AN EXAMINATION OF THE CONSTRUCTION PROCUREMENT CHALLENGES FACED BY SMALL, MICRO AND MEDIUM ENTERPRISES IN THE PUBLIC SECTOR: A CASE STUDY OF THE DEPARTMENT OF PUBLIC WORKS IN KWAZULU-NATAL

By

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PREFACE

The research contained in this dissertation was completed by the candidate while based in the Discipline of Construction Studies, School of Engineering of the College of Agriculture, Engineering and Science, University of KwaZulu-Natal, Howard, South Africa.

The contents of this work have not been submitted in any form to another university and, except where the work of others is acknowledged in the text, the results reported are due to investigations by the candidate.

Signed: Prof T. C Haupt (Supervisor)

Date: 15 November 2018

DECLARATION 1: PLAGIARISM

I, Thulani Alfred Mdadane, declare that:

The research reported in this dissertation, except where otherwise indicated or acknowledged, is my original work;

This dissertation has not been submitted in full or in part for any degree or examination to any other university;

This dissertation does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons;

This dissertation does not contain other persons' writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:

Their words have been re-written, but the general information attributed to them has been referenced;

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Where I have used material for which publications followed, I have indicated in detail my role in the work;

This dissertation is primarily a collection of material prepared by myself, published as journal articles or presented as a poster and oral presentations at conferences. In some cases, additional material has been included;

This dissertation does not contain text, graphics or tables copied and pasted from the Internet, unless specifically acknowledged, and the source being detailed in the dissertation and in the References sections.

Signed: Thulani Alfred Mdadane

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Date: 15 November 2018

DEDICATION

The entire dissertation is dedicated to the Lord Almighty for His wonderful blessings, love, mercy and grace to complete this research.

ACKNOWLEDGEMENTS

I give praise to Almighty God for His protection, love, mercy and grace throughout the course of my studies. This study could not have been successfully completed without God.

The second acknowledgement goes to my supervisor, Professor TC Haupt for his numerous contributions towards the successful completion of this research.

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Many thanks go to all employees at the Department of Public Works, especially those who sacrificed their previous time to participate in the study.

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ABSTRACT

The study investigated the procurement challenges faced by SMMEs in the public sector in the Department of Public Works within the eThekwini Metropolitan area in the Kwazulu-Natal province. The research objectives were: to identify challenges faced by SMMEs in accessing procurement opportunities; to establish how government seeks to enhance SMME participation in public procurement; to assess SMME perceptions of effectiveness of the current system of government targeted procurement in the public construction sector and to make recommendations pertaining to the most appropriate approach to assist SMMEs in accessing public procurement opportunities in the construction sector.

The study adopted mixed methods approach to investigate the research phenomenon. Phenomenological approach was used as the research philosophy in the investigation of the research phenomenon. The target population was the government officials at Department of Public Works within the eThekwini Metropolitan area and emerging contractors, which were 215. A sample size of 138 respondents was selected using both systematic and purposive sampling techniques. Data collection instruments used were a close and open-ended questionnaires and a semi-structured interviews. A pilot study was conducted before the full-scale investigation took place. The reliability and validity of the research instrument were achieved through Cronbach's alpha coefficient and factor analysis. The data gathered from the respondents were analysed using Statistical Package for the Social Sciences, version 25.0.

The study found that the challenges confronting the construction SMMEs include government regulations (94.6%), financial related challenges, human resources management related challenges (91.3%), supply chain management related challenges (96.8%) and quality management related challenges (89.9%). The study further found that the construction SMMEs contribute to economic growth through job creation (95.2%), equity redress (93.7%), socio-economic development (89.7%), innovation (91.5%), poverty reduction (93.7%) and income generation (91.7%).

The study recommends the following: access to more funding for the construction SMMEs, creation of enabling business environment, flexible government regulations, access to procurement opportunities, access to information, mentorship programmes for emerging contractors and provision of workshops and training and development for emerging contractors.

Umqondo Nomongo Wokuqukethwe

Lolu cwaningo belubheka izingqinamba ezihlangabezana nosomabhizinisi abancane abasakhulayo (SMME's) ohlelweni lukaHulumeni lwamathenda eMnyangweni wezeMisebenzi yoMphakathi KwaZulu-Natal (KZN Public Works) ikakhulukazi kuMasipala waseThekwini (eThekwini Metropolitan). Inhloso-ngqangi yalolu ocwaningo bekuwukubheka izinkinga ezibhekene nosomabhizinisi abasakhula nezenza bangakwazi ukufinyelela kalula emathubeni amayelana nokufakwa kwamathenda; lubuye lubheke nemizamo esiyenziwe uHulumeni ukukhuthaza osomabhizinisi abasakhula ukuthi bakwazi ukufinyelela ohlelweni lwamathenda. Ucwaningo lubuye lwabheka nalokho okuyimizwa yosomabhizini abasakhulayo ngokusebenza kwaloluhlelo lwamathenda olukhona njengamanje oluqondene-ngqo nokuthuthukwiswa kosomahizinisi abasemkhakheni wezinkontileka luphinde lwenze nezincomo mayelana nohlelo olungcono olungalandelwa ukusiza osonkontileka abangosomabhizinisi abasakhula ukuze bafinyelele emathubeni amathenda kaHululumeni emkhakheni wezezinkontileka. Ucwaningo lulandele izindlela ezixubile ukufinyelela emongweni nasengqikithini yalokho okuhloswe wucwaningo ngokulandela uhlelo lwePhenomoloji njengenye yezindlela ezikhethekile zokwenza ucwaningo oluqondile. Ucwaningo belubhekiswe ezisebenzini zikaHulumeni ikakhulukazi ezoMnyango wezeMisebenzi kaHulumeni ngaphansi kukaMasipala waseThekwini kanye nosoNkontileka abangosomabhizinisi abasakhulayo abangamakhulu amabili neshumi nanhlanu (215). Babe yikhulu namashumi amathathu nesishagalombili (138) abatonyulwe ngokohlelo olukhethekile noluhlelekile olulandelwa abacwaningi ukuze kutholakale inani elikahle labantu abazobamba iqhaza ukuze ucwaningo lube yimpumelelo. Ucwaningo lulandele uhlobo lwesampula lwenhloso (purposive known-sample noma i-judgement sample) nokwenze kwaba lula ekuqhubeni ucwaningo ngoba vele umcwaningi ubenolwazi ngabantu afuna ukucwaninga ngabo, okuyizisebenzi zikaHulumeni kanye noSonkontileka. Ukuze kufinyelelwe kokufunwa ucwaningo, ulwazi luqokelelwe ngokusebenzisa uhlelo lwemibuzo ehlelekile (questionnaire) oluphendulwa ngokulandela uhlelo lwemibizo evulekile (open questions) kanye naleyo evalekile (closed questions). Ngaphambi kokuba lolucwaningo lwenziwe ezingeni eliphezulu, luqalwe lwenziwa ngesigejana sabantu (pilot sample). Ukuba nohlonze nokwethembeka kocwaningo kwenziwe ngokulandela ubucwepheshe bokucwaninga ngethuluzi lwe-khompuyutha olwaqhamuka noMcwaningi uCronbach ngonyaka ka-1970 okuyi *Alpha Coefficient* kanye ne *Factor Analysis* ukuze luveze ukulandelana nokwefana kwenzimpendulo (consistency) uma kuhlaziywa izibalo zezimpendulo embuzweni ngamunye. Ulwazi

oloqokelelwe lwezimpendulo ezivela kulabo ababambe iqhaza ocwaningweni lucutshungulwe ngokosizo lwe-khompuyutha esiza abacwaningi okuyi- Statistical Package for Social Sciencies esezingeni lika 25.0. Ucwaningo luthole lezibalo ezilandelayo: (94.6%) wezinkinga ezikhungethe osonkontileka abasakhula zibandakanya imithetho kaHulumeni; (91.3%) wezinkinga zimayelana nezimali kanye nalezo ezimayelana nokuphatha; (96.8%) wezinkinga zimayelana nohlelo lwamathenda okuyi Supply Chain Management; (89.8%) wamaphesenti wezinkinga zimayelana nokulindelekile ekwenzeni umsebenzi ngokuqamatheka (quality management); Ucwaningo lubuye lwathola ukuthi osomabhizinisi abasafufusayo abangosoNkontileka babambe elikhulu iqhaza ekuthuthukisweni komnotho wezwe ngokuveza amathuba emisebenzi angu (95.2%); (93.7%) umayelana nokwenza isilinganiso ngokuthuthukisa izinga losomabhizinisi abasathuthuka; (89.7%) umayelana nokuthuthukiswa kwesimo senhlalo yezomnotho; (91.5%) umayelana nobuchule nobuhlakani kwezezinkontileka; (93.7%) umayelana nokwehliswa kwezinga lobuphofu nobubha emphakathini; (91.7%) umayelana nokungeniswa kwenzuzo Ucwaningo luphakamisa lezinto ezilandelayo ukuze kwenziwe ngcono izinga losoNkontileka abasakhulayo: ukuhlinzekelwa kosoNkontileka ngamathuba ezimali ekwenzeni umsebenzi wamathenda; ukuhlelenjwa nokuvuleleka kwenkundla yezamabhizinini; ukuxegiswa kwemigomo kaHulumeni yezamathenda; ukuvulwa kwamathuba okufakwa kwamathenda; ukusizakala kwabo ngolwazi wokusingathwa komsebenzi wamathenda; ukucathuliswa kosonkontileka ngolwazi ukuze basimame; ukunikezwa kolwazi ngezigcawu zokubonisana (workshops) ukuqeqeshwa nokuthuthukiswa kosoNkontileka abasakhulayo.

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AA	Affirmative Action
ACSA	Airports Company South Africa
ANC	African National Congress
AU	African Union
BBBEE	Broad-Based Black Economic Empowerment Act
BCEA	Basic Condition of Employment Act
BEE	Black Economic Empowerment
BER	Bureau of Economic Research
BIFSA	Building Industries Federation of South Africa
BRICS	Brazil, Russia India, China and South Africa
CE	Civil Engineering
CET	Contracting Entrepreneurial Training
Cidb	Construction Industry Development Board Act
CII	Construction Industry Indicators
CIPRO	Companies and Intellectual Property Registration Office
CSD	Central Supplier Database
DBSA	Development Bank of Southern Africa
DPW	Department of Public Work
DTI	Department of Trade and Industry
ECDP	Emerging Contractor Development Programme

EMEs	Exempted Micro Enterprises
FET	Further Education and Training
GB	General Building
GBM	Grameen Bank-Model
GDP	Gross Domestic Product
GG	Good governance
HDIs	Historically Disadvantaged Individuals
HRM	Human Resource Management
KZN	KwaZulu– Natal
KZNDPW	KwaZulu-Natal Department of Public Work
LGMSA	Local Government Municipal Systems Act
MANCOSA	Management College of Southern Africa
MFMA	Municipal Finance Management Act
NCR	National and Credit Regulator
NEP	New Economic Policy
PAJA	Promotion of Administrative Justice Act
PEPUD	Promotion of Equality and the Prevention of Unfair Discrimination
PFMA	Public Finance Management Act
PM	Policy Mandate
PPPFA	Preferential Procurement Policy Framework Act
PRASA	Passenger Rail Agency of South Africa

QM	Quality management
QSEs	Qualifying Small Business Enterprises
RDP	Reconstruction and Development Programme
RSA	Republic of South Africa
SACRO	South African Companies Registration Office
SANS	South African National Standards
SARS	South African Revenue Service
SCA	Supreme Court of Appeal
SCM	Supply Chain Management
SMB	Small and Medium Business
SMMEs	Small, Micro and Medium Enterprises
SPSS	Statistical Package for the Social Sciences
TAC	Tender Advise Center
UNIDO	United Nations Industrial Development Organisation
VAT	Value Added Tax

CHAPTER ONE: INTRODUCTION

1.1 Introduction

This study examines the highly varied small business segment of the local and global economy, namely – small, micro and medium enterprises (SMMEs), and the challenges faced by this sector in accessing public procurement opportunities. There have been several different definitions of SMME. The European Union and the World Bank believe the term means the same as "small and medium enterprise" (SME) or "small and medium business" (SMB). In the South African context however, this is different as local agencies make their own determination on the term (Sitharam & Hoque, 2016; National and Credit Regulator [NCR], 2016). Nkonde (2012) postulates that the varied nature of the SMME, particularly their sizes, industry-specific definitions and dynamism makes it very complex to have a common understanding and uniformity of the SMME's definition. Sitharam and Hoque (2016) claimed that there are diverse and conflicting discourses on SMMEs that the essence of the concept is blurred. This study is compounded by different definitions on SMMEs. Furthermore, countries, institutions as well as scholars come up with their own specific and unique definitions of SMMEs depending on their needs and circumstances.

In the case of South Africa, the National Small Business Act (102 of 1996) classifies SMMEs into four distinct categories based on enterprise size. These four categories include asset value, number of employees and annual turnover. Subsequently, the Department of Trade and Industry (dti) introduced different thresholds or cut-off points on a sector-by-sector basis to its classifications of SMMEs, which are then adjusted for inflation by Statistics South Africa (StatsSA) (BER, 2016). Table 1 depicts the broad definitions of SMMEs in The National Small Business Act.

Table 1.1: Broad definitions of SMMEs in the National Small Business Act

Enterprise size	Number of employees	Annual turnover	Gross assets, excluding fixed property
Medium	Between 100 and 200, depending on industry	Between R4 million and R50 million, depending upon industry"	Between R2 million and R18 million, depending on industry
Small	Between 21 and 50	Between R2 million and R25 million, depending on industry	Between R2 million and R4,5 million, depending on industry
Very Small	Between 10 and 20, depending on industry	Between R200,000 and R500,000, depending on industry	Between R150,000 and R500,000, depending on industry
Micro	Fewer than 5	Less than R150,000	Less than R100,000

Source: National Small Business Act as cited by NCR (2011)

According to Bureau of Economic Research [BER] (2016), the minimum capital requirement (cut-off point) for the micro, small and medium enterprise within construction industry in 2015 was R2m, R28.5m and R57m respectively. In comparison, the cut-off points on the manufacturing industry were R2m, R47.5m and R123.5m respectively. This is confirmed by the BER (2016) which estimates the number of SMMEs in South Africa to be around 2,25 million. It has been suggested by various observers that SMMEs account for between 80 and 99 percent of South African businesses (NCR, 2011; Ngassam et al., 2009; Jeppesen, 2005). The BER (2016) further points out that SMMEs made a contribution of 42 percent to South Africa's Gross Domestic Product (GDP) in the first quarter of 2015. This result has led Nkonde (2012) to suggest that the single most important contribution to the South African economy by the SMMEs is that of employment which was about 60 percent in the period under review.

According to the United Nations Industrial Development Organisation [UNIDO] (2017), public procurement probably accounts for around one-fifth of global gross domestic product

(GDP), making government in most counties the single largest buyer and industry stakeholder (Ambe and Badehorst-Weiss, 2012). The situation is somewhat different in industrialised countries where public expenditure is between 10 and 15 percent of the GDP. For example, in the UK public expenditure accounts for 13 percent of the GDP and 33 per cent of public sector spending in the 2013-2014 financial year; in most EU member states, the figure is typically between 25% to 30% of public expenditure (Morand, 2003; UNIDO, 2017). Developing country governments often spend as much as half or more of their budgets on the procurement of goods and services; in East Asian countries, for example, procurement is estimated at anywhere from 20% to 40%, in Mexico it is as high as 74% (Morand, 2003; UNIDO, 2017).

The business of public procurement has its origins in the fiduciary obligation of government administrations to deliver goods and services and infrastructure at reasonable cost to their citizens; the "policy" of public procurement, however, has broader socio-economic and political implications and is typically viewed as a legitimate tool to stimulate economic activity, protect national industries, redistribute wealth, and improve the competitiveness of certain groups and industrial sectors (mainly, the construction sector) through targeted procurement (UNIDO, 2017;Ambe and Badehorst-Weiss, 2012; Bolton, 2004; McCrudden, 2004).

According to McCrudden (2004) governments have historically participated in the market as purchaser of public works, supplies, and services, and at the same time as regulator through competition law and labour laws; governments currently attempt to combine these two functions by using their purchasing power in the market as leverage to produce desired social policy. According to Bolton (2004) and Naude (2013) purchases by the public sector represent a significant portion of the public purse, and are an important item of public expenditure (they are also a substantial source of income to the private sector), furthermore, organs of state (as defined in Section 239 of the Constitution) are not politically neutral on society's legislative norms and ought to use their power to grant contracts as a tool to achieve socioeconomic upliftment.

1.2 Background of the Study

South Africa is one of the few countries in the world to have public procurement subject to its constitution and recognised as a means of addressing past discriminatory policies and practices; and has, thereunder, constructed a procurement regime that provides for the preferential allocation of contracts and the advancement of certain persons, or categories of persons (Ambe

and Badehorst-Weiss, 2012; Bolton, 2004; Watermeyer, 2003). The Constitution and the Preferential Procurement Policy Framework Act (PPPFA) (Act 5 of 2000), the Public Finance Management Act (PFMA) (Act 1 of 1999), the Municipal Finance Management Act (MFMA) (Act 56 of 2003) and the Broad-Based Black Economic Empowerment Act (BBBEE) (Act 53 of 2003) comprise the overarching regulatory framework within which the policy of preferential procurement or 'affirmative procurement' or 'targeted procurement' is implemented (Bolton, 2004; Watermeyer, 2003). Other relevant statutory provisions pertaining to procurement include the Promotion of Administrative Justice Act (PAJA)(Act 3 of 2000), the Promotion of Equality and the Prevention of Unfair Discrimination (PEPUD) (Act No 4 of 2000), the Construction Industry Development Board Act (cidb) (Act No 38 of 2000) – which establishes the Construction Industry Development Board, under the auspices of the Department of Public Works – and the Prevention and Combating of Corrupt Activities Act (PCCA)(Act 12 of 2004) (Ambe & Badehorst-Weiss, 2012; Naude *et al* 2013; Smallwood *et al* 2011).

The PFMA and the MFMA prescribe how public procurement ought to be undertaken and are implemented through the National Treasury Regulations; the MFMA, in particular, is concerned with supply chain management in local government (adding value at every stage of the procurement process from demand, to acquisition, to logistics, and finally, to disposal), as public procurement, in the South African context, is decentralised to departments, provinces and municipalities (UNIDO, 2017; Ambe and Badehorst-Weiss, 2012). National Treasury is also a custodian of the Broad-Based Black Economic Empowerment Act, which complements the PPPFA, and under which the Minister of Trade and Industry Issues Codes of Good Practice on Black economic empowerment, which serve to certify enterprises according to a BBBEE scorecard that measures progress in achieving Black economic empowerment (UNIDO, 2017; Smallwood et al, 2011).

According to NCR (2011), the *White Paper on National Strategy for the Development and Promotion of Small Business in South Africa* (1995), SMMEs are considered the most important vehicle for promoting equity, economic growth and job creation in South Africa. However, there is a general consensus among researcher that SMMEs can be regarded as a tool for employment creation, potential vehicle for the redistribution of productive assets and possible solution several other development problems. This is confirmed by some prior research which confirmed the SMMEs' capacity to absorb unused and retrenched labour

especially in low employment developing countries in the process mitigating labour challenges which has endeared them to many policymakers and institutions (Sitharam & Hoque, 2016; Nkonde, 2012; Jeppesen, 2005).

According to Naude et al. (2013), public procurement is one of the catalysts to accelerate the growth and development of SMMEs; SMMEs, in their turn, continue to be a useful tool for creating employment, intensifying labour absorption and developing human resources (Bolton, 2004; McCrudden, 2004). Preferential public acquisition policies or reserved procurement strategies are, therefore, imperative in encouraging the participation of historically disadvantaged individuals (HDIs) and increasing the share of SMME participation (Morand, 2003).The historically disadvantaged individuals refer to people who were fully excluded from participating in state affairs because of their race before independence in 1994.

Internationally, SMMEs generally account for a large portion of the turnover generated by the private sector, however, their share of public contracts remains very low; in the European Union, for example, SMMEs accounted for over 65% of turnover generated by the private sector in 2003, yet their share of public contracts was less than 25% (Morand, 2003). This is because government-purchasing agencies tend to place their orders in relatively large amounts at a time thus unwittingly discriminating against SMMEs, who, without a preferencing scheme, would have to compete on an equal footing with larger firms (Morand, 2003; Watermeyer, 2003). SMMEs can participate in public-sector procurement through the allotment (or unbundling) of a heterogeneously divisible proposed contract to permit offers on quantities less than the total requirement, or subcontracting to a prime contractor (Morand, 2003). The main purpose of the PPPFA is enhancing the involvement of HDIs and SMMEs in the public tendering system process and one of the mechanisms of the 2017 Revised Preferential Procurement Regulations is the imposition, where feasible, of a 30% sub-contracting requirement on contracts to the value of R 30 million or more (National Treasury, 2017; Pilane, 2017).

According to Smallwood et al. (2011), the Department of Public Works developed a 'ten-point plan' in 1995 (published in an April 1997 *Green Paper on Public Sector Procurement Reform*) as an interim strategy to address public sector procurement challenges in South Africa (Bolton, 2004). The 'ten-point plan' contained measures to: improve of access to tendering information; simplify tender submission requirements; enhance the involvement of HDIs and SMMEs in

public procurement through the use of a preference system; the waiving of security requirements on certain construction contracts; the unbundling of large projects into smaller projects; the promotion of early payment cycles by government; the appointment of a Procurement Ombudsman and the classification of building and engineering contracts (Bolton, 2004). Preferential procurement is particularly significant to the South African construction industry due to the dual role of government as a major purchaser as well as a regulator; and the fact that the construction industry is labour-intensive with low barriers to entry (Smallwood et al 2011).

