic and social power of the purchasing decisions that they make”. These decisions must be of optimal value to the intended beneficiaries to deliver the ultimate service in all spheres of the public sector. The decisions taken in public entities must translate budgets and strategic plans into goods and services through an efficient and effective SCM system. The SCM system must also be well-resourced and function efficiently; and whose central importance is recognised in alignment with government’s mandate. In spite of the poor performance of SCM systems, SCM legislation (PFMA, PPPFA, B-BBEE) is provided by government as a framework for effective and efficient SCM in fulfilment of its mandate.

2.6 SCM legislation

In South Africa, legislation has been developed in accordance with Section 217 of the *Constitution of South Africa*, which emphasises the need to ensure fairness, transparency, and cost effectiveness of all transactions and processes in public SCM (Mantzaris, 2016:123). The development in legislation of SCM has seen the development of the PFMA, the PPPFA and B-BBEE. These legislative frameworks will be analysed to gain an understanding on the laws that govern public SCM and the development of SCM legislation in South African public entities.

2.6.1 PFMA 1999

The objective of the PFMA is to ensure transparency, accountability, effective, and efficient management of assets, liabilities, revenue, and expenditure in public entities. This is because government is the largest purchaser of goods and services (PFMA, 1999). Government must thus ensure good-quality, efficient and cost-effective delivery in accordance with the PFMA through the use of public entities (Public Sector SCM review, 2015).

2.6.1.1 Public entities

The PFMA (1999) defines a public entity as a national or provincial government business enterprise. A public entity may also be a board, commission, company or corporation which is:

1. “Established and regulated in terms of national legislation.
2. Fully or substantially funded either from the National Revenue Fund, or by way of a tax, levy or other money imposed in terms of national legislation.
3. Accountable to Parliament”.

In achieving the objective of the PFMA, Section 49 (a) to (b) of the PFMA requires that every public entity must have an accounting authority that is accountable to the PFMA in the circumstances when the public entity meets the following requirements:

- (a) “Has a board or other controlling body, that board or controlling body is the accounting authority for that entity; or
- (b) Does not have a controlling body, the chief executive officer or the other person in charge of the public entity is the accounting authority for that public entity”.

2.6.1.2 Section 50: Fiduciary duties of accounting authorities

Section 50 (a) to (h) states that the accounting authority for a public entity must act with fidelity, honesty, integrity, and in the best interests of the public entity in managing the financial affairs of the public entity.

On the discovery of material facts, which may influence decision or actions taken by the executive authority, the accounting authority must report such material facts to the executive authority. The accounting officer must prevent prejudice to the interests of the country with the sphere of influence that the accounting authority has. The accounting officer may neither utilise his/her position or privilege nor use confidential information obtained as the accounting authority or a member of an accounting authority for personal gain or to improperly benefit another person.

Section 50 (a) to (h) states that “a member of an accounting authority must disclose to the accounting authority any direct or indirect personal or private business interest that a member or any spouse, partner or close family member may have in any matter before the accounting authority. The implicated accounting authority must then withdraw from the proceedings of the accounting authority when that matter is considered, unless the accounting authority decides that the member’s direct or indirect interest in the matter is trivial or irrelevant”.

2.6.1.3 Section 51: General responsibilities of accounting of authorities

Section 51 (a) to (d) states that accounting authorities for public entities must ensure and maintain:

- ◁ “Effective, efficient and transparent systems of financial and risk management and internal control.
- ◁ A system of internal audit under the control and direction of an audit committee.
- ◁ An appropriate procurement system which is fair, equitable, transparent, competitive and cost-effective.
- ◁ Collection of all revenue due.
- ◁ Prevention of fruitless and wasteful expenditure, irregular expenditure, and losses resulting criminal activities”.

In the fulfilment of these duties, if there is a discovery of any unauthorised, irregular or fruitless and wasteful expenditure, the accounting authority must immediately report in writing to the National Treasury the particulars of the expenditure. The accounting authority must also take disciplinary steps against an employee of a public entity that:

- ◁ Commits an act which undermines the internal control system and financial management of the public entity.

- ◁ Permits an unauthorised expenditure, irregular expenditure or fruitless and wasteful expenditure.
- ◁ Contravenes or fails to comply with the PFMA.

2.6.1.4 Section 57: Responsibilities of other officials

Section 57 (a) to (e)'s state that the responsibilities of other officials are similar to those of accounting authorities as they require officials to ensure that the system of financial management and internal control are carried out within the area of responsibility of that official. "Officials are responsible for the effective, efficient, economical, and transparent use of public finances and other resources within that official's area of responsibility. All appropriate steps to prevent any irregular expenditure as well as fruitless and wasteful expenditure, and any under-collection of revenue due must be implemented". Officials must also ensure responsible the safe-guarding of the assets.

2.6.2 Preferential Procurement Policy Framework Act (PPFFA, 2000)

The PPPFA was enacted in the year 2000 with the aim of regulating and enhancing the participation of historically disadvantaged individuals and small-, medium- and micro-enterprises in the public sector procurement. According to the International Trade Centre (2014) procurement is regarded as a means of dealing with past discriminatory imbalances. Therefore, regulatory policies must maintain the socio-economic objectives of government.

Naidoo (2017) explains the PPFFA requires that public entities rendering procurement obligations through awarding tenders, must base the tender approvals on two ratios. These two ratios must be calculated on a point-based system which first prioritises tender value. The second element of the point-based system relates to government-specific goals. These specific goals must be aimed at contracting with persons who are historically disadvantaged by unfair discrimination on the basis of race, gender or disability. Any other specific goal may be included for which a point may be awarded that must be clearly specified in the invitation to submit a tender. The contract must be awarded to the tenderer who scores the highest points, unless the objective criteria of the tender aims to reach specific goals.

The PPFFA (2000) states that "any contract awarded on account of false information furnished by the tenderer in order to secure preference in terms of this Act, may be cancelled at the sole discretion of the organ of state without prejudice to any other remedies the organ of state may have". In aid of promoting these specific goals of contracting with

persons who are historically disadvantaged, government developed the Broad-Based Black Economic Empowerment Act in 2003.

2.6.3 Broad-Based Black Economic Empowerment (B-BBEE)

The purpose of B-BBEE is to promote economic empowerment for black people. *Black people* is a generic term which includes different ethnicities such as Africans, Coloureds and Indians (SA, 2013). Broad-Based Black Economic Empowerment, in particular, was enacted to empower woman, youth, people living with disabilities, workers, and people living in rural areas through socio-economic strategies (SA, 2013). These strategies include and are not limited to:

- ◁ increasing the number of black people owning, controlling and managing enterprises;
- ◁ human resource and skills development;
- ◁ promoting equitable representation in all levels of categories within the workforce; and
- ◁ invest in enterprises that are owned or managed by black people.

Ntingi (2020) note that B-BBEE compliance has both advantages and disadvantages for all SMEs. The benefits are financial gain and the shortcomings consist of administrative obstacles.

Pike *et al.* (2018:5) interviewed 22 company owners who were B-BBEE registered about their dealings in tendering for government procurement. The findings of this study revealed that B-BBEE had an adverse effect by increasing the number of incompetent companies that the government tendered with and decreasing economic growth due to tender corruption. Broad-Based Black Economic Empowerment companies that did not meet criteria requirements were provided with tenders.

Pike *et al.* (2018:5) postulate that this resulted in B-BBEE companies that do not have the necessary skills and competence failing to complete the tender objectives. Other company owners added on to say that companies are only bidding based on their race composition, which increases their B-BBEE rating, but lack immense skill on fulfilling the task at hand. Other participants also related the same sentiments. Ntingi (2020) suggests that they felt that the establishment of B-BBEE was to foster black economic growth and bring about

equality, but in truth, B-BBEE was having an adverse effect on the economy. This adverse effect is facilitated through the corruption in the tender process.

These adverse effects to the economy due to tender corruption have been cited for many years by the Auditor-General. The Auditor-General's recommendations have not been implemented for years and as a consequence, corruption has deteriorated South African public entities SCM. It is only recently that government has amended the Public Audit Act in aid of implementing the Auditor-General's recommendation.

2.7 Public Audit Act (PAA) and its amendment

Deliwe (2018:47) explains that the PAA is the legislative framework that prescribes the Auditor-General to audit and report on financial and non-financial performance within organs of state. In the process of performing these functions, the AGSA must collaborate with other public role players to promote effective and efficient public financial management. The PAA is the only legislative framework that requires an audit report from the AGSA, which reports on how government is spending taxpayer's funds (AGSA, 2019b).

AGSA (2019b) emphasises that the "amendment of Section 5A of the PAA gives the Auditor-General the power to follow up on whether or not the accounting officer or accounting authority has implemented the recommendations contained in the audit report relating to any material irregularity, within the specified time-frame stipulated in the audit report". If the recommendations made by the Auditor-General have not been adopted by the Accounting Officer or the Accounting Authority, the Auditor-General shall take effective remedial steps to remedy the failure to enforce the recommendations made.

AGSA (2019b) further explains that this remedial action must occur over a process of first determining the amount of the financial loss. This amount must then be recovered from the responsible person according to such applicable legislation. Furthermore, where the accounting officer or accounting authority has failed to abide by the remedial action, the Auditor-General may issue a certificate of debt. The certificate of debt will require the accounting officer to repay the amount specified in the certificate of debt to the state.

The PAA amendments have only been legislated recently in 2018. Through this amendment, government has shown its interest to fight non-compliance within South African SCM systems. The Auditor-General has, over the years, fought for such measures to be taken by government to combat the deteriorating performance of public entities. It is,

therefore, important to understand the factors that the AGSA has been highlighting to bring about such legislative change.

2.8 AGSA on SCM in public entities

The AGSA (2019), AGSA (2018), AGSA (2017) and AGSA (2016) highlight that material irregularities findings on SCM non-compliance were not complex and could have been prevented or detected and dealt with before they resulted in material financial losses. The material irregularities were not as a result of human error, but were rather due to poor processes and judgement. The AGSA's message has been consistent over the years as indicated on the reports referred to above. The message has been that a strong control environment and processes are key to: [1] achieving objectives; [2] addressing risks; [3] ensuring compliance with legislation; and [4] managing public sector funds to the benefit of citizens.

The AGSA (2019) acknowledges that it takes time to institutionalise good controls, especially in large and complex organisations. The process of inviting competitive bids, evaluating the bids received, and awarding the contracts is well-described in legislation, further upon that guidance provided by the National Treasury. However, weaknesses arise when the standard procurement process is not followed. A competitive bidding process ensures that the pricing, quality, capability, and capacity of the goods and services of the supplier are rigorously tested to prevent paying inflated prices or a failure of performance by the supplier to deliver.

Auditees that materially did not comply with key legislation slightly increased from 71,5% to 72,1% AGSA (2019). Overall, the main areas of non-compliance were:

- ◁ The poor quality of the financial statements submitted.
- ◁ SCM weaknesses.
- ◁ Unauthorised, irregular, fruitless and wasteful expenditure not being prevented.

The AGSA (2018) explains that government cannot afford to continue losing taxpayers' funds due to poor decision-making, neglect or inefficiencies. However, a rise in fruitless and wasteful expenditure continues. and government and taxpayers suffers losses which will be recovered in the next budget from the taxpayers. These losses government incurs due to the correct processes not being followed is often overlooked (AGSA, 2017) and its implications are not accumulated or reported on in prior research. In 2018/19, 101

departments (65%) did not comply with SCM legislation. The Premier of North West, with the support of the inter-ministerial task team, were able to identify 46 cases of theft, fraud, and corruption amounting to R2,5 billion (AGSA, 2019).

The PFMA (1999) discussed in Chapter 2.5.3 requires accounting officers or other officials to perform an investigation to determine the impact of non-compliance resulting in a financial loss. It must be determined whether there was any fraud involved or not. The preparatory of fraud must be held accountable. The Auditor-General's findings on non-compliance with legislation were mostly due to procedural issues or incidents of fraud. Omar, Nawawi and Salin (2016:1015) propose that the fraud triangle theory is the best concept to describe the elements that must be present for one to act in a fraudulent manner.

2.9 Fraud triangle theory

Asmah *et al.* (2020:188) conclude that fraud refers to intentional misconduct that deliberately take advantage of a person or situation, which results in economic loss to the victims and economic gain for the perpetrator. In Chapter 1, it was highlighted that the fraud triangle consists of three elements. Schuchter (2016:3); Abdullahi and Mansor (2015:40); and Huang *et al.* (2017:1353) summarise these three elements into:

1. *Pressure*: In most cases of fraud, financial pressure seems to be the leading cause for one to commit fraud. These financial pressures range from greed, people living beyond their means, sudden financial shortfalls, greed, poor credit standing and inability to obtain credit, medical expenses, and excessive education expenses. Pressure does not only come in the form of financial pressure; non-financial pressure is also a factor that needs to be considered. Non-financial pressures include family or peer pressure, lack of productivity due to drugs or alcohol, and preservation of extramarital affairs. Work-related pressure such as job inequalities and unfair treatment related to promotion, remuneration, and lack of appreciation are also considered as non-financial pressures to commit fraud.

2. *Opportunity*: Opportunity to commit fraud arises from weak internal controls that are governed by poor supervision. There is also a lack of prosecution against perpetrators of fraud. A factor of opportunity is also weak ethical culture in the form of a poor ethical tone from management. Thus, deteriorating audit functions and ineffective corporate governance processes fertilise the opportunity to commit fraud.

3. *Rationalisation*: Rationalisation comprises two essential factors. The first factor is that the perpetrator must believe that he/she can conceal the fraud committed and avoid being punished. The second factor is that the perpetrator interprets their fraudulent behaviour as acceptable given the conditions. Both factors allow the perpetrator to preserve their self-image and hold themselves as trustworthy in spite of the fraud they have committed. Forms of rationalisations by employees include compensating themselves for being underpaid or for bonuses that were not received. Other employees believe that the company deserves to be embezzled due to inappropriate acts against employees. The State Capture Commission of Inquiry has since been established to investigate allegation of fraud within public entities to combat fraud within government.

2.10 The Judicial Commission of Inquiry into Allegations of State Capture

Corruption Watch (2018) expresses that the Judicial Commission of Inquiry into Allegations of State Capture was enacted by the former president of South Africa in order to investigate allegations of fraud within public entities and organs of state. The commission aims to uncover the extent of fraud and corruption that has plagued public entities. The term *state capture* conveys a culture of dubious dealings and connections that have paralysed public entities. The establishment of the commission has been done with the aim of benefiting individuals or companies that would most likely not have succeeded in acquiring business with government had they not had leeway to perform these unlawful acts.

African News Agency (2020) and Cameron (2020b) reports that the former South African Airways Technical (SAAT) head of procurement was present at the commission to answer to allegations of fraud. It is alleged that during the tender process, the former head of procurement made a private visit replete with private jets and limousines. This visit was made to a United States-based bidder that eventually won a R1.2 billion contract to supply components to SAAT. A director of the company who won the tender also made payment amounting to R2.5 million towards purchasing a house for the former head of procurement. The former head of procurement explained that this payment relates to the director purchasing a house in the Eastern Cape from the former head of procurement's mother, instead of a direct payment to her mother paid it into the director's account.

African News Agency (2020) and Cameron (2020b) further reports that the former head of procurement denied that she signed off on a dubious sale of components to a company that secured a multi-billion-rand contract in a tender bid marred by bribery allegations. The sale

related to 12 Ground Power Units (GPU) which were sold for less than half of their market value to an aviation company, which is also the company of which one of the directors made payment to the former head of procurement relating to the purchasing of property. South African Airways Technical purchased the 12 GPUs for R800 000 each and sold them to the aviation company for R248 000. The aviation company then in turn sold these units to a Swiss-based aviation company for R3.3 million. These allegations of fraud are one of many which the commission of inquiry was established to investigate; they question the strength of SCM systems to detect and prevent fraud in fulfilment of government's mandate. The above allegations bring questions as to whether government has truly invested in SCM controls to prevent such material losses or not.

Su *et al.* (2019:1) explain that, in contrast to the public sector, the private sector tends to invest astutely in SCM with the aim of maximising shareholder value and ensuring that its products and services match clients' needs. This philosophy implemented by the private sector is not one shared by the public sector and is witnessed by an ever-increasing budget deficit. In addition, continuous red flags are raised by the Auditor-General on SCM over the years, which is the focal of this study (AGSA, 2019). Considering the misuse of taxpayers' funds, as evident in Chapter 2.8 to 2.10, a question arises as to whether or not the misuse of taxpayers' funds influences the continuous budget deficit.

2.11 Budget deficit

Nayab (2015:85) discusses the concept of a budget as the financial and economic planning for a country as a whole. A budget becomes an asset in establishing developmental and constructive policies for the country. Furthermore, a budget depicts the earning and spending of a country's economic activity. A balanced budget is crucial for the sustainable economic growth of a country.

Nayab (2015:85) further explains that a budget deficit occurs when the spending of the government surpasses its revenue collection. Increases in the budget deficit become harmful particularly for a developing country. Arjomand *et al.* (2016:346) state that budget deficits are an economic challenge of many developing countries in recent decades. Countries that have incurred significant deficits face more difficulty in financing expenditures than those with lesser deficits. Arjomand *et al.* (2016:346) argue that some economists believe that budget deficit can benefit economic growth only if the budget deficit is due to

productive expenditures, for example, expenditures on education and health. An increased budget deficit gives rise to macro-economic problems, which manifest in the form of:

- < increment in inflation;
- < increment in debts within the economy;
- < deficit of current account; and
- < reduced economic growth.

Oladipo and Ajisafe (2015:169) explain that over the years, South Africa’s spending has exceeded its available resources thereby leading to a budget deficit. Table 2.2 displays the average increase from 2015/16 to 2018/19 in budget deficit, gross loan debt, and cost to service debt. This data is extracted from National Treasury Budget review 2015/16 to 2018/19. The culmination of the three averages listed above will provide a clearer notion of what the effects of government expenditure exceeding government revenue are.

Table 2.2: Budget deficit and loans

Fiscal year	Budget deficit R\$Billion	Gross loan debt R\$Billion	Cost to service debt R\$Billion
2015/16	172.8	2 019.0	129.1
2016/17	170.5	2 233.0	146.2
2017/18	217.3	2 490.0	163.3
2018/19	224.5	2 814.0	197.6

Source: National Treasury (2016), National Treasury (2017), National Treasury (2018) and National Treasury (2019)

Sachs (2017:12) explicates that South Africa’s public finances are in a deep and increasingly intractable financial crisis as displayed in Table 2.2. The 2015/16 to 2018/19 fiscal year has witnessed a 23% average increase in the budget deficit; a 28% average increase in gross loan debt; and a 34% increase in cost to service debt. All these increases over the years have a knock-on effect on each other, and more importantly, increases government expenditure and reduces tax revenue available to fulfil government’s mandate.

A major concern by National Treasury (2017) is that the cost of servicing debt is the fastest growing expenditure item in the budget, surpassing spending on health and social services. This is also evident in Table 2.2 where cost to service debt has a 34% increase, which is higher than the increase in the budget deficit and the gross loan on debt.