According to Bolton (2004) preferential procurement in the public construction sector has accelerated the participation of HDIs and SMMEs, however, many procurement challenges persist and remain elusive despite the strategic initiatives of the Department of Public Works, such as the 'ten-point plan'; the 'Emerging Contractor Development Programme' (set up in 1997 to deal with issue of the lack of financial support and credit facilities for emerging contractors); and the 'Contracting Entrepreneurial Training' (CET) programme (set up to address the lack of tendering and project management experience among construction SMMEs); and the use of vast construction projects to direct capital flows into underdeveloped and disadvantaged contracting. Among HDIs in South Africa the Black African population, which makes up 80% of the national population, has recorded the lowest growth in wealth out of all previously disadvantaged groups. The Indian community, which makes up 3% of the national population, has recorded the largest increase in wealth due to black economic empowerment [BEE] and preferential procurement policies. There were approximately 6,500 Indian millionaires in South Africa at the end of 2014, compared to 4,900 Black African millionaires. Furthermore, according to UNIDO (2017), BEE benefits only 15 per cent of the Black African population and the remaining 85% have no prospect of ever gaining BEE ownership deals, management posts, preferential tenders or new small businesses to run. Ambe and Badenhorst-Weiss (2012) locate the fault lines in the implementation of BEE policies in the excessive focus on transactions, among a relatively small number of individuals, that involve existing assets, rather than the local production of new ones; as well as the disproportionate emphasis on ownership and senior management issues, inadvertently leading to a prevalence of public procurement malpractices such as 'fronting' (signing up of Black people as fictitious shareholders in essentially 'White' companies), speculation and tender abuse (Bolton, 2004). The result is that the intended beneficiaries of targeted procurement are feeling increasingly bitter towards Government over issues that include a perceived lack of

quality governance, service delivery failure, fraud and corruption in some spheres of the economy, and disillusionment with empowerment policies (Ambe & Badenhorst-Weiss, 2012; Bolton, 2004).

Naude et al. (2013) argued that there are supplier-related predicaments in South African public procurement practices such as lack of experience, skills and capacity; unethical behaviour such as suppliers falsely presenting the services they render, an inability to meet delivery deadlines, and quality issues. There are also procurement challenges related to the procuring entities – such as non-compliance with national treasury policies and regulations; inadequate planning and linking of demand to the budget; lack of proper accountability; delayed payments; the incorrect use of the preference points system; lack of appropriate bid committees; inability to properly quantify demand and accurately track, control or report on expenditure; the use of unqualified suppliers; passing over of bids for incorrect reasons; as well as fraud and corruption which cost the taxpayer millions every year (Ambe & Badenhorst-Weiss, 2012). Furthermore, public-sector procurement policy precludes the building of relationships with suppliers and this may impact supply chain management negatively (Naude et al., 2013). The aim therefore is to shed more light on the challenges that construction SMMEs faced and to make appropriate recommendations to Government.

1.3 Problem Statement

Although construction SMMEs in South Africa have been contributing to economic growth through job creation, poverty alleviation, equity redress and innovation, yet they are confronted with procurement related challenges which required urgent solutions. Evidence suggests there is unacceptable high failure rates amongst SMMEs because of the diverse challenges they face (Chimucheka & Mandipaka, 2015; Urban & Naidoo, 2012). These scholars also believed that much has not been done by the government and other stakeholders to address the numerous challenges confronting the SMME sector.

Therefore, the problem may be stated as:

Despite their acknowledged contribution to national economic growth in South Africa, SMMEs experience procurement-related challenges that contribute to the high business failure rate of construction SMMEs and that include government regulations, financial challenges, human resource challenges, supply chain management challenges, quality management challenges and governance.

1.4 Aims of the Study

The broad aim of this study is to examine the procurement related challenges confronting the emerging contractors within the eThekwini Metropolitan area, in the Kwazulu-Natal province with a view to proposing recommendations to both the contractors and government on how to address those procurement related challenges.

1.5 Research Hypothesis

The hypotheses to be tested in this study are:

Research Hypothesis 1 – SMMEs face challenges in accessing procurement opportunities.

Research Hypothesis 2 – Government initiatives enhance SMME participation in public procurement.

Research Hypothesis 3 – SMMEs perceive the current system of targeted procurement in the public construction sector to be effective

Research Hypothesis 4 – The current approach to assisting SMMEs in accessing public procurement opportunities in the construction sector is appropriate

1.6 Research Objectives

The following are the research objectives of the study:

1.6.1 To identify challenges faced by SMMEs in accessing procurement opportunities.

1.6.2 To establish how government seeks to enhance SMME participation in public procurement.

1.6.3 To assess SMME perceptions of effectiveness of the current system of government targeted procurement in the public construction sector.

1.6.4 To make recommendations pertaining to the most appropriate approach to assist SMMEs in accessing public procurement opportunities in the construction sector.

1.7 Research Methodology

The aim and objectives of the research will be achieved by adopting the following research approach:

- Conducting an extensive literature review of previous studies and other issues relevant to this study.

- A mixed methods research design employing construction stakeholders' interviews and a questionnaire survey to get their perceptions on the SMMEs challenges when exploiting procurement opportunities.

- Personal interviews with a sample of senior officials from the KwaZulu-Natal Department of Public Works to validate the survey findings.

- Data gathered will be analysed using statistical analysis software such as SPSS v.25.

- Findings from the data analysis will be extracted, conclusions drawn and possible recommendations formulated.

1.8 Limitations of the Study

The study will be will be limited to procurement in the construction sector because this is a sector that the researcher has professional linkages with. The research will be conducted in KwaZulu – Natal (KZN) province, South Africa given that it is the second largest province by population, (Statistics SA, 2011). The KwaZulu-Natal province contributes 16.1% towards the national Gross Domestic Product and 4% of the construction sector (Top Business Portfolio, 2016). The study will encounter the following limitations:

- The study will be conducted over a period of twelve months from January 2018 to December 2018.

- The study will only be focused on small, micro and medium enterprises in the construction sector that have been awarded contracts by the KwaZulu-Natal Department of Public Works between 2014 and 2017.

- The personal interviews will be limited to members of the tender adjudication committees of the KwaZulu-Natal Department of Public Works.

1.9 Assumptions

It is assumed that the small, micro, and medium enterprises are facing procurement and other related challenges in the South African public construction sector. Further, it is assumed that these challenges are the result of procurement malpractices and inefficiencies on the part of procuring entities, as well as, managerial inefficiencies on the part of tenderers. It is also assumed that the legislative framework pertaining public construction procurement does not adequately address the challenges faced by construction SMMEs. It is further assumed that the data received from bid committees and contractors will be complete and accurate and that the selected participants will respond fairly and precisely.

1.10 Ethical Considerations

Ethics are defined as morals of behaviour that guide honourable choices about our behaviour and our associations with others (Cooper and Schindler, 2001). The aim of ethics in this study is to guarantee that no one is harmed by the research activities (ibid). Ethical approval was granted by the Social Science Research Ethics Committee of the University of KwaZulu-Natal, South Africa. The researcher submitted a completed ethics application form together with the research instruments and the gatekeeper's letter obtained from the DWPs to the Social Science Research Ethics Committee. A number of ethical principles were adhered to during the investigation, namely: informed consent confidentiality and anonymity. Proper research ethics were followed in this research.

In compliance with international ethical norms and standards, no sensitive data was used, including names of individuals (these were not be recorded on any recording device). This ensures that the names of respondents are not disclosed, and keeps all the data collected confidential. The respondents were not be remunerated for their participation in the study. Quality assurance was done with respect to the following aspects:

- Ensure professional conduct among interviewers;
- Ensure quality and completeness in all responses provided; special attention will be given to open-ended questions;
- Ensure data quality during data-capturing; and

- Ensure that all variables in the data analysis contain only values within the accepted range.

- The researcher ensured that the participants were aware about the nature of the study that was illustrated in the cover letter. Furthermore, the cover letter illustrated that participation to this study was voluntary and they can withdraw from participation at any time without any negative consequences.

- The discretion and privacy of the respondents was the highest priority for this research. The cover letter clearly explained that the records identifying the participants will be securely maintained throughout the study.

- All the data collected during the research using both interviews and questionnaires were handled and stored in a strictly confidential manner. In the data analysis, all the data were aggregated so that no information can be traced to a particular respondent or organisation. The coded paper questionnaire will be locked in a cupboard where only the researcher has access. The KwaZulu-Natal Department of Public Works allowed the researcher access to its dataset on the express agreement that the researcher keeps the data findings and the dataset strictly confidential. Consequently, the data findings and datasets upon which chapters 4,5 and 6 of this study are based will not be made available to any organisation or person without the prior written consent of the KZN Department of Public Works Accounting Officer.

- The researcher obtained the consent of the respondent before the research instruments were distributed. An informed consent form was attached to each of the questionnaire. The informed consent form contained important information such as the methods and procedures of investigation, the purpose of the study, the benefits to be derived from the study and information about the researcher and his supervisor.

1.11 Significance of the Study

The primary benefits of the present study are:

(a) to address the tension between efficiency and distributive arguments in public procurement; Watermeyer (2003) points out that any preferential procurement policy distorts the market, on the other hand, non-compliance with anti-discrimination laws and the Constitutional principles of Fairness, Equity, Transparency, Competitiveness and Cost-Effectiveness may give firms an unfair advantage when bidding for contracts (McCrudden, 2004);

(b) to present an empirical assessment of the procurement challenges in the public construction sector.

The findings of this study will contribute towards the improvement of SMME business support programmes in the Kwazulu-Natal province. Furthermore, this study will contribute towards reducing the unemployment rate; fraud, corruption and maladministration; and consequently, boost the South African economy.

1.12 Structure of the Study

The dissertation is comprised of six chapters as follows, namely:

Chapter 1: Introduction

This chapter provides an introductory overview of the research topic including the problem statement, the hypotheses, objectives, research methodology, limitations, assumptions, ethical considerations, and the significance of the study.

Chapter 2: Literature Review

This chapter presents the literature review relating to the theoretical concepts of preferential procurement and its relationship to Broad-Based Black Economic Empowerment and Reconstruction and Development Programme goals. An economic and legal history of the development of preferential procurement legislation in South Africa is delineated; with references made to international experience in the implementation of preferential procurement. A review of the challenges construction SMMEs face in accessing public procurement opportunities.

Chapter 3: Research Methodology

This chapter describes the research methodology and philosophical foundations whereupon the data analysis was conducted. The quantitative research paradigm and the methods of data analysis thereupon are discussed in detail.

Chapter 4: Data Analysis and Discussion of Findings

This chapter presents the results and findings of data analysis of the literature review and the questionnaire survey data.

Chapter 5: Data Analysis and Discussion of Findings

This chapter presents the results and findings of data analysis of the literature review and the questionnaire survey data and the personal interviews.

Chapter 6: Conclusions, Testing of Hypotheses, Limitations and Recommendations for Further Research

This chapter summarises the research by revisiting the core research problem described in Chapter 1. It contextualises the findings of the literature review. The chapter also summarises the key empirical findings and demonstrates the extent to which the research objectives and aims were met. The empirical findings form the basis of the drawn conclusions, and the "contribution to knowledge" is highlighted with due consideration given to the research limitations of the study. Finally, a set of recommendations are proposed as a basis for further research.

1.13 Chapter Summary

In this chapter the background to the research which forms the basis of this thesis is provided. The research problem is identified and the aim and objectives of the research stated. The relevance of the research, together with its contribution to the body of knowledge is also stated. The legal and historical context of examining the implications of Preferential Procurement Regulations is presented and the limitations of the study are identified.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The SMME sector has been touted as the engine of economic growth and development in many countries including the demographic Republic of South Africa. Research shows that the SMME sector is crucial for economic growth, job creation, poverty alleviation and reducing the levels of inequality. Despite the immense contribution of the SMME sector, it is regrettable that more than 70 percent of the SMMEs still fail in the first three years after they are established. This chapter therefore reviews scholarly literature on SMMEs from the global context focusing much attention on the SMME sector in South Africa. This chapter begins with an overview of the construction industry followed by a thorough discussion on the composition of SMMEs. The further proceeds with the discussion on the contribution of the SMMEs towards the South African economy. The chapter further reviews scholarly literature on procurement function and its role in business and continues with the discussion on the importance of public procurement. Besides, the chapter presents the discussion on a brief history of international public procurement models in the context of America, Malaysia, and South Africa. Moreover, the chapter reviews the relevant legislative framework on public procurement and proceeds further to render a full discussion on the procurement related challenges affecting SMMEs. The chapter concludes with the discussion regarding how the challenges affecting the SMMEs can be addressed.

2.2 Overview of the Construction Industry

The public sector, which comprises National, Provincial and Local Government, as well as state-owned entities, represents the largest purchaser and procurer of construction works. The construction industry's performance, therefore, is largely predicated on Government infrastructure spend – a figure reaching about R220 billion per year (PwC, 2015; cidb, 2017). According to Windapo and Cattell (2011), a major characteristic of the global construction industry is that governments have consistently been its largest client. In the 2015 budget in South Africa, for example, the Minister of Finance, Nhlanhla Nene, announced plans to spend R813.1 billion to develop the country’s transport, water and energy infrastructure, as well as the construction of 1.5 million houses as part of the Human Settlements Vision 2030 by 2019; and also replace at least 510 mud-school buildings across the country by 2023 (Pillay and Mafini, 2017). Public infrastructure spend also plays a key role in service delivery and in the development of South Africa (cidb, 2017).

The South African construction industry makes up around 5,5% of GDP, at least 50% of total National Capital Investment, and is anticipated to have reached an annual growth rate of 2.62% by the year 2020 (cidb, 2017; Pillay and Mafini, 2017). Furthermore, South Africa has significantly lower construction costs in terms of the cost of materials, labour and equipment, as well as imported fuels than G8, African Union (AU), and Brazil, Russi, India, China, South Africa (BRICS), countries. For example, the average cost of constructing office buildings internationally is $1,057/m²; in Russia it is $1,000/m²; in Kenya it is $856/m², whereas in South Africa construction cost is $741/m² as shown in Table 2) (cidb, 2017).

Table 2.1: Comparison of construction cost/m², GDP and labour costs

Country	Construction cost - $/m² (office/ Admin Building - Low)	GDP- $bn (2016)	Skilled Labour $/hr (High)	Inflation (%) 2015	Labour Productivity
BRICS					
South Africa	741	412	25,50	5,8	1,45
Brazil	592	2 830	22,50	6,4	2,25
Russia	1 000	2 395	25,00	7,5	1,75
India	678	2 400	9,00	8,5	2,40
China	502	16 500	2,00	3,2	2,30
AU Countries					
Nigeria	757	319	13,50	8,5	2,25
Ghana	377	71	12,00	10	2,25
Kenya	856	55	12,00	5,0	2,50
Morocco	423	123	14,00	2,9	2,30
Angola	367	147	11,00	7,0	2,50
Egypt	636	368	10,00	8,5	2,50
Equatorial Guinea	389	19	10,00	3,5	2,50
G8					
USA	1 716	17 960	86,54	1,2	1,00
Canada	1 688	2 150	88,50	1,8	1,15
Great Britain	1 954	2 590	65,00	1,9	1,20

Country	Construction cost - $/m² (office/ Admin Building - Low)	GDP- $bn (2016)	Skilled Labour $/hr (High)	Inflation (%) 2015	Labour Productivity
Germany	1 925	3 970	42,50	1,1	1,15
France	1 921	2 886	41,50	0,9	1,10
Japan	1 919	6 185	66,50	2,5	1,20
Australia	1 651	1 635	55,00	2,3	1,20
Average	1 057,5	3 317	32,63	4,7	1,84

Source: cidb, 2017

The construction sector in South Africa also has the comparative advantage of low labour costs and higher labour productivity when compared to AU and BRICS countries. It takes the average worker in Angola, Egypt, Equatorial Guinea and Kenya, for example, 2,500 hours to produce the same unit of work that it would take a South African worker only 1,450 hours to complete (cidb, 2017). Figure 2.1 shows the average construction labour productivity index distributed by country.

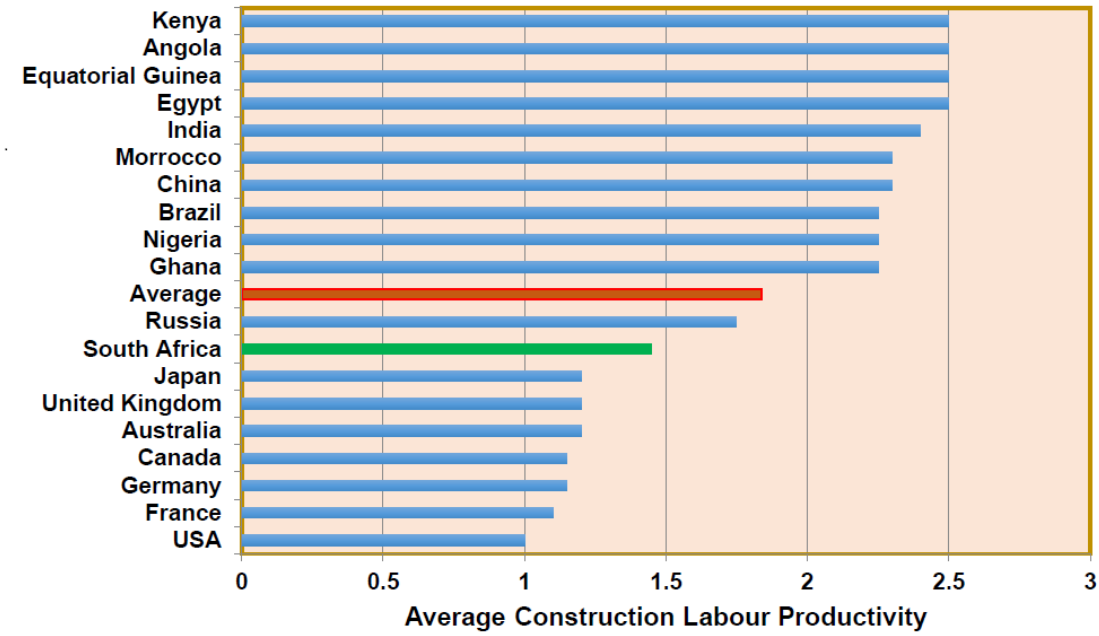

Figure 2.1: Average Construction Labour Productivity Index Distributed by Country

Source: cidb, 2017

Although South Africa has comparatively low construction costs, these have, however, increased at a higher rate than inflation recently, with estimates varying between 1% to 4,5% per year. This increase has largely been attributed to, among other factors, the depreciating Rand which depreciated by close to 30% between 2005 and 2010. A strong Rand means that contractors can pay a lower price for imported components, including petrol, diesel, imported materials and equipment; and higher prices when the Rand is weaker (cidb, 2017). Citing a study conducted by Khumalo et al. (2014), Pillay and Mafini (2017) point out that in South Africa, by the time a project is complete, the actual cost often exceeds the original contract price by 30% – while change orders result in an 8.3% cost overrun. Although the increase in construction cost may not directly affect the risk of non-completion or decrease in competitive tendering in that the quotation submitted during tendering will already include a mark-up on the cost of materials. Nevertheless, late payments, of up to 90 days after the submission of an invoice, often lead to cash flow problems, extension of time, financial stress, litigation, and contractors having difficulties executing projects (cidb, 2017). Most contractors are not equipped to deal with cost escalations and may buckle under the pressure this place on their sustainability (Ibid). There is also the scarcity of financial capital, intellectual capital, technological capital, and skilled manpower (the shortage of which leads to an overdependence

on unskilled labour) compromising the quality of outputs in the construction sector; a sector with major inputs in the South African economy, but whose outputs portray a pessimistic picture (Pillay & Mafini, 2017). In the first and second quarter of 2017, the construction industry experienced a technical recession and contracted by 0,8%, and then 0,5%, shedding about 1, 395, 000 of the 1, 483, 000 jobs created in the previous year even after seeing a total spend of about R420 billion in construction works (Construction Monitor, 2017).

2.3 The Composition of SMMEs

Various observers have placed different weights on the number and impact of SMMEs in South Africa. The BER (2016) estimates that as much as 2.25million SMMEs are operating in South Africa while the National Credit Regulator (2011) puts the estimate between 2.4 and 6 million SMMEs. Modiba (2010:2) on the other hand estimates that "proportion of South African businesses that are SMMEs has been variously placed at 91 percent, 93 percent, 95 percent, and between 80 and 99 percent". The proportion of SMMEs that are informal is variously placed at "*half"* or "*the vast majority"* depending on the sector (NCR, 2011:9; Jeppesen, 2005:472). According to NCR (2011:66), "no official data repository exists, and reliable statistics are rather difficult to compile, therefore, a fixation on fixed figures is unfeasible, especially in a macro-environment where informality enjoys a high prevalence, both at the sectorial level and within the wider economy".

Jeppesen (2005) argues that the informal SMMEs only focused much attention on the lowest end of the survivalist, pre-entrepreneurial section of the micro-enterprise sector. Proportions vary on a sectorial basis: the distribution between formal and informal SMMEs in the built environment for example, is 24.2% and 75.8%, respectively, compared to the services sector (where most SMMEs operate), where the ratio between formal and informal SMMEs is placed at 19.8% and 80.2%, respectively (BER, 2016). Table 2.2 shows the differences between formal and informal SMMEs.