The National Treasury (2017) reports that South Africa's gross loan debt amounts to R2.2 trillion in 2016/17 — servicing this level of debt is expensive for the country. Interest payments on this debt accounts for 9.2% or R146 billion of general government expenditure. This means that for every R100 of total spending, R9.20 was used to pay interest on government debt. This is more than what was spent on public health (R105 billion), tertiary education (R77 billion) and housing (R69 billion) functions during the 2016/17 year. National Treasury expects the interest on payment to account for 13% of total expenditure in 2021/22. Naidoo (2020) explains that government debt could surpass 80% of Gross Domestic Product (GDP) by the 2028 fiscal year. Brooks (2014) describes GDP as the market value of all final goods and services produced within a country within a given period of time. Sachs (2017:13) postulates that the contributing factors to the ever-increasing budget deficit are:

- ◁ annual increments in public servant's remuneration packages without performance appraisals;
- ◁ SOEs continuously require bailout from government;
- ◁ departments owing rates and services charges to local government; and
- ◁ local government failing to pay water and electricity bills.

Sachs (2017:12) further notes that the above factors cause financial pressure on government. Government thus has to utilise funds allocated for capital development, systems improvements, and maintenance. Smith (2019:47) explains that government has committed to the sale of non-core assets to raise funds for the budget deficit. Government's strategy in reducing its financial pressure has been to slow down its intake of new recruits and leaving key positions vacant as they acknowledge that the public wage sector is the biggest contributor to the budget deficit.

Smith (2019:47) further proposes that this strategy in reducing the public wage bill has also included the scaling up of early retirement without penalties and changes to the performance bonus payment system. Trost and Bojnec (2015:120) explain that early retirement and freezing positions results in long queues in public hospitals, home affairs,

and licence departments. Furthermore, the consequences also include the increasing number of learners in class but no increase in infrastructure to accommodate learners or increments in teachers. The financial struggles of the country have also had a major impact on the economy and the investment grading of South Africa by rating agencies.

Bloomberg interviewed 19 economists on whether or not they believe Moody's, the last rating agency to still rate South Africa under investment grade, will change their rating on South Africa to junk status (Naidoo, 2020). Out of these 19 economists, 14 stated that they expect a downgrade within the first half of the year. Economists suggest that a further downgrade would result in South Africa falling out of the FTSE World Government Bond Index, which could prompt a debt selloff and outflow of as much as \$15 billion (Naidoo, 2020). Moody's stated in November, 2019 that South Africa needs to establish a feasible strategy to contain rising debt.

Molefe (2016:7) expresses that numerous empirics argue that the continuous increases in tax rates has been government's solution to combating the ever-increasing budget deficit. The impact of these increased tax rates has affected taxpayer's behaviour when it comes to their spending and has thus affected economic growth. Smith (2019:47) argues that there is no more room to increase personal income tax as a revenue source. Smith (2019:48) argues that the slowdown of tax collections from individuals will move the increasing tax burden towards corporate income tax and consumption taxes such as VAT.

2.12 Tax revenue and expenditure

National Treasury (2019) explains that the goal of the tax system is mainly to collect adequate revenue to fund government expenditure. The tax system may also be used through targeted tax exemptions, deductions or credits, to support socio-economic goals. The Medium-Term Budget Policy Statement (2019) identifies that the tax revenue estimates have been revised down on a consistent basis since 2014/15.

The Government's measures to increase tax revenue collection has failed and instead the expected increase in collections has disappointed as there is a steady decline in tax revenue collection. Smith (2019:46) proposes that these increases in tax rates implemented to combat the budget deficit have actually had an adverse effect on economic growth and have, in turn, directly affected the budget deficit. Table 2.3 was extracted from the budget review 2016 to 2019 provided by National Treasury. The aim of the Table 2.3 is to highlight the consistent shortage of tax revenue as tax expenditure consistently exceeds it.

Table 2.3: Tax revenue and expenditure

Fiscal year	Gross tax expenditure R Billion	Gross tax revenue R Billion	Gross revenue shortfall from budget R Million
2015/16	1 380.9	1 069.7	1 157.5
2016/17	1 400.0	1 144.1	301.0
2017/18	1 557.9	1 216.4	843.0
2018/19	1 670.0	1 302.2	4 276.3

Source: National Treasury (2016), National Treasury (2017), National Treasury (2018) and National Treasury (2019)

It is evident from Table 2.3 that government's annual tax expenditure has exceeded tax revenue, resulting in an ever-widening budget deficit. Tax revenue collection estimates have also been underestimated consistently, which means that each year the amount of taxes government budgets to collect and spend is over-estimated. The contribution Table 2.3 makes to this study is that it highlights the fact that government tax expenditure is consistently exceeding tax revenue collection, adding to the consistent tax revenue shortfalls. This means that government is slowly but consistently running out of tax revenue to fund tax expenditure.

National Treasury (2019) highlights that in combating the declining tax revenue, tax increases have been instituted particularly in personal income. The increase in personal tax income has increased pressure on already strained consumers, leading to a reduction in savings and consumption, which ultimately results in low economic growth. In the 2018/19 fiscal year, government collected R57.3 billion less than projected in the 2018 Budget, which is the largest under-collection of tax revenue since 2009/10 following the global financial crisis (National Treasury, 2019). Substantial shortfalls in a single year impacts the years thereafter and thereby widening the gap between tax revenue forecasts and outcomes in subsequent years. In 2020, the Gross tax revenue needs to grow at 10.4% this year to reach the 2019 Budget estimate, considering the consistent shortfalls.

Figure 2.2 seeks to expand on the data provided in Table 2.3, which concluded that tax expenditure has been consistently exceeding tax revenue over the period provided. Figure 2.2 also seeks to provide a graphical representation of tax expenditure exceeding tax

revenue with the aim of establishing whether this is a trend or not. It depicts tax revenue against tax expenditure from 2004/5 to 2016/17. Table 2.3 only provides data from 2015/16 to 2018/19 for the purposes of this study, but Figure 2.2 provides a graphical presentation of the trend prior to 2008/2009 and seeks to establish, as gathered from Table 2.3, if tax expenditure exceeding tax revenue is a current phenomenon or if this has been the standard over the years.

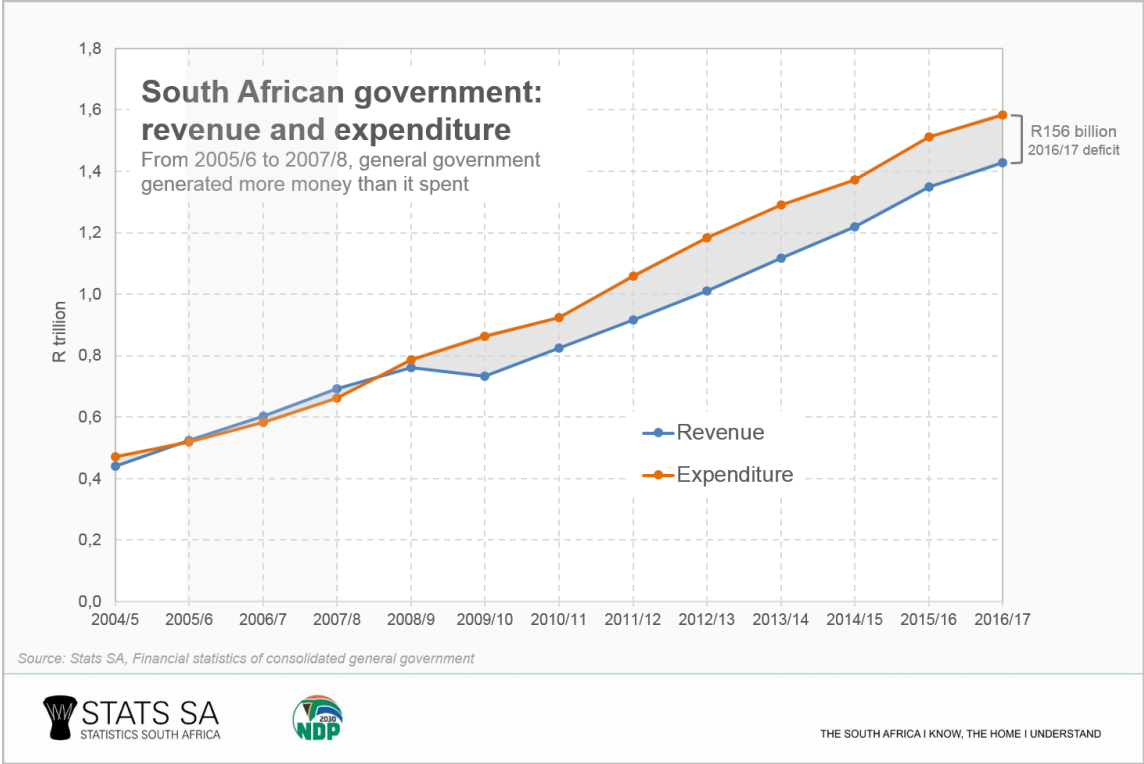


Figure 2.2: Tax revenue and expenditure trend

Source: DSSA (2019b)

As illustrated in Figure 2.2, it is clear that between 2005/6 and the middle of 2008/9 tax revenue exceeded tax expenditure only slightly; from 2008/9 to 2016/17 tax expenditure has consistently been exceeding tax revenue. Furthermore, Figure 2.2 highlights the difference in size when tax revenue exceeded tax expenditure between 2005/6 and the middle of 2008/9; compared to tax expenditure exceeding tax revenue from 2008/9 to 2016/17. The magnitude of difference between these two periods suggests that the gains in tax expenditure exceed the gains in tax revenue. Moreover, Figure 2.2 affirms the trend identified in Table 2.3, which suggests that tax expenditure has consistently been exceeding tax revenue.

National Treasury (2019) indicates that economic performance continues to weigh heavily on tax revenues. The reduction in tax revenue and new spending, such as fee-free higher education, demands more tax policy and expenditure initiatives. In the face of poor economic growth, the tax proposals for the 2019 budget are planned to reduce further negative impacts on growth. It is expected that the 2019 reforms will increase tax revenue in 2019/20 by R15 billion.

National Treasury (2019) states that in aid of raising revenue needed to fund government's social and economic policy commitments, South Africa requires the quality, effectiveness and impartiality of its tax administration and SCM. The SARS Commission reports highlight the maladministration and misuse of tender procedures suffered by the agency between 2014 and 2017 as one of the reasons for the drop in tax revenue. The Nugent Commission's main finding is that these failings stem from a massive failure of governance and integrity.

Through internal processes, SARS is implementing recommendations concerning:

- ◁ inappropriate actions;
- ◁ fruitless and wasteful expenditure;
- ◁ unfair labour practices and maladministration; and
- ◁ contracts that breached public procurement regulations.

Based on the above information, SCM systems in South Africa are under threat of fraud and corruption, which has an impact on the economic growth and affects SARS collection. Therefore, it is important to examine what the factors are that amount to fraud and result in a waste of taxpayers' money.

2.13 Linking SCM, legislation and AGSA

Table 2.4 compares incidents of non-compliance within public entities to the actions that have/should be taken in accordance to legislation. This legislation being the PFMA act Section 50 (a) to (h); Section 51 (a) to (d); and Section 57 (a) to (e). These sections are enacted as a legislative framework regarding the responsibilities and fiduciary duties of authorities governed to manage public entities as mentioned in Chapter 2.3. Table 2.4 also seeks to provide an illustration of the incidents of non-compliance within South African public entities, despite the presence of a legislative framework in the form of the PFMA. the data is extracted from the consolidated AGSA PFMA 2019 report.

Table 2.4: Incidents of non-compliance and actions that have/should be taken in accordance to legislation

Public entity	Non-compliance within SCM	Actions to be taken in accordance to legislation
Passenger Rail Agency of South Africa (PRASA)	<p>Competitive bidding processes were not followed to appoint contractors for the following services:</p> <ul style="list-style-type: none"> ◁ General overhaul and upgrade services awarded in 2008 have been extended multiple times without following competitive bidding processes. ◁ Provision of bus services in the Western Cape awarded in 2005 have been extended multiple times without following competitive bidding processes. 	<p>A recovery processes against the suppliers must be instituted through State Attorney Office. PRASA has undertaken investigations to identify the responsible officials and will hopefully take the necessary disciplinary action based on the outcome of the investigations.</p>
National Department of Water and Sanitation	<p>A payment of R17,9 million was made to a firm appointed for financial management services. No evidence of work performed was produced.</p> <p>During an evaluation process, a company that did not score the highest points was awarded a contract for radiology equipment. The prices of this company were significantly higher than those of the bidders that should have been awarded the contracts.</p>	<p>Based on the outcome, the accounting officer initiated disciplinary procedures against the officials involved. A summons was also filed to declare the contract void by the High Court of South Africa. Further action to recover the financial loss must be taken once the court processes have been concluded.</p>
National Department of Basic Education	<p>A contractor was paid although the work undertaken was not at the required standard of quality. Further payments to another contractor assigned to carry out remedial construction work had to be made.</p>	<p>During the 2017-18 financial year an investigation into the matter was concluded. In the 2019-20 financial year the accounting officer intends to recover the revenue.</p>

Source: AGSA (2019)

It is clear from Table 2.4 that government officials and accounting authorities are not following the prescribed legislative framework. Companies are continuously awarded procurement tenders while there are better companies to award tenders to.

The AGSA (2017) states that accounting officers and authorities are familiar with the different categories of material irregularity. The accounting officers and authorities are responsible for preventing irregularities such as non-compliance, fraud, theft, and breaches of fiduciary duty (PFMA, 1999), thereby decreasing or eliminating the impact of the loss or misuse of resources financed by taxpayers. The AGSA (2016) describes how the

establishment of SCM systems, processes, and controls by public entities are essential to align with the PFMA and similar legislation to promote effective and efficient financial management in achieving government's mandate. Moreover, the AGSA (2017) suggests that the lack of competitive bidding and unfair procurement processes will result in material financial losses, as market-related prices are not being secured for quality service delivery.

The Auditor-General reports 2014/15 to 2018/19 have for many years been highlighting systemic failures with public entities SCM systems across all spheres of government. The AGSA (2016) proposes that these systematic failures identified remain inappropriately resolved, which results in irregularities, resultant losses, and the misuse of tax revenue when these irregularities could have been prevented from happening.

The AGSA (2019) and National Treasury (2014) define irregular expenditure as all expenditure that pertains to instances of non-compliance with legislation in the process leading up to procurement and payment for goods and services. An example of non-compliance, may be if the procurement process for the awarding of a tender did not comply with SCM legislation. All payments made towards that contractor will be classified as irregular expenditure.

The AGSA (2019) reports that during the 2018/19 fiscal year alone, irregular and wasteful expenditure amounted to R62.6 billion which could have doubled the budgetary capacity of some of South Africa's public entities. The budget deficit of R224.5 billion is a sign that the country's expenditure exceeds its income. As a result, government has to continuously lend funds to close the gap, which results in the incurrance of a new cost to service debt. All of this has a negative effect on the economy and results in a decrease in tax revenue. This decrease in tax revenue is evident through the tax revenue shortfall for the 2018/19 fiscal year, which amounts to R 4.2 billion.

2.14 Conclusion

Through analysing a variety of literature (content and document), an understanding of what SCM is and what its role in the public sector is, was gained. It was determined that SCM is necessary for an organisation to deliver products and services in aid of satisfying the end customer. In particular, SCM for government is an essential tool to facilitate its mandate by providing goods and services to its citizens through public entities. Through content and document analysis, an examination of relevant legislation in the form of the PFMA (1999), PPPFA (2000), and B-BBEE (2003) was analysed to establish a legal basis for the study.

This examination also lead to the understanding of how the development in SCM legislation was essential to address socio-economic objectives and address past discriminatory practices.

Literature on SCM, to determine appropriate elements that should be in place for efficient and effective SCM systems, was also reviewed. It was determined that improving the SCM system within an organisation ultimately leads to a system that functions efficiently and effectively; it also promotes customer satisfaction as a priority in the delivery of goods or services. Incorporating elements of an effective and efficient SCM system results in an organisation's supply chain producing a competent and skilled workforce who are accountable for their actions.

Examining the Public Sector SCM Review provided an understanding of the current standing of South African SCM. The 2015 Public Sector SCM Review findings reveal that a lot of public entities' staff are ill equipped and unskilled to perform functions which are required to effectively and efficiently provide goods and service to its citizens. This is supported by the Auditor-General's reports which continuously report material irregularities and non-compliance to legislative frameworks. These material irregularities highlight the application of the fraud triangle on South African corruption allegations that have lead the establishment of the State Capture Commission of Inquiry.

These material irregularities and non-compliance take from the budget that is allocated to fulfil government's mandate and assist the communities at large. Government thus has to raise more money in the form of loans to fulfil its mandate and increase tax rates. Another element government has to combat is the ever-increasing budget deficit, which depicts that government is spending more money than it collects. This is evident from Chapter 2.10 and particularly, Table 2.3. It is clear from Chapter 2 that government needs to take greater steps to improve SCM within public entities which will reduce the knock-on effect on the budget deficit, tax revenue, and expenditure.

Thus, from the literature review it can be reasoned that SCM in public entities' expenditure affects tax revenue collection as the economy does not grow due to tax expenditure being misused. As a result, government has to seek funds from money lenders in order to facilitate its mandate. The consolidated AGSA PFMA reports on SCM non-compliance and continuous tax revenue shortfalls reported on by National Treasury illustrate the fact that South African debt has increased. Substantial shortfalls in a single year have a knock-on

effect on other years, widening the deficit between tax revenue forecasts and collections. There is an abundance of literature on South African SCM, however, there is a lack of literature on the impact that these SCM systems have on tax revenue and expenditure. As this study progresses, it will be important to set the standard of interpretation that will be adopted in analysing data so that the findings can be corroborated with the findings in Chapter 2.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

Ronald *et al.* (2007:23) explain that one of the aims of a research methodology is to set the standards that will be utilised in the interpretation of data and affect the conclusion. It is therefore important in this study to determine the standards of interpretation of data extracted from the Auditor-General reports. Almakli (2014:290) proposes that a research methodology allows the researcher to encompass philosophies and assumptions, which drive the rationale for the investigation.

Kaplan *et al.* (2007:23) propose that a research methodology can be summarised in three steps:

1. The identification of data to be analysed.
2. The form of data collection and its adoption in determining the best approach in addressing a theoretical or practical problem.
3. Uncovering answers to research questions.

3.2 Scrutinised data and answering posed research questions

Almalki (2014:290) explains that when seeking to answer research questions, the researchers must be able to:

- ◁ determine how data will be collected and analysed;
- ◁ reflect upon the strategies intend to be used within the study which will in turn inform the research methods; and
- ◁ question themselves about the knowledge claims and theoretical perspectives they propose.

Malone, Nicholl and Tracey (2014:279) explains that in order for the researcher to remain aware of any bias they might develop against the research investigation, the above-mentioned procedure is important, as this will influence the choice of approach they use and the tools with which they choose to gather their data.

Ahmad (2016:1) suggests that the impetus of all research is to enlarge knowledge and understanding in a field of study. This task involves identifying and describing a phenomena

or problem and improving understanding with the aim of contributing knowledge to the field of study. Almalki, (2014:291) emphasises that there are three distinct approaches to conducting research and expanding the field of study, which are quantitative, qualitative, and mixed-method. A qualitative approach will be adopted for this research study as it exhibits the characteristics most relevant for this study.

3.3 Qualitative research

Austin and Sutton (2015:230) explain that when analysing data in qualitative research, the researcher goes through the process of identifying themes and describing findings or observations. Kumar (2011:33) further elaborates that a study is classified as qualitative if “the purpose of the study is primarily to describe a situation, phenomenon, problem or event”. Qualitative research is done to determine the variance in the scenario, phenomenon or problem. Qualitative research is implemented to establish historical enumeration of events, problems or phenomenon. Kumar (2015:230) proposes that qualitative research exposes an account of the different opinions people have about an issue and provide a description of the living conditions of a society. It incorporates all types of social research focused primarily on non-numeric literature data, including all forms of textual analysis, such as material, discourse and narrative analysis.

Silverman (2016:4) describes qualitative research as a means to seek a better understanding of social realities and as a means to draw attention to processes in aid of contributing to the field of study. Supply chain management processes within public entities will be the subject of attention for this research study. Silverman (2016:4) explains that SCM processes in public entities have an impact on society, the economy, tax revenue and expenditure.

Mayring (2004:240) deduces that qualitative research frequently begins with analysis or reconstruction of incidents that took place according to the subject area. It was thus of utter importance to have investigated what circumstances or incidents occurred within South African public entities SCM to bring them to their current financial standing, which affects society, the economy, tax revenue, and expenditure.

According to Green and Thorogood (2019:234) qualitative research aims to answer the “how,” “why,” and “what” questions of a phenomenon, event or problem. Qualitative research utilises an emergent design by means of an iterative process of:

- < combining data analysis;
- < preliminary data inspection; and
- < data collection.

Mansor (2002:24) suggests that in aid of completing this iterative process, the researcher also needs to develop active skills which include:

1. identifying the key issues;
2. working out how they might be resolved; and
3. understanding the cognitive, functional, moral and political consequences of various ways to approach them.

Qualitative research is exploratory, fluid and versatile, data-driven and context-sensitive in characteristics and is suitable for the analysis. Instead of weakening it the versatility of this emerging design will enhance and strengthen the rigor and validity of qualitative research. Haven and Van Grootel (2019:234) suggest that this is because qualitative research embraces subjectivity. The qualitative researcher forms part of the selection process. The researcher thus has an influence in generating findings from the data. During data analysis processes, knowledge is converted by the researcher through stages of data interpretation into explanations of trends, patterns or theoretical models. The influence that the researcher had on this study was on the data collection aspect. This influence was due to the fact that the researcher had to set the criteria of inclusion of the 40 public entities and was responsible for determining from the consolidated AGSA PFMA reports 2014/15 to 2018/19 which public entities fit the criteria set which will be discussed in Chapter 3.5.3.1. The next stage of data interpretation involved utilising an ascending selection process applied to the consolidated expenditure over a five-year period to determine a top 10 list with the aim of extracting SCM findings to determine the cause of these public entities exorbitant expenditure which is funded through government tax expenditure.

Haven and Van Grootel (2019:234) explain that the influence and perception of the researcher in qualitative research emanates from an interpretivist paradigm from which qualitative researchers typically operate. Interpretivism is the analysis of social events that uses a perception of the social environment produced by individuals and repeated by their continuing practices. Kumar (2011:33) argues that qualitative study designs are often based on deductive rather than inductive logic. A deductive logic adaptation examines prior formulated theoretical aspects and brings them in connection with different literature; the

goal of a qualitative research is to generate a theory instead of testing theory and will thus not make use of hypotheses.

Kumar (2011:33) distinguishes that in exploring qualitative research, it is clear that the majority of qualitative studies first define a text or social object suitable for study. Thus, in Chapter 2 suitable text in the form of the PFMA (1999), PPPFA (2000), B-BBEE (2003), PAA, and the 2015 Public Sector SCM Review were identified and analysed to gain an understanding on SCM in South Africa, especially with regards to legislation. Kumar (2011:33) explains that in qualitative research the primary goal is to consider, describe, investigate, uncover and clarify circumstances, thoughts, expectations, behaviours, principles, views and experiences. The above paragraphs illustrate that qualitative research seeks to uncover and understand a phenomenon, problem or event through analysis of different literature to generate a theory about the problem. Relating to this study in determining the phenomenon or problem, the AGSA (2019) reports that it is of great concern that compliance with SCM legislation slightly improved from the previous year with only 36% of the auditees fully complying with SCM legislation. This means that 64% of auditees did not comply with SCM legislation and thus are not utilising the state's resources, which are funded by tax collections. The statement made by the Auditor-General concerning non-compliance highlights the problems faced by South African public entities faces in managing SCM .Chapter 2 exhibits some of the historical enumerations that have plagued South African public entities in the analysis of the AGSA on SCM.

Silverman (2016:15) proposes that a problem that may arise during qualitative research, is that researchers spend a significant amount of time on gathering data, leaving little time to analyse the gathered data. A solution researchers have implemented to gain more time in analysing data, is to work with credible and valid secondary data; through the processes of re-analysis and re-purposing secondary sources to gain an understanding in the field of study. In secondary data examination, it is important to analyse various forms of data to validate one's findings.

According to Flick (2015:26) triangulation helps the researcher guard against findings that are simply an artefact of a single method or a single source. Mayring (2004:240) describes how qualitative research is characterised by the fact that there is no single method to its implementation. A spectrum of methods may be utilised depending on the research question and research tradition. Therefore, this study utilised various qualitative methods

with the aim of triangulating data to establish credibility. These methods are content analysis, explanatory research, document analysis, and grounded theory approach.

Informedia Services (2017) explain that the qualitative researcher is expected to draw upon multiple sources of evidence and methods of methodology with the purpose of seeking convergence and corroboration. Flick (2015:26) notes that by triangulating data and analytical methods, the researcher seeks to provide a mixture of evidence that breeds legitimacy. The researcher can corroborate outcomes through data sets by analyzing knowledge obtained across various approaches and thereby reduce the effect of possible biases. With the goal of triangulating data and methods of interpretation, Table 3.1 illustrates the different qualitative methods that were applied in this study in addition to the opinions and conclusions made by researchers on research methodology.

Table 3.1: Qualitative methods and application to study

Qualitative methods	Application to study
<p>Mayring (2004:266) explains that the aim of content analysis is to systematically examine communicative material in a wide range of scientific domains. Content analysis is advantageous to qualitative analysis as it assists with the interpretation and analysis of data. A trait of qualitative content analysis is that it systematically sifts through literature without rash quantification (Mayring, 2000:2). The material is to be analysed step-by-step, following rules of procedure that will devise the material into content analytical units.</p>	<p>In anthologising Chapter 2, content analysis played a critical role in breaking down the content into analytical units and providing a systematic framework to analyse data. This was evident through the creation of the framework at the beginning of Chapter 2 which systematically guided analytical units to be examined. Through content analysis this framework allowed the researcher to understand what SCM is and the norms surrounding it. The next step was to understand South Africa's legislation around SCM and how compliant public entities are. The PFMA AGSA reports that a lot of public entities are not complying with SCM. National treasury outlines the effect of this non-compliance on the tax system as the government has to generate more revenue through the tax system to cover for the gap the misuse in funds has created.</p>
<p>Kumar (2019:17) explains that explanatory research aims to explain how a relationship, association or interdependence is formed between subjects. This is where a study is carried out with the intention of either investigating a field where less is understood or exploring the possibility of conducting a specific research study (Kumar, 2011:33). Explanatory analysis aims to explain whether a relationship between two facets of a circumstance or phenomena occurs and how. For example, this form of study tries to understand whether traumatic life leads to heart problems or how the home atmosphere influences the amount of academic success of children.</p>	<p>Through explanatory research in Chapter 2, a relationship was established of how public entities' SCM non-compliance diminishes the government's financial power in achieving its mandate. This results in government having to increase tax revenue to fund tax expenditure to fulfil its mandate. Ultimately, the constant tax increases have resulted in a reduction in consumption and expenditure, leading to low economic performance and lower tax revenue collection. Thus, in this study the relationship between public entities and taxation was examined and analysed to determine the extent of influence.</p>

<p>Zeegers and Barron (2015) justify that document analysis, as the name suggests, deals with the analysis of documents. Policy announcements, legal articles, laws, editorials, journals, and academic findings can be those records. The researcher has to analyse each of such documents as having been present when the primary researcher compiled the document and also have considered the concerns regarding their content at that time. If the researcher analyses records generated over a long period of time, they may look for improvements in behaviours, values, behaviour and most likely policy underpinnings, as well as organizational criteria.</p>	<p>This research study is of a qualitative nature; therefore, a variety of documents were analysed to gain credible data. Certain documents were pivotal to the study in resolving the problem statement. These documents included:</p> <ul style="list-style-type: none"> ◁ AGSA PFMA reports 2014/15-2018/19 ◁ PFMA 1999 and other relevant legislation ◁ SARS reports and National Treasury publications ◁ Previous researcher's papers ◁ Articles and online newspapers
<p>O'Leary (2017:40) propose that a grounded theory methodology seeks to generate a theory through the analysis of data. Rather than beginning with a hypothesis or hunch, grounded theory starts with data collection and advances to produce a theory through a step-by-step study of data. Its strength lies in the management and value of data in qualitative analysis.</p>	<p>It was important to apply content analysis data according to document analysis principles. Explanatory research connected the relationship between the participants of this study. The culmination of these techniques allowed the researcher to progress systematically in analysing data and ultimately lead to an informed theory of public entities and their effect on tax revenue and expenditure.</p>

Source: Authors listed above

In applying these qualitative methods to data, it is imperative that the dataset be rich in information that will apply to solving the problem statement.

3.4 Target population

Asiamah, Menash & Oteng-Abayie. (2017:1608) and DJS research (2021) describe the target population as is the entire population or group, that a researcher is interested in researching for the purpose of his/her investigation.

In chapter 1.5.1 it was determined that the focus of the study will be based on public entities, which is defined as an entity regulated and established in terms of legislation that is accountable to Parliament as it is funded by the fiscus (Bezuidenhout & Pilane, 2019:3). There are currently a total of 41 national departments and 128 provincial departments of which State Owned Entities are subsidiaries of national and provincial departments according to the respective departments (AGSA, 2019).

A sampling frame must then draw from this target population of public entities. Gibbs *et al.* (2007:540) point out that the purpose of sampling is to guide the researcher in identifying sources of rich data and understanding the issues emerging from the data. Sampling further assists in confirming the developing evidence and also illuminates data compiled by previous researchers. Sampling and data collection processes/techniques are critical to establishing the quality of a study and the generalisability of the findings.

3.5 Sampling

Moser and Korstjens (2018) stress that qualitative sampling in particular is the process of selecting participants or context which/who provide rich data of the phenomenon of interest/study. Gentles *et al.* (2015:12) explain that sampling is the selection of specific data sources from which data is collected to address the research objectives. Qualitative sampling begins with organising large amounts of data into smaller and manageable units. This is an imperative characteristic of qualitative sampling as it assisted the researcher in extracting data from each of the consolidated AGSA PFMA reports 2014/15 to 2018/19 on the 40 public entities and in combining this information to achieve the empirical objectives.

Moser and Korstjens (2018) further propose that it is necessary in qualitative sampling to sample to the point where a researcher reaches data saturation. Data saturation corresponds to data processing to the point that because new data yields redundant information, a sense of closure is reached. The researcher and his/her team jointly decided when data saturation was achieved in this study and whether or not the sample size was sufficient. Data saturation requires the availability of enough depth in data to highlight the patterns, categories and variety of the phenomenon under study.

Data saturation in relation to this study was reached in examining 10 public entities over a five-year period as discussed in Chapter 1.5.3. The 10 public entities provided depth into the database to highlight the amount of tax expenditure being mismanaged through SCM systems.

3.5.1 Sampling framework

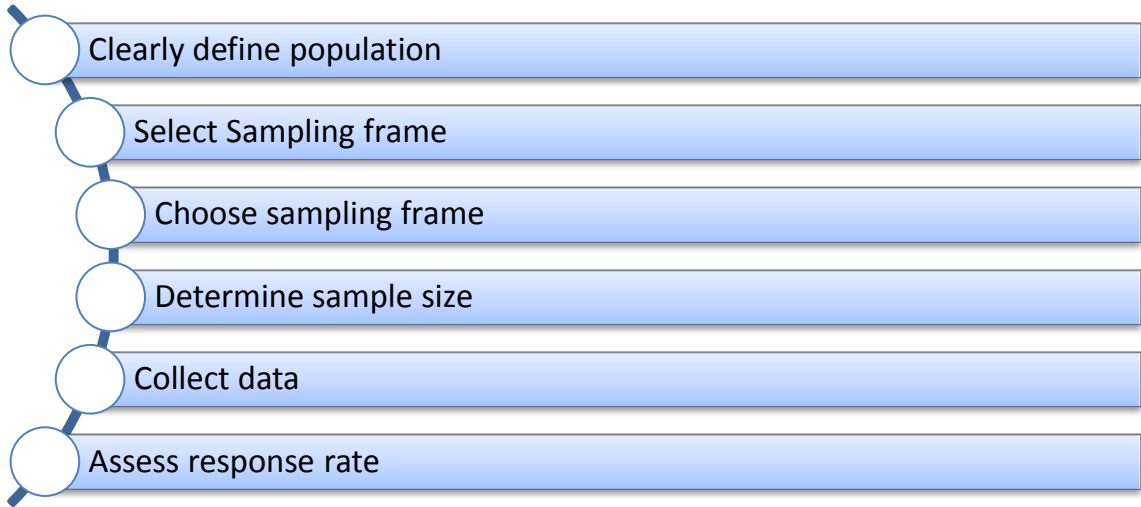


Figure 3.1: Sampling framework

Source: Taherdoost (2016:18)

Etikan (2018:1) and Taherdoost (2016:18) argue that in order to answer the research questions, it is essential that the researcher should be able to collect data from all cases. The entire set of cases from which the researcher sample is drawn from is called the population. Since the researchers had neither the time nor the resources to analysis the entire population, the researcher was required to apply a sampling technique to reduce the number of cases and increase reliability. The research population for this study was, therefore, the South African public entities as defined in Chapter 3.4. It is therefore important to determine the sample size.

3.5.2 Sample size

It was determined in Chapter 1.5.3 that researcher in the field of SCM seem to focus more on explain concepts of SCM rather than engage in the process of analysing public entities financial data, literature pertaining to this limitation is displayed by Mkhwanazi (2019:20), Ambe (2019:132), Bezuidenhoudt and Pilane (2019), Boshmane (2015), Dzuke and Naudé (2015). However, Swart and Swanepoel (2019:5) successfully make use of a sample 10 public entities to illustrate the numerous instances of financial misconduct and non-compliance relating to the PFMA from the period 2014 to 2017. The lack of analytical data in public entities finances by numerous researchers and the successful approach take on by Swart and Swanepoel (2019:5) inform the decision to filter down sample of 40 public

entities sample to 10 public entities based on the aggregate incurrence of irregular, unauthorised, fruitless and wasteful expenditure. These entities will then be analysed to determine the factors present in public entities SCM that has resulted in a waste of tax expenditure.

Chapter 1.5.2 also emphasises the use a sample size that begins from 40 to 10 as it was determined that Swart (2018:201) illustrated that generating a smaller sample size from a larger one using qualitative purposive sampling can provide rich data for the researcher to analyse in achieving the objectives of the study. In his study he finds that 30% of his sample constitute 75% of the data to be analysed for his study, and therefore filters his sample size to the 30% which provide rich data for his study. This is the premises for further extracting a sample of 10 public entities from the initial 40 public entities, the top 10 public entities constitute 25% (10 out of 40) of the total sample size of 40 public entities. The aggregate irregular, unauthorised, fruitless, and wasteful expenditure of these 10 public entities however constitute 70% (R94 210,6 million out of R134 548,3 million) of the aggregate expenditure.

3.5.3 Data identified and collection method

The data identified (40 public entities) in this study was data generated from the PFMA AGSA reports of 2014/15 to 2018/19. The collection of data was recorded on an Excel spreadsheet and includes recordings of:

- unauthorised expenditure;
- irregular expenditure; and
- fruitless and wasteful expenditure.

The aggregate of these three expenditures of the 40 public entities, over a five-year period, allowed for the identification of the top 10 public entities that have misused tax expenditure through their SCM practices. Furthermore, the data recording process allowed not only for the examination of SCM practices in identified public entities but also provided answers to the research question.

Taherdoost (2016:18) proposes that once the population and sample size of the study has been clearly defined, it is important for the researcher to select the most appropriate sampling technique to extract the richest data possible. Etikan (2018:1) explains that

sampling techniques can be divided into two types of categories: probability and non-probability sampling. Within these two categories, a number of sampling techniques that can be incorporated are included depending on the research methodology adopted. Figure 3.2 depicts how sampling techniques are categorised.

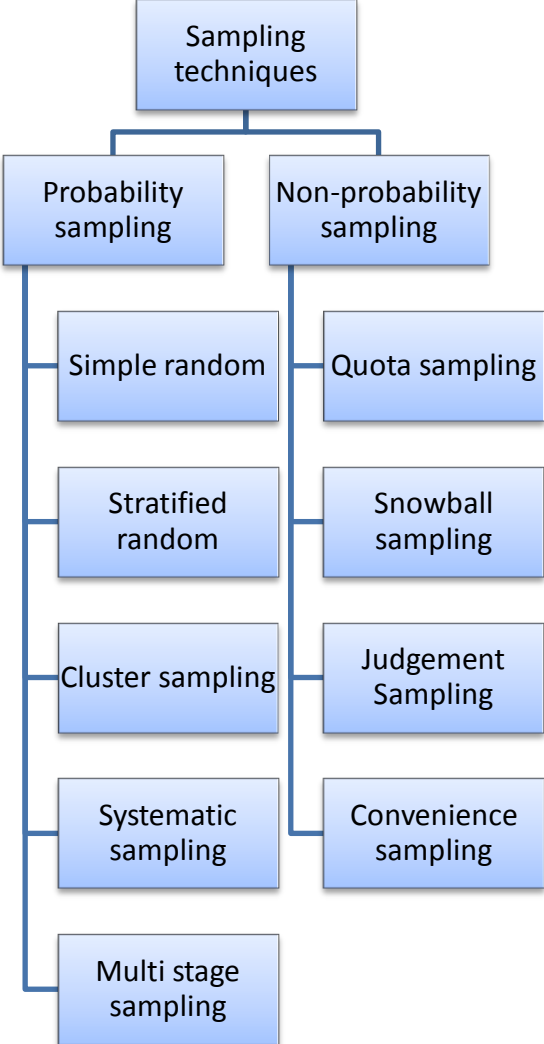


Figure 3.2: Sampling techniques

Source: Taherdoost (2016:18)

Taherdoost (2016:18) and Etikan (2018:1) note that non-probability sampling is often used because the tools used to select units for inclusion in a sample are much easier, quicker and cheaper in contrast to probability sampling. Sampling of non-probability allows researchers to use their subjective assessments, drawing on academic literature theory and the evolutionary essence of the study process. It may occur that the researcher has a theory that such a problem or issue exists, but there is limited or no research that currently

supports such a theory. Where the researcher's main desire is to determine if a problem or issue exists, non-probability sampling techniques can be utilised as a tool in aid of resolving the research question. The main desire of this study is to determine whether SCM in public entities have an effect on how tax revenue is utilised and to also determine the extent of this influence from a sample of 40 public entities which is then filtered down to 10 public entities.

Non-probability sampling was adopted for this study as it is often associated with qualitative research. Etikan (2018:1) asserts that this is because qualitative research tends to focus on particular samples, which are intended to examine real life phenomenon or problems. It is important that when a researcher sets the criteria for the selection of his/her sample, a clear rationale must be presented for the inclusion of participants within a study.

Laerd (2012) and Etikan (2016:2) explain that purposive sampling, also referred to as judgmental sampling, reflects a category of sampling strategies that depend on the researcher's judgment when it comes to choosing the units to be analyzed (e.g. individuals, cases/organizations, incidents, pieces of data). Maximum variance sampling, homogeneous sampling, standard case sampling, complete population sampling, and specialist sampling are among these purposeful sampling techniques. There is a particular aim for each of these purposeful sampling methods, relying on similar types of units, all for various purposes. The numerous methods of purposeful sampling may either be used on their own or in conjunction with other methods of purposeful sampling. Ethikan (2016:2) indicates that purposeful sampling helps researchers to squeeze a lot of data from the data they have obtained. This helps researchers to describe the significant effect on the society of their findings.