Table 2.2 The difference between formal and informal SMMEs

Informal SMMEs	**Formal SMMEs**
Employ less than ten people	Employ 0-50 people
No formal contracts with employees	Have formal contracts with employees
Do not pay taxes	Pay taxes
Are not registered with any authority	Are registered with relevant authorities
Use one account for business and personal finances	Have a business account that is separate from personal funds
No growth ambitions for the business	They envision growth of the business
No business address or contact details	Have a business address and contact details

Sources: Macqueen (2005: 2); SA (1995:8)

2.4 Contribution SMMEs to the Economy

According to the Bureau of Economic Research (2016:31) "SMMEs contributed 42% to the South African GDP in the first quarter of 2015, a significant increase from 34.58% in 2012, and 28% in 2005". Using employment figures, Nkonde (2012) posits that the employment rate, which was about 60% in the first quarter of 2015 is the most significant contribution of the SMME sector to the South African economy. On the other hand, the NCR (2011) while citing the White Paper on National Strategy for the Development and Promotion of Small Business in South Africa (1995) highlighted significance of SMME sector as the agent of job creation, economic growth and equity in South Africa (NCR, 2011).

There is general unanimity among several authors "regarding the role of SMMEs as agencies of employment, as redistributors of productive assets amongst the previously disadvantaged, and as a panacea to development problems. Their capacity to absorb retrenched and unused labour, especially in a developing economy with low employment, and thus mitigate labour insecurities, has attracted the attention of many state agencies and policymakers" (Sitharam & Hoque, 2016:1).

A study by Abor and Quartey (2010) reveals that SMMEs sector represent 97.5% of formalised businesses. The authors argued that SMME sector in South Africa has created approximately 61% to employment. Kongolo (2010) also confirms that the SMMEs sector in South Africa has accounts for almost 91% of businesses and contributes 60% towards the country's employment. A report released by Statistics South Africa (2013) also showed that SMMEs is a vital tool in the creation of sustainable jobs. Statistics South Africa (2013) has estimated that SMMEs provides more than 61% of employment in South Africa.

Adelzadeh (2006) alleges that poverty is a nationwide issue in South Africa. To justify this assertion, Adelzadeh (2006) points out that almost half of the population in South Africa continues to live under a poverty datum line. It was estimated that over twenty two million people in South Africa live in poverty (Development Bank of Southern Africa [DBSA], 2005). However, Chimucheka and Mandipaka (2015) postulated that the SMME sector in South Africa has been playing a critical role in alleviating poverty in the country. This finding underscores the relevance of the previous study conducted by Nieman, Hough and Nieuwenhuizen (2003).

Bartel and Martin (1990, p.775) contend that a major reason why SMMEs has been receiving increased attention from both scholars and the public press is the growing recognition of the substantial economic and social contributions it brings. Fatoki and Smit (2011) in their discovered that SMMEs sector acts as an agent of ensuring equity in South Africa, through the employment of previous disadvantaged persons.

2.5 Procurement Function and its Role in Business

According to McCue, Buffington and Howell (2007), procurement activities comprise of purchasing, leasing and hiring or any related approach of acquiring necessary supplies and services. It also includes other functions which relate to solicitation and selection of supply sources, acquisition process and award and preparation of contracts at all supplier contract administration stages. Furthermore, it has been described as the combination of purchasing, transportation, inventory control, store keeping, inspection and salvage and disposal operations (Hanks, Davies & Perera 2008). According to Hypo Group Alpe-Adria (2010), purchasing is related to the selecting suitable suppliers who meet the required standards, supplier sourcing, negotiating contracts and payment methods, sourcing cost-effective transport from source of importation and reporting to the procurement board all the transactions entered to and contracts

signed. The procurement function or purchasing is regarded as very important in many manufacturing concerns and in most cases accounts for over 60% of an organisation's total expenditure (Perry 2009). However, to achieve the firm's objectives, purchasing objectives should not be in conflict with the overall firm's objectives.

Of late, there has been a change in managing procurement activities as evidenced by new literature on Supply Chain Management [SCM] (Brown, Bessant and Lamming 2013; Mehra and Inman 2004). Arora (2014) argues that the personnel responsible for procurement now face new challenges and as a result, there is need for new practices as the current ones are outdated since they focus primarily on business cost advances rather than strategic-oriented philosophy of competitiveness. It was then vital for the management to acknowledge that there were weaknesses in the procurement process and make the necessary adjustments to ensure they are in line with the dynamic and ever changing global socio-economic environment. According to Handfield (2011), the main function of procurement professional is to meet the firm's procurement objectives which subsequently allow the firm to achieve its success and objectives. Handfield (2011) further argues that the broader procurement objectives in an organisation include the following:

- "Supporting operational requirements"
- "Sustaining the organisational purpose"
- "Managing the procurement process and supplier base effectively and efficiently"
- "Developing strong relationships with other functional groups"

According to Handfield (2011), this requires personnel responsible for purchasing to understand the business environment in which they will be buying the goods and services. This boils down to the following five 'rights' when it comes to purchasing:

1) buying the right specifications that meet user requirements of the internal customers;
2) buying at the right time;
3) buying in the right quantities;

4) buying from the right source;

5) buying at the right price.

Some of the internal customers include manufacturing; transportation; information and technology; research and development; engineering and technical groups – as well as physical distribution centres. Handfield (2011) also list what he terms as purchasing strategies that ultimately helps to achieve the firms' objectives. These involve:

- Monitoring supply trends in the market specifically for supplier changes, supply shortages, and material prices.
- Assessing how these changes affect the company strategy.
- Identifying requisite materials and services required to support the organisation's global and diverse supply base through the identification of key performance areas especially when developing a new product.

2.6 Importance of Public Procurement

Public procurement – a concept which has been variously referred to as procurement planning, contract placement and contract administration – differs in the construction sector from the procurement of goods and services. A typical construction project would also include within it the procurement of good and services, as well as supply contracts for the purchase of materials and equipment; and contracts for the disposal of surplus materials and demolitions, during the performance of the contract (Ambe & Badenhorst-Weiss, 2012; Letchmiah 2012). Even as the policy of preferential procurement, which Watermeyer (2003) has defined as the promotion of policies additional to those of the immediate objective of procurement itself, has successfully opened up, and increased the market share of SMMEs within the construction industry to where they make up at least 78% of construction firms, it is still, however, an industry proliferated by specialised, underperforming SMMEs (where three out of five fail to become established). According to the Construction Industry Development Board (2017), construction procurement provides about 1.4 million jobs in the construction sector; a sector which broadly accounts for about 34.2% of total small business employment, making it the second largest employer among SMMEs (Adediran & Windapo, 2016). However, most of the high value contracts in the construction sector are large-scale projects requiring larger, financially solvent firms with a

high level of management and technical capability, typically found among contractors with cidb grades between 7 and 9 (Pillay & Mafini, 2017; Adediran & Windapo, 2016; Windapo & Cattell, 2011). As Pillay and Mafini (2017) point out, there is asymmetry between the policy imperatives of preferential procurement and the composition of contracting firms because Government infrastructure spend is targeted at large-scale projects which often cannot be sub-divided and require large construction firms, yet the industry is dominated by small and medium enterprises. According Windapo and Cattell (2011) this is because a rather low level of capital is required to start and operate a contracting firm, hence, the industry's attraction for entrepreneurs without adequate technical training, capacity nor business culture.

The highly unpredictable industry of public construction makes it difficult to operate viably as seen by the number of firms that close down (Ngassam, 2009). The cyclical and project based nature of construction work makes it possible that sometimes there are long periods of inactivity between projects. Ntuli and Allopi (2013) highlight some of the endogenous and exogenous variables that contribute to the challenges facing emerging contractors which result in their inability to complete their projects, eventually leading to insolvency and business closure. Some of the commonest factors include but not limited to: over-capacitated markets due to low entry requirements, competitive tendering as a means of pricing, the necessity to price products before they are produced, unpredictable weather, uncertain weather conditions, uncertain ground conditions, limited access to information, limited management skills, workflow problems, complex regulations and lack of access to finance. These are compounded by high unemployment, high inflation and a highly volatile operating environment (Sitharam & Hoque, 2016; Nkonde, 2012).

2.7 A Brief History of International Public Procurement Models

Public sector procurement, a system that controls the business functions of Government and leverages them in enforcing the social functions of Government, has evolved and adapted to different socio-political contexts in different countries throughout history (Raga & Taylor, 2010; Letchmiah, 2012). These have most often taken the form of reservations, bid price preferences, or set-aside schemes (where contracts or parts of contracts are set-aside for targeted groups), among other government interventions (Adediran & Windapo, 2016; Anthony, 2013; Letchmiah, 2012). In Singapore and Botswana, for example, bid price preferences were offered to local construction firms and joint ventures; in Malaysia, the United States and Indonesia and South Africa, however, set-asides — where construction firms may

be required to set aside a percentage of their payroll for the employment of disabled people, for example, and be awarded a fixed number of points during tender evaluation – have been the preferred prescriptive instrument for those governments to attain their social objectives (Adediran & Windapo, 2016; Letchmiah, 2012). Table 2.3 summarises the types of procurement interventions available to governments.

Table 2.3: Types of Public Procurement Interventions

Scheme Type	Methods	Action Associated with the Method
Reservation	Set asides	Only some specific enterprises with certain common features are allowed to compete for projects reserved exclusively for their execution.
	Qualification Criteria	Certain firms that do not meet the specified requirements and / or norms are excluded from participating in the contracts.
	Contractual Conditions	Some policy objectives provide some specific contractual obligations; for example that a certain percentage of the work need to be subcontracted to firms that have some specific and exact specifications.
	Offering back	Gives opportunity to some group of tenderers that satisfy some policy objectives, the option to undertake part or the whole project provided that they match the quality and price of the best tender received
Preferencing	Preferencing at the shortlisting stage	While observing the need for variables like quality, this potion limits the number of service providers / suppliers who are invited based on their qualification.
	Award criteria (tender evaluation)	Gives a weighting to policy objectives based on criteria like quality and price at the awarding stage.
Indirect Interventions	Product/service Specification	States the necessity of a certain service specification of product e.g. the use of manual labour during the construction process.
	Design of specifications, contract conditions and procurement processes to benefit particular contractors	Contract terms and / or design specifications to enable the participation of a certain targeted group of suppliers

Scheme Type	Methods	Action Associated with the Method
Supply Side Interventions	General assistance	Support is provided to specific groups without necessarily giving the preferential treatment in the actual procurement

Source: Watermeyer (2003)

According to Smallwood (2011), the concept of preferential procurement had its formal introduction to South Africa in 1998. Other types of public procurement contractual arrangements, on which the concept has its basis, had been in existence elsewhere in the world, particularly, France, the United States and England, at least since the nineteenth century. Letchmiah (2012) and McCrudden (2004) provide the historical example of US President Martin van Buren's issuance of an Executive Order in 1840 (establishing the 10-hour working day for those working under certain government contracts) as one of the earliest instances of a public procurement contractual arrangement where social objectives were included as a condition for the performance of a contract. History provides us with other examples in the nineteenth century: the 1891 resolution on fair wages passed by the House of Commons in the United Kingdom, for example, which stipulated that workers employed by private contractors ought to be paid generally accepted wages during the performance of a government contract. The twentieth century contains many more examples of this policy instrument and its evolution and spread to other parts of the world (McCrudden, 2004). As McCrudden (2004) points out, public procurement was the choice instrument for furthering the 19th and 20th century's most important social policies.

South Africa borrowed its procurement policies, albeit indirectly, from North America (the United States and Canada) -- as most other countries did in the 19thand 20th centuries (Letchmiah, 2012; McCrudden, 2004). However, South Africa's preferential procurement policies are the lineal descendants of Malaysia's. New Economic Policy [NEP]. As Smallwood et al. (2011) and Letchmiah (2012) have documented, South Africa formally initiated its procurement policies in 1998 following a series of study trips to Malaysia by the Procurement Reform Task Team. The specific procurement contractual arrangements adopted which later became known as 'targeted procurement' or 'affirmative procurement' had been in development since 1995. These policy innovations were modelled after the North American experience where public procurement – specifically, Affirmative Action [AA] – was used to

disincentives racial discrimination against African-Americans; and also, the Canadian experience where public procurement was used to address the unjust treatment of aboriginal Canadians. South Africa's targeted procurement' policies were, however, more directly modelled after the Malaysian experience where a comprehensive system of affirmative action policies known as the New Economic Policy were enacted to redistribute wealth and eradicate poverty among "the politically dominant, but economically weak Bumiputera majority (Letchmiah, 2012). It was the successes of the NEP, particularly in countering the effects of past discrimination against an ethnic majority, and the resemblance between the South African and Malaysian political demography, that prompted South Africa's Procurement Reform Task Team to base its recommendations on procurement reform on the Malaysian experience (Letchmiah, 2012).

The Malaysian experience in adapting and implementing US-initiated affirmative action differs from that of India and Sri Lanka, and Canada as well as parts of Southern Africa--the Canadians put their procurement measures in place in 1996, after South Africa had begun developing its procurement reform policies; and Southern African countries such as Namibia and Botswana based their policies on the South African experience (Letchmiah, 2012). While examples of developing, and developed countries alike, linking public procurement to societal reforms are aplenty (these include: Botswana, Brazil, Canada, India, Malaysia, Namibia, Nigeria, Northern Ireland, Philippines, Spain, Sri Lanka, Singapore, Thailand, South Africa, the United Kingdom and the United States), South Africa's particular model is based on Malaysia. Successively, Malaysia's model, the NEP, was, according to Letchmiah (2012), "essentially an affirmative action programme necessitated by the pressing problems of economic inequality between races" based on American anti-discrimination legislation (Letchmiah, 2012; McCrudden, 2004). According to McCrudden (2004), most jurisdictions limited their adoption of US policies to anti-discrimination legislation; South Africa, the United Kingdom (and the post-colonial Commonwealth), Northern Ireland and Malaysia are examples of the few jurisdictions that went further and adopted the affirmative action model of the United States (Letchmiah, 2012; McCrudden, 2004). Furthermore, Malaysia provided a successful comparative case that could be justifiably emulated in South Africa since affirmative action had targeted the majority indigenous Malaysian population rather than the minority Chinese and Indian expatriates (Letchmiah, 2012; McCrudden, 2004).

2.7.1 The American Model

The purpose of the American model in this study is that South Africa shares a common philosophy with American on anti-discrimination. The United States introduced procurement preference schemes in the 1930s during the Great Depression and later on after the Second World War beginning with the Davis-Bacon Act of 1931 which required contractors to pay fair wages on construction projects; followed by US President Roosevelt's "Executive Order Programmes" of the early 1940's which were a pre-cursor to the affirmative action policies of the Civil Rights era in the 1960s in that they sought to ensure that contractors did not discriminate against African-Americans in their business or hiring practices (McCrudden, 2004; Watermeyer, 2003). These schemes, variously referred to as set-asides or reserved procurement strategies or supply side schemes were designed to encourage market participation of ethnic-minority business enterprises in government contracts (Watermeyer, 2003). South Africa's Reconstruction and Development Programme (RDP) policies in 1995, after the official discontinuation of Apartheid, merits some comparison with President Roosevelt's New Deal policies designed to pull the US out of the Great Depression, and the Marshall Plan aimed at rebuilding Europe after the Second World War (Letchmiah, 2012).

The 1960s was a period of experimentation and innovation with "affirmative action" programmes in the United States, where the term itself was coined, beginning with US President Kennedy's signing of "Executive Order 10925" into law in March 1961. The order required that contractors doing business with the government "take affirmative action to ensure" that their employees are treated "without regard to their race, creed, colour, or national origin" during their employment. The order, as well as subsequent Executive Orders from successive US Presidents, did not only prohibit discrimination but went further and imposed a wide spectrum of proactive measures upon contractors to ensure that Black job applicants were employed and treated equally. Initially, affirmative action was a set of anti-discrimination laws targeted at African-Americans, codified in the Civil Rights Act of 1964, but it was later extended to ensure that women would benefit from government contracts, as well as other minority groups, particularly through the establishment of the quota system in the 1970's (Letchmiah, 2012). According to McCrudden (2004) the influence of the United States civil rights movement was not confined to agitating against discrimination alone but extended to importing of some of the civil rights movement's legal strategies by other countries, such as the United Kingdom and other Commonwealth countries, and adapting the anti-discrimination

legislation that was won by African-Americans to their own socio-political context (Letchmiah, 2012).

2.7.2 The Malaysian Model

In 1995, the Ministry of Finance and the Department of Public Works which is the primary vehicle for implementing preferential procurement in South Africa jointly established the Public-Sector Procurement Reform Task Team, which then began to investigate international models of preferential procurement that South Africa could emulate. The Procurement Reform Task Team settled upon Malaysia as the leading comparative model (Shakantu & Kajimo-Shakantu, 2007; Raga &Taylor, 2010; Letchmiah, 2012). This is the reason South Africa's Preferential Procurement Policy, introduced a year later in 1996 to create an enabling environment for the private sector, so closely mirrors Malaysia's NEP: a set of affirmative action policies promulgated in 1971, designed to benefit the economically weak Malay majority. Since its inception in the 1970's the NEP aimed to achieve wealth redistribution and poverty reduction through exclusive set-asides — where 30% of annual value of government contracts is set aside – for contractors from the Malay majority, the Bumiputras, and other indigenous groups, and thus achieve 30% ownership and management of all commercial and industrial activity within 20 years (Letchmiah, 2012; Morand, 2003).

However, the South African model, as well as the South African context, differed markedly from its Malaysian counterpart. According to Letchmiah (2012) the Malaysian model provided set-asides for the Bumiputra ethnic majority, with a 20-year time limit, during a period of economic growth so no Malaysian national was adversely disadvantaged, and with the co-operation of the non-targeted groups. The South African model promoted the participation of historically-disadvantaged individuals (HDIs) without excluding non-targeted enterprises from tendering, that is, it made the tendering process available to HDIs without guaranteeing work but was, nevertheless, met with resistance due to South Africa's history of racial hostilities and a weaker economy (Letchmiah, 2012; Raga &Taylor, 2010). Some researchers have suggested that, perhaps, a ‘sunset clause’ or a time limit should be included in South Africa’s procurement policy, with measurable milestones along the way, so that targeted groups are not protected indefinitely beyond a point where they do not need.

2.7.3 The South African Model

South Africa has borrowed liberally from the public procurement contractual arrangements of other international jurisdictions including Canada's use of public works, financed through government contracting, to address its mistreatment of the aboriginals; Malaysia's use of government procurement to address ethnic inequality; and the United States' use of affirmative action to address discrimination against African-Americans (Letchmiah, 2012; McCrudden, 2004). The first experiment with preferential procurement policies in South Africa since the establishment of the Public-Sector Procurement Reform Task Team was the Malmesbury prison infrastructure project in the Western Cape in 1996. This project channelled 30% of the total contract value into the local community of Malmesbury; and proved to be more effective than other construction-based poverty alleviation programmes in the community. This innovative approach was actually developed by the Procurement Reform Task Team and has been labelled Affirmative Procurement, or Targeted Procurement (the preferred term in the construction industry) (Anthony, 2013; Letchmiah, 2012). According to Bolton (2004), the use of affirmative procurement in the construction industry has helped increase the participation of historically disadvantaged enterprises, contributing to the greater formalisation of this target group, and its integration into supply chains in the construction sector (Pillay & Mafini, 2017; Adediran & Windapo, 2016; Letchmiah, 2012).

The most frequently used Targeted Procurement strategies in the construction industry include:

- Unbundling – enforcing the use of multiple contractors in construction procurement; or, the allotment of a heterogeneously divisible contract to allow the participation of many small businesses in the performance of the contract (which has come under criticism for giving the appearance, but not the reality, of competition);

- Subcontracting – also referred to as structured outsourcing, subcontracting allows small businesses or emerging contractors to partake of the multiple down-stream business opportunities that flow from the prime contractor at the top of the supply chain;

- Preferencing – where preferential or discriminatory selection rules are put in place, detailing the categories of preference in the allocation of contracts, so that persons

or businesses disadvantaged by unfair discrimination in the past do not have to compete on an equal basis with firms or persons that have enjoyed unfair advantages in the past;

- Third Party Management –large firms, contractors and consultants are required to mentor emerging contractors and / or SMEs in the execution of their contracts as prime contractors and they also expected to monitor the progress of their work. Additionally, they are required to provide construction management support to the emerging contractors.

- Incentives for Key Performance Indicators – where a specified target (key performance indicator) has been set, contractors who achieve the KPIs are awarded incentive payments (Adediran & Windapo, 2016; Ambe & Badenhorst-Weiss, 2012; Letchmiah, 2012; Morand, 2003; Ashenfelter *et al* 1997).

Furthermore, Adediran and Windapo (2016) have identified the use of Targeted Procurement strategies in the construction industry as having a direct influence on the growth performance of emerging contractors (historically disadvantaged SMMEs); which is predicated on their increased participation in tendering processes and winning of government contracts; mediated by their level of integration in the supply chain, or their linkages with historically empowered firms (Pillay & Mafini, 2017). Prior to the promulgation of the Affirmative Procurement Policy in 1996, the market share of Black-owned businesses across all sectors in South African society had been a dismal 2.5% in 1995, and less than 0.5% in 1993; this was due to historical socio-economic constraints that unrestrained market forces and the private sector alone could not resolve. In 1996, however, public sector procurement constituted 13% of South Africa's GDP (Letchmiah, 2012).

2.8 The Legislative Framework for Public Sector Construction Procurement

Reforms of South Africa's public-sector procurement policy commenced in 1996, with the publication of the Department of Public Works' "Interim Ten Point Plan on Procurement" in *The Green Paper on Public Sector Reform in South Africa* (Government Gazette No. 17928, 14 April 1997:50) (Smallwood et al., 2011; Raga & Taylor, 2010;). The 10-Point Plan proposed interventions to simplify the tendering process; unbundle larger contracts into smaller lots; create employment opportunities; and other interim strategies to help increase the participation

of small businesses in public sector procurement (Raga and Taylor, 2010). Table 2.4 outlines the ten interim strategies contained in the 10-Point Plan.

Table 2.4: 10 Point Plan – Interim Strategies

1.	Improving access to tendering information	The Tender Board will disseminate tendering and similar information and will ensure that information is accessible to an organisation or business in a simplified and uncomplicated format.
2.	The development of tender advice centres	Tender Advice Centres (TAC's) in specific areas throughout the country will ensure that tenderers get all the information and assistance they need.
3.	Broadening the participation base for contracts less than R7,500,00	The Provincial Tender Board reviews the existing supplier database so that emerging SMMEs can be included.
4.	The waiving of security /sureties on construction contracts having a value of less than R100,000	The need for surety when accessing loans for contractors is waivered as the need for security is included in the terms of the loan.
5.	The unbundling of large projects into smaller contracts	There is a stipulation that goods and services should be obtained in the smallest possible quantities (without compromising on quality / time and cost considerations) to ensure that all players are able to provide them to the level their capacity allows.
6.	The promotion of early payment cycles by government	30 days is the enforced maximum time for payment. Payment to suppliers should be made with minimum delay wherever possible.
7.	The development of a preferencing system for small and medium enterprises owned by historically disadvantaged individuals.	To remove unfair discrimination within the SMME sector, a price preference system was put in place. This applies to all contracts below R2million.
8.	The simplification of tender submission requirements	TACs are now dealing with the tender submission documents which are yet to materialize which were supposed to be simplified and rationalized to make it easier for small businesses

9.	The appointment of a procurement ombudsman	There has been a proposal from the Provincial Tender Board that there should be a procurement ombudsmen / procurement protector working together with the Provincial Tender Board and the TACs to ensure that tenderers get all the relevant information they need
10.	The classification of building and engineering contracts	To put in place processes to establish, promote and regulate and environment that ensures and enables SMME's involvement to be meaningful and effective.

Adapted from: Letchmiah (2012); Raga and Taylor (2010)

The 10-Point Plan is one among many key policies that have influenced the legislative framework of public procurement over the years. Table 2.5 outlines the chronological development of key procurement policies and legislation that have influenced the public-sector procurement environment in South Africa.

Table 2.5: Chronological development of key procurement policies and legislation

Date	Policy or Legislation	Impact on Preferential Procurement
1968	State Tender Board Act of 1968, (Act N°66 of 1968, as amended)	The Act was promulgated to allow the procurement process at the national level to be regulated through the establishment of the State Tender Board
1994	Provincial Tender Board Acts, e.g. Gauteng Provincial Tender Board (Act N°.2 of 1994)	The interim and current Constitution established nine provinces. The Act was introduced to ensure a transparent procurement process in the provinces and was formulated in line with the State Tender Board Act of 1994 (Act No. 86 of 1968, as amended)
Novemb er 1995	Public Sector Procurement Reform in South Africa, Interim Strategies (a 10-Point Plan)	Interim strategies were introduced to encourage and increase the participation of previously disadvantaged enterprises. It was only applicable for use within the state procurement legislation, i.e. applicable within the ambits of the State Tender Board Act (Act No. 86 of 1968, as amended), and as a guiding framework for the provinces (i.e. not enforceable)

Date	Policy or Legislation	Impact on Preferential Procurement
February 1996	Constitution of the Republic of South Africa (Act N°108 of 1996)	The Constitution provides that the procurement process must be fair, equitable, transparent, competitive and cost effective and that, in addition, national legislation must prescribe a preferential policy framework. The Interim Constitution of RSA (Act No. 200 of 1993) did not cater for preferencing. The final Constitution was therefore influenced by the 10-Point Plan
February 1999	Public Finance Management Act (Act N°1 of 1999, as amended by Act No. 29 of 1999)	The Act promotes good financial management at national and provincial levels. It requires accounting officers to have a procurement system that is fair, equitable, transparent, competitive and cost-effective, as required by the Constitution. It also mandates the National Treasury to issue procurement regulations as and when necessary. The Municipal Finance Management Act (MFMA) applies to local government.
February 2000	Preferential Procurement Framework Act (Act N°5 of 2000)	The Act gives effect to Section 217(2) of the Constitution to provide a framework for preferencing. Regulations to this effect were issued in August 2001 and subsequently changed in December 2011
January 2004	Broad-based Black. Economic Empowerment Act (Act N°53 of 2003)	The Act provides a legislative framework for the promotion of Black economic empowerment. It also enables the Minister of Trade and Industry to issue codes of good practice and to publish transformation charters and, in addition, to establish the Black Economic Empowerment Advisory Council

Source: Letchmiah (2012)

No single piece of legislation exists in South Africa that seamlessly applies to all aspects of public procurement. Rather, there are several Acts and pieces of legislation that regulate procurement practices (Sewpersadh & Mubangizi, 2017). A discussion of some of these legislation like the; Constitution of the Republic of South Africa; The Preferential Procurement Policy Framework Act; The Public Finance Management Act and the Broad based Black Economic Empowerment Act are discussed below. The legislative foundation of the post-Apartheid government's transformational imperatives is Section 217 of the Constitution, which mandates that national legislation be enacted to provide a framework within which to implement preferential procurement policies; this national legislation is The Preferential

Procurement Policy Framework (PPPFA) (Act 5 of 2000) and the Preferential Procurement Policy Framework Act Regulations of 2001, under the custodianship of the Department of Treasury. This legislative framework has produced a slew of interrelated statutes, regulations and directives such as the BBBEE Act which complements the PPPFA Act; and the Public Finance Management Act (PFMA) (Act No 1 of 1999) and Municipal Financial Management Act (MFMA) (Act No 56 of 2003) which have procurement reform processes embedded within them. Since — as the Supreme Court of Appeal (SCA) holds — the solicitation, evaluation and award of government tenders constitute administrative action, the procurement procedures of organs of state as defined in the PPPFA, and state-owned enterprises, are, therefore, subject to the Promotion of Administrative Justice Act (PAJA) (Act No 3 of 2000), which provides for procedural and substantive fairness in administrative action (Anthony, 2013; Smallwood et al 2011; Bolton, 2010). Sewpersadh and Mubangizi (2017) clarify that procedural fairness is largely concerned with adherence to procedure and rules, while substantive fairness is concerned with the reasons behind a decision; and that, government's fiduciary duty to the public and to competing bidders in its decisions during the procurement process, require both procedural and substantive fairness.

The Prevention and Combating of Corrupt Activities Act (PCCA) (Act 12 of 2004) — the main anti-corruption statute in South Africa — also finds application in public-sector procurement through the establishment of a national Register of tender defaulters in the Office of the National Treasury; and through placing an obligation on organs of state to report corrupt activities relating to the procuring and withdrawal of tenders (Sewpersadh & Mubangizi, 2017; Letchmiah, 2012).

Table 6 provides a summary of the key Acts that affect public procurement and gives a brief explanation of their functions.

Table 2.6: Primary Acts that regulate procurement

Act	What it does in respect of procurement
Public Finance Management Act 1 of 1999	Provides a regulatory framework for all government owned and government related organisations and enterprises.
Municipal Finance Management Act (Act 56 of 2003)	Provides a procurement regulatory framework for municipalities and municipal entities.
Promotion of Administrative Justice Act 3 of 2000	The Act allows for some remedial action for those likely to have been affected by some unfair administrative actions and decisions taken / made without good cause. Additionally, the Act provides a judicial review of the unfair administrative actions described above. Some of the remedial measures might include ordering the administrator to pay compensation, setting aside the administrative action as well as prohibiting the administrator in acting in a particular manner.
The Promotion of Equality and the Prevention of Unfair Discrimination Act 4 of 2000	Prohibits the state or any person from discriminating unfairly against any person on the grounds of race or gender through the denial of access to contractual opportunities for rendering services or by failing to take steps to reasonably accommodate the needs of such persons.
Preferential Procurement Policy Framework Act 5 of 2000	Provides the environment under which preferential treatment policies are implemented.
Construction Industry Development Board Act 38 of 2000	The Act establishes the Board, outlines its mandate in terms of documentation, standardisation and government procurement policy. Additionally, the Act also mandates the board to (a) keep a register of national contractors (b) track projects of a certain value and assess the satisfaction of their completion and (c) establish best practices through the establishment of a Code of Conduct.
Broad-based Black Economic Empowerment Act 53 of 2003	The Act overseas the development of qualification criteria for specific service providers and contractors and he development and execution of a preferential procurement policy".

Act	What it does in respect of procurement
Local government: Municipal Finance Management Act 56 of 2003	Establishes a regulatory framework for procurement within municipalities and municipal entities".
Prevention and Combating of Corrupt Activities Act 12 of 2004	The Act (a) establishes a register of individual and enterprises of those who were accused of corrupt practices in terms of public procurement (b) makes corruption and related activities an offence; and (c) requires certain personalities in position of authority to report certain corrupt transactions.

Adapted from: Ambe and Badenhorst-Weiss (2012); Smallwood et al. (2011)

In addition to existing legislation, there is a plethora of different laws that pertain, albeit indirectly, to public procurement in South Africa (Sewpersadh & Mubangizi, 2017). There are the National Small Business Act (No 102 of 1996), the National Small Business Amendment Act (No 26 of 2003), the White Paper on *National Strategy for the Development and Promotion of Small Business in South Africa* (Notice 213 of 1995), the B-BBEE Act, as well as the Competition Act among others, which are all meant to promote greater economic participation for small businesses (Balkaran, 2017). There are labour laws such as the Labour Relations Act (No 66 of 1995), the Basic Condition of Employment Act (No 75 of 1997), the Employment Equity Act (No 55 of 1998) and the Occupational Health and Safety Act (No 85 of 1996) — the non-observance of which would inevitably lead to unfair competitive advantages in the tendering process (Bolton, 2004). PwC (2007) observes that the failure to comply with stipulates laws constitute the single largest risk for prohibitions and penalties as well as other related punitive measures. In 2003, then Department of Labour's Communication Chief, Snuki Zikalala, stated that companies failing to comply with employment equity legislation risked being disqualified from government tenders (Bolton, 2004).

2.8.1 The Constitution

The Constitution of the Republic of South Africa of 1996 as amended — described by Balkaran (2017) as the perfect brochure of the nation South Africa aspires to be — is the principal and overarching piece of legislation regulating public procurement in South Africa (Balkaran, 2017; UNIDO, 2017). Government contracting is granted constitutional status in South Africa,

primarily, as a proviso for the development of a fair, equitable, transparent, competitive and cost-effective procurement system; and, secondarily, as a means to use public sector procurement to correct discriminatory Apartheid policies that conferred unfair competitive advantages on certain persons or categories of persons (Ambe & Badehorst-Weiss, 2012; Raga & Taylor, 2010). Section 217(1) of the Constitution is concerned with the 'good governance' aspects of procurement — consistent with international norms and standards — in determining that: when an organ of State in the national, provincial or local sphere of government, or any other institution identified in national legislation, contracts for goods or services, it must do so in accordance with a system which is fair, equitable, transparent, competitive and cost-effective' (RSA, 1996).

As Sewpersadh and Mubangizi (2017) point out, the Apartheid era procurement system favoured larger and better-established firms and disfavoured SMMEs, particularly, those owned and controlled by previously disadvantaged persons, and was, thus, unfair, inequitable, opaque, and anti-competitive. Section 217(2) establishes South Africa's preferential procurement policy, it provides that subsection (1) "does not prevent the organs of State or institutions referred to in that sub-section from implementing a procurement policy providing for (a) categories of preference in the allocation of contracts; and (b) the protection or advancement of persons, or categories of persons, disadvantaged by unfair discrimination." Section 217(3) further places a duty on the government to enact national legislation to "prescribe a framework within which the policy referred to in subsection (2) must be implemented" (Sewpersadh & Mubangizi, 2017; Raga & Taylor, 2010; Bolton, 2004; Watermeyer, 2003).

2.8.2 Preferential Procurement Policy Framework Act

The main purpose of the Preferential Procurement Policy Framework Act is to provide the necessary framework for the implementation of the preferential procurement policies contemplated in sub-sections 217(2) and (3) of the Constitution (Pilane, 2017). Sections 2(1)(a) and (b) of the Procurement Act seek to enhance the participation of HDIs and SMMEs in the public sector procurement process by introducing a preference point system to be used in the evaluation and awarding of tenders; 80 or 90 points (depending on the financial value of the contract) must be awarded for price only, and the remaining 10 or 20 to be allocated for preference or "specific goals" – so long as "any specific goal for which a point may be awarded" is clearly specified in the invitation to submit a tender (Sewpersadh & Mubangizi,

2017; Letchmiah, 2012; Anthony, 2012; Bolton, 2004). Section 2(1)(d) of the Act defines these "specific goals" as (i) contracting with persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of race, gender or disability; (ii) implementing the programmes of the Reconstruction and Development Programme as published in Government Gazette No. 16085 dated 23 November 1994 (Anthony, 2013). The Procurement Act gives effect to these "specific goals" through Preferential Procurement Policy Framework Act Regulations (Sewpersadh & Mubangizi, 2017; UNIDO, 2017;).

Section 2(1)(f) of the Act, which gives to organs of state the discretion to award a contract to a bidder who does not score the highest points on the basis of "...objective criteria in addition to those contemplated in paragraphs (d) and (e) [of section 2(1) of the Procurement Act]" has proven to be a source of much controversy and litigation (Bolton, 2014; Bolton, 2004). In the case of *Rainbow Civils CC v Minister of Transport and Public Works, Western Cape* (cited in Bolton; 2014) the court found that Section 2(1)(f) essentially posits a two-stage enquiry where, in the first stage, it is first determined which bidder scored the highest points – according to the 80-20 or 90-10 preference points system – and, in the second stage, it is determined whether "objective criteria exist", over and above the socio-economic components mentioned in sections 2(d) and (e), which justify awarding the tender to a bidder who did not score the highest points (Bolton, 2014). In the cases of *Developers CC v Lovedale Public FET College* and *First Base Construction CC v uKhahlamba District Municipality* (cited in Bolton, 2014) the courts reasoned that "objective criteria" could be interpreted as criteria relating to the experience, expertise and ability of the tenderer to perform the work as specified in the government contract; this includes the contractor's track record in previous projects, as well as their financial viability. Bolton (2014) includes in her interpretation of "objective criteria" Section 2(1)(f): adherence to the policy of rotating of contracts amongst suppliers on the National Treasury Central Supplier Database, as well as environmental protection.

One of the sources of disagreement among High Court judgements in the past regarding "objective criteria" has been the question of whether these "objective criteria" should be disclosed to bidders in the tender documents – this was finally resolved in the affirmative with the enactment of 2017 Regulations to the PPPFA (Pilane, 2017; Bolton, 2014). Objective criteria are considered in addition to, and over and above, pre-disclosed functionality criteria (during the prequalification stage), and price and preference points (during the evaluation stage) (Bolton, 2014). Raga and Taylor (2010) point out that even during Apartheid when the

award of government contracts was legally permissible only for the White minority and tenderers were evaluated solely on price, there was a provision that the tenderer with the lowest quotation could be overlooked if it could be proven that they were financially insecure and neither possessed the capacity nor the experience necessary to execute the contract.

The High Court decision in the case of *Sizabonke Civils CC t/a Pilcon Projects v Zululand District Municipality* (cited in Anthony, 2013) established that functionality criteria are essentially pre-qualification or eligibility criteria that require bidders to meet certain minimum scores; before they qualify for further evaluation on the basis of price and preference (according to the 80:20 or 90:10 point-scoring formulae) (Bolton, 2014; Raga & Taylor, 2010). So, then these functionality (or, quality) criteria are non-price criteria, which may include health and safety measures, qualifications of key personnel, a contractor's experience in previous contracts, transfer of knowledge, and projected costs (Anthony, 2013; Morand, 2003).

2.8.3 Preferential Procurement Policy Framework Regulations

As Raga and Taylor point out (2010), it is the responsibility of the Department of Treasury to control the whole procurement system, including the procurement of goods and services; Therefore, Treasury is a custodian of the PPPFA and is in charge of putting out regulations and guidelines for implementing the Act. The new Preferential Procurement Framework Regulations, 2017, promulgated to give substance to the Procurement Act, and signed into law on 20 January 2017, replace the current regulations that came into operation in 2011 (Balkaran, 2017; Pilane, 2017; UNIDO, 2017).

The 2011 Regulations introduced the use of the B-BBEE scorecard into the formulae for calculating preference points, rather than HDI shareholding only; and through Treasury's *Implementation Guide: Preferential Procurement Regulations 2011* clarified the role of functionality as a prequalification criterion in the adjudication of a tender. The regulations also gave the Minister of Trade and Industry discretion to designate the industries to which local production and content — or, home-biased procurement, as Bolton (2004) puts it — should apply (UNIDO, 2017; Bolton, 2014).

The 2017 Regulations which come into operation on 1 April 2017 make the following changes to the 2011 Regulations (Balkaran, 2017; National Treasury, 2017a; Naude et al., 2013).

- Regulations 8(3) and 8(4) provide that where the lowest acceptable tender is below R50 million, the 80:20 preference point system must be used; and where the lowest acceptable tender is above R50 million, the 90:10 preference point system must be used, to allow smaller, less established companies better opportunities for real growth;

- Regulation 9(1) through 9(3) stipulate that, where feasible, organs of state must impose a minimum 30% sub-contracting condition on tenders above R30 million for the benefit of Exempted Micro Enterprises (EMEs) or Qualifying Small Business Enterprises (QSEs); and that a Treasury-approved database of all suppliers from the applicable designated groups (EMEs and QSEs) who have their paperwork in order (banking details, a valid tax-clearance certificate, and CIPRO certificate) be made for tenderers to choose from;

- Regulation 11(1) and 11(2) stipulate that if organs of state intend to apply objective criteria in awarding a tender to a tenderer that did not score the highest points (in terms of section 2(1)(f) of the Act) they ought to pre-disclose the objective criteria used in the tender document;

- Regulation 14(1) was extended to allow tenderers suspected of having submitted false information regarding their B-BBEE status an opportunity to make representations within 14 days as to why they should not be added to the Treasury-managed 'List of Restricted Suppliers' and restricted from tendering for up to 10 years.

These regulations apply to the procurement activities of all organs of state as defined in Section 239 of the Constitution, but not necessarily to state-owned enterprises as the courts have ruled in the cases of *TBP Building & Civils (Pty) Ltd v East London Industrial Development Zone (Pty)* and *Cae Construction CC CK 2000/035940/23 v Petroleum Oil and Gas Corporation of SA (Pty) Ltd*. In these cases, the courts found that state-owned enterprises are bound by the Constitution but not by the Procurement Act, even as they may make discretionary use of the prescripts of the Act and Regulations (Bolton, 2014; Anthony, 2013; Bolton, 2010).

2.8.4 Broad-Based Black Economic Empowerment (BBBEE) Act

The B-BBEE Act has a long political and discursive pre-history, dating back to the *Mopani Memorandum of Understanding* produced by the ANC-organised Black Business Summit in Mopani Lodge in Kruger National Park in 1993. The Memorandum outlined a policy of Black Economic Empowerment which provided for the enactment of affirmative legislation to promote Black business; and called for the inclusion of Black business in government policy-making. The BEE Commission was created in 1999, two years after the Constitutionalisation of preferential procurement, and it issued a report making several recommendations regarding the transfer of assets from Apartheid beneficiaries to the Black majority. President Thabo Mbeki signed the BEE Commission's recommendations into law in 2004; and the Broad-Based Black Economic Empowerment Act was codified in 2007 (new B-BBEE codes were gazetted in May 2015) (Hiam et al., 2017; PwC, 2015).

A special "B-BBEE unit" was created within the Ministry of Trade and Industry to facilitate the issuance of Codes of Good Practice which provide a framework for the measurement of Black economic empowerment. The codes include qualification criteria (for the purposes of preferential procurement) in the adjudication of contracts and licenses; a certificate with a generic BEE scorecard that contains indicators pertaining to a company's B-BBEE contributor level status (from excellent to non-compliant). These indicators give weightings – a certain number of points out 10 or 20 – to a company for "indirect empowerment efforts" which are then tallied up and added to the 80 or 90 points in the formulae for calculating price and preference (Horne, 2017; UNIDO, 2017; Anthony, 2013; Letchmiah, 2012). According to Shakantu and Kajimo-Shakantu (2007) the Codes of Good Practice were intended to level the playing field by providing clear and comprehensive criteria for the measurement of Black economic empowerment, and thus target the South African economy's weakest point: inequality. According to Strydom et al. (2009) the BEE scorecard is intended to incentivise firms in the private sector to contract with BBE firms in lieu of potentially lucrative government contracts, as well as licenses and concessions, and financial support from state owned enterprises. As Raga and Taylor (2010) point out, the B-BBEE Act expands the framework provided in the Preferential Procurement Policy Framework Act by giving a tenderer's B-BBEE contributor level status weight in a tender pitch, and thus accelerate indirect empowerment through preferential procurement (Letchmiah, 2012; Raga & Taylor, 2010). The seven elements for which points may be awarded in the B-BBEE scorecard – ownership, management

control, employment equity, skills development, preferential procurement from BEE suppliers, enterprise development and residual elements – are depicted in Table 2.7 (Hiam et al 2017; Shakantu & Kajimo-Shakantu, 2007).