Foley (2018) clarifies that purposive sampling is when researchers thoroughly determine how they will establish a sample population. Purposive sampling, as the name suggests, focuses on particular subjects on purpose because the researcher believes that they have met the criteria for the intended study. Although the effects of purposeful sampling do not necessarily have to be statistically descriptive of the higher interest group, they are qualitatively generalizable (Foley, 2018). Showkat and Parveen (2017) delineate that in this type of sampling, the researcher chooses the participants as per his/her own judgment, remaining cognisant of the purpose of the study. Purposive sampling uses the judgment of the researcher in selecting cases with a specific purpose in mind. This type of sampling is often used in exploratory research.

3.5.3.1 Criteria of inclusion

In determining the sample of this study as per Chapter 1.5.3, it was important to only focus on public entities that were identified by the Auditor-General to have incurred unauthorised, irregular, fruitless or wasteful expenditure. In analysing the consolidated AGSA PFMA reports, to establish the second criteria of inclusion, the researcher scrutinised each of the consolidated AGSA PFMA reports from 2014/15 to 2018/19 and compiled a list of 40 public entities that incurred unauthorised, irregular, and fruitless expenditure in the relevant year of assessment. These public entities would also have had to incur unauthorised, irregular, and fruitless expenditure twice in a year of assessment during the five-year period from 2014/15 to 2018/19. It is important as the researcher to always keep in mind that these public entities may or may not have incurred such expenditure within two consecutive years during the period of the 2014/15 to 2018/19 fiscal years. The expenditure incurred by public entities can either be:

- ◁ *Unauthorised expenditure*: Expenditure that the auditees incurred without provision having been made for it in the approved budget.
- ◁ *Irregular expenditure*: Expenditure where there was non-compliance with legislation in the process leading up to the payment. For example, if the procurement process for the awarding of a construction contract did not comply with legislation on supply chain management, all payments to that contractor will be irregular expenditure.
- ◁ *Fruitless and wasteful expenditure*: Expenditure that was made in vain and that could have been avoided had reasonable care been taken.

(AGSA, 2019)

3.6 Reliability and validity

Simon and Goes (2016) argues that discussions about reliability and validity are ubiquitous in quantitative research, however in qualitative research, reliability and validity often receive less attention and scrutiny. Validity in qualitative research symbolises consistency and trustworthiness regarding events associated with a phenomenon.

Hayashi *et al.* (2019:99) make clear that validity and credibility improves accountability and eliminates potential for the bias of the analyst to penetrate qualitative studies into the study. Hayashi *et al.* (2019:99) imply that the author must guarantee the study's reliability and validity depending on the willingness to preserve neutrality. For qualitative researchers,

establishing legitimacy will present difficulties, as the qualitative researcher has to clarify how the research technique guarantees reliability and reputation.

Dudovski (2018) explains that reliability refers to the extent to which the same answers can be obtained by repeatedly using the same instruments. This means that if a study is associated with high levels of reliability, then other researchers using the same research methods under similar conditions have to be able to generate the same results. Dudovski (2018) further highlights that validity can be explained as the degree to which during the course of producing research conclusions the criteria of the empirical research method have been followed. For all forms of research, Oliver (2010) finds legitimacy to be a mandatory prerequisite.

Amankwaa (2016:121) proposes that research that is perceived as worthless is said to lack rigor if the findings are not worth noting or paying attention to due to its unreliability. In eliminating a lack of rigor in research, reliability and validity techniques are required in performing qualitative research. Dudovski (2018) expresses concern about qualitative research losing value when the qualitative researcher fails to recognise the importance of reliability and validity. In not recognising the importance of reliability and validity, the researcher mistakenly supports the idea that qualitative research is defective and worthless, lacking in thoroughness and is of unempirical value. Amankwaa (2016:121) concludes that the end result of establishing rigor or trustworthiness for each method of research requires a different approach.

Measures to ensure validity of a research study include, but are not limited to the following points:

- ◁ “An appropriate time scale for the study has to be selected.
- ◁ An appropriate methodology has to be chosen, taking into account the characteristics of the study.
- ◁ The most suitable sample method for the study has to be selected.
- ◁ The respondents must not be pressured in any way to select specific choices among the answer sets” (Amankwaa, 2016:121).

It is important to understand that while risks to the reliability and legitimacy of science can never be entirely removed, researchers need to try as far as possible to mitigate this hazard.

3.6.1 Data capturing, reliability and validity in this study

Data was captured according to the amounts provided on the consolidated AGSA PFMA reports 2014/15 to 2018/19. Each year consists of its own summary for the relevant years of assessment on a spreadsheet, each amount entered extracted from the consolidated AGSA PFMA reports were double checked for accuracy. The data obtained from the Consolidated ASGA reports discussed above were then corroborated by the National Government Handbook: South Africa. In the aim of ensuring validity, a colour coding system was utilised by highlighting the names of the entities that had been double-checked upon reviewing the captured data. This process of highlighting the public entity confirmed that the public entities' expenditure had been corroborated by the consolidated AGSA PFMA reports and the National Government Handbook: South Africa.

A detailed annual guide to all government agencies and organizations is the National Government Handbook: South Africa (2020). The Regional Government Handbook: South Africa and The Local Government Handbook: South Africa, along with sister publications, consolidate, summarize and profile over 850 public bodies in all fields of government. In Chapter 3.5.3 which sets out the target population, it only consisted of National and provincial organs of state which are defined as public entities by the PFMA, the national handbook however includes regional entities and local municipalities in its database which results in 850 public bodies. Focus was only placed on entities which met the target population criteria. The information in these handbooks are compiled from a variety of credible sources such as Government:

- < annual reports;
- < websites; and
- < public documentation.

Comprehensive email and telephonic surveys were also conducted by the National Government Handbook: South Africa to verify information from public entities. A sister publication is also available online in the form of The Provincial Government Handbook: South Africa and The Local Government Handbook: South Africa which contains all the information in the handbooks. The website is updated on a continuous basis. Comprehensive tables and spreadsheets were prepared and will be discussed further in Chapter 4.

3.7 Conclusion

Ronald *et al.* (2007:23) explain that one of the aims of a research methodology is to set the standards that will be utilised in the interpretation of data. The relevance of the standards of interpretation of data and techniques that will be utilised is important, as a qualitative research methodology was adopted. Mayring (2004:240) describes how qualitative research is characterised by the fact that there is no single method to its implementation. A spectrum of methods may be utilised depending on the research question and research tradition. Therefore, this study utilised various qualitative methods in an effort to triangulate data in order to manifest credibility. These methods are mainly content analysis, explanatory research, document analysis, and grounded theory approach.

Silverman (2016:4) describes qualitative research as a means to seek a better understanding of social realities and to draw attention to processes in aid of contributing to the field of study. Supply chain management processes within public entities is the subject of attention for this research study. It can be concluded from the Chapter that SCM has a significant impact on the tax collection and expenditure and thus on all parts of the society.

The main goal of this study is to determine whether or not SCM in public entities has an effect on how tax revenue is collected and tax expenditure in accordance to legislation based on a sample of 40 public entities. Following the identification of the 40 public entities from the consolidated AGSA PFMA reports 2014/15 to 2018/19, based on irregular, unauthorised, fruitless and wasteful expenditure. A sample of the top 10 public entities is filtered from the 40 public entities based on those that have misused tax expenditure, these entities were analysed to determine incidents of SCM which may have contributed to the effect on tax expenditure.

In the aim of ensuring validity, Chapter 4 will provide analysis of the spreadsheet compiled on expenditure by public entities. The spreadsheet will also seek to examine different literature in order to explain the findings of Chapter 4. This will aid in answering the research question as to how public entities' SCM affect tax revenue and expenditure.

CHAPTER 4: DATA COLLECTION AND ANALYSIS

4.1 Introduction

Chapter 3 outlined how data will be collected and the best approach to analyse the collected data. It was determined in Chapter 3 that the best approach in seeking to establish the main causes of SCM weakness in public entities and determining the amount of tax expenditure and revenue lost would require an extraction of 40 public entities from the AGSA PFMA reports 2014/15 to 2018/19 based on the occurrence of irregular, unauthorised, fruitless and wasteful expenditure. It is important to note that some public entities were not included in the 40 public entities' sample due to the fact that multiple years had passed during the period 2014/15 to 2018/19 without them releasing financial statements to be audited by the AGSA.

This database of 40 public entities would then be filtered down to the top 10 entities that have contributed the most to irregular, unauthorised, fruitless and wasteful expenditure. Analysing the findings on SCM of these top 10 entities would provide rich data in determining causes of non-compliance to SCM.

Figure 4.1 presents the structure and flow of Chapter 4. It starts by first depicting the relevance of the consolidated AGSA PFMA by detailing the AGSA audit scopes from 2014/15 to 2018/19; followed by the findings of the data extracted from the consolidated AGSA PFMA reports pertaining to the 40 and 10 public entities described in Chapter 3. Chapters 4.4 to 4.6 are then used to transition from the SCM findings of the top 10 public entities to the influence on tax expenditure and revenue.

This framework was essential in guiding the study to achieve the empirical objectives that were set out in Chapter 1. Chapter 4 required a significant amount of data analysis and a researcher may lose track of the purpose of analysing specific data during this process; hence, Figure 4.1 remained a guide in the process of data analysis.

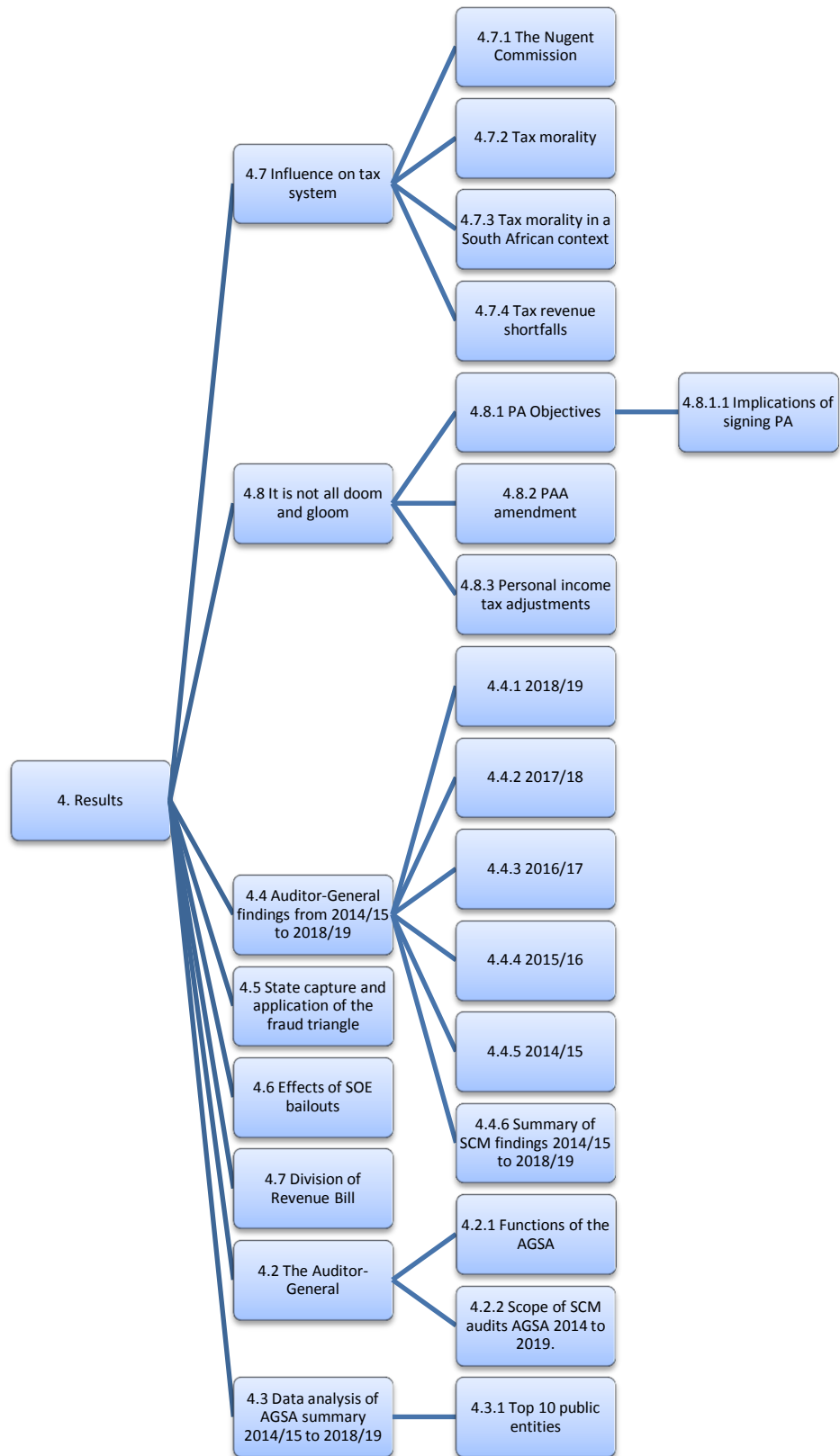


Figure 4.1: Chapter 4 framework

4.2 Auditor-General South Africa

The AGSA (2019) reports on whether or not government has sufficiently utilised tax expenditure in fulfilling its mandate. The annual reports issued by the AGSA into government financial management aim to establish if public entities utilised tax expenditure in line with the PFMA and other relevant legislation through a process called an audit. An audit is essentially done by examining whether or not public entities exercised:

- ◁ “fair presentation of financial statements and absence of significant misstatements;
- ◁ reliable and credible performance information for predetermined objectives; and
- ◁ compliance with all laws and regulations governing financial management”.

4.2.1 Functions of the AGSA

The AGSA audits and reports on the accounts, financial statements, and financial management of:

- ◁ “all national and provincial state departments and administrations;
- ◁ administration of Parliament and of each provincial legislation;
- ◁ all municipalities and municipal entities;
- ◁ all constitutional institutions; and
- ◁ any other institution or accounting entity required by national or provincial legislation to be audited by the AGSA” a.

4.2.2 Scope of SCM audits AGSA 2014/15 to 2018/2019

The AGSA (2019), AGSA (2018), AGSA (2017), AGSA (2016) and AGSA (2015) shall decide whether or not the procurement procedures prescribed have been followed. This guarantees that all suppliers have an equal chance to market and reduces the risk of favouring any suppliers over others. It is therefore determined by the Auditor-General whether or not the standards of an equal, equitable, open, competitive and cost-effective SCM mechanism are being followed. Such SCM principles are fundamental to the laws and methods for public procurement enshrined in the constitution of the country and prescribed by the 1999 PFMA. Furthermore, the process of contract management is also reviewed by the Auditor-General; shortcomings in this area result in delays in service delivery and incurrance of fruitless and wasteful expenditure. Finally, the Auditor-General further assess the financial interests of employees as well as auditees and their close family members in

relation to the auditee. The amended Public Service Regulations prohibits employees of public entities from doing business with the state legislated from 1 August, 2016.

4.3 Data analysis of AGSA summary 2014/15 to 2018/19

The PFMA AGSA reports 2014/15 to 2018/19 provide a suitable analysis in extracting irregular, unauthorised, fruitless and wasteful expenditure. Below are the summarised totals of the 40 public entities’ cumulative irregular, unauthorised, fruitless and wasteful expenditure for each relevant year. Chapter 3 provides reasoning for the selection of these participants and also sets the criteria for their inclusion.

Table 4.1 provides a summary of these three expenditures combined and totalled over five years extracted from the AGSA PFMA reports 2014/15 to 2018/19. Table 4.1 also indicates the percentage increase in expenditure compared to the previous year. Figure 4.2 serves as a graphical representation of the trend of irregular, unauthorised, fruitless and wasteful expenditure during the period 2014/15 to 2018/19. The aim of Table 4.1 and Figure 4.2 is to highlight:

- ◁ the amount of tax expenditure lost by these 40 public entities over a five-year period; and
- ◁ the trend in increase of this cumulative expenditure.

Table 4.1: Totals of the 40 public entities total irregular, unauthorised, fruitless and wasteful expenditure

	2018/19	2017/18	2016/17	2015/16	2014/15	Total
	F D ` A] `	F D ` A] `	F D ` A] `	F D ` A] `	F D ` A] `	F D ` A] `
Total	40 814.3	33 929.6	27 388.6	18 183.7	14 232.1	120 316.2
Percentage increase from previous year	20.3	23.8	50.6	27.8	-	

Source: AGSA (2015), AGSA (2016), AGSA (2017), AGSA (2018) and AGSA (2019)

The increase of the amounts above is concerning as the increase grows by significant percentages while the South African economy is under stress. The tax income for fiscal years listed above have seemingly been utilised for other purposes besides the intended ones. Those tax expenditures lost should also be collected by SARS in the ensuing years to

make up the losses incurred in the prior years. For illustration purposes, the actual irregular, unauthorised, fruitless and wasteful expenditure are presented in a graph in Figure 4.2 below.

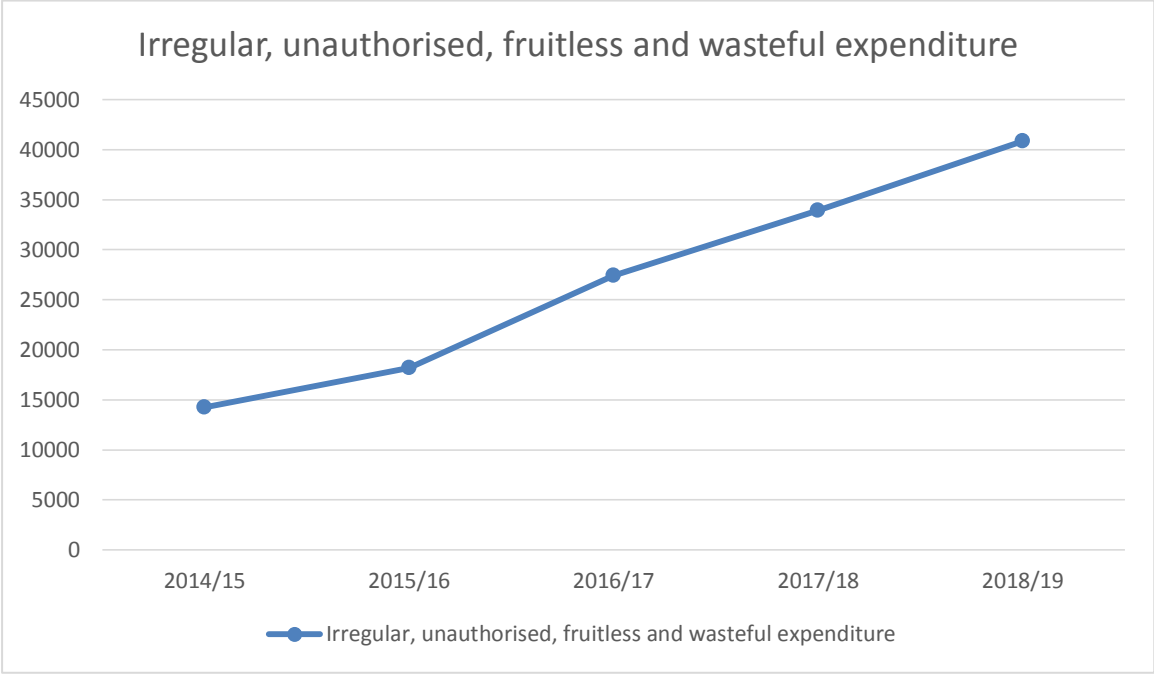


Figure 4.2: Irregular, unauthorised, fruitless and wasteful expenditure trend line

Source: AGSA (2015), AGSA (2016), AGSA (2017), AGSA (2018) and AGSA (2019)

Irregular, unauthorised, fruitless and wasteful expenditure has increased consistently over the five-year period. This means that each year, these public entities in aggregate set a new record high of cumulative expenditure, emanating from a year-on-year average increase over a four-year period of 30.6%. Translated, this means that tax expenditures' purchasing power utilised by these 40 public entities to efficiently and effectively fund government mandate is depleting at an average of 30.6% per year.

Gibbs *et al.* (2007:540) propose that the purpose of sampling is to guide the researcher in identifying sources of rich data and in understanding the issues or phenomenon emerging from data. In order to produce this rich source of data from the 40 public entities, the data must be filtered down to the top 10 public entities that have contributed the most to irregular, unauthorised, fruitless and wasteful expenditure.

4.3.1 Top 10 public entities

Through the use of Excel formulas, data on different spreadsheets regarding the cumulative amount of irregular, unauthorised, fruitless and wasteful expenditure was consolidated into one spreadsheet of the 40 public entities. In order to depict the rich data that Gibbs *et al.* (2007:540) elaborate on, this consolidated spread sheet sorted, from largest to smallest, the cumulative balance of expenditure. This sorting was done to simplify the selection of the top 10 contributors to irregular, unauthorised, fruitless and wasteful expenditure. The main aim of establishing a top 10, is to focus the research in extracting SCM findings by the AGSA on these entities. Thus one will be able to determine the causes these exorbitant expenditures that have eroded the purchasing power of government’s tax expenditure.

Table 4.2 is a summary of the top 10 entities’ total tax expenditure loss for 2014/15 to 2018/19 f as identified by the AGSA 2015 to 2019 PFMA consolidated reports.

Table 4.2: H c d ` %\$ ` d i V `] W` Y b h] h] Y g Ð ` h U I ` Y I d Y b X] h i f Y ` ` c g

Public entities	Total expenditure from 2014/15 to 2018/19 fl F Ð ` a] ` `] c b Ł
1. Entity 1	33 664.0
2. Entity 2	17 814.0
3. Entity 3	8 060.7
4. Entity 4	6 228.9
5. Entity 5	6 071.2
6. Entity 6	5 478.8
7. Entity 7	5 318.3
8. Entity 8	4 246.3
9. Entity 9	3 777.4
10. Entity 10	3 551.0
Total tax revenue and expenditure lost	94 210.6

Source: AGSA (2015), AGSA (2016), AGSA (2017), AGSA (2018) and AGSA (2019)

It is concerning that out of 10 public entities, three were SOEs that accounted for 60% of the total aggregated expenditure from 2014/15 to 2018/19; of more concern is that the other seven entities operate in facilitating basic human rights such as shelter, education, and health. In remaining cognisant of the purpose of extracting a top 10, annexure 2 of the AGSA from 2015/16 to 2018/19 reports on auditees' financial health indicators, SCM findings, and root causes.

It was determined in Chapter 3 that the main purpose of extracting these top 10 public entities was to determine the incidents in SCM that resulted in exorbitant expenditure on loss of tax expenditure. Tables 4.3 to 4.6 summarise the findings on SCM in the top 10 public entities extracted from annexure 2 from 2015/16 to 2018/19. Annexure 2 of the consolidated AGSA PFMA reports from 2015/16 to 2018/19, reports on auditees' financial health indicators, SCM findings, and root causes utilising a colour coding scheme to highlight findings. The colour scheme coding is depicted as follows:

- ◁ Red: Repeat of material unfavourable indicators.
- ◁ Yellow: New unfavourable indicators.
- ◁ Green: Addressed, no unfavourable indicators.

These findings will be significant as in 2018/19, 72% of the auditees did not comply with SCM legislation, only 36% of the auditees complied with SCM legislation (AGSA, 2019). In 2017/18 auditees that materially did not comply with legislation increased by 8% (from 64% to 72%) from the previous year (AGSA, 2018). In 2016/17, public entities with no SCM findings have regressed since the previous year, from 50% to 39% (AGSA, 2017). Through analysing Tables 4.2 to 4.6, a deeper insight will be gained in understanding the causes of this non-compliance.

Adapting to the colour scheme coding meant that the researcher would be able to aggregate the number of SCM non-compliance findings in different cases as elaborated on by Etikan (2018:1) and Taherdoost (2016:18) in proposing that in order to answer the research questions, it is essential that the researcher should be able to collect data from all cases. These case would depict the number of SCM non-compliance in each year from 2014/15 to 2018/19 with regards to:

- ◁ repeat of material unfavourable indicators;
- ◁ new unfavourable indicators; and
- ◁ addressed, no unfavourable indicators.

Table 4.7 provides a summary of findings of SCM non-compliance extracted from Tables 4.3 to 4.5. Table 4.7 will also aid in achieving empirical objectives.

Table 4.3: 2018/19 SCM non-compliance findings

2018/19	Uncompetitive or unfair procurement process	Inadequate contract management	Awards to close family members	Limitations of scope	Awards to employees
Red: Repeat of material unfavourable indicators.	4	2	2	2	2
Yellow: New unfavourable indicators.	2	1	2	1	2
Green: Addressed, no unfavourable indicators.					

Source: AGSA (2019)

Out of 20 of material findings in SCM processes:

- 12 (60%) were repeated from the previous year;
- 8 (40%) were newly recorded; and
- none of the findings were addressed from the previous year.

Table 4.4: 2017/18 SCM non-compliance findings

2017/18	Uncompetitive or unfair procurement process	Inadequate contract management	Awards to close family members	Limitations of scope	Awards to employees
Red: Repeat of material unfavourable indicators.	4	2		2	
Yellow: New unfavourable indicators.	2	1	4		4
Green: Addressed, no unfavourable indicators.					

Source: AGSA (2018)

Out of 19 of material findings in SCM processes:

- 8 (42%) were repeated from the previous year;
- 11 (58%) were newly recorded; and
- none of the findings were addressed from the previous year.

Table 4.5: 2016/17 SCM non-compliance findings

<u>2016/17</u>	Uncompetitive or unfair procurement process	Inadequate contract management	Awards to close family members	Limitations of scope	Awards to employees
Red: Repeat of material unfavourable indicators.	6	3	3	1	1
Yellow: New unfavourable indicators.	1	1	1	1	2
Green: Addressed, no unfavourable indicators.					

Source: AGSA (2017)

Out of 20 of material findings in SCM processes:

- 14 (70%) were repeated from the previous year;
- 6 (30%) were newly recorded; and
- none of the findings were addressed from the previous year.

Table 4.6: 2015/16 SCM non-compliance findings

2015/16	Uncompetitive or unfair procurement process	Inadequate contract management	Awards to close family members	Limitations of scope	Awards to employees
Red: Repeat of material unfavourable indicators.	2	1	2	2	
Yellow: New unfavourable indicators.	4	3	2	3	1
Green: Addressed, no unfavourable indicators.					

Source: AGSA (2016)

Out of 20 of material findings in SCM processes:

- 7 (35%) were repeated from the previous year;
- 13 (65%) were newly recorded; and
- none of the findings were addressed from the previous year.

4.3.2 Top 10 public entities SCM findings summary

Table 4.7 aggregates the results from tables 4.3 to 4.6. Table 4.7 will indicate the composition of findings of SCM non-compliance from 2015/16 to 2018/19.

Table 4.7: SCM non-compliance findings 2015/16 to 2018/19

	2018/19	2017/18	2016/17	2015/16
Repeated SCM incidents	60%	42%	70%	35%
Newly recoded incidents	40%	58%	30%	13%
No findings addressed				

Source: AGSA (2015), AGSA (2016), AGSA (2017), AGSA (2018) and AGSA (2019)

Table 4.7 indicates that findings on SCM non-compliance at these public entities will on average repeat at 51.7% in relation to a particular year; and new cases will on average account for 35.2% of SCM non-compliance findings. This means that each year, when a new case of SCM is recorded, there is a 50% chance that this identified non-compliance will occur again the next year. What is more concerning from the AGSA 2015/16 to 2018/19 is that these SCM non-compliance findings are not addressed. Apart from 2017/18, repeat SCM non-compliance incidents occur more than newly recorded incidents. Translated, this means for the past 4 years, 75% of the time these public entities have had more repeat cases than new incidents.

It thus makes sense, as tabulated in Table 4.1, that irregular, unauthorised, fruitless and wasteful expenditure has increased consistently over the five-year period, with an average increase of 30.6%. It also makes sense that a 23% average increase the budget deficit at a 28% average increase in gross loan debt, and a 34% average increase cost to service debt for the period 2015/16 to 2018/19 exists, as depicted in Table 4.2. Tables 4.3 to 4.6 highlight that each year, new cases of SCM non-compliance are reported, adding on to the previous year's new cases that are 50% likely to be repeated in the current year of assessment. New SCM non-compliance identified in the current year of assessment also then has a 50% chance of being repeated in the next year. All of this SCM non-compliance and the inability to not have the finding's addressed exacerbate the amount of tax expenditure lost through irregular, unauthorised, fruitless and wasteful expenditure, leading to an increase in budget deficit, gross loan, and cost to service debt as government needs more finance to cover the tax expenditure that was misused in the process of public SCM.

The above findings have been emphasised by the Auditor-General, raising many red flags only to fall on deaf ears. It will thus be important to delve deeper into SCM non-compliance reported on by the AGSA 2015/16 to 2018/19 to truly understand the cause of this severe non-compliance that impacts the economy.

4.4 AGSA findings on SCM legislation and compliance from 2014/15 to 2018/19

4.4.1 SCM legislation and compliance 2018/19

Majority of the auditees did not comply with SCM legislation. A consequence of this non-compliance was uncompetitive, unfair procurement processes and inadequate contract management among public entities. This means that all potential suppliers were not given a fair chance to compete for tenders. Less competition leads to higher prices being paid for goods and services, which could have been obtained at a cheaper price had a fair process taken place. The material irregularities are due to poor judgements by officials not applying due diligence in SCM and not due to human error. A lack of disciplinary corrective action against those responsible for non-compliance creates an environment in which employees continuously disregard rules and regulations. Thus, the ability to attract and retain competent officials who are not in pursuit of self-enrichment remains a major challenge for public entities.

4.4.2 SCM legislation and compliance 2017/18

In most investigations, the root cause of SCM weaknesses in the current year was a lack of disciplinary remediation for transgressions committed by officials, specifically slow responses in implementing commitments made in the previous year to adhere to SCM legislative requirements. This slow response was partly due to instability in key leadership positions at public entities. Management not adequately responding to the AGSA recommendations on internal controls on SCM resulted in no improvements compared to the previous year with regard to SCM processes.

The bulk of the irregular expenditure disclosed was due to transgressions of the SCM regulations, mostly due to accounting officers' use of anomalies in situations not protected by the legislation. Accounting officers used deviations allowed by SCM legislation in special circumstances to enrich themselves and family members; this is an abuse of their power and legislation. Instances of deviation were common among public entities. Deviation in SCM processes resulted in poor planning in awarding tenders, this was particularly evident

in an award by the National Department of Basic Education when it awarded a contract for R22.3 million to a company to provide teachers with an opportunity to attend a winter school. This was particularly a violation of SCM legislation, which allows for deviations from competitive bidding processes when it is impractical to follow such processes.

The non-adherence to SCM requirements is a concomitant to the incurrence of irregular expenditure. The low quality of the financial statements submitted for auditing was also a factor to the inability of auditors to comply.

4.4.3 SCM legislation and compliance 2016/17

Suppliers received 459 awards to the value of R165 million in which employees of 59 auditees had an interest in the contracts. The Auditor-General was unable to audit awards to the value of R1.870 million at 34 auditees. This is because the auditors were unable to produce clear proof that the awards were made in compliance with the provisions of the SCM legislation. As a result of inadequate record handling, documents didn't exist or could not be recovered. In the application process for both awards, there was a lack of evidence that audits had followed a fair, open, and competitive process. During the process to request for information concerning unsuccessful bidders, auditees denied access to relevant documentation or proof which may indicate non-compliance or illegal activities. A lack of documentation is attributed to inadequate record keeping which created a climate in which unethical or criminal activity was easy to perform and hide.

4.4.4 Irregular expenditure 2015/2016 due to SCM non-compliance

In 2015-16, as a result of non-compliance with SCM regulations, R42,543 million, which also equates to 92%, was reported in irregular expenditure. Figure 4.3 graphically presents the non-compliance as follows:

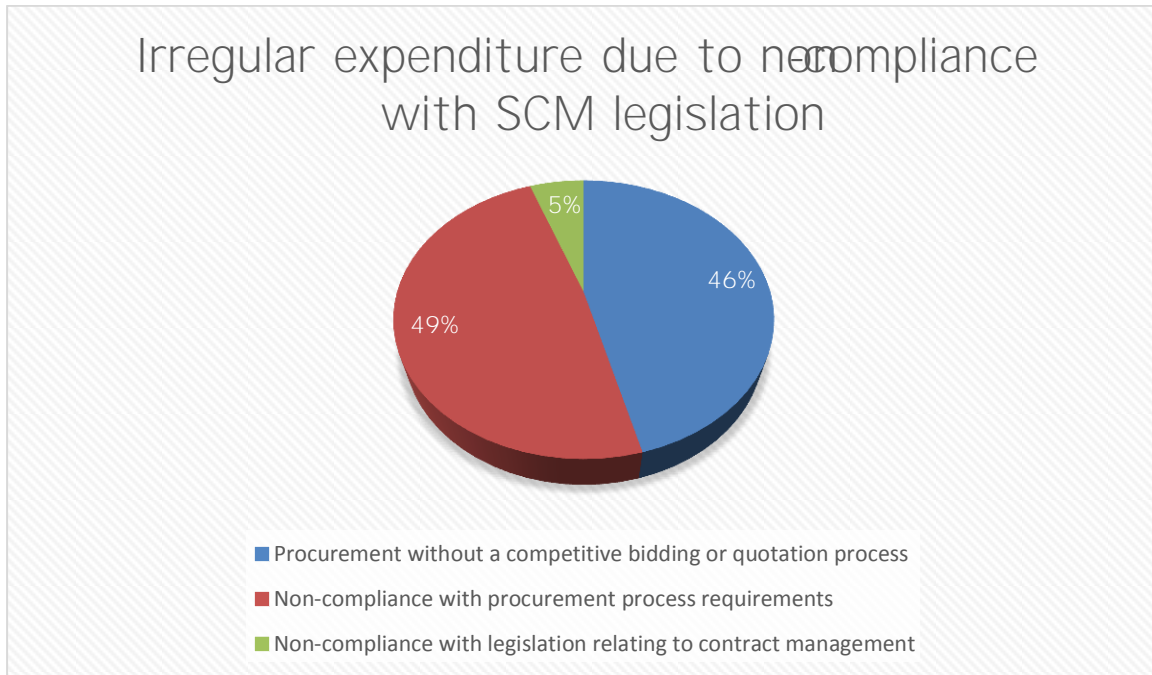


Figure 4.3: Irregular expenditure due to non-compliance with SCM legislation

Source: AGSA (2016)

In order to ensure that the values of justice, openness, completeness, equality and cost savings in procurement systems are continuously implemented, the SCM vulnerabilities require urgent and focused intervention.

This SCM non-compliance also resulted in employees not declaring their interest in awards of R59 million at 16 departments. Employees also failed to declare their family members' interest in awards of R320 million; while SCM legislation PFMA (1999) requires that employees should declare their interest in awards.

In 2015/16, the Auditor-General was also unable to audit awards to a value of R2.526 million at 31 auditees because the auditees could not produce evidence that awards had been made in accordance with SCM legislation. The documentation either did not exist or could not be retrieved as a result of poor document management.

4.4.5 SCM Legislation and compliance 2014/2015

The Auditor-General was unable to audit awards of R1,330 million to 32 auditors because they were unable to produce proof that those awards were made in compliance with the provisions of the SCM legislation. The absence of facts culminated in the inability of auditors to avoid illegal, fraudulent as well as fruitless and unsustainable expenditures.

There was no proof that auditors for both awards had followed a fair, open and competitive procedure. It would not be available if unsuccessful bidders were to seek information on the procedure, even for future legal purposes.

In accurately confirming new staff appointments, 33 agencies (20 percent) did not follow procedures and continued to pay wages to empty positions that were not filled within 12 months. Awards valued at R53 million were rendered to vendors at 31 departments of which workers had a stake. This is an improvement given that in the previous year, awards were recognised in 37 divisions for workers who had an interest in vendors. There were further awards made to the value of R452 million in relation to close family members of employees at 41 departments as a result of irregular deviations from SCM legislation. In the case of approved deviations, they were not reasonable or justified. This resulted in competitive bids not being invited, which were reported at 78 auditees; this is a slight improvement from 2013/14 at which 86 auditees were reported.

Thirty-nine departments (24%) did not pay creditors within 30 days or an agreed upon period. This is 15 fewer than in the previous year and it is an encouraging, continuing trend from the 64 departments during the 2012/13 financial year. Ineffective and inappropriate steps were also taken in collecting all revenue due on time at public entities, 27 of which had the same finding in the previous year.

4.4.6 Summary of SCM findings of PFMA AGSA reports 2014/15 to 2018/19

In most investigations the root cause of SCM weaknesses was a lack of disciplinary remediation for transgressions committed by officials. These transgressions were magnified by the slow responses in implementing commitments made in the previous year to adhere to SCM legislative requirements partly due to instability in key leadership positions at public entities. A consequence of SCM legislation non-compliance was uncompetitive, unfair procurement processes and inadequate contract management among public entities.

The beneficiaries of this uncompetitive and unfair processes were employees and their close family members who had an interest in suppliers. Consequently, the auditors were unable to produce adequate proof that the awards were made in compliance with the provisions of the SCM regulations. As a result of inadequate record handling, documents didn't exist or could not be recovered. The AGSA consistently highlights that material irregularities in SCM are not due to human error, poor processes and judgement of officials who fail to act with due diligence are the cause of SCM non-compliance.

In summary what has plagued South African public entities is severe corruption. Over the years, corruption has systematically infiltrated public entities' SCM system. The effect thereof has been dire to the economy and citizens of the country. What is of more concern is that corruption has not just been limited to public entities. Gebrekidan and Onishi (2018) propose that many government institutions have been weakened through years of infighting and corruption, particularly when it comes to the revenue collection agency.

Gebrekidan and Onishi (2018) further stress that more and more South Africans have actually avoided paying their taxes with graft and political warfare gutting the department. This is occurring at a dangerous juncture in a nation where millions of people depend on government services that are already enfeebled by graft and misrule. The State Capture Commission of Inquiry was thus established to investigate allegations of fraud into public entities to bring the book of law to perpetrators.

4.5 State capture and application of the fraud triangle

Table 4.8 brings to light the evidence of state capture presented at the commission. Data is extracted from various authors listed below Table 4.8 who have reported on the State Capture Commission of Inquiry in an effort to corroborate evidence in order to breed credibility. Table 4.8 also applies the fraud triangle theory by the cases presented at the commission. In so doing, the contribution of this table to the study is to ascertain the AGSA findings that fraud is occurring in public entities' SCM.