Table 2.7: The B-BBEE Scorecard

Core Component of B-BBEE	Indicator	Conversion Factor	Raw Score	Weighting	**Total Score**
Direct Empowerment Score					
Equity Ownership	% share of economic benefits	2		20%	
Management	% black persons in executive management and/or executive board and board committees	2		10%	
Human Resource Development and Employment Equity Score					
Employment Equity	Weighted employment equity analysis	2		10%	
Skills development	Skills development expenditure as a proportion of total payroll	2		20%	
Indirect Empowerment Score					
Preferential procurement	Procurement from black-owned and empowered enterprises as a proportion of total assets	20		20%	
Enterprise development	Investment in black-owned and empowered enterprises as a proportion of total assets	20		10%	
Residual 10%					
To be determined by sector /enterprise					
Total Score out of 100%					

Source: Hiam et al. (2017)

A set of Construction Codes of Good Practice has been developed in conjunction with the Codes of Good Practice for B-BBEE, which, however, takes precedence over the general B-BBEE Codes of Good Practice in the construction procurement process.

The Construction Codes differ from the general B-BBEE Codes in that they apply different weightings to the seven elements in the scorecard, and they make a distinction between general contractors and built environment professionals. The Construction Codes also seek to align the construction sector's preference policies and targets for transformation, which are mainly focused on Black ownership, with the preference goals of the B-BBEE Act, which are far broader in scope (Construction Monitor, 2018; Anthony, 2013).

2.8.5 Public Finance Management Act

The Public Finance Management Act (PFMA) (Act 1 of 1999), as amended by Act 29 of 1999, makes provision, through the National Treasury Regulations published under it, for accounting officers and accounting authorities in organs of state – other than municipalities and municipal entities – to conduct their procurements within the regulatory framework of the Constitution and the Preferential Procurement Policy Framework Act (UNIDO, 2017; Letchmiah, 2012; Raga & Taylor, 2010; Watermeyer, 2003). National and provincial departments, constitutional institutions, parliament, provincial legislature, and any other organ of State (as defined by Section 239 of the Constitution) all fall within the regulatory purview of the PFMA; municipalities and municipal entities, however, are regulated by the Municipal Finance Management Act (MFMA), Act 56 of 2003 (Sewpersadh & Mubangizi, 2017; Watermeyer, 2003). The PFMA was introduced as part of a national procurement reform process, with the legislative objective of modernising the management of public finances. This reform process entailed the decentralisation and devolvement of procurement expenditure and budgeting down to the departmental level; and setting out the duties and responsibilities of heads of departments and government officials in charge of finances; and giving managers the flexibility to manage, while holding them accountable (Sewpersadh & Mubangizi, 2017).

In the interests of efficient and effective financial management, and of leveraging government procurement expenditure to attain socio-economic benefits, Section 38(1[a][iii]) of the PFMA and Treasury Regulation 16A 9.1(c) were promulgated to establish procurement departments and to provide for public entities to have their own databases of registered suppliers to be given preference in the procurement process. Section 112 of the PFMA Act provides for the

establishment of supply-chain management (SCM) systems in the public sector, overseen by the SCM Office in National Treasury (Naude et al 2013; Letchmiah, 2012; Raga & Taylor, 2010). Raga and Taylor (2010) make the point that the efficient and effective management of finances in public procurement necessitates a uniform and standardised, supply chain – from the strategic planning phase, to the acquisition phase, to the inventory and asset control phase, to the finished project, and finally, obsolescence planning – because "efficiency" is to organs of state what the "profit motive" is to private enterprise (Adediran & Windapo, 2016; Naude, 2013; Ambe & Badehorst-Weiss, 2012)

2.8.6 Municipal Finance Management Act

Another statute emanating from the National Treasury that makes prescriptions on public procurement processes is the Municipal Finance Management Act (MFMA) (Act 56 of 2003) (Sewpersadh & Mubangizi, 2017; Smallwood et al., 2011). As already mentioned, this statute applies solely to municipalities in local government; and makes provision for the administration of a contract after the awarding of a tender. The Act is implemented through the MFMA: Municipal Supply Chain Management Regulations and other National Treasury prescripts pertaining to municipal supply-chain management (Sewpersadh & Mubangizi, 2017). According to the Act, supply-chain management involves "the management of working capital that is invested in goods, stores and services with the objective of optimising the economic return on such investment. The process begins when the needs are identified during the strategic planning phase of the organisation when service delivery targets are identified, to the point of finally disposing of an asset (MFMA [circular 22] 2006:12) (Naude, 2013). The provisions of the MFMA pertaining to procuring the services of a private service contractor are implemented through the Local Government Municipal Systems Act (LGMSA) (Act No 32 of 2000), which sets out the specific criteria to be met during competitive bidding, and furthermore, stipulates that municipalities ought to be held accountable to the local community (Sewpersadh & Mubangizi, 2017; Watermeyer, 2003).

2.8.7 Supply-Chain Management

In September 2003, following the development of a document entitled *Supply Chain Management: A Guide for Accounting Officers/Authorities*, Cabinet adopted a Supply Chain Management (SCM) Policy to give effect to the Constitution as well as the PFMA and MFMA (Ambe & Badenhorst-Weiss, 2012; Raga & Taylor, 2010). As mentioned above, the implementation of SCM policy is overseen by the SCM office in National Treasury (alongside

provincial treasuries) and the Minister of Finance, with the objective of integrating government procurement practices; systematising the appointment of consultants; standardising the interpretation of the Procurement Act; and introducing international 'best practice' methods throughout the procurement supply chain. The aim of SCM is to administratively link the flow of information, activities and processes, upstream and downstream (where majority of contractors are clustered); and add value at each stage during the performance of a government contract. Supply chains in the construction industry are highly fragmented, and notoriously difficult to coordinate due to the temporary nature of construction projects and the construction sector's traditional aversion to collaboration (Pillay & Mafini, 2017; Adediran & Windapo, 2016; Kajimo-Shakantu, 2007). There is agreement among researchers that SCM is an integral part of financial management, especially in the modern world where competition is increasingly between supply chains, rather than individual business enterprises (Pillay & Mafini, 2017; Raga &Taylor, 2010). According to Naude (2013), there are several links in the management of public finances in the public-sector supply-chain, and these include: Demand management, Acquisition management, Logistics management, Disposal management, Performance management. Figure 2.2 illustrates the links in the public-sector supply-chain management framework.

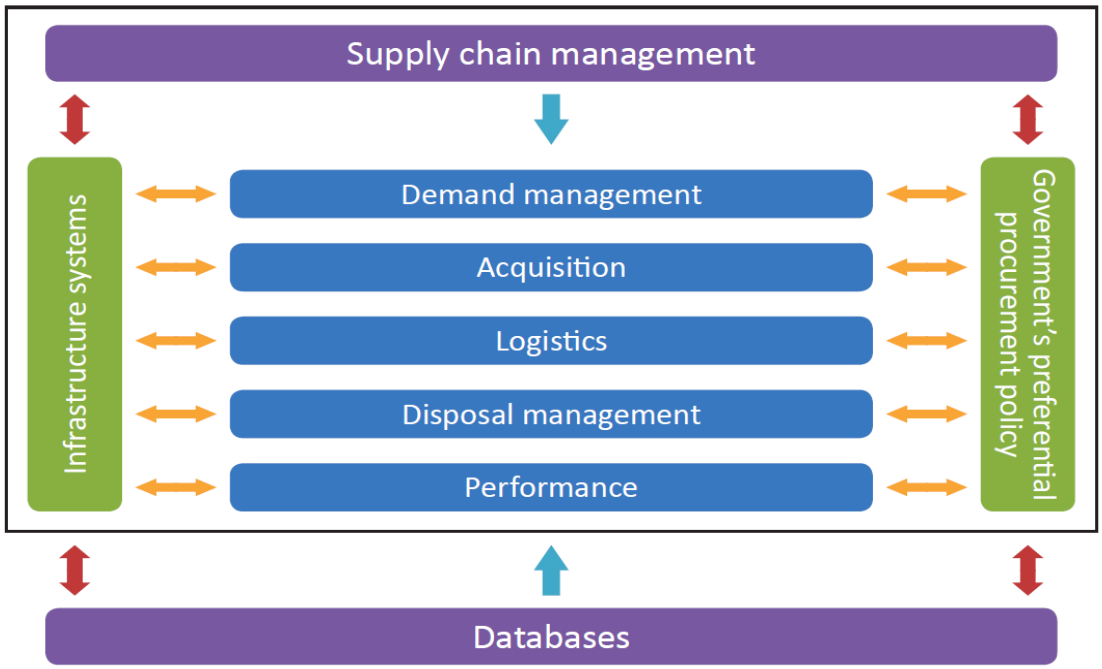

Figure 2.2: Framework of supply chain management

Source: Naude et al. (2013)

Adediran and Windapo (2016) have synthesised several SCM models such as the Construction Industry Institute's "partnering continuum", the Best Practice in Partnering Group's "partnering positioning matrix", and the Strategic Forum for Construction's "supply chain maturity assessment grid"; and developed a conceptual model that shows that targeted procurement strategies draw contractors into supply chain relationships where they learn on their feet how to stand on their own, and enhance their growth performance. In other words, there is a relationship between the growth performance of a small contracting firm and the use of targeted procurement, and this relationship is mediated by the quality of supply chain integration (Adediran & Windapo, 2016). As Kajimo-Shakantu (2007) has argued, preferential procurement policies are essential because they nurture a large number of small construction firms so they can grow large enough to take on bigger contracts.

2.8.8 Construction Industry Development Board Act

The Construction Industry Development Board Act (cidb Act) (Act No 38 of 2000), provides for the establishment of the Construction Industry Development Board (cidb), under the custodianship of the Department of Public Works, for the purpose of supporting and promoting contractor development in the construction sector (Anthony, 2013; Letchmiah, 2012; Smallwood et al 2011). The cidb initiated some measures to support emerging businesses in the construction industry by developing regulations to standardise practices and procedures in the public sector so as to achieve best practices in the industry. The cidb Act defines an emerging enterprise as "an enterprise which is owned, managed and controlled by previously disadvantaged persons and which is overcoming business impediments arising from the legacy of apartheid." (cidb, 2008). In terms of Section 2 and Section 5 of the cidb Act, the cidb is a juristic person with regulatory powers and functions in the construction sector; furthermore, as a board the cidb is granted provisions and powers to implement policies to standardise procurement practices, mainly through the establishment of a *Register of Contractors* (Anthony, 2013). The *Register of Contractors*, established in terms of section 16(1) of the Act), is a national database with nine grading designations and several classes of construction work, which makes it obligatory for all contractors intending to work on government projects must register. The data is arranged in the following way: "Grade 9 contractors (national and international in operational scope); Grades 7 and 8 (regional); Grades 5 and 6 (local-regional); and Grades 2 to 4 (local); no reliable statistics are published on Grade 1 contractors but it is estimated that they constitute 79% of registered contractors. KwaZulu-Natal and Gauteng

account for 50% of the contractors on the Register" (Construction Monitor, 2016; cidb Annual Report, 2016; Ntuli and Allopi, 2013).

Section 18(1) and (2) of the Act stipulate that it is an offence for a contractor without cidb registration to undertake any construction work. Furthermore, Treasury has stipulated (in an Instruction Note in response to the *Sizabonke Civils* case) that in construction procurement, procuring authorities "had to adhere to the prescripts of the Construction Industry Development Board (cidb)" (Bolton, 2014).

There is also a Register of Projects, closely aligned to the aforementioned Central Supplier Database, "wherein contractors ought to register construction works exceeding R200,000 in the public sector, and R3,000,000 in the private sector. The cidb also has a Code of Conduct, contravention of which may lead to penalties as exemplified by the case of 15 companies that the cidb charged subsequent to their admission of guilt to the Competition Commission, in a headline case of collusion" (cidb Annual Report, 2016). Figure 1.3 below describes the contractor grading designation of a registered contractor on the Register of Contractors.

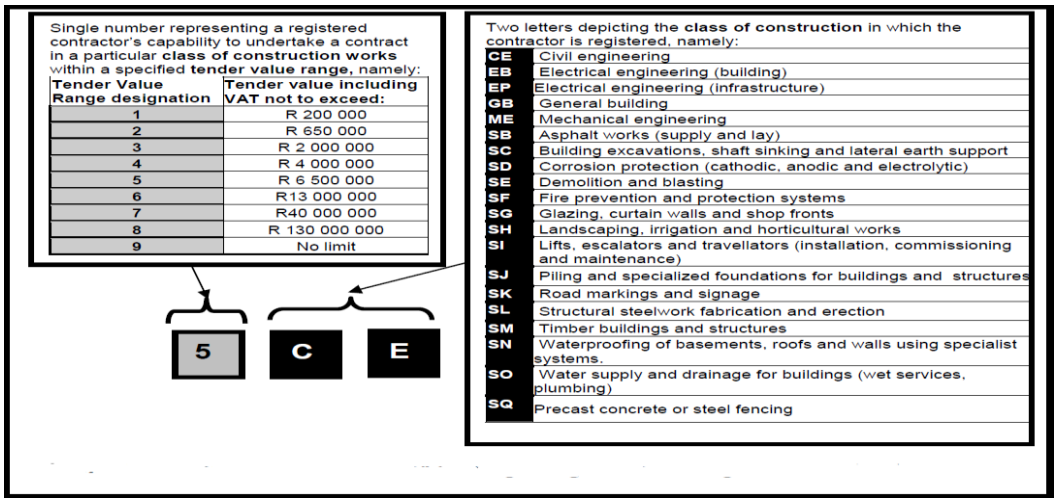

Figure 2.3: Describing the contractor grading designation of a registered contractor
Source: cidb (2012)

According to the cidb (2012), its role is primarily regulatory to ensure there is compliance with the Government's aim that there is a correlation between the profile of the contractors and the demographics of the country using a number of procurement models so as to give priority to historically disadvantaged groups and individuals. As Letchmiah (2012) has pointed out the *Register of Contractors* enables effective targeting of contractors for development while

providing information on size, distribution, capability and population demographics. The downside of the *Register of Contractors* is that "it does not assess the competence levels of the emerging contractors in its database, nor the quality of the work they deliver; it is limited to enterprise development through the mechanism of upgrading to higher grades (which only considers increase in financial and works capability plus number of registered skilled professionals in a firm's employment), which is an incomplete indicator of development that does not necessarily imply an increase in sustainability or improvement in performance" (Adediran & Windapo, 2016; cidb Status Quo Report, 2009). The demographic composition, and distribution of classes of work by grade, for cidb registered contractors is presented in Table 2. 8.

Table 2.8: cidb Contractor registrations (June 2016)

CLASS OF WORK							**%**	**%**	**%**	**%**
Grade	CE	EB	EP	GB	ME	SW	**Total**	Black **Owned**	Women Owned	**Youth Owned**
1	29560	1910	6823	62202	6688	25082	132265	95.84	32.24	29.77
2	1729	175	203	2409	305	767	5588	93.84	35.78	26.92
3	1007	69	130	669	138	251	2264	91.72	35.34	26.09
4	1036	131	262	935	215	230	28b09	84.06	31.79	18.50
5	689	104	190	575	142	168	1868	80.42	29.78	14.85
6	820	69	213	694	153	129	2078	75.06	29.98	10.12
7	484	49	108	385	73	77	1176	66.79	25.91	8.54
8	175	9	39	146	39	30	438	51.98	23.51	3.96
9	83	3	25	46	33	14	204	23.88	16.42	3.98
Total	**35583**	**2519**	**7993**	**68061**	**7786**	**26748**	**148690**	**94.56**	**32.25**	**28.69**

Note: Contractors may be registered in multiple classes of work

CE – Civil	EB/EP– Electrical	GB – Building	**ME**– Mechanical	SW – Specialist class of works

Ownership => 50%, Youth Owned < 35 Years Old Source: (cidb Annual Report, 2016:19)

In 2016, The Construction Monitor (2016b) reported that "around 95% of cidb registered Grade 2 to 4 General Building (GB) and Civil Engineering (CE) contractors were Black-owned (where "Black ownership is defined as ownership control of 51% or more); and 50% women-owned (where women ownership is defined as 51% or more). Around an average of 88% of all

Grade 5 and 6 GB and CE contractors were Black-owned, while around 75% of all Grade 7 and 8 GB and CE contractors were Black-owned". The Construction Monitor (2016b) also highlighted that "Black ownership of Grade 9 contractors had improved in both GB and CE classes of works from 25% to 33% in CE and from 30% to 40% in GB, respectively, from quarter to quarter. By the end of 2017, the overall figure for the Black-ownership of cidb registered contracting firms remained below 40%".

In 2016, "an average of 45% of all Grade 5 and 6 GB and CE contractors were women-owned, and around 40% of all Grade 7 and 8 GB and CE contractors were women-owned. Women ownership of Grade 9 GB and CE contractors also increased significantly from 24% to 31% in GB and 16% to 31% in CE" (Construction Monitor, 2016b). In 2017, there was a decrease in women-ownership in Grades 2-6, and an increase in Grades 7-9 due to increasing graduation to higher grades among women-owned contracting firms. By the end of 2017, the share of public sector contracts awarded to Black-owned firms was around 54% of total government contract awards, and around 25% for women-owned enterprises (the figures for higher value Grade 9 contracts was significantly lower) (Construction Monitor, 2018).

2.9 Review of Procurement-Related Challenges in Public Construction

This section provides a review of the challenges in South African public procurement practices, particularly the challenges faced by contractors in construction procurement:

2.9.1 Skills and capacity shortages

According to Naude et al. (2013) and Ambe and Badenhorst-Weiss (2012), the biggest restrictive factors impeding contractor success in public procurement are skills and capacity shortages, which hamper contractors' ability to deliver quality work and meet deadlines. The few Black engineers that tertiary institutions do produce often end up becoming consultants, hence the proliferation of contractors with substandard educational backgrounds in the sector (Letchmiah, 2012; Kajimo-Shakantu, 2007). The high attrition rate of construction start-ups can be attributed to the low levels of managerial competence and low rates of financial literacy that plague their internal environment (Sitharam & Hoque, 2016). Emerging contractors often have very little collateral and therefore struggle to obtain credit from financial institutions to procure essential plant and equipment; and have no recourse to inter-generational wealth (Pillay & Mafini, 2017; Letchmiah, 2012). Lack of capital also leads to contractors being stuck with older, less efficient technology – leading to low productivity (Pillay & Mafini, 2017).

Sitharam and Hoque (2016, citing Martin & Staines, 2008) found that "the lack of managerial competency – a set of skills that encompasses the use of financial ratios and inter-firm comparisons to measure effectiveness (Ntuli and Allopi, 2013); financial planning literacy; and an understanding of accounting information – are the main reason for business failure". Furthermore, Kajimo-Shakantu (2007) interviewed several contractors who decried the dearth of skilled artisans in the building industry, as these have been replaced by "degreed" contractors; another interviewee pointed to Government's obsession with "fast tracking" and its incompatibility with artisanship which has a "a slow learning curve" – an artisan apprenticeship used to take four years but now, with a BIFSA course, it takes 6 weeks. Furthermore, Windapo (2016) argues that the shortage of skills in the construction industry means that there are not enough suitably qualified workers willing to work under existing market conditions at current prevailing wages; and this has a direct effect on lack of access to procurement opportunities as bidders fail to meet functionality criteria.

2.9.2 Access to public procurement-related information

Contractors also face difficulty in accessing proper knowledge or information due to the fragmentary nature of the sector and the internal silos that keep rotating the same people, from the same major players, with the same mind-set, from one firm to another, but within the same industry (Pillay & Mafini, 2017). Naude et al. (2013) and Ambe and Badenhorst-Weiss (2012) also point out that construction procurement is plagued by unethical behaviour – such as bribery, fraud and corruption, and a general lack of integrity; contractors often do not comply with SCM-related legislation and policies leading to tender irregularities. Furthermore, they argue that the procurement system is overly decentralised; and B-BBEE policies are ineffective: major construction firms are still largely White-owned and White-managed and White-controlled, while the builders and artisans are mostly Black (Blacks account for only 12% of the total professional staff in the sector) (Compliance Monitor, 2018; Kajimo-Shakantu, 2007).

2.9.3 Access to work

Kajimo-Shakantu (2007) record a litany of contractors of varying grades who consistently point out that there is an inconsistency of work in the industry, due to the cyclical and project-based nature of construction. This lack of continuity and lack of assurance of work is responsible for the impermanence of construction employment (which has often raised the ire of trade unions) (McCrudden, 2004). These challenges are better explained in the following sub-sections. The

Construction Monitor (2018) states that within the construction economy, the access to work, particularly by targeted enterprises, is fundamental to the success of transformational imperatives.

2.9.4 Lack of access to finance

Emerging contractors, because of their lack of records, geographical dispersion and high transaction costs, have a relatively higher risk profile, which limits their access to finance *vis a vis* the established firms (Sitharam & Hoque, 2016: citing Haron et al., 2013; Jeppesen, 2005). Balkaran (2017), referencing the Principal-Agent Theory, has suggested that banks have imperfect information on small contractors compared to larger contracting firms, which makes lending to smaller contractors riskier; as a consequence, banks demand higher risk premiums. The Construction Monitor (2016) reports that "inadequate access to credit is increasing as a constraint to business growth in contractors listed in Grades 3 and 4 but not for Grades 7 and 8 (cidb Annual Report, 2017). The National Credit Regulator (2011) puts the figure of small businesses (including construction firms) with access to finance at 59% as opposed to 82% for large enterprises; and cites insufficient information on available financial products, and low levels of financial literacy as the main inhibitors to access to credit". In a survey conducted by Letchmiah (2012) revealed that 63.5% of the respondents stated that the inability to access finance when needed was the biggest constraint to growth and expansion in the construction sector; 56% of the respondents reported difficulty in obtaining credit from suppliers as the biggest constraint.

A study by the National Credit Regulator (2011) concluded that "there remained a 'financing gap' – despite numerous government programmes and incentives designed to close it – also, a regulatory environment that was prohibiting; compounded upon other, more endogenous challenges that were inhibiting the growth of SMMEs. The NCR (2011) also mentions that lack of access to finance is a facet of informality, which is concomitant with non-compliance; it is largely a result of being uninformed about how to read financial information, keep records and comply with an increasingly complex regulatory framework.

2.9.5 Fraud, corruption and maladministration

According to Bowen et al. (2007) intense competitive pressures, perceptions of procedural unfairness among bidding contractors, and the complexity of contractual undertakings in the South African construction industry have engendered a proneness to unethical behaviour

among contractors. Furthermore, the construction industry has the largest scale of corruption than any other sector (Bowen et al., 2007; Citing Transparency International, 2005).

According to Ambe and Badenhorst-Weiss (2012: citing Stemele, 2009), procurement actors in national and provincial governments spent about R21 billion, wastefully and fruitlessly, in ways that contravened laws and regulations in 2010 – in 2009 the figure was R13 billion. Procuring entities regularly overpay for goods and services (especially when the supplier is politically connected); and engage in maladministrative practices and mismanagement of finances (Ambe & Badenhorst-Weiss, 2012). These maladministrative procurement practices include the passing over of bids for incorrect reasons, incorrect use of the preference points system, and the lack of appropriate bid committees to adequately handle bids according to proper procedure.

Databases may also contain suppliers who falsely present the services they render in order to secure contracts, which often leads to poor quality outputs (Naude et al., 2013). Letchmiah (2012) points to the growing trend of "kickbacks" and of some suppliers being on "friendly terms" with officials on bid committees to win contracts (Naude et al., 2013). It has been suggested that the inclusion of stakeholders in procurement processes could help limit these malpractices (Ambe & Badenhorst-Weiss, 2012). Figure 2.4 shows the main types of economic crime experienced by South Africans.

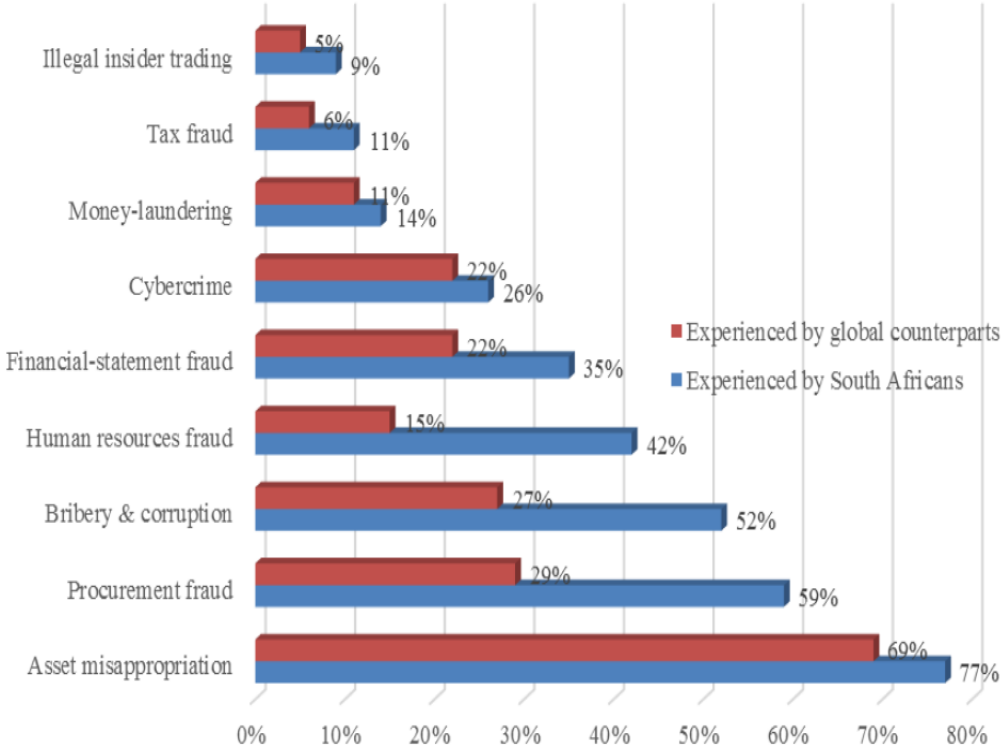

Figure 2.4: Main Types of Economic Crime

Source: IRMSA Risk Report (2017)

2.9.6 Supplier-relationship challenges

Organs of State have a responsibility to balance efficiency with equity. This means that suppliers with the advantage of financial resources shouldn't be awarded contracts more frequently than those with fewer financial resources on the database – after all, the policy of preferential procurement is intended to uplift rather than enrich; however, the policy of rotating suppliers seems to invite supplier relationship problems in supply-chain practices, and does not take the performance of the supplier into account when they are being rotated. Supply-chain integration is further made impossible by the fact that relationships between suppliers and organs of State, outside of contractual relationships, are forbidden and restricted by SCM policy (Naude et al., 2013).

2.9.7 Fronting

Horne (2017) and Bolton (2004) have defined “fronting” as: when a White individual or White firm signs up Black individuals as fictitious shareholders in order to win government contracts without having to adhere to the B-BBEE Act or Codes of Good Practice (Raga & Taylor, 2010).

Fronting is a form of fraud and corruption; and the construction industry has quite a reputation for this (mal)practice and is seen as having one of the poorest records of transformation (Letchmiah, 2012). Other forms of fronting involve male contractors appointing their wives as directors in order to qualify for targeted enterprise status (Kajimo-Shakantu, 2007). Raga and Taylor (2010) have identified two forms of fronting: the first is the abovementioned form where a Black person is given directorship of a company regardless of business acumen; the second is when a front company is formed that acts as a marketing agent for the original firm in order to circumvent Preferential Procurement Policy. An emerging contractor interviewed by Kajimo-Shakantu (2007) described fronting as a practice that uses Blacks for their 'names' while keeping 'Whites in control'.

2.9.8 Poor quality outputs

An emerging contractor interviewed by Kajimo-Shakantu (2007) stated that there is reticence in the private sector about hiring Black contractors, the general public perception is that Black-owned contracting firms build skew buildings. Pillay and Mafini (2017) suggest that an over-reliance on unskilled labour in South Africa (due to a reduction in qualified, skilled labour) has led to poor quality outputs and general underperformance in the construction sector. The perception created by the poor workmanship of Black contractors, then, is that preferential procurement amounts to squandering of public resources (Pillay & Mafini, 2017).

2.9.9 Delayed payments

According to the cidb's *Drivers of the Cost of Public Sector Construction* (2017) late interim payments and delayed settlement of final accounts – often, up to 90 days after invoice submission – undermine the performance of contractors; and is at the heart of the disputes and litigation, the time extensions, the risks of non-completion, and other difficulties that plague construction projects (cidb, 2008). According to Bolton (2004) delayed payments, especially, affect the growth performance of emerging contractors and "prevents them from obtaining new work because the limited profits they make are retained by clients as security for previous contracts" (Bolton, 2004). The cidb Construction Industry Indicators (CII) (2015) reports that prompt payment practices deteriorated considerably between 2012 and 2015, with 60% of payments to contractors being paid later than 30 days after invoicing, and 11% being delayed for longer 90 days. The provinces with the highest levels of prompt payments are KwaZulu-Natal and the Northern Cape; the highest payment delays occurred in Gauteng and the Western Cape (CII, 2015).

2.9.10 Lack of transformation in public procurement

Horne (2017) argues that the B-BBEE scorecard system is merely a quantitative, "box ticking" exercise, which gives the appearance, but not the reality, of transformation, and fails to deliver qualitative socio-economic change; that the policies of BEE (the precursor to B-BBEE) continue to benefit a few politically connected individuals, focusing excessively on Black ownership of existing assets such as mines rather than the upliftment of mineworkers and mining communities, for example (Ambe & Badenhorst-Weiss, 2012).

The market dominance of a relatively small politically-connected Black elite (and comparatively very small, in terms of wealth, in relation to the Oppenheimer's and the Rupert's), related through patronage, results in barriers to entry for emerging enterprises, and the widening of the inequality gap (Horne, 2017). The disproportionate attention given to senior management issues, and the lack of incentives for employment creation in the Regulations, privileges the Black elite class whose wealth is created from financial restructuring rather than (local) production (Ambe & Badenhorst-Weiss, 2012).

There is a recurrence of this Black elite class – the same names keep coming up – in most BEE deals, for example, 72 per cent of the largest BEE deal of 2003 (between ARM Gold and Avmin) went to Patrice Motsepe, Tokyo Sexwale, Cyril Ramaphosa and Saki Macozoma; overall, 60 per cent of the R54 billion worth of BEE deals conducted in 2003, accrued to Patrice Motsepe and Tokyo Sexwale. There were only 8 Black entrepreneurs in the list of top 50 directors in 2005 and these included Patrice Motsepe and Tokyo Sexwale (Horne, 2017). This Black elite eventually became known as "the usual suspects" for their recurrence in the most lucrative BEE deals. According to UNIDO (2017), BEE only benefits 15% of the Black population, at the same time reducing investment and creating barriers to entry for the 85% majority. As of June 2016, only 17% of engineering consulting firms in South Africa had more than 50% Black ownership (cidb Annual Report, 2017).

2.9.11 Market oversaturation

Construction procurement has seen a proliferation of "desperate tenderers" engaging in unsustainable overbidding, particularly, in the lower grades, where competition is fiercest because that is where the masses are (Malongane, 2014; Kajimo-Shakantu, 2007). According to Letchmiah (2012) Grade 1 contractors tend to be unemployed work seekers looking for economic opportunities in the construction sector; leading to an overstimulation of the cidb

Grade 1 category to the point where it is no longer sustainable in parts of the country (cidb, 2008). According to BER (2016), the low end of the contracting sector is largely survivalist, informal which is owned and run by one man and often unbanked, Black and confined to the largely rural KwaZulu-Natal province where the fastest growing sector is construction. The publication goes on to cite that the provinces accounts for 19% of all construction (The Real Economy Bulletin, 2016). In comparison, the formal sector is educated, mostly White and largely located in the metropolitan provinces (BER, 2016). This demographic composition and geographic distribution of emerging contractors is consistent with the imperatives of Apartheid where Blacks were confined to rural "homelands" and disallowed to register private firms (Jeppesen, 2005).

The stratification of emerging contractors according to Ntuli and Allopi (2013) is "bottom heavy and is best illustrated with a pyramid: where a myriad of lower grade contractors are concentrated at the bottom (this is the lower end of the construction market where SMMEs compete for small scale municipal projects the fewer, higher grades are clustered at the top; Grades 2-4 account for around 60% to 65% of the total registrations, and Grades 7-9 account for around 1% to 12%. There's an inversion of this pyramid, however, in the distribution of public sector awards" (Windapo & Cattell, 2011). The share of public contracts (detailed in the web-based, cidb *iTender Register of Projects*) awarded to grades 2-4 to appear to be less than 5%, while the largest proportion of the contracts is awarded to Grades 7-9, which constitute less than 20% of contractors registered on the cidb Register of Contractors. Furthermore, 66.2% of the government contracts awarded between 2006 and 2011 were in the cidb Grade 1-3 category, however their monetary value accounted for only 2.3% of the total value of awarded contracts in that five-year period; 12.2% of the number of contracts awarded in the same period accounted for 88.6% of the monetary value, and these were only accessible to the Grade 7-9 category (Letchmiah, 2012).

2.9.12 Non-compliance

Sitharam and Hoque (2016:279) point out that "most SMMEs do not understand the laws that govern them; that the regulatory and legal aspects of doing business are extremely intricate, time-consuming, conflicting and costly, and, therefore, due to their inability to absorb compliance costs, many small businesses simply do not comply. Moreover, the South African bureaucratic environment is most prohibitive upon small firms who struggle to understand legal

and regulatory information; and have limited resources for absorbing compliance costs" (Sitharam & Hoque, 2016: 284).

The courts have found, however, that where non-compliance with technical conditions of a bid is merely formal rather than substantive, as in the case of *VDZ Construction (Pty) Ltd v Makana Municipality*, then the bid should not be disqualified (on a mere technicality) as this would frustrate the advancement of constitutional principles. In the *VDZ Construction (Pty) Ltd* case the court found that a tender cannot be declared unacceptable simply because a tenderer did not provide an original valid Municipal Billing Clearance Certificate. The cidb Annual Report (2017) states that the cidb does not address non-compliance in a mechanical and technical manner, but rather through one-on-one interactions, especially in cases where organs of state or state-owned enterprises have 60% of their tenders on the cidb Register of Projects not being awarded due to non-compliance.

According to the Compliance Monitor (2018), the Departments of Education, Transport, Roads and Public Works in the Northern Cape; and Higher Education and Public Works, nationally, recorded relatively high compliance ratios in 2017. While a myriad departments and public entities, especially, in Kwazulu-Natal (Public Works, Health, Co-operative Governance and Traditional Affairs, Sports, Arts and Culture), as well, nationally (Transnet, SARS, Umngeni Water, PRASA, ACSA, etc.), showed low levels of compliance. Furthermore, ratios of compliance typically range from 15% to 45%, with national departments and municipal entities recording the highest ratios (Compliance Monitor, 2018).

2.9.13 Fragmentation and inconsistencies in the application of procurement laws and BEE policies

There have been many criticisms levelled at BEE policies: that there are too many ambiguous procurement laws; that preferential procurement incurs direct financial premiums; that BEE transactions are perceived by investors as wealth destroying; and that they introduce market distortions; and have failed to transform South African society (Balkaran, 2017; Sewpersadh & Mubangizi, 2017; Letchmiah, 2012; Strydom et al., 2009; Watermeyer, 2003). Some of these criticisms are fair, most are not.

The criticism that South African public procurement is too fragmented and subject to too many laws is borne out by case law. In the case of *Moseme Road Construction CC v King Civil Engineering Contractors*, for example, the Court observed that tender awards are more often

tainted by incompetence and non-compliance with "the myriad rules and regulations that apply to tenders" than with outright fraud and corruption. In the case of *Dr JS Moroka Municipality v Bertram (Pty) Ltd* the Court also made a similar observation when it commented that procurement laws were numerous and convoluted, providing fertile ground for litigation (Sewpersadh & Mubangizi, 2017). Nevertheless, even as the lack of centralisation in public procurement has its benefits, such as responsiveness to purchasing needs, and closeness to local suppliers; some departments have already begun centralising to reduce costs and reduce the risk of duplication, and to leverage scales. Furthermore, Treasury has made pronouncements on the creation of a central procurement system (with combined bid specification and adjudication committees) as a way to address the issue of scattered legislation (Raga and Taylor, 2010; Ambe and Badenhorst-Weiss, 2012). The South African National Standards (SANS 10396 and SANS 1914, which is in 6 parts) has also been instituted to address the fragmentary, regulatory framework pertaining to preferential procurement by standardising the way targeted construction procurement is implemented in South Africa (Ambe & Badenhorst-Weiss, 2012).

Concerning premiums, the cidb (2017) defines a direct financial premium as the percentage increase paid over and above the lowest priced responsive tender, and that if the tender is awarded to the lowest responsive tender the premium is therefore zero. On the 80-20 preference points formulation, the highest acceptable premium would be 25% on top of the lowest acceptable tender, while on the 90-10 formulation the highest acceptable premium would 11,1% on top of the lowest acceptable tender (Letchmiah, 2012). During the five-year period between 2006 and 2011, Letchmiah (2012) found that only 8.9% of the national contracts awarded incurred price premiums, and these only amounted to 2% of the value of the contracts awarded. Furthermore, the overall premium paid amounted 2%, while the price premium on projects that attracted premiums amounted to around 11%, far below the 25% maximum premium (cidb, 2017). It is a standard argument against preferential procurement that it introduces distortions into the market, insofar as it artificially reduces competition by excluding eligible tenderers, and may dis-incentivise targeted enterprises from minimising costs, however, Letchmiah (2012) argues that premiums should be considered an acceptable cost to the cause of transforming South Africa's separate and unequal economy; the alternative leaves capital in a perilous position where it sits right in the midst of a reservoir of poverty (Balkaran, 2017; Morand, 2003; Watermeyer, 2003).

Strydom et al. (2009) carried out an event study of 254 BEE transactions between 1996 and 2006 and examined the reaction of the markets to the public announcement of these transactions. He concluded that on average, announcements of BBE deals tended to produce positive one-day average abnormal returns for shareholders for the firms concerned, although, upon closer examination this reaction proved to be statistically insignificant and it was not possible to draw general conclusions, nevertheless, there was no evidence of a negative market reaction to BEE transactions (Strydom et al., 2009).

According to Bolton (2004) the government's power to grant contracts is a political power, it is not a neutral policy instrument, and should, therefore not be guided solely by commercial objectives alone but by socio-economic objectives as well; besides, preferential procurement allows governments to fulfil their fiduciary and "social contract" obligations, without directly relying on taxation to raise public spending (Balkaran, 2017).

2.10 Supply Chain Management Challenges in the South African Public Sector

There are a number of challenges faced by construction SMMEs in relation to supply chain management. These challenges are discussed below.

2.10.1 Non-compliance to SCM policy and regulations

Each sector department, entity or municipality is required to develop a sector-based supply chain management policy in line with SCM framework. The SCM policy prescribes that such government entities adhere to, develop and implement sector customised procurement programme. The main challenges is compliance with SCM prescripts which has been identified as part of audit findings and the lack of compliance by small businesses lead to poor service delivery or unskilled service providers benefiting in procurement opportunities. In most cases is not being able to access business opportunities due to lack of compliance to general regulatory documentation required as set out by SCM policy. Issues regarding noncompliance to SCM policy and regulations occur due to several reasons. Most of the common reasons include: the appointment of bid committee members, which is not aligned to policy requirements; ambiguous specifications, line functionaries incorrectly drafting bid documents, lack of bid information on bid register, insufficient motivation for deviations from SCM procedures, inadequate controls and procedures for the handling of bids, incorrect utilisation of the limited bidding process, extensions of validity periods, utilisation of the incorrect procurement process in respect of the thresholds, passing over of bids for incorrect reasons, use

of unqualified suppliers, lack of appropriate bid committees, incorrect utilisation of the preference points system, to utilise a competitive process for both quotations and bids, absence of a stricter regulatory culture and lack of the requisite SCM skills and competencies.

These issues have been re-affirm in studies such as in Ambe and Badenhorst-Weiss (2011b), Matthee (2006) and Van Zyl (2006), who noted that non-compliance to SCM policy was due to lack of skills, capacity and knowledge of the workforce to be able to fully implement SCM across various spheres of government.

2.10.2 Ethics and conflict of interest

Ambe and Badenhorst-Weiss (2016) in their study argue that in public procurement, all parties must comply with the set ethical standards. Furthermore, all parties are required to demonstrate some level of integrity and conduct in their businesses in the most reasonable, fair and ethical manner (Ambe & Badenhorst-Weiss, 2016). The authors point out that in order to ensure that the parties conduct their work beyond reproach, all officers response for public procurement must perform the following functions: be scrupulous in their use of public property; ensure that they do not compromise the standing of the state through acceptance of gifts or hospitality; deal with suppliers even-handedly; recognise and deal with conflicts of interest or the potential for such conflict and to provide all assistance in the elimination of fraud and corruption. These functions when performed well will help in eliminating fraud, corruption and conflict of interest, which are huge challenges in the public procurement process.

2.10.3 Inadequate monitoring and evaluation of SCM

Monitoring and evaluation plays an important role in SCM. The absence or lack of monitoring and evaluation has a direct link to poor oversight which is the reason why government institutions are urged to strictly comply with the policy. The Business Day (2011) discovers that millions of Rand have been spent in ways that contravene standing laws and procurement regulations in South Africa. The non-compliance to the procurement regulations is often perpetrated by both local and national governments and their respective entities, who notched fruitless, wasteful and unauthorised expenditure in contravention of laws and regulations. This can be resolved with better improvements on performance reporting, capital assets, human resource management and information technology. Most government entities do not have clean audits, (Turley, 2014)

2.10.4 Lack of proper knowledge, skills and capacity

Tukuta and Sarucheara (2015) argues SCM practitioners should exhibit a high level of procurement knowledge and skills. Such personnel should possess specialist skills in order to interpret and be able to examine SCM changes as well as policies. Lack of academic qualification has a risk of destroying relationship with stakeholders within the organisation and outside the organisation. The bigger risk of unprofessional practises in International procurement may result in poorly handled shipments, poor scoping, over and under costing, unnecessary expenses such as variation orders and expansion of contract, delays, anger, frustrations, litigation, organisation incompetence and lead to untrustworthiness.