Table 4.8: Fraud triangle theory application

State Capture Commission of Inquiry cases	Fraud triangle
<p>Case 1</p> <p>According to the former bodyguard of the former finance minister who was testifying at The State Capture Commission of Inquiry, the bodyguard witnessed how the former minister used cash received from an infamous family to pay for his expensive tailored suits in cash. The bodyguard alleged that this took place between 2010 and 2014 when the former minister was the political head of National Department of Public Enterprises. The bodyguard recalled that “one day I was with the minister when he opened the boot to take out money to buy us lunch. Inside the boot there was a sports bag he opened and there was a stack of R200 notes.”</p> <p>During this period, the former minister was alleged to intervene on behalf of a wealthy and politically connected family to secure lucrative contracts from the national rail company, Transnet.</p> <p>The bodyguard further revealed how the minister always instructed them not to record trips to the family’s residence into their log book. “On one occasion I saw former Transnet CEO, former Eskom Financial Director and former Eskom Board Chairperson within the premises as well. There was on one occasion the former president of the republic leaving the premises as we arrived,” he said.</p>	<p>Pressure: The former minister may have been living beyond his means and may have become accustomed to utilising the cash to keep up-to-date with his expensive tailored suits.</p> <p>Opportunity: The former minister may have seen the opportunity to intervene with the processes in allocating contracts from contacts to the family in exchange for him receiving cash funds.</p> <p>Rationalisation: The minister telling his bodyguard not to record the trip to the Gupta family could have rationalised this methodology and would ensure that no connection could be made to him, which provided him with an opportunity to get away with any fraudulent behaviour.</p>

<p>Case 2</p> <p>A former Transnet CEO's bodyguard told the State Capture Commission of Inquiry how he once discovered a half-full bag with bundles of R200 notes belonging to the former Transnet CEO. The bodyguard stated that the backpack was the same one that the former Transnet CEO carried when visiting the infamous family residence. The bodyguard also revealed that he used to deposit cash into several bank accounts for the former Transnet CEO, which would range from R5 000 to R20 000. The bodyguard has received no less than three death threats for his co-operation with the State Capture Commission of Inquiry.</p> <p>The former Transnet CEO was alleged to provide an infamous family's companies with Transnet and Eskom procurement contracts during his reign as CEO at both public entities.</p>	<p>Pressure: These several bank accounts which required deposits could be the source of his pressure, thus, he needed to ensure that he had enough funds to make these deposits.</p> <p>Opportunity: The former CEO may have thought that utilising his position as CEO at both SOEs to direct procurement contracts to the infamous family's linked companies in exchange for cash would be beneficial to for himself and the infamous family.</p> <p>Rationalisation: The former CEO may have thought that concealing the cash in backpacks after leaving the family's residence would keep it hidden from the public and sending his bodyguard to make deposits would remove his connection from the deposits; as CEO, very few people would contend his decision-making in directing procurement contracts to family-linked companies.</p>
<p>Case 3</p> <p>Former public enterprise minister stated that she faced much pressure from the former president in appointing the former Transnet CEO in case 2. She was even told not to finalise the CEO's appointment until the CEO's disciplinary case following allegations of misconduct was concluded.</p> <p>In one of the State Capture Commission of Inquiry's major controversies, the former Transnet CEO was finally named as CEO of the troubled SOE before his suspension over charges of misconduct and maladministration surrounding an R54 billion locomotive purchase contract.</p>	<p>Pressure: The former president could have had pressure from the infamous family to get the wanted CEO as Transnet CEO.</p> <p>Opportunity: The former president could have benefited from the infamous family as the witness in case 1 spotted him at the residence. Looking at case 1 and case 2, it is clear that visitors to the infamous family's residence left with bags of cash, which could have also been an incentive for the former president.</p> <p>Rationalisation: The former president could have rationalised that as he was president, he had immense power and many duties to perform, in fulfilling these duties the president could have rationalised that no one would really be concerned with him pressuring the public enterprises minister as this could be seen as strategic placement.</p>

Source: Amashabalala (2020a), Amashabalala (2020b), Bezuidenhout (2018) Chutel (2020) and Karrim (2020)

Table 4.8 highlights the applicability of the fraud triangle theory in public entities' SCM. It shows how officials abuse their power by rationalising their actions in abusing procurement opportunities for public entities and benefiting themselves and their connections at taxpayers' cost. It seems that SOEs have particularly suffered the most, this is particularly evident from the continuous need for government to provide SOEs with bailouts and guarantees.

Mabuza (2020) reports that government has spent R187 billion on bailing out and recapitalising SOEs over the past two decades. These bailouts occurred between 2000/01 and 2019/20. The figures provided by the finance minister highlights that guarantees for the abovementioned periods by the government amounted to R481 billion. A Democratic Alliance Member of Parliament posed the question to the finance minister: "And what has been the return? Eskom is failing, Transnet is failing, SAA is bankrupt, PRASA cannot run the trains, Land Bank has defaulted. Every one of these has been broken by ANC cadre deployment and corruption...". In other words, the question begs what the effect of these bailouts has been concerning government's ability to facilitate its mandate when it is already distributing less revenue than what public entities spend.

4.6 Effects of SOE bailouts

Dlamini (2020(a)) reports that Western Cape Finance and Economic Opportunities MEC stated that their worst fear was confirmed when the finance minister confirmed that provincial budgets had been cut to fund the R10.5 billion bailout of SAA. The MEC stated that these budget cuts would compromise their healthcare services and the well-being and dignity of those living in the Western Cape by defunding critical projects.

Western Cape Government (2020), Gerber (2020) and Maynier (2020) report that in funding this bailout, the Western Cape provincial budget has been cut by R86.61 million in this financial year; the cut means that cuts will also be made to the following critical projects in the Western Cape:

- ◁ "A cut of R30.01 million to the National Tertiary Services Grant, which maintains and develops healthcare services at tertiary hospitals.
- ◁ A cut of R23.32 million to the Title Deeds Restoration Grant, which transfers land ownership in the Western Cape to restore dignity to the elderly and those with disabilities.

- ◁ A cut of R19.72 million to the HIV, TB, Malaria and Community Outreach Grant.
- ◁ A cut of R11.51 million to the Statutory Human Resources, Training and Development Grant, which is critical to the clinical training and capacity of the healthcare workforce in the Western Cape.
- ◁ A cut of R1.04 million to the Comprehensive Agricultural Support Programme Grant, which provides effective agricultural support services to black commercial farmers”.

The Western Cape budget cut of R86.61 million only accounts for a small percentage of the R10.5 billion needed to bail out SAA. This means that funds distributed to public entities in terms of the Division of Revenue Bill were deemed as ineffective and not utilised for their purpose.

4.7 Division of Revenue Bill

The Division of Revenue Bill (DoRA) (2020) explains that section 214(1) of the Constitution requires that the Division of Revenue Bill should annually and equitably divide the national revenue raised between national government, all nine provinces and 257 municipalities. This must be done in a manner that fosters transparency and takes into account the powers and functions assigned to each sphere of government. The Intergovernmental Fiscal Relations Act of 1997 prescribes the process to be followed in determining the equitable division of revenue. The data in Table 4.9 was extracted from both the Division of Revenue Bill 2015/16 to 2019/20 to determine the amounts of revenue allocation, and the National Treasury to determine the actual expenditure incurred by public entities.

fuelled due the lack of law and accountability by government. Political instability in developing countries further reduce tax revenue generation as it affects economic growth. In essence, the quality of governance, as a whole, is a critical factor for the development of a developing country.

According to Epaphra and Massawe (2017:439) public sector corruption erodes tax enforcement and contributes to higher tax avoidance, reducing the ability of a country to manage tax expenses by enabling the mandate of the government. Corruption decreases tax collection's distributive function and thus leads to higher income inequality, resulting in higher levels of poverty for a country as well. The consequences of corruption have been substantially high in Africa as it has reduced government revenues, leaving less money available for public investments in education, infrastructure, and health care.

The views of Epaphra and Massawe (2017) have been evident in South Africa's revenue collecting agency. Nyathi (2018) reports that the process of appointing the former SARS commissioner was done in a manner that was suspicious and secretive. Allegations were made that the former SARS commissioner's appointment was made in order to elect an incompetent and unqualified person to head the revenue agency so that it can be dismantled, as the appointment of the SARS commissioner is based on the political party which is in rule. The Presidency (2018) reports that the Nugent Commission was thus established to investigate the following at SARS:

- “The withholding of refunds owed to tax payers and executives of SARS receiving unauthorised bonus payments.
- Deviations from established processes to benefit politically-connected persons to top management of SARS.
- The adherence to customs and excise provisions, with particular reference to tobacco products.
- Adherence to HR policies and practices in light of the exit of senior personnel and coercion of SARS officials to resign.
- The impact of any change in the operating model of SARS on the effectiveness of SARS operations.
- The integrity of SCM and tendering processes”.

4.8.1 The Nugent Commission

Thamm (2018) reports that Judge Robert Nugent concluded at the end of the inquiry, that “there has been a massive failure of integrity and governance at SARS. The judge further stated that what SARS used to be and what it has become is sufficient proof in itself that integrity and governance failed on a massive scale”.

The Commission of Inquiry into Tax Administration and Governance by SARS (2018:4) reports that much evidence was deliberated on and what has become clear is that the massive failure of integrity and governance at SARS was inevitable from the point when the former SARS commissioner was appointed. The established elements of good governance were broken down one-by-one through actions which lacked integrity.

Thamm (2018) explains that in an organisation, it is the role of management to play a panoptic role where management is able to prevent, detect and deal with the abuse of authority by employees. This was not an evident trait during the former SARS commissioner’s reign, particularly in his new managerial appointments, as previous SARS management was driven out or marginalised at SARS.

The Commission of Inquiry into Tax Administration and Governance by SARS (2018:4) proposes that in a tax collecting agency, effective oversight at every step in the tax collecting process is vital. The commission notes that it was surprising that the development of sophisticated information technology, enabled with built-in checks, were suddenly ceased. Organisational structures that provided effective oversight were also slowly pulled apart to their demise. The dismantlement of these organisational structures was done by instilling distrust and fear within employees and the capacity for investigating corruption deteriorated. A culture of good governance, which promoted healthy dissent was substituted with fear and intimidation. The eve before the former SARS commissioner’s suspension it was found that the former SARS commissioner was about to dismantle governance over the settlement of major tax disputes.

Thamm (2018) observes that SARS is currently reviewing its procurement processes and has identified contracts that did not generate value for money with the aim of not renewing these contracts. A number of senior officials at SARS implicated by the Nugent Commission have left also left thereby leaving space for the reintegration of experienced staff to roles from which they had previously been displaced. Van Eeden and Meintjes (2018) emphasise that President Cyril Ramaphosa captured the essence of the problem by stating that tax

morality is reliant on an implicit contract between taxpayers and government, which implies that the taxpayers receive value for money by paying their fair share in a system free of corruption.

4.8.2 Tax morality

The South African Institute of Professional Accountants (SAIPA) (2018:4) define tax morality is characterized as individuals' ability to pay their taxes and comply with tax legislation. Tax morality is driven by many variables that decide whether individuals are compelled or unable to contribute to a nation's tax revenue. Merten (2020) explains that tax morality is a necessary element in any functioning economy. Tax morality is based on a number of factors on how:

- ◁ the revenue is being used for and if this use is deemed appropriate by taxpayers;
- ◁ efficiently and effectively taxes are being collected by revenue agency;
- ◁ whether or not taxpayers believe they are being fairly taxed; and
- ◁ a taxpayer files and pays taxes.

Merten (2020) further explains that tax morality deteriorates as soon as a society loses trust and faith in the government or revenue agency. Tax compliance becomes a significant consequence when tax morality is degrading. Increased tax non-compliance is helped by a lack of political and economic prosperity. Schubert (2020) suggests that the more faithful taxpayers feel despondent about a country's political and economic standing, the less inclined they are to agree to be tax compliant and the greater the risk of corruption within public institutions. What is of concern to loyal taxpayers is the incurrence of irregular, unauthorised, fruitless and wasteful expenditure of fiscal monies that have could potentially developed the economy. This results in previously compliant taxpayers withholding tax and even seeking out other avenues in the form of tax evasion.

Khaki (2020) states that the inability to efficiently collect taxes from citizens who are fed up with paying taxes to a government struggling to curb rampant corruption and draining the tax revenue, results in the deterioration of tax morality. Tax morality, therefore, depends on government's performance; taxpayers are willing to pay more taxes if these funds are being used in the correct manner.

4.8.3 Tax morality context in South Africa

In South Africa, the AGSA has regularly red-flagged corruption and the mismanagement of taxpayers' funds. According to Schubert (2020), government must implement strategies to stamp curb corruption if the tax morality of ordinary South Africans is to improve. Furthermore, individuals want to know how their tax payments are being utilised. South Africa is a country where the bulk of tax is paid by a small base of wealthy people as a progressive tax system is utilised.

Hadjipaschalis (2014) explains that wealthy individuals are also still paying for schooling, security, health services, and infrastructure. This therefore proposes that this small base of wealthy individuals do not receive the value for money in exchange for their taxes, this motivates compliant taxpayers to seek tax evasion routes as they receive no benefit from their taxes. SAIPA (2018:5) proposes that while it is not easy to be conclusive on the extent of tax evasion in South Africa, a review of the revenue shortfalls that SARS has seen in the last few years, there is an indication that these are in part due tax to evasion.

SAIPA (2018:5) further proposes that numerous ministers of finance have, over the past few years, announced the development of voluntary disclosure programmes that allow taxpayers who have not been honest in their tax declarations an opportunity to come clean to SARS. These disclosure programmes allow taxpayers to avoid the imposition of understatement penalties and other administrative penalties. Stoddard (2020) reports that the new SARS commissioner pleaded with taxpayers to be compliant "more than ever before, government needs tax revenue to provide much-needed relief to businesses and individuals". The new SARS commissioner outlined that the main objective of his term is to rebuild public trust and confidence in the tax administration system after what he considers to be a serious breakdown in governance and integrity. SAIPA (2018:6) conclude that if government fails to collect sufficient taxes, it cannot perform its mandates or service its people. National Treasury (2020) reports that in the last five years, government has implemented a wide range of tax increases to attempt to facilitate its mandate towards its citizens. Despite the numerous tax increases, the difference between projected and collected revenue has grown progressively wider combated by a persistent slowdown in economic growth and a weakened SARS. A widening budget deficit has also not been kind to the economy.

4.8.4 Tax revenue shortfalls

Compared to the 2019 Budget estimate, the projected revenue short fall for 2019/20 was revised to R63.3 billion from the already revised estimate of R52.5 billion published in the Medium Term Budget Policy Statement (2019). The actual shortfall amounted to R66.3 billion. BusinessTech (2020) explains that the increased financial pressure caused by the lockdown has added significant pressure to South Africa's weak tax revenue growth. This issue is amplified by the fact that government spending has not been cut over the lockdown period, but has had to increase to fight the pandemic. The net effect is that the South African Government is incurring enormous debt in 2020, which will add to the budget deficit. What is worse is that government is expected to spend close to R2 trillion, but will only be able to collect half of its expenditure.

BussinessTech (2020) further explains that the lower collection comes amidst the Covid-19 pandemic and results in the revised tax collection migrating from R1.4 billion to R1 billion; this means that in future government will have to start charging higher taxes to cover for the citizen's needs. Mailovich (2020) and BusinessTech (2020) report that the new SARS commissioner stated that it does not bode well that corruption, in the process of utilisation of tax expenditure by government, impacts taxpayers' compliance in the collection of tax revenue. The commissioner says that this was specifically highlighted during Covid-19 during the procurement of Protective Personal Equipment for frontline workers and citizens of the country who could not afford to acquire such for themselves. Significant abuse of the tax compliance system was highlighted in the incidents subsequently described.

Tenders, with an aggregate amount of R2 billion, were awarded to 139 companies. Twenty-two companies of the 139 were allocated awards amounting to R1.1 billion. These companies only received these tenders because they were politically connected. Of the 139 companies, 65 companies were not tax compliant, which by law disqualifies them from doing any business with the state. Other offences included not being registered for VAT or outstanding tax returns. Other Protective Personal Equipment (PPE) companies were registered as car washes, bakeries, letting companies, and pubs. Considering what generates the primary source of income for some of these companies that received PPE tenders, it is concerning considering SCM legislation, how these companies were awarded tenders. Considering the above, it means R 2 billion was misused which could have been utilised in attempting to save more people's lives.

Vegter (2020) asserts that all of this occurs in the midst of a growing number of taxpayers losing faith in the government, and tax officials providing reasons for withholding taxes as due to the poor fiscus. Vegter (2020) also opines that many wealthy South Africans are simply emigrating due to failures in government and SARS. Between 2012 and 2017, the country lost almost a quarter of citizens worth more than \$5 million. These former citizens take with them a significant share of the country’s taxable income and crucial skills necessary for a country’s development.

Table 4.10 serves as an illustration of Vegter’s (2020) suggestions; it also serves to depict the effect of tax morality in South Africa which was elaborated on in Chapter 4.8.3. This depiction aims to highlight the tax revenue shortfalls and the level of their increments. It also compares tax revenue with tax expenditure to determine whether or not there has been a tax deficit or surplus from 2015/16 to 2019/20. The data is extracted from SARS publications and DoRA 2015/16 to 2019/20.

Table 4.10: Tax revenue shortfalls

	Tax revenue collected F Billion	Tax revenue shortfall from budgeted collection F Billion	% Increase/decrease in budgeted tax revenue collection shortfall	Tax revenue surplus/ Tax expenditure deficit	Tax expenditure
2019/20	1 355.9	(66.3)	354,1%	487.6	1 843.5
2018/19	1 287.6	(14.6)	1985,7%	371.1	1 658.7
2017/18	1 216.6	(0.7)	133.0%	325.3	1 541.9
2016/17	1 367.0	(0.3)	- 80.0%	75.6	1 442.6
2015/16	1 069.9	1.5	-114.2%	311.0	1 380.9

Source: DoRA (2016), DoRA (2017), DoRA (2018), DoRA (2019), DoRA (2020), SARS (2015), SARS (2016), SARS (2017), SARS (2018), SARS (2019) and SARS (2020)

Over the past 5 years, tax revenue collections have increased at an average rate of 7.1% per year. After considering the average five-year inflation rate of 4.5% the true incremental tax revenue collections rate is actually 2.6% per year (Statista, 2020). National Treasury

(2019) notes that in 2020, gross tax revenue needed to grow at 10.4 % in 2020 to reach the 2019 Budget estimate.

Table 4.10 highlights that tax expenditure has been growing at an average rate of 7.4%, marginally exceeding tax revenue by 0.3%. This may seem like a small percentage but converted this is millions that could have been utilised in fulfilling government's mandate. There has also consistently been a tax expenditure deficit over the past 5 years at an average of R314.1 billion per annum. The National Department of Basic Education's budget amounts R22.72 billion; the National Department of Health amounts to R47.14 billion; and the National Department of Human Settlement amounts to R32.35 billion (South African Market insights, 2019). The R314.1 billion could have transformed these departments into world-class organisations. This R314.1 billion tax expenditure funded by tax revenue could have been improved public entities' SCM.

There has consistently been a tax revenue shortfall over a five-year period, The average increase in tax revenue shortfall amounts to 676.2%. This means that each year, government has to reorganise their tax expenditure budget as they keep under-collecting tax revenue.

One must remain cognisant of the economic impacts of Covid-19, but considering South Africa's performance in previous years, it seems that there has been an inherent problem. This inherent problem is highlighted by the findings of the Nugent Commission in Chapter 4.8.1, which conclude that the previous SARS commissioner's reign resulted in a massive failure of integrity and governance at SARS. The rate at which SARS has been unable to collect what it budgeted to collect has increased at a rate of 598% from 2015/16 to 2019/20. Considering Chapter 2.11, which highlighted that from 2015/16 to 2018/19 fiscal year witnessed a 23% increase in budget deficit, a 28% in gross loan debt and 34% increase in cost to service debt, it is understandable why the country is running out of funds. In aid of counter-balancing the deteriorating economy and tax morality, government has instituted a number of acts, the question is now whether these enactments are enough to bring South Africa out of the hole it has dug for itself.

4.9 It is not all doom and gloom

Performance agreements (PA) have been adopted to provide a uniform minimum framework for senior managers' performance management to help departments meet their annual strategic targets.

4.9.1 The objectives for implementing PAs

The National Department of Public Service and Administration (DPSA) (2020) explains that PAs will align the strategic objectives of public entities and the performance objectives of senior officials, thus enabling the assessment of performance on the basis of how well the strategic objectives were achieved.

The basis for salary increases and bonuses will be based on senior employee performance determined through individual consultation rather than collective bargaining. Senior management is also responsible for ensuring that the coordination of departmental priorities and specific goals does not stop there but applies to all workers through job descriptions and daily performance review.

4.9.1.1 Implications of signing a PA

The National Department of Public Service and Administration (2020) explains that when a manager signs a performance agreement it implies that the benefits, allowances, and salary increases for a senior manager will be dependent on the performance of the official as agreed to in the performance agreement. Failure to deliver in terms of the performance agreement cannot result in termination of service. However, a performance agreement will serve as evidence in instances where measures for termination of service based on inefficiency are initiated.

4.9.2 The Public Audit Amendment Act

The AGSA (2019b) emphasizes that the amendment of Section 5A of the Public Audit Act (PAA) grants the Auditor-General the right to track whether or not the findings found in the audit report relating to any material irregularity have been enforced by the accounting officer or accounting authority within the prescribed time-frame specified in the audit report. If the accounting officer or accounting authority has failed to implement the recommendations made by the Auditor-General, the Auditor-General must take appropriate remedial action to address the failure of implementing the recommendations made by the Auditor-General.

The AGSA (2019b) further explains that this remedial action must occur over a process of first determining the amount of the financial loss, if not yet determined. This amount must then be recovered from the responsible person according to such applicable legislation. Furthermore, where the accounting officer or accounting authority has failed to implement

the remedial action, the Auditor-General must issue a certificate of debt requiring the accounting officer or accounting authority to repay the amount specified in the certificate of debt to the state.

4.9.3 Personal income tax adjustments

Dlamini (2020b) states that it comes as a welcome surprise that, considering the deteriorating economic realities currently facing the finance minister, he provided 5.2% to the individual tax rates and rebates for 2020/21, which is above expected inflation of 4.4%. The finance minister said this was in an attempt to encourage economic development and to offer genuine personal income tax relief for taxpayers already strained. Medical tax credits would also rise for the first two beneficiaries, from R310 to R319 per month, and for the remaining beneficiaries, from R209 to R215 per month. The annual cap on tax-free savings plans for donations to tax-free savings accounts will be lifted from R33 000 to R36 000. Stoddard (2020) points out that the potential of the South African economy to produce future profits has been seriously weakened. Once again, South Africa may obtain a first-class tax service, but revenue from a third-rate economy would be extracted.

4.10 Conclusion

Chapter 4 starts by establishing the credibility and necessity of extracting data from the consolidated AGSA PFMA reports 2014/15 to 2018/19 relating to public entities' SCM, as the functions and scope of the AGSA are defined. The summary of the 40 public entities' expenditure extracted from the consolidated AGSA PFMA reports are depicted in Table 4.1. The results from this data highlight that government's tax expenditures purchasing power utilised by these 40 public entities to efficiently and effectively fund government's mandate is depleting at an average of 30.6% per year. This 30.6% wastage could have improved our education standard, increased our health care capacity or maintained government infrastructure as it was intended to.

In order to produce this rich source of data the top 10 public entities (from an original total of 40 entities) that have contributed the most to irregular, unauthorised, fruitless and wasteful expenditure were scrutinised in order to analyse SCM. It is concerning that out of ten public entities, three were SOEs that accounted for 60% of the total expenditure from 2014/15 to 2018/19. A more troubling notion is that seven out of the ten entities aid in the provision of basic human rights such as shelter, education, and health.

Table 4.7 further indicates that findings on SCM non-compliance at these public entities will on average repeat at 51.7% in relation to a particular year; new cases will, on average, account for 35.2% of SCM non-compliance findings. This means that each year, when a new case of SCM is recorded, there is a 50% chance that this identified non-compliance will occur again the next year. What is more concerning from the AGSA 2015/16 to 2018/19 is that these SCM non-compliance findings are not addressed.

The continuous SCM non-compliance resulted in the establishment of State Capture Commission of Inquiry and the Nugent Commission at SARS. Table 4.8 highlights the applicability of the fraud triangle theory in public entities' SCM. It shows how officials abuse their power by rationalising their actions in abusing procurement opportunities for public entities and benefiting themselves and their connections at taxpayers' cost. Fraud and corruption in government is not only secluded to public entities since Judge Robert Nugent concluded, at the end of the SARS inquiry, that there has been a massive failure of integrity and governance at SARS. The findings are evident as Table 4.10 highlights that the rate at which SARS has been unable to collect what it budgeted to collect has increased at a rate of 598% from 2015/16 to 2019/20.

In analysing Table 4.9, it is evident that government has been under-allocating revenue with regards to the actual expenditure incurred by public entities. There has consistently been an under-allocation of revenue for the past 5 years in relation to expenditure. This means that each year, government is unable to distribute sufficient funds to facilitate its mandate. Observing Table 4.9, it is also evident that majority of the revenue distributed is towards national government, then provincial and local government.

Considering all the above, Chapter 4.8.2 highlights the importance of maintain tax morality within a country. In South Africa this is of particular importance as the bulk of tax revenue collected is paid by a small base of wealthy people due to the progressive tax system. These wealthy individuals are also still paying for schooling, security, health services and infrastructure and may perceive that they are not receiving value for money in exchange for their taxes. A lack of value for money in paying taxes motivates compliant taxpayers to seek tax evasion routes as they receive no benefit from their taxes.

Government has realised some of its mistakes and has taken action to make corrections, which is elaborated on in Chapter 4.9. From the above it is clear that public entity SCM systems have deteriorated at an alarming rate and bears implications for the collection of

tax revenue through the deterioration of tax morality and the inability of public entities to function effectively and efficiently in providing quality service delivery and promoting an environment for the economy to grow.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In Chapter 1, a brief introduction is provided on SCM and how it relates to the public sector. Chapter 2, Chapter 2.3.1, through the use of Table 2.1, provides a wide interpretation of SCM while Chapter 2.3.1 relates this understanding of SCM to the public sector. Chapter 1 also makes reference to applicable SCM legislation (PFMA, PPPFA, B-BBEE) for the study which is then examined in Chapter 2.6.3 to gain a legal basis. The PFMA was established as the core legislation relating to South African SCM. This is because the PFMA of (1999) sets minimum standards that are to be applied for proper and successful SCM on the five pillars of procurement. These pillars are:

1. Value for money
2. Open and effective competition
3. Ethics and fair dealing
4. Promote accountability
5. Reporting and equity

Chapter 1.1.2 establishes that the AGSA audits all government departments, public entities, municipalities, and public institutions. The audit outcomes are then assessed in annual reports to assess compliance with regards to the PFMA (AGSA, 2019). The consolidated AGSA PFMA reports 2014/15 to 2018/19 thus provide suitable data in answering the research question.

Table 1.1 provides evidence of the AGSA's (2019) concerns that even after all the forewarnings, the recommendations to address the non-compliance, unfair and uncompetitive procurement process are still not addressed. The red flags raised and little being done to address the recommendations highlight the extent to which fraud is a plague within South African SCM systems. Chapter 2.4 establishes the elements required for an effective and efficient SCM system, but judging from Chapter 2.5, which examines SCM in South Africa and the 2015 Public Sector SCM Review, it is clear that the established elements Chapter 2.4 are not a priority to South African public entities SCM.

Chapter 1.1.3 summarises the factors that lead to the act of fraud as pressure, opportunity and rationalization. Chapter 1.1.3 also establishes that the Judicial Commission of Inquiry into Allegations of State Capture was primarily established to investigate allegation of fraud

within South African public entities. Chapter 2.9 further delves in the fraud triangle for a clearer understanding of the causes of fraud while Chapter 4.5 highlights the applicability of the fraud triangle evidence heard at the Judicial Commission of Inquiry into Allegations of State Capture.

Chapter 2.8 highlights how the abuse of tender processes and maladministration at SARS results in tax revenue shortfall collections (Chapter 4.8). This is amplified by Table 2.3, Table 4.10, and Figure 2.1 which highlight that year-on-year government's tax expenditure has exceeded tax revenue. Table 4.9 further adds to government's woes in that government, through DoRA is consistently under-allocating tax expenditure as government's spending exceeds DoRA allocations. Chapter 4.6 further goes into detail on how the tax system is influenced by public entities SCM systems.

Chapter 3 discusses the data which was examined in this study and also explains the relevance of the techniques utilised in this study to process data. It sets the standard of interpretation which was followed in extracting and analysing data in Chapter 4. Chapter 4 goes into detail about the results obtained from the methodology explained in Chapter 3. Chapter 4.3 summarises the findings of SCM non-compliance from 2014/15 to 2018/19 in that over the years, material irregularities on SCM non-compliance were not complex and could have been prevented or detected and dealt with before they resulted in material financial losses.

The AGSA acknowledges that it takes time to institutionalise good controls, especially in large and complex organisations. The process of inviting competitive bids, evaluating the bids received, and awarding the contracts is well-described in legislation, in addition to the guidance provided by the National Treasury. However, weaknesses arise when the standard procurement process is not followed. Regular deviations from prescribed deviation from legislation has resulted in the establishment of The Judicial Commission of Inquiry into Allegations of State Capture.

The AGSA PFMA reports from 2014/15 to 2018/19 and the establishment of The Judicial Commission of Inquiry into Allegations of State Capture remind one of the famous book called '*Animal Farm*' Rich (2016:8) elucidates that the classic novel by George Orwell on political satire aims to point out that gaining power is not actually the difficult part of being a monarch, but instead, after it is gained, the challenging part is correctly managing the power. The change and evolution of farm laws and the anti-utopian aspect of the story

illustrate how authority corrupts politicians and drives leaders to behave in a manner that they did not expect to act like before acquiring power.

5.2 Key findings

5.2.1 Irregular expenditure

Further proof of George Orwell's depiction of corruption relating to South Africa is that, in analysing Table 1.1 one can deduce that irregular expenditure ranges from 2,09% to 4,14% as a percentage of tax revenue collected. It is important to note that even though these amounts represent a small percentage, they constitute billions of rands. It is interesting to note that the 2018/19 R62.60 billion irregular and wasteful expenditures were sufficient to double the following public entities budgetary capacity, effectively doubling these public entities performance:

- ◁ The National Department of Basic Education department's budget amounts R22.72 billion.
- ◁ The National Department of Health R47.14 billion.
- ◁ The National Department of Human Settlements department R32.35 billion (South African Market insights, 2019).

Chapter 1 highlights that the accumulated year-end balance of irregular expenditure not dealt with or recovered amounts to R174.88 billion (AGSA, 2019). This R174.88 billion is taxpayer's money, which was allocated from the budget to achieve government's mandate. The misuse of funds by public enterprises due to poor SCM creates a reliance on tax expenditure to ensure public entities' survival. This survival prohibits the development of the country as the country cannot allocate adequate funds for social and economic development. The Auditor-General states that the recommendations to address the non-compliance, unfair, and uncompetitive procurement process are still not addressed.

5.2.2 Findings from 40 public entities

Irregular, unauthorised, fruitless and wasteful expenditure has increased consistently over the five-year period. This means that each year, these public entities on aggregate set a new record high of cumulative expenditure, emanating from a year-on-year average increase over a 4 year-period of 30.6%. Translated, this means that the tax expenditures' purchasing power utilised by these 40 public entities is depleting at an average of 30.6%

per year. The 30.6% purchasing power wastage could have improved South African public entities, specifically in public entities dealing with basic human rights such as education, health and shelter.

5.2.3 Findings from top 10 public entities

Through data analysis of the top 10, it was determined that out of ten public entities, three were SOEs that accounted for 60% of the total expenditure from 2014/15 to 2018/19. The seven remaining public entities operate in the sector of basic human rights such as shelter, education, and health. In remaining cognisant of the purpose of extracting a top 10, annexure 2 of the AGSA from 2015/16 to 2018/19 reports on auditees' financial health indicators, SCM findings, and root causes.

The results indicate that the biggest findings on SCM is that these public entities will on average repeat SCM incidents at a rate of 51,7%, with the most significant year being in 2016/17. The spike in 2016/17 is confirmed by R27 388,6 billion cumulative irregular, unauthorised, fruitless and wasteful expenditure which was a 50.6% increase from the previous year.

Apart from 2017/18, repeat SCM non-compliance incidents occur more than newly recorded incidents. In other words, this means for the past 4 years, 75% of the time these public entities have had more repeat cases than new incidents. These sentiments have been emphasised by the Auditor-General in various instances and no significant decisive action has been taken up to 2019 fiscal year.

5.2.4 AGSA summary SCM non-compliance findings

In most investigations, the root cause of SCM weaknesses was a lack of disciplinary remediation for transgressions committed by officials. This was magnified by the slow responses in implementing commitments made in the previous year to adhere to SCM legislative requirements partly due to instability in key leadership positions at public entities. A consequence of SCM legislation non-compliance was uncompetitive, unfair procurement processes, and inadequate contract management among public entities. Translated this means that all potential suppliers were provided with an adequate chance to compete for tenders. The unfair practice equated to less competition in the tendering process and higher prices being paid for goods and services which could have been obtained at a cheaper price had a fair process taken place. The beneficiaries of this uncompetitive and unfair

processes were employees and their close family members who had an interest in suppliers. As a result, auditees could not provide sufficient evidence that awards had been made in accordance with the requirements of SCM legislation. Documentation did not exist or could not be retrieved as a result of poor document management.

In summary, South African public entities are plagued with severe corruption. Corruption has systematically infiltrated public entities SCM system over the years. The impact of corruption has had an adverse effect on the economy as well as on citizens of the country. Moreover, corruption has not just been limited to public entities and Gebrekidan and Onishi (2018) expound that many government institutions have been weakened through years of dissension, especially when it comes to the revenue collection agency. Furthermore, Gebrekidan and Onishi (2018) further emphasise that more and more South Africans have forgone paying their taxes as a result of the aforementioned corruption.

5.2.5 Nugent Commission

Thamm (2018) reports that the findings of the Nugent Commission concluded at the end of the inquiry, that there has been a massive failure of integrity and governance at SARS. The Commission further concluded that SARS has deteriorated significantly from what SARS used to be. The Commission of Inquiry into Tax Administration and Governance by SARS (2018:4) reports that much evidence was deliberated on and what has become clear is that the massive failure of integrity and governance at SARS was inevitable from the moment the former SARS commissioner was appointed at SARS. The elements of good governance that were established were systematically broken down by means of actions that lacked integrity — this was more than mere mismanagement.

5.2.6 Tax morality

In South Africa, the AGSA has regularly blown the whistle on corruption and the mismanagement of taxpayers' funds. Chapter 4.8.2 and 4.8.3 highlight the importance of maintaining a good tax morality. Particularly among the wealthy population in South Africa as they are taxed the most in a progressive tax system which is adopted by South Africa. Chapter 4.8.3 explains that if the wealthy do not feel that they are receiving value for money they could engage in tax evasion practices as they feel that it is not worth it to be a compliant taxpayer. Steps must thus be taken to root out corruption which results in a misuses taxpayer's funds; public entities SCM systems must also operate in an effective

and efficient manner particularly in education, security and health services as the wealthy already pay for these services. Ngwenya (cited by SAIPA, 2018:5) proposes that while it is not easy to be conclusive on the extent of tax evasion in South Africa brought about by deteriorating tax morality, it is only evident that revenue shortfalls may be an indication , in part, of tax to evasion.

Ntwampe, SAIPA's Tax Specialist (SAIPA, 2018:6), says South Africa is indeed facing a new dawn, one where those who are corrupt will be held accountable. She admits that SARS has faced challenges around leadership in the past but says these are being addressed.

5.3 Objectives addressed

5.3.1 Primary objective

The primary objective is to obtain, from PFMA AGSA 2014/15 to 2018/19 reports, an understanding of SCM in public entities and their historical performance with the aim to determine whether public entities' SCM operations have an influence on tax expenditure and tax revenue collection.

5.3.2 Secondary objectives

Table 5.1 and 5.2 highlight how the secondary objectives outlined in Chapter 1.3.2 were achieved. This is done by describing how each objective was achieved during the course of the study.