Neals (2011) argues that such unprofessional behaviour by SCM practitioners can badly disrupt operations in the receiving firms as well as damage the relationships and this may cause firm's very existence. Ambe (2006) observes that a successful implementation of SCM should be done by skilled and professional personnel in an environment with the right structures in place. However, it has been found that this optimum environment is not prevalent in some government institutions as some of the SCM personnel have sub-par skills. The author further alleges that although many of the SCM personnel have attended several trainings and workshops, yet they still lack the requisite knowledge needed in the proper SCM implementation. This is supported by McCarthy (2006), who argues that because the supplier register is incomplete, this makes it difficult to verify the completeness of tender documents. Furthermore, the lack of knowledge and capacity to handle public procurement processes is also contributing to bad governance.

Ambe and Badenhorst-Weiss (2016) further make the argument that there is need to develop a customised public procurement policy which suits the needs of both local and national government. This not only helps in ensuring that principles and guidelines are adhered to but also helps in performance reviews. The authors further suggest that a set of incentives will also serve to motivate the SCM personnel which in turn will limit the number of unethical practices.

2.10.5 Inadequate planning and linking demand to the budget

Ambe (2016) and Turley (2014) in their studies argue that there are 36 different government procurement systems. Such systems are poorly integrated and lack automation, not applied consistently, lack internal controls and contribute to high level of noncompliance to treasury regulations. This is attributed to inadequate planning and direct linkage to procurement demands and budget planning process.

Inadequate planning is a major challenge for correct SCM planning costing government projects to delays, extension of time, budget overrun, budget roll over by Treasury, conditional grants and budget not spent and or return to National and Provincial fiscus pool. Cost effective procurement solely depends on an integrated planning by all sections in an organisation such programme management, project management, procurement and contract management and finance. This requires that appropriate contract strategies to be developed jointly.

Ambe and Badenhorst-Weiss (2011b) further notes how government institutions are still facing the challenge of proper planning and aligning their requirements to the budget. The authors suggest that the mismatch might be due to the limited capacity of the responsible government officials. They further note the necessity of training workshops to ensure that the implementation of SCM is successful.

2.10.6 Accountability, fraud and corruption

Chiboiwa, Samuel and Chipunza (2016) argues that poor corporate governance may lead to high labour turnover. They further argue that organisations need to develop procurement code of ethics that can be benchmarked against International standards. Saudry (2007) also argues that accountability constitutes a primary pillar to public procurement policy. Jeppeseon (2010) indicates that organisations that are without accountable systems and transparent procurement policies are subjecting themselves to danger of being entangled with increased misuse of funds and corruption.

In South Africa, corruption is costing tax payers hundreds of millions each year (Mahlaba, 2004). The impact of fraud is huge to project costs and this had led to a number of measures introduced in a form of specialist legislations, policies and regulations by South African Government. Emerging contracts are directly affected by fraud and corruptions as mainly complain that incorrect bidders are given awards, bribe being daily practise, cost estimates information shared before bidding process and some confidential information shared.

According to the Public Service Commission Committee (2011), the National Anti-Corruption Hotline has received a total of 7,766 corruption cases between September 2004 when it was launched and June 2010. De Lange (2011) also notes that taxpayers lost almost R30billion accounting for around 20 percent of the government procurement budget. The author further states that a combination of fraud on the part of the officials and lack of financial monitoring. Pauw (2011) on the other hand notes that Tshwane Metro was among some of the government

entities investigated for procurement irregularities. It was also suspected that sixty-five municipal officials were also investigated for striking irregular deals worth around R185million. The Smart Procurement (2011) notes how the Auditor General, when briefing Parliament's Standing Committee on Public Account noted the weaknesses in SCM like capital assets and performance reporting, human resource management and controls over information technology. This shows the need to urgently find innovative ways to curb fraud, corruption and related malpractices within both local and national government. One of these measures may be reviewing and strengthening existing tools to make it much easier to detect malpractices.

2.10.7 Too much decentralisation of the procurement system

Fawcett, Ellram and Ogden (2007) argue in their study that the procurement process in South Africa is decentralised with municipalities, provinces and government departments procuring their own equipment, material and services. However, due to the high number of tender fraud and corruption cases, it is difficult to imagine if the responsible personnel in these departments have the requisite knowledge to undertake their tasks or if they have the interests of the taxpayers at heart. This all raises the question on whether it might be better to move to a more centralised procurement platform with better capacitated personnel and closer scrutiny.

Fawcett et al. (2007) further notes how centralised also helps to reduces costs by leveraging scales. Centralisation also offers advantages such as better control and development of specialised expertise of purchasing personnel, reduction of duplication of purchasing effort and advantages such as leverage due to volumes. On the other hand decentralisation leverages on local knowledge and relationships, is closer to suppliers, decisions are made faster, leads to better responsiveness to purchasing needs and generally there is a much better understanding of the local environment (Handfield et al., 2011). The authors further note how efficient contract management is absolutely necessary to realise the benefits of centralisation.

2.10.8 Procurement transformation

The adoption of BEE was to ensure that historically disadvantaged people also got to participate in public procurement which was for the large part limited to a small group of Black investors. This led to the promulgation of the BBBEEA. The statutory instrument calls for "expanded opportunities for workers and smaller enterprises as well as more representative ownership and management. Current BEE provisions have, however, in many instances failed to ensure a broad-based approach, instead imposing significant costs on the economy without

supporting employment creation or growth. The present BEE model remains excessively focused on transactions that involve existing assets and which benefit a relatively small number of individuals. The following shortcomings have emerged in the implementation of BEE: First, ownership and senior management issues receive disproportionate emphasis. The unintended consequences of this trend include 'fronting', speculation and tender abuse. Secondly, the regulations do not adequately incentivise employment creation, support for small enterprises and local procurement". The preferential tenets of the legislation however compound the situation by preferring ownership over local production and gives little priority to public institutions as suppliers.

2.10.9 Stakeholders' involvement

Public procurement malpractices could be limited to some methods and processes. Firstly, there might be the need to include stakeholders such as the civil society to be part of the procurement process, to perform oversight function. Secondly, stakeholders also need to be part of the current system where there are three bid committees. This is to limit instances of unethical practices. This will also improve good governance where the whole public procurement process will be opened to public scrutiny. Besides fostering good governance, the open recess will also help in creating a better relationship between the entities and the stakeholders die to the increased legitimacy and accountability. Lastly, an open public procurement process will reduce fraud and corruption, foster better accountability and generally limit the wastage of public resources and generally contributes towards a better service delivery.

2.11 Theoretical Framework

A study of this nature requires a theoretical framework. There are various theories that were propounded by scholars in management, engineering and sciences. The theories which support SMMEs or entrepreneurship are classified under broad areas such as psychological entrepreneurship theories (i.e. personality traits, locus of control, need for achievement) sociological entrepreneurship theory; economic entrepreneurship theories (classical, neo-classic and Austrian market process); anthropological entrepreneurship theory; opportunity–based entrepreneurship theory; and resource- based entrepreneurship theories (i.e. financial capital/liquidity, social capital or social network and human capital entrepreneurship theory) (Oyeku, Oduyoye, Asikhia, Kabuoh & Elemo, 2014; Simpeh, 2011; Baskerville, 2003; Fiet, 2002; Alvarez & Busenitz, 2001; Shane, 2000; Landstrom, 1998) After a careful examination of the above theories, the study adopts the resource-based entrepreneurship theories.

2.11.1 Resource-based entrepreneurship theories

The resource-based entrepreneurship theories is credited to scholars such as Alvarez & Busenitz (2001), Barney (1991), Rumelt (1984) and Wernerfelt (1984). The proponents of the resource-based entrepreneurship theories believe that access to resources by SMMEs owners or entrepreneurs is an important predictor of opportunity based entrepreneurship and new venture growth (Alvarez & Busenitz, 2001). Aldrich (1999) argues that the resource-based entrepreneurship theories stress the importance of financial, social and human resources in entrepreneurship business. Davidson and Honing (2003) also point out that access to resources enhances' the owners ability to identify and act upon discovered opportunities. There are three theories which fall under the resource-based entrepreneurship theories, namely: financial, social and human capital (cidb, 2003).

- **Financial capital theory:** Research show that starting-up a new firm requires access to finance (Blanchflower, Oswald & Stutzer, 2001; Evans & Jovanovic, 1989; Holtz-Eakin, Joulfaian & Rosen, 1994). Clausen (2006) postulates that the financial capital theory assumes that those entrepreneurs or SMMEs owners with financial capital are more able to acquire resources to effectively exploit entrepreneurial opportunities, and set up new firms. Contrary to the views expressed by the above scholars, other researchers (Aldrich & Keister, 2003; Davidson & Honing, 2003; Kim, Hurst & Lusardi, 2004) content the financial capital theory on the ground that most entrepreneurs start new ventures without much capital, and that financial capital is not significantly related to the probability of being nascent entrepreneurs. The contradiction among the scholars is due to the fact that the studies that are linked to the theory of liquidity constraints generally aims to resolve whether an entrepreneur's access to capital is determined by the amount of capital employed to start a new venture (Clausen, 2006). In spite of the contradiction in research findings, this does not not necessarily rule out the possibility of starting a firm without much capital. Hurst and Lusardi (2004) contend that owners access to finance is an important predictor of new venture growth but not necessarily important for the founding of a new venture.

- Social capital or social network theory: A study reveals that entrepreneurs are embedded of a larger social network structure that constitutes a significant proportion of their opportunity structure (Clausen, 2006). Shane and Eckhardt (2003) suggest that an entrepreneur might possess the ability to identify entrepreneurial opportunities that

are available, yet might not have the social connections to transform the opportunity into a business start-up. It is suggested that access to a larger social network can assists overcome entrepreneurs to overcome this problem (cidb, 2003). Aldrich and Zimmers (1986) in their study also argue that the social capital theory shows that the stronger social ties to resource providers ensure the effective and efficient acquisition of resources and enhance the probability of opportunity exploitation. Other researchers (Aldrich & Cliff, 2003; Kim, Aldrich & Keister, 2003) also recommend that it is important for emerging entrepreneurs to have access to the well-established entrepreneurs in their social network, as the competencies possessed by these people represent a kind of cultural capital that the emerging entrepreneurs can draw upon in order to identify business opportunities.

- Human capital entrepreneurship theory: Becker (1975) points out that there are two important factors which underline the human capital entrepreneurship theory, namely: education and experience. A number of studies (Anderson & Miller, 2003; Shane & Venkataraman, 2000; Chandler & Hanks, 1998) acknowledge that the knowledge acquired through education and experience represents a most useful resource that is heterogeneously distributed across many individuals and in effect central to understanding differences in opportunity identification and exploitation. Other studies (Anderson & Miller, 2003; Davidson & Honing, 2003; Kim et al., 2003) reveal that education and experience are positively related to becoming a nascent entrepreneur, increase opportunity recognition and entrepreneurial success.

There are a number of reasons why the study adopts the rsource-based entrepreneurship theories. Research show that access to resources such as finance, managerial skills, infrastructure, and technologies and information are the key challenges facing SMMEs sector worldwide (Ibrahim & Shariff, 2016; Mago & Toro, 2013; Green, Jones & Miles, 2012). Therefore, an important justification for adopting this theory is that when properly adopted by emerging SMMEs in the construction industry it will enable them to get access to resources required to growth their businesses. Furthermore, the researcher observes that the theory does not only focus on access to finance but rather it recognises social networks, and human attributes (knowledge, experience, and competencies) required for a successful business venture. Hence, the theory when adopted will enable the emerging SMMEs owners to be

connected to well establish entrepreneurs who possess competencies to provide some form of mentorship, coaching and training for the emerging contractors.

2.12 Addressing Challenges Facing SMMEs

Several recommendations and suggestions were offered by various researchers on how to improve or address the challenges facing the SMMEs in South Africa (Chimucheka and Mandipaka 2015). It is recommended that government as well as financial institutions should provide financial opportunities to SMMEs (Mahlaka, 2014). The scholar argued that 13% of overdraft or credit applications and 10% of bank loan applications by most SMMEs were rejected in 2014. Therefore, there is the need for more financial support for the SMMEs to enable them function more effectively and efficiently.

According to National Credit Regulator (2011), nearly half percent of SMMEs in South Africa are not able to access funding from financial institutions like banks because they are not listed with the Companies and Intellectual Property Commission. Moneyweb (2013) suggests that in spite of the government measures to assist SMME sector, some of these measures are deemed as completely ineffective and that they have so far changed nothing. Friedrich and Isaacs (2010) in their study also recommended that in order to promote the effective functioning of SMMEs, the government must support them with resources such as finance.

Chimucheka and Mandipaka (2015) in their previous study recommended that in order for SMMEs to get access to funds, policymakers and SMMEs must consider the Grameen Bank-type model (GBM) which is based on the voluntary formation of small groups of underprivileged people and is meant to provide loans to those SMMEs without collateral, which is normally a hindrance to access finance by SMMEs. This model will assist in solving some of the challenges faced by SMMEs because it will allow them to work together in network in solving the challenges.

Chimucheka and Mandipaka (2015) further recommended that the government should strive hard to create enabling business environment for the SMMEs to operate through the improvement and provision of adequate infrastructure such as road networks, buildings and communication technologies. They suggested that the business environments should be established in such a way that ensures the emergence of new enterprises, allowing previous ones to grow, and the large and small enterprises to coexist by supporting one another. Aside the infrastructure provision, the scholars recommended that an effective legal and regulatory

framework should be established to promote competition through the elimination of excessive restrictive licensing requirements and allowing other international and regional financial institutions with better SMME-lending tools to enter the market. It is also suggested that SMMEs should participate in networking colloquiums where they share their testimonies on business success, challenges they are facing to sustain or grow their businesses and come upon with possible solutions.

SMMEs are required to adopt information and communication technologies in their businesses because the development of information and communication technology is central for trade facilitation in both local and international markets (Chimucheka & Mandipaka, 2015).

2.13 Chapter Summary

The chapter reviewed both the empirical and theoretical literature in relations to SMMEs in the global context but focused mostly in the South African context. It has been argued that the construction industry's performance, therefore, is largely predicated on government infrastructure spend – a figure reaching about R220 billion per year . The South African construction industry makes up around 5,5% of GDP, at least 50% of total National Capital Investment, and is anticipated to have reached an annual growth rate of 2.62% by the year 2020. It is estimated that as much as 2.25million SMMEs are operating in South Africa. Findings indicated that "SMMEs contributed 42% to the South African GDP in the first quarter of 2015, a significant increase from 34.58% in 2012, and 28% in 2005". It was discovered that the procurement-related challenges facing SMMEs include skills and capacity shortages, access to public procurement-related information, access to work, lack of access to finance, fraud, corruption and maladministration, supplier-relationship challenges, fronting, poor quality outputs, delayed payments, lack of transformation in public procurement, market oversaturation, non-compliance, fragmentation and inconsistencies in the application of procurement laws and BEE policies, non-compliance to SCM policy and regulations, ethics and conflict of interest, inadequate monitoring and evaluation of SCM, inadequate planning and linking demand to the budget, accountability, fraud and corruption and too much decentralisation of the procurement. The chapter concluded with the discussion on how to address the challenges which confront the SMMEs in South Africa.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The purpose of this study is to identify procurement challenges faced by emerging contractors in accessing business opportunities in the eThekwini metropole in the KwaZulu-Natal region. Following a review of the literature on the problem of procurement asymmetry, and challenges faced by contractors in accessing public sector procurement business opportunities, the study established that there are too many programmes, and distinctions between them are arbitrary. Therefore, further studies will be required to establish whether the procurement opportunities provided by the relevant government agencies particularly KZNDPW are intelligible to construction SMMEs as it is not yet known whether these SMMEs have the requisite technical-financial knowledge, to read and understand the support provided by government. To investigate these challenges, a survey will be conducted of construction SMME contractors operating in this target area.

This chapter discusses the research designed and methodology adopted to investigate these phenomenon. The research design is supposed to explain how the entire research will be conducted so that the research objectives can be realised. Some of the steps to be considered when designing the research design is picking some aspects like the philosophical framework. Additionally, a researcher might also need to make decisions on data collection tools and methods, data analysis as well as how the data will be analysed and interpreted as a way towards realising the research objectives (Babbie and Mouton, 2001; Cresswell, 2003).

This chapter presents the philosophical underpinning of the study as well as well as the various steps taken in the data collection process and the analysis of the collected data. The chapter presents the design, methodology and context that guides the study. Further, the chapter also describes the procedures and approaches adopted in the data collection and analysis of the data.

3.2 Research Design

Research design gives direction to the decisions and procedures to be taken in the selection of the sampling frame, the sampling size, the research population to be used as respondents and the sampling techniques to be used in selecting the ultimate respondents. This study seeks to identify the challenges in procurement faced by SMMEs especially when it comes to available information and opportunities as well as confirming the efforts by government to ensure that

the SMMEs participates in public procurement as well as getting the perceptions of the SMMEs of the government's current system targeting public procurement in the construction sector. Lastly, the study seeks to articulate some recommendations on how to overcome some of the identified challenges in public procurement as well as identifying some opportunities in the construction sector that the SMMEs can exploit. These research objectives are reiterated here to ensure that the collected empirical data is relevant and adequate to achieve the stated research objectives and solving the current research problem (Struwing and Stead, 2004). To achieve the research objectives stated above, the study made use of a questionnaire survey as the primary data collection tool. The survey will employ a descriptive reserve method that is non-experimental in nature. Surveys were selected for this instance because they allowed the researcher to investigate a phenomenon that cannot be directly observed. Although questionnaires make up the primary data collection tool, sometimes interviews are also employed (University of Texas, 2012).

As noted by Barker and Sinkula (2007), it is important to select the most appropriate research methodology so that the research objectives can be achieved. Usually the problem being investigated and the nature of the data determines the methodologies to be followed.

3.3 The research philosophy

When conducting research, it is imperative that the research philosophy is ascertained. This is important because the research philosophy is key in clarifying the research design a well as indicating the kind and extent of evidence required to achieve the research objectives. Research philosophy can be defined as the development of the research knowledge and its nature and the research background. According to Saunders, Lewis and Thornhill (2009), the two main approaches to be adopted conducting research includes the phenomenological approach, which is used in qualitative studies and the positivist approach, which is mainly used in quantitative research.

Based on the nature of the study, a positivist approach was adopted. This was because most theories on construction management are based on ontology which according to Knight and Ruddock (2008) can be achieved through research and on the epistemology of objective knowledge that exists independently of the knower. According to Noor (2008), positivism is based on the natural model of dealing with facts and takes an objective dimension (Perry, 1998). This is further supported by Baxter and Jack (2008) who argue that objectivity of the

reality is also not rejected even when the Constructivist philosophy is used, which talks about the subjective, human creation of meaning.

Ontologically, the study is premised on a positivist, objectivist philosophy and paradigm, a constructivist view in that some of the reality is based on the responses that are given by the respondents. The positivist paradigm underpinning the research assumes that the nature of the knowledge is not compromised by the prior knowledge or experience of the researcher. The positivist paradigm is highly objective because the researcher's perspective does not affect the credibility of the research findings (Knight and Ruddock, 2008). The research approach that the study adopts is a mixed methods approach where both quantitative and qualitative methods were used in collecting data. This approach was adopted because the researcher sought to ascertain the attitudes and opinions of project stakeholders and their access to procurement information and to measure quantity and/or amount in terms of performance. As predicted by Yin (1994), it is increasingly important to integrate both qualitative and quantitative methods instead of using them separately.

3.4 Research Methods

There are three type of research methods, namely: quantitative, qualitative and mixed methods. However, this study adopted the mixed methods approach to investigate the research phenomenon. The justification for the choice of this method are provided below.

3.4.1 Quantitative research

Roberts (2012) asserts that the quantitative research has its origin from the positivist paradigm. The quantitative research primarily consists of collecting numerical data that will be analysed statistically and conclusions drawn from the analysis results. The premise is that the results are valid, generalizable to a larger population and are reliable. This quantitative paradigm allows the researcher to remain independent of the data and not having any subjective bias towards the results. Roberts (2012) support the view expressed by the above author, pointing out that that researchers often use quantitative in their investigations when they intend to eliminate possible bias. The positivist approach worked by taking a sample from a larger population and then making inferences to the whole target area from that sample. Questionnaires are typically used in surveys to ascertain the preferences, attitudes and opinions of the sample frame (Mancosa Study Guide, 2013). The four basic methods for conducting quantitative research includes observations, data studies, experiments and surveys.

3.4.2 Qualitative Research

Neil (2012) advocates that qualitative approach to research often adopts descriptive study and does not rely on statistical or numerical data as opposed to quantitative research. This approach to research allows researchers to provide rich and detailed descriptions of the research phenomenon (Mancosa Study Guide, 2013). Qualitative research is primarily interested in getting the complex and rich understanding of people's lived experiences rather than data which can be aggregated to some conclusion as is the case with quantitative research. The qualitative method was used to collect information from the management and officials of the Eyesizwe Contractor Development Programme, through the help of a semi-structured interviews. The collected data from the emerging contractors sample will be generalised to all construction SMMEs within eThekwini in KZN.

3.4.3 Mixed methods

The mixed methods approach to research is the third approach which emerged in the recent times because of the limitations that were identified in quantitative and qualitative research. This approach to research has been in existence since 1950s but gained more popularity in the late 1980s (Dunning, Williams, Abonyi and Crooks, 2008; Creswell and Plano Clark, 2007; Creswell, 2003). Mixed methods involve the combination of both quantitative and qualitative methods in the investigation of a particular research phenomenon (Creswell and Plano Clark, 2007).