Table 5.1: Addressing theoretical objectives

Theoretical objectives	How theoretical objectives were achieved
<p>Conduct content and document analysis of relevant legislation to gain a legal basis for the study</p>	<p>Through the systematic approach of content analysis, a link was made between SCM legislation and its development. Chapter 1.1.1 goes into detail about South Africa SCM legislation which was selected based on the legal nature of the document. Chapter 2.6 details that the establishment of SCM legislation is Section 217 of the Constitution, which emphasises the need to ensure fairness, transparency and cost effectiveness of all transactions and processes in public SCM, Section 217 of the Constitution thus provides the foundation for SCM legislation. The development in legislation of SCM has seen the development of the PFMA, the PPPFA and the B-BBEE. These legislative frameworks were analysed in Chapter 2.6 to gain an understanding on the laws that govern public SCM and the development of SCM legislation in South Africa.</p>
<p>Analyse a variety of literature through content and document analysis to gain an understanding of what SCM is and what its role in the public sector is.</p>	<p>Chapter 2.3 systematically seeks to first establish what SCM is and its various definitions through analysing various researchers' work as this is a trait of document analysis. The understanding of SCM then leads to understanding it in the public sector context.</p>

Theoretical objectives	How theoretical objectives were achieved
<p>Review literature on SCM to determine appropriate elements that should be in place for efficient and effective SCM systems.</p>	<p>Chapter 2.4 seeks to determine the elements of effective and efficient SCM. These are considered to be:</p> <ul style="list-style-type: none"> ◁ Competent and skilled workforce ◁ Accountability ◁ Supplier and customer relations <p>In achieving these effective and efficient SCM processes, there are frameworks which can be embodied in an organisation to maximise its performance.</p> <ul style="list-style-type: none"> ◁ Supply Chain Performance Measurement System ◁ Supply Chain Operations Reference

Theoretical objectives	How theoretical objectives were achieved
<p>Examine the 2015 public sector SCM review and AGSA reports 2014/15 to 2018/19 to gain insights into the current standing of South African SCM and determine whether it is effective and efficient or not</p>	<p>The 2015 Public Sector SCM Review documents that the negative effects of an inefficient public sector SCM results in:</p> <ul style="list-style-type: none"> ◁ suppliers charging excessive prices for goods and services which are of a ◁ poor quality and unreliable; and there is ◁ corruption and waste of taxpayers' money. <p>The 2015 Public Sector SCM Review emphasises that officials within SCM system fail to understand the economic and social power of the purchasing decisions that they make. These decisions must be of the maximum value to the intended beneficiaries whether these are hospital patients or commuters with access to good public transport.</p> <p>Such decisions must convert budgets and strategic strategies into deliverables of products and services in an integrated public SCM structure that is well-resourced, works adequately and is understood in accordance with the mandate of the government. In spite of the poor performance of SCM systems, SCM legislation (PFMA, PPPFA, B-BBEE and PAA) is provided by government as framework for effective and efficient SCM in fulfilment of its mandate.</p>
<p>Determine the application of the fraud triangle on South African corruption allegations</p>	<p>Chapters 2.9, 2.10 and 4.5 seek to bridge a connection of the fraud triangle theory with the cases being investigated by the Judicial Commission of Inquiry into Allegations of State Capture which was enacted to investigate allegations of fraud with public entities and organs of state.</p>

Sources: Chapter 1 to 4

Table 5.2: Addressing empirical objectives

Empirical objectives	How empirical objectives were achieved
<p>Formulate a database of 40 public entities, which will provide amounts of irregular, unauthorised, fruitless, and wasteful expenditure from the consolidated AGSA PFMA reports 2014/15 to 2018/19. This database will also be of value in aggregating this expenditure to determine how much tax expenditure has been misused.</p>	<p>Chapters 3.4 and 3.5 provided the criteria of inclusion for these 40 public entities. It also goes through the process of explain the process of ensuring reliability and credibility. Chapter 4.3 provides the aggregate amount of expenditure from 2014/15 to 2018/19 accompanied with data interpretation of this summary.</p>
<p>Summarise findings on SCM reported on by the Auditor General for the period 2014/15 to 2018/19 to determine the what the trend has been over the years.</p>	<p>Chapter 4.3 goes into detail regarding what the Auditor General reported on SCM findings from 2014/15 to 2018/19. Figure 4.2 extracted from the 40 public entities also paints a picture which depicts the AGSA numerous concerns and findings.</p>
<p>Extract the top 10 public entities from the database of 40 which will be based on public entities that have contributor the most to the aggregated expenditure to establish the amount misused by theses 10 and cause for SCM non-compliance within these public entities</p>	<p>Chapter 4.3.1, through the use of Excel formulas, data on different spreadsheets regarding the cumulative amount of irregular, unauthorised, fruitless and wasteful expenditure was consolidated into one spreadsheet of the 40 public entities. This consolidated spreadsheet was sorted from largest to smallest according to the cumulative balance of expenditure. Thus a top 10 was extracted.</p>

Empirical objectives	How empirical objectives were achieved
<p>Analyse tax revenue collections and tax revenue shortfalls from 2015/16 to 2019/20 to determine whether there is a relation to how public entities' SCM performs</p>	<p>Chapter 4.8.4 highlights that over the past 5 years, tax revenue collections have increased at an average rate of 7.1% per year, after considering the average five-year inflation rate of 4.5% the true incremental tax revenue collections rate is actually 2.6% per year. The rate at which SARS has been unable to collect what it budgeted to collect has increased at a rate of 598% from 2015/16 to 2018/19. Tax expenditure on average over a five-year period has amounted to R314.1 billion that could have transformed public entities into world-class organisations.</p> <p>There has consistently been a tax revenue shortfall, over a five-year period — the average increase in tax revenue shortfall amounts to 676.2%. This means that each year government has to reorganise their tax expenditure budget as they keep on under collecting tax revenue.</p> <p>Chapter 4.8.1 details the Nugent Commission, which concludes that the previous SARS commissioner's reign resulted in a massive failure of integrity and governance at SARS. These findings indicate that SCM in the public sector has an influence on taxation in South Africa.</p>

Source: Chapters 1 to 4

Table 5.1 and 5.2 provide the exact sections in which the researcher believes these objectives were achieved, thus highlighting how the theoretical and empirical objectives were achieved.

5.4 Recommendations

5.4.1 Centralised and decentralised hybrid procurement system

Kanepejs and Kirikova (2018:225) propose that organisations rarely centralise completely or completely decentralise procurement systems. Decentralised systems are commonly found in new established organisations. Lazarus (2017) states that centralised procurement systems are commonly found in public sector procurement. Public institutions have massive

buying centres and face complexity in organising their purchasing functions due to legal regulations. Although, it is argued that a decentralised system spreads wealth to hard-working entrepreneurs who successfully tender for government contracts and, in doing so, create jobs. Chipkin and Tshimomola (2014) explain that the introduction of the PFMA 1999 allowed for procurement to shift from a historically centralised procurement system to a decentralised procurement system. This meant that senior officials in charge of public entities would also be responsible for utilising the budget that was provided to the relevant entity. This move has also created hundreds of thousands of public-sector contracting points, leading to so many areas where political decisions have been taken and providing a fertile climate for corruption to fester in state organs.

Chipkin and Tshimomola (2014) pose the question, “*What makes the difference in the performance of public entities?*” This question arises from their observations that public entities’ performance is un-even; some perform better than others, some are dysfunctional, others are struggling along, and others are excellent.

Common answers to the question Chipkin and Tshimomola (2014) pose is that there is a lack of leadership and a competent and skilled workforce; each site of procurement has its own political economy. Chipkin and Tshimomola (2014) observe that in many provinces, school textbooks and furniture are not centrally procured and thousands of autonomous school governing bodies are responsible for the budget to execute their essential functions on their own. What lies behind the unevenness of the performance of public entities are personal and political interests, this is not simply a problem of poor leadership or unskilled officials. The problem is structural and lies within the architecture of government procurement systems. South Africa currently uses a decentralised procurement system, which has resulted in SCM non-compliance and has influenced tax revenue and expenditure as described in Chapter 4. It would thus be of benefit to understand the advantages and disadvantages of the alternative procurement system before suggesting that the South African procurement change to a different procurement system. Thus, Table 5.3 is a brief summary on the advantages and disadvantages of a central procurement system. This summary is extracted from various authors’ work as indicated in the sources below Table 5.3.

Table 5.3: Centralisation advantages and disadvantages

Advantages	Disadvantages
Reduce total public procurement costs by decreasing procurement rates by bulk procurement and reducing the expense of transactions.	Possibility of manifesting monopolistic practices in sourcing operations. This will come in the form of market concentration among a small range of firms. Restricted engagement opportunities for SMEs in public procurement.
In order to manage the procurement system as an essential component, specialized, highly skilled and professional staff are able to manage it.	Delays in meeting the needs and requirements of all government agencies at the right time.
The presence of a central public procurement agency lets administrative authorities regulate the procurement process and gives rise to transparency.	If the claimant is situated far from the centralized procuring agency, shipping costs of goods and services may be a major financial burden.

Sources: Aboelazm and Afandy (2019:270), Arslanian (2019), and Moreau (2018)

Based on Table 5.3, it is clear that a major disadvantage of a centralised system manifest a monopoly as procurement contracts are directed towards well-established entities. This is of concern given that South Africa transitioned from a centralised to a decentralised procurement system to spread wealth and address past discriminatory practices. A major benefit of a centralised procurement system is that it reduces the overall cost to government and promotes accountability through a single responsible body. Kanepes and Kirikova (2018:225) explain that some organisations utilise a hybrid procurement system that contains characteristics of a centralised and decentralised system. This adaption aims to obtain benefits from both systems and, at the same time, counter-balance the drawbacks of both systems.

The recommendation of this study is thus the development of a hybrid procurement system for South African public entities; one that takes the effectiveness of service delivery and efficiency in cost reduction by bulk purchase attained in a centralised system; a system that allows for the adoption of a decentralised system in aid of distributing wealth among its citizens and continuously addressed past discriminatory practices. A hybrid system limits the need to have to every single good or service to come from a central procurement agency as the goods and services required by one entity may not be the same as the next. The timing difference between when a government entity may request a good or service and the time to approve and deliver by the central procurement agency may affect the

government entities' daily operations. However, there are certain goods and services which are constantly required by government entities in serving its citizens such as:

- ◁ Tar road: Municipalities all over the country need to maintain their roads to avoid the manifestation of potholes. Tar road is a material required in creating and maintaining roads. Municipalities could periodically request the required amount of tar road from the central procurement agency and municipalities could outsource the labour to maintain and create roads.
- ◁ The National Department of Human Settlements requires extensive material in building and providing housing to its citizens in addressing past discriminatory practices. These materials could all be purchased at once at lower prices with ensured quality and distributed to relevant government entities. The building of these houses could be outsourced.
- ◁ Personal Protective Equipment, beds, medicine, surgery machinery are all elements required by hospitals. They can all be centrally purchased and distributed. The installation of these items may be sourced out.

In changing the procurement system as recommended above, it is essential that government holds those who are responsible for the detrition of SCM in public entities to be held accountable and prosecuted in a court of law; it is also essential that witnesses are protected and compensated with the aim of accelerating the wheels of justice. Chapter 5.4.2 and chapter 5.4.3 seeks to recommend approaches in which this can be achieved.

5.4.2 From whistle-blowers to heroes

The Citizen (2020) reports that Goodson, in an open letter to Eskom, expressed that she has suffered a blow as their livelihoods have been stripped away and the power utility informed her that it could not compensate her for her act of whistleblowing on corrupt activities taking place at Eskom.

Eskom CEO responded to Goodson's open letter by explaining why the power utility could not reward Goodson for her and others who followed in her shoes of great acts of patriotism. In his response, the CEO stated that:

“You made a very substantial contribution to the successful recovery of Eskom funds that were unlawfully paid out during the height of state capture, for which we are deeply grateful. The proposal you present is the first of its kind, and while there are

precedents in US law, there is unfortunately no provision in South African law for whistle blower compensation. We unfortunately cannot pay you a reward or similar for the information which you disclosed” (Citizen (2020)).

Kgomo and Carreira (2020) explain that in South Africa, the Protected Disclosures Act (PDA) is the central whistleblowing legislation in South Africa, also known as the Whistleblowing Act. The PDA provides avenues of reporting and protection for whistleblowers. The Act applies to both the public and private sectors. However, the PDA is only aimed at employees; it excludes volunteers and independent contractors. Kgomo and Carreira (2020) further explain that protection provided by the PDA manifests in the form of preventing acts causing occupational detriment to the whistle-blower. These acts include suspension, dismissal, intimidation, and harassment. The PDA also provides for financial compensation. It seems that the PDA was not applicable to Goodson’s patriotic act or perhaps she did not follow correct procedure in airing her grievances.

The Citizen (2020) further reports that Eskom CEO further added that:

As Eskom was pivotal to your own act of whistleblowing, itself a great act of patriotism, it would be a great honour for us to invite you to address a group of our senior executives and managers, both for us to learn from your experience, but also to act as a potential launching pad for your venture, should you wish to proceed with it.

Fortunately for Goodson, her act of patriotism was not left unnoticed by CEO of Sygnia Asset Management who offered Goodson a position at the company. In an interview with the CEO of Sygnia Asset Management, she describes Goodson as a “hero”. She stated that “I don’t want to use the word whistle blower. I prefer the word hero. People need to know they are safe and protected when they step up.” (Citizen (2020))

The cases of Suzanne Daniels, former head of legal and compliance at state-owned energy company Eskom, highlights the limitations in the protection available to employees who seek to be heroes in South Africa through acts of patriotism.

This study recommends a system of reward to be developed for those who seek to become heroes for their country. However, credible evidence must be provided by the hero, which must lead to the recovery of funds through the Asset Forfeiture Unit that will have liquidated assets of perpetrators to recover taxpayer’s funds. The system, in line with relevant

legislation, could be adapted in a way that allows for the whistle-blower to receive a small percentage of what the Asset Forfeiture Unit was able to liquidate. Thus, the percentage of reward would differ according to the value of the contract.

5.4.3 Amnesty

Calland (2020) and eNCA (2020) propose that recent developments have begun to suggest that the net is beginning to tighten around the big fish that are the true architects of systematic corruption within the republic. Calland (2020) reports that the former public protector suggested that instead of being tough on the perpetrators, the National Prosecuting Authority should extend an olive branch in exchange for small perpetrators turning witness to the bigger perpetrators. She has proposed that this olive branch come in the form of amnesty for small fish. Her idea is targeted at those whose “status”, she says, “in the food chain is quite junior” (Calland, 2020).

The former public protector added that this amnesty would be available on a legal basis rather than on a moral basis (eNCA, 2020). A legal entitlement would be required for this amnesty; this means that the terms on which entitlement to amnesty applies have to be very clearly and carefully spelled out (Calland, 2020). These people who would be allowed amnesty would include people who may have “bent the rules” unwittingly, in which case, they may well have a legal defence to criminal conduct. These people would also include individuals who may have also had their palms been “greased with money” contingent also upon them paying back the money to the public institution it was taken from.

The former public protector proposed that the main purpose of this amnesty is to assist the National Prosecuting Authority in compiling concrete evidence to bring strong prosecutions against the most powerful perpetrators of state capture corruption and recover lost taxpayer’s funds (eNCA, 2020). Critics, however, argue that a major concern is where to draw the line: *On what basis should one distinguish the smaller from the bigger fish?*

The recommendation is that there are different procedures and requirements for government contracts based on the value of the contract, the same categorisation should apply when it comes to providing amnesty, but this amnesty would be subject to the amnesty seeker’s involvement in corrupt activities. In some cases, a perpetrator would be have to pay back the funds received and face jail time, which would be significantly reduced to encourage more to come forward.

5.5 Conclusion

5.5.1 Problem statement

Legislation over the years has provided a framework to government regarding SCM, however, the PFMA AGSA reports 2014/15 to 2018/19 have repeatedly over the years raised red flags concerning material irregularities in public entities' SCM processes. These concerns by the AGSA are emphasised by various authors in the form Swart and Swanepoel (2019:11), Madlopha (2016), Viljoen (2019) and SA (2018:5). The Medium-Term Budget Policy Statement (2019) identifies that the tax revenue estimates have been revised down on a consistent basis since 2014/15. National Treasury (2019) highlights that in combating the declining tax revenue, tax increases have been instituted; the concern now is whether public entities' SCM operations have an influence on government tax revenue and expenditure. There is an abundance of literature on South African SCM, however, there is a lack of literature on the impact of these SCM systems on tax revenue and expenditure.

5.5.2 Addressing the problem statement

South Africa uses a progressive tax system, which means that the richest get taxed the most and the poor get taxed the least as they have little surplus funds. It is, therefore, important that the rich receive value for money in the taxes they pay as this can lead to a deterioration of South African tax morality as explained in Chapter 4.8.2, resulting in the rich engaging in tax evasion activities and relocating their skills and wealth to other countries. The tax evasion and migration of wealth and skilled individuals amplify the degree of tax revenue shortfalls and to combat the tax revenue shortfalls, and ever increasing tax expenditure, government needs to lend more money in order to be able to facilitate its mandate.

This is evident from Table 2.2 which depicts an ever-increasing budget deficit, gross loan debt, and cost to service debt. The 2015/16 to 2018/19 fiscal year has witnessed a 23% increase in budget deficit, a 28% increase in gross loan debt, and a 34% increase in cost to service debt. All these increases over the years increase government expenditure and reduce tax revenue available to fulfil government's mandate. A major concern by National Treasury (2017) is that the cost of servicing debt is the fastest growing expenditure item in the budget, surpassing spending on health and social services. In order to understand how the government got itself into this predicament, it was important to understand the role of

SCM in public entities as government utilises the public entities through SCM to facilitate its mandate.

It is also essential to remain cognisant of the history of South Africa and its SCM developments in addressing past discriminatory practices. Twenty-four years have elapsed since South Africa gained its democracy and yet its citizens continue to suffer by the development of a new enemy, an enemy that wishes to take away from the poor and enrich the self. The factors that seem to plague South African SCM systems seems to be:

- ◁ a lack of accountability;
- ◁ shortage of staff in key positions;
- ◁ a lack of professionalism and unskilled staff; and
- ◁ personal and political objectives prioritised over governments mandate.

The decentralised system allows for public entities to procure their own goods and services at prices and quality they see best fit. This allows for corruption to fester into the system. The Auditor-General reports 2014/15 to 2018/19 keep highlighting the same red flags concerning SCM systems each year and each year little is done to address these concerns. There a massive defect in the SCM system, perpetrators are rarely convicted and this allows for an environment of corruption.

Government has started implanting measures to combat this rampant non-compliance that the AGSA annually reports on. This comes in the form of:

- ◁ The State Capture Commission of Inquiry (Chapter 2.10)
- ◁ Nugent Commission (Chapter 4.8.1)
- ◁ Performance agreements (Chapter 4.9.1)
- ◁ PAA amendments (Chapter 4.9.2)
- ◁ Personal income tax adjustments (Chapter 4.9.3)

This may be a sign that a new dawn has begun for South African SCM, but more needs to be changed to counteract the adverse consequences that ineffective and inefficient management and management decisions have had over the years. Hence the recommendations are:

- ◁ Amnesty (Chapter 5.4.3): This will lead to the evidence for prosecution of larger corrupt activities to recover the larger tax expenditure amounts lost.

- ◁ Whistle-blowers (Chapter 5.4.2): The stigma of being called a whistle-blower needs to change to being called a hero as these people consider their actions in the best interest of the state by reporting illegalities. The law also needs to be improved to protect the country's heroes and a small percentage of the funds recovered must be awarded to the hero to promote such information.
- ◁ Centralised and decentralised hybrid procurement system (Chapter 5.4.1): A new system needs to be adopted, which will promote accountability and value for money for taxpayers. This system also needs to balance socio-economic objectives in addressing past transgressions.

5.5.3 Recommendations for future research

The feasibility of implementing a hybrid procurement system in the South African public entities needs to be further studied, considering the history of South Africa and the advantages and disadvantages of central and decentralised procurement systems.

The United States of America has whistle-blower acts which allocate for amnesty and compensation of whistle-blowers. Further research can be done into which other countries have provided for such and determine the applicability in a South African context.

Further investigation is required into the SCM of the COVID19 funds that has been spent from March 2020 to January 2021 based on the amounts spent wrongfully as emphasised in the news and Auditor General South Africa reports. A new internal control system needs to be investigated when information is more reliably available.

5.5.4 Limitations of study

Annexure 2 of the AGSA, which provided data on SCM non-compliance findings, only provided data from 2015/16 to 2018/19, while the 40 public entities were extracted from the consolidated AGSA PFMA reports that provided for 2014/15 to 2018/19. Data to be extracted from the AGSA regarding this study was to be from 2014/15 to 2018/19. Annexure 2 of the AGSA limited the findings of the top 10 public entities on SCM non-compliance.

Some public entities were not included in the 40 public entities' sample due to the fact that multiple years had passed during the period 2014/15 to 2018/19 without them releasing financial statements to be audited by the AGSA.

5.5.5 Contribution of study

There is an abundance of literature on South African SCM, however, there is a lack of literature on the impact of these SCM systems on tax revenue and expenditure. Through this study the researcher has contributed to closing the gap relating to the amount of studies published which aim to depict a correlation between public entities' SCM processes and how they affect tax expenditure and revenue.

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APPENDIX A: Declaration of edit

DECLARATION OF LANGUAGE EDITING

The Writer's Fix
Independently contracted editing



I, Natasha Ravyse, hereby declare that I have language and reference edited the dissertation with the title:

The role of supply chain management in South African public entities and its influence on taxation expenditure and revenue

For **Thato Miloane (25068415)** for the purpose of submission as a dissertation in order to meet the requirements for the degree *Magister Commercii* in Accountancy at the North-West University.

Changes were suggested in the form of electronic track changes and comments. The implementation thereof was left to the discretion of the author.

NB Ravyse

Natasha Ravyse

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