There are different approaches to mixed methods research, namely: sequential explanatory; sequential exploratory; sequential transformative; concurrent triangulation; concurrent Nested; and concurrent transformation. However, the study adopted the sequential exploratory mixed methods. This method of research involves the collection of qualitative data, followed by collection and analysis of quantitative data. There are several justification for the choice of this approach to research. A key justification is that, mixed methods increases the validity of the research findings through the process of triangulation (Hurmerinta-Peltomaki & Nummela, 2006). Another justification is that mixed methods provide deeper and broader understanding of the phenomenon than either using quantitative or qualitative research method. Also, the choice of this method of research was influenced by what is termed as integration component. Integration provides the researcher with more confidence in the research findings and the conclusions from the study (O'Cathain, Murphy and Nicholl, 2010).

3.4.4 Selected research methods and reliability

According to Polit and Beck (2008), the research strategy contains the plan about how the research questions can be answered. The researcher identified the type of available information as well as the purpose of the study as part of the research strategy. Consequently, a sequential, mixed method approach was adopted where a descriptive and non-experimental quantitative survey was used to generate data on challenges faced by SMMEs in the construction industry who engage in public procurement. Follow up interviews with officials from the contractor development programme will be used to confirm or disprove the earlier questionnaire data.

Burns and Grove (2009) see quantitative research as an objective, formal and systematic process to describe, examine the cause and effect-relationships between variables, leading to the easy statistically analysis of the data. The researcher cannot control or manipulate the independent variables in non-experimental research designs (Ibid). The study is carried out in a natural setting and observed as they occur. In the case of this study, there were no variables that were manipulated by the researcher. The respondents freely expressed their perceptions and experiences as asked in the questionnaire on how the government provides them with information. The same strategy of allowing respondents to freely express themselves was also extended to the management and officials of the Eyesizwe Contractors Development Programme.

Burns and Grove (2009) make the argument that questionnaires are sometimes used in descriptive studies and survey to describe an identified area of concern. This study starts with a literature review which is followed by a structured questionnaire administered to emerging contractors, selected within the eThekwini Metropolitan area in KwaZulu-Natal, to ascertain their current public procurement opportunities and how they access them.

3.5 Targeted Population and Sampling Methods

Kropp, Lindsay and Shaham (2008) argue that since it is often impossible for the researcher to gather data from the entire population of the study, sampling is necessary to provide a microcosm of that population. For the results to be valid and reliable, the researcher needs to strike a balance between a sample that is small enough to be manageable but also large enough to be statistically representative. While the results from the sample are invariably different from those of the entire population, they often provide an acceptable indication of the whole

population. Kropp et al. (2008) assert that a study's success is very much based on the sampling procedures and population parameters.

3.5.1 Targeted population

The population refers to "all elements (individuals, objects, or substances) that meet certain criteria of inclusion in the study" (Burns and Grove, 2009). Emerging contractors within the eThekwini Metropolitan area, in the Kwazulu-Natal province make up the research population for this study. The total population of emerging contractors was 215 within the eThekwini Metropolitan area, in the Kwazulu-Natal province

3.5.2 Sampling

A sample is a subset or portion of the entire population which the research selects for the participation in a specific study (Ibid). The focus of the research is on SMMEs in the construction industry based in the eThekwini Metropolitan area. Because the researcher could not access and interview all the emerging contractors, a sample of 80 out of 192 contractors from eThekwini Metropolitan area were used out of a total provincial population of 3186 contractors, who are participants in the KZN Public Works Department's Eyesizwe Contractor Development Programme. The eThekwini database represents 47% of the entire population of the database. The selection rate was that every second contractor on the sample frame of contractors within eThekwini Region only. The KZN Public Works was approached and they granted the researcher permission to use their construction SMME database.

As noted by Fellows and Liu (2008), sample size is also an indicator of the population's behaviour. Sample sizes are determined by the confidence level required of the estimator. The variance of a consistent estimator decreases as the sample size increases. The mean of an unbiased estimator approximates to the mean of the population. The size of the sample can be calculated scientifically with the formula below:

$$n = \frac{z^2 \times s^2}{(u - x)^2}$$

$$n = \frac{1.96^2 \times (1490/8)^2}{(0.05 \times 1490)^2}$$

$$n = \frac{2.84^2 \times (1490/8)^2}{(710)^2}$$

$$n = \frac{98{,}576.94}{1387.56}$$

n = 78

Where *n* = Sample size
z = Confidence levels (e.g. 1.96 for 95% confidence level)
s = Sample standard deviation (1490/8)
u = Mean of population
x = Sample mean (35)

3.6 Sample Size and Sampling Technique

According to Bless et al. (2006), sample size is the part of the whole population used by a researcher and whose features and characteristics can be inferred to the whole population. This is supported by Fellows and Liu (2015) who add that the purpose and context of the research largely determines the sample size. The authors go on to add that sampling allows the collection of data and subsequent parts of the research to be done with ease while still providing a good representation of the population (Fellows and Liu, 2015). In this study, a total of 138 participants were selected as the sample size.

Several sampling techniques are available to researchers and these can be largely reduced to two areas, namely probability and non-probability sampling techniques (Chen, 2003). In probability methods, such as random sampling, all members of the population have an equal chance of being selected and taking part in the study (Chen, 2011). Usually, random sampling occurs without replacement, hence, the members of the population can only be selected once (Fellows and Liu, 2015).

3.6.1 Probability sampling

Kothari, 2008 defines probability sampling as random sampling and or chance sampling. In this kind of sampling each item of the universe forms an identical chance of being included in the sample (ibid). Cooper and Schindler (2008) argue that this based on the conception of random selection and organised technique which guarantees that each population element is given a known non-zero chance of selection. Bryman and Bell (2011) further argue that the

aim of such technique is generally to keep sampling error to a minimum. According to Chen (2011), the motivation for probability sampling is that it allows for optimum representation especially when there are cost, time and logistical constraints. Probability sampling has various techniques such as:

- Systematic sampling: According to Taherdoost (2016), stratified sampling is used when the researcher selects every nth case after the random start has been chosen. On the contrary, Etikan and Bala (2017) argue that in systematic sampling, the researcher selects only the first unit randomly, while the remaining units of the sample to be selected are fixed. This sampling method has confident points of having improvement over other sampling techniques, as ample the systematic sample is feast more equally completed to the entire population. A systematic sampling is "spreads the population more evenly over the population" (Sharma, 2017: 750).

- **Simple random sampling:** Taherdoost (2016) postulates that the simple random sampling allows every case of the population to have an equal probability of inclusion in the sample. Thus, a simple random permits every single item in the universe the probability of being part of the sample.

- **Stratified sampling:** The stratified sampling is the complex technique among all the probability sampling techniques. Sharma (2017) explains that stratified sampling involves the process of dividing the population into smaller groups called "strata". A random sample is then taken from each of the stratum. A stratified sampling reduces the potential of human error or bias in the selection of the individual cases to be included in the sample.

- **Cluster sampling:** In this sampling method, all the natural occurring groups are chosen as samples (Sharma, 2017). The scholar suggests that all probability sampling techniques require sampling frames of all the sampling units with the exception of the cluster sampling.

Out of the various probability sampling techniques, the systematic sampling was used to select 130 respondents for the quantitative study. The systematic sampling technique was used because it was easier and simple to conduct when compared to the simple random sampling.

3.6.2 Non-probability sampling

Cooper and Schindler (2008) argue that non probability sampling is different in that it is a non-random and subjective. Such sampling does not give basis for approximating the probability that each item in the population has of being included in the sample. Bryman and Bell (2011) argues that such a sampling generally surveys one individual in the organisation.

• **Convenience sampling**: Cooper and Schindler (2008) indicates that this form of sampling is easy to conduct and the cheapest. The researchers have the freedom to choose whoever they can find. Convenience samplings are the slightest trustworthy design.

• **Purposive sampling**: Judgement sampling is used commonly in qualitative research where the wish happens to develop hypotheses rather than to simplify to larger populations (Kothari, 2008). There are two major types of purposive sampling, judgement sampling and quota sampling. Judgement sampling happens when a researcher sample members to follow to some standard (Cooper and Schindler, 2008). The researcher's decision is used for choosing items which he considers as representative of the population (Kothari, 2008).On the other hand, quota sampling is used to advance representativeness (Cooper and Schindler, 2008). When using quota sampling, the researcher has an ease access to the sample population (Kumar, 2011).

• **Snowball sampling**: Snowball sampling is the procedure of choosing a sample by means of networks (Kumar, 2011). Snowball sampling is convenient when the researcher wants to sample subjects that are difficult to identify (Cooper and Schindler, 2008).

From the various non-probability sampling technique, the purposive sampling technique was used to select eight participants for the qualitative study.

3.7 Data Collection Instruments

Questionnaires and semi-structured interviews were used to collect the data from the respondents.

3.7.1 Questionnaires

The data collection instrument was a questionnaire, based on an extensive review of the related literature on how government provides public sector procurement opportunities to construction SMMEs. Naranjee (2012) notes that some of the factors used in the design of the questionnaire includes the mechanisms used to deliver the questionnaire, the intellectual capacity of the respondents, the relevance to the study objectives and the application of the statistical technique to be employed.

A questionnaire administered to emerging contractors based in eThekwini, particularly those participating in the KwaZulu-Natal Public Works Department's Eyesizwe Contractor Development Programme constituted the primary data collection method. The questionnaire was standardised and coded, allowing respondents to selected responses from pre-selected list of possible answers which confirmed the uniformity of the data collection tool and the collected data. A literature review constituted the primary secondary data collection method which formed the basis for the questions in the questionnaire. Follow up structured interviews with management and officials of the Eyesizwe Contractor Development Programme were conducted to triangulate the data collected via the questionnaire.

The researcher self-administered the questionnaire to the respondents. A consent letter outlining the study details, voluntary participation, confidentiality and anonymity was attached to the questionnaire so that the respondents can familiarise themselves with these details prior to filling the questionnaire. The letter is attached on this document as Annexure A. The researcher left the respondents with the questionnaire and they were given up to two weeks to complete the questionnaire. It was expected that the questionnaire took between 10 to 15 minutes to complete.

The research administered 130 questionnaires to contractors. Out of 130 Questionnaires distributed, 126 were returned completed representing a response rate of 97%.

3.7.2 Method of Data Analysis

Data analysis consists of several steps to ensure the coding and categorisation of data as well as doing the spastically calculations. The quantitative and qualitative data analysis were carried out separately with the quantitative data analysis first which was then followed by the qualitative data analysis. Quantitative data analysis focuses on statistics and measurement of

the numerical data collected through surveys or questionnaires (Anupama, 2017). According to Albers (2017), the goal of quantitative data analysis is to display the underlying patterns, trends, and relationships of a study's contextual situation. In this study, the IBM Statistical Package for the Social Sciences (SPSS) software, version 25.0 was used to analysis the quantitative data. The study made use of both descriptive and inferential statistics to analysis the results. Some of the specific tests and analyses done include Kruskall-Wallis and Chi-squared testing for ordinal data and median and standard deviations as well as frequency tables and graphs. Gravetter and Forzano (2009) note that the standard deviation is a more accurate and detailed estimates of dispersion because an outlier can greatly exaggerate the range. The standard deviation shows the relations that set of scores has the mean of the sample and allows us to reach some conclusion about specific scores in our distribution. Low standard deviation implies that most observations are close to the mean while a high standard deviations suggest a significant variance in the answers (Ibid). Other statistical tools used were correlations, Cronbach's alpha coefficient, factor analysis, Analysis of variance (Annova) and sample t-test.

According to Sekaran and Bougie (2013) qualitative data analysis goes through three stages such as data reduction which includes selecting, focusing, simplifying, abstracting and transforming. The second stage involves data display which comprise of organising and compressing. The third stage involves drawing valid conclusion which comprises of noting irregularities, patterns and explanation, configuration and proposition. Braun and Clarke (2006) on the other hand suggested that qualitative data analysis goes through six stages such as data familiarisation, generating initial codes, searching for the themes, reviewing the themes, defining the themes, and the write-up. The qualitative data analysis was done by adopting the six steps proposed by Braun and Clarke (2006). The qualitative data gathered from the research participants was transcribed manually. The analysis of the data was done by employing thematic analysis. Thematic analysis is a qualitative research method which is used across a range of epistemologies and research questions (Braun & Clarke, 2006). According to Alhojailan (2012), thematic analysis involves classifications and presentation of themes (patterns) that relate to the dataset. This method of analysis enabled the researcher to identified, analysed, organised, described, and reported the themes found within the dataset. A rigours thematic analysis was carried out which produced trustworthy and insightful findings.

3.7.3 Instrument administration

The structured questionnaire was developed for this research with two sets of questionnaires, for the Government officials and Construction SME's. The questionnaire was discussed with researcher Supervisor and amendments were made based on his comments and went through two main phases. The phases covered the pilot study, and finally the final questionnaire for data collection.

As shown in Appendix 1, the questionnaire included several types of questions including primarily close-ended and a few open ended questions. The design of the questions included category questions where only one answer is allowed as well as multiple choice questions where one answer is possible among the given alternatives (Naranjee, 2012).

Table 3.1. Ordinal scale used in ranking the factors causing cost overrun and impact

Scale	Factor Agreement	Impact
1	No understanding	Very Low Impact
2	Average understanding	Neutral
3	Full understanding	High Impact

The questionnaire also made use of the 3 point Likert scale to ascertain the extent to which respondents agreed or disagreed with a certain given statement. Burns and Grove (2009:410) define a Likert scale as a scaling technique used to determine the attitude and opinion of respondents when faced with declarative statements where they have to rank these based on how much they agree or disagree with them. (Burns & Grove, 2009). LaMarca (2011) further adds that the neutral scale in the middle is to ensure that the rating scale is balanced as the absence of one means the scale will not be balanced.

3.7.4 Pilot Study

Bryman and Bell (2011) and Cooper and Schindler (2008) emphasised that it is crucial to conduct pilot study before administering the questionnaire to ensure that the survey questions operate well. A pilot study was conducted in May 2018 by distributing questionnaires to three SME Contractors and two government officials. In all, five participants were involved in the pilot study. The respondents that participated in the pilot study were omitted in the final questionnaire administration.

3.7.5 Final questionnaire structure

The questionnaire was based on the review of literature as well as feedback from testing pilot study. The structure of the final questionnaire administered to SMEs in the construction sector comprised of a cover letter and four sections (Refer Appendix B) and for government officials comprised of a cover letter and one section (Refer Appendix C)

a) Construction SME's

Cover page described the purpose of the research, giving guidelines on how to complete the questionnaire. It further stated the confidentiality policy of the study and provided of the researcher (Refer Appendix A).

Section A comprised of the basic information about the respondent and the company. The information about the respondent included position held in the company, gender, population group, level of education, field of study and years of work experience. The information about the company included the total number of full-time employees, and the business activities the company specialises in.

Section B focused on the challenges facing the construction SME's in KwaZulu - Natal. The respondents were requested to rate the impact of the financial related challenges, human resource management related challenges, Health and Safety related challenges and quality relate changes in their businesses.

Section C focused in the contribution of construction SME's in the South African economic improvement. This section required to get data on owner/managers' understating about the contribution of their businesses in the economic development.

Section D sought to understand the impact of government intervention in construction SME's and if the Owners/Managers are aware of these government initiatives.

b) Government officials

Cover page entailed similar information as the cover page for construction SME's.

Section A comprised of the basic information about the respondent and the company. The information about the respondent included position held in the company, gender, population

group, level of education and years of work experience. The background of the government entity and government intervention

3.7.6 Questionnaire protocol

The questionnaire adopted a mixed methods, sequential approach. Follow up interviews with the management and officials of the Eyesizwe Contractors Development Programme were conducted to triangulate coded questionnaire findings. An iPhone application was used for recording and storing the interviews. The interviews were later transcribed. Only the researcher and the supervisor are able to access the recordings who pledged in the consent letter not to divulge any personal information that can be traced back to and harm the respondents or the SMME.

3.8 Reliability and Validity of the Instrument

According to Hopkins (2000) the reliability in a research project refers to the consistency with which the measuring device performs. Apart from delivering accurate results, the measuring instrument must deliver similar results consistently. Reliability refers to the degree to which the measurements produce trustworthy and reliable results. Polit and Beck (2008) observes that an instrument is as reliable as its capacity to measure and reproduce true scores. In other words, the instrument should eliminate as many errors as possible from the final score. In this study, the same questionnaire was used on all respondents to achieve reliability and ensure uniformity. The questionnaire was also administered under the same condition for all the respondents. The questions in the questionnaire were developed from the iterative review. According to Golafshani (2003), the researcher can achieve more diverse, reliable and valid responses from the use of a mixed methods approach which makes use recordings, interviews and observations. The reliability of the research instrument was determined through use of Cronbach's alpha coefficient.

Ghauri and Gronhaug (2005) points out that validity refers to well the research data gathered covers the actual area of investigation. Field (2005) explains that validity measured what it was intended to be measure. There are various kind of validity namely: face validity, content validity, construct validity, and criterion validity. However, criterion validity (the extent to which a measure is related to an outcome) was used in this study to measure the validity of the research instrument. The validity of the research instrument was measured through factor analysis.

3.9 Follow-Up Procedures

During data collection the response rate from participants was low, therefore, the follow up procedure was engaged.

- Firstly, follow up emails were sent weekly to the individuals as a reminder to participate in the survey and only few responded.

- Secondly phone calls were made twice a week as a constant reminder, only few responded and some were not interested to participate in the survey.

- Lastly the researcher made phone calls and requested to conduct telephonically survey and that increased the rate of respondents.

According to Fox and Bayat (2010) telephone surveys can clarify misunderstanding that may arise, moreover, telephone surveys are easier, faster and efficient.

3.10 Response Rate

The number of completed questionnaires obtained were 126 out of 130 sent out via emails and circulated through tender help desks offices within the eThekwini Regional Office representing an overall response rate of 97% from contractors while three were received from government entities. Given the time and financial constraints the response was acceptable, and no further attempts were made to increase the number of responses. The indication in percentage in terms of contractors that responded is represented in Table 3.2.

Table 3.2 Response rate

Items	Frequency	Percentage (%)
Total questionnaires retrieved	126	97
Missing questionnaires	4	3
Total questionnaires	130	100

From Table 3, 126 questionnaires that were retrieved from the respondents constituted a 97% response rate.

3.11 Limitations of the Study

This study investigated the challenges and opportunities faced by SMMEs in the eThekwini region as well as the kind of information provided to them by the government when it comes to public procurement. The main limitations of the study were on the sample size. Time and logistical challenges dictated that the research be conducted in only one out of the 54 municipalities in the province. This was partly offset by the fact that eThekwini is the largest municipality in the province which also means because of the size constraint, the researcher did not reach the desired data saturation point. Additionally, the tool that was used also posed some limitations. For example, for those respondents who were administered the close-ended questionnaire, no further follow up was possible to get more insight into their responses.

3.12 Chapter summary

This chapter discussed the research approach, research strategy and underlying research philosophy of the study. A sequential mixed methods approach was employed. A descriptive and non-experimental survey was used to ascertain the challenges facing SMMEs when it comes to accessing business information. Additionally, a structured qualitative interview with the Director of the contractor development programme was used to further analyse the results of the survey. The chapter also discussed the process of questionnaire construction and distribution to participants was discussed. The population included a sample of 80 of the 192 construction SMMEs operating within eThekwini Metropolitan region. The data collection methods included a self-administered questionnaire.

CHAPTER FOUR: QUANTITATIVE DATA ANALYSIS AND DISCUSSION OF RESULTS

4.1 Introduction

This chapter presents the analysis of the data as well as the discussion of the results emanating from the study. The analysis and the discussion are in line with the research objectives are which include: to identify challenges faced by SMMEs in accessing procurement opportunities; to establish how government seeks to enhance SMME participation in public procurement; to assess SMME perceptions of effectiveness of the current system of government targeted procurement in the public construction sector; and to make recommendations pertaining to the most appropriate approach to assist SMMEs in accessing public procurement opportunities in the construction sector. The researcher administered 138 questionnaires to the respondents within the eThekwini Metropolitan area, in the Kwazulu-Natal province. The questionnaires were administered as well as via the email. Out of the total of 130, only 126 fully completed questionnaires were retrieved. The data analysis was carried out on the total number of the questionnaires that were retrieved from the respondents. The data gathered from the respondents were analysed by following three important steps (data coding, data reduction and conclusion) as recommended by Sekaran and Bougie (2013). The data were capture in Excel Sheet which was later transferred into the Statistical Package for Social Science (SPSS) software version 25.00.

4.2 Frequency

The results of the study are first presented using frequency distribution tables. The results on the demographic variables are first presented which is then followed by the results on each of the research objectives.

4.2.1 Demographic information

The part of the chapter presents the result on the demographic information of the respondents based on their working experience, gender, position, race and educational qualification. The results are presented in Table 4.1.

Table 4.1 Demographic information of the respondents

Information		N	%
Year of practising			
	< 2 years	9	7.1
	2-5 years	61	48.4
	6-10 years	27	21.4
	11-15 years	23	18.3
	16 years and above	6	4.8
Gender			
	Male	87	69.0
	Female	39	31.0
Position			
	Owner	87	69.0
	Partner	21	16.7
	Manager	9	7.1
	Worker	3	2.4
	Other	6	4.8
Race			
	Black African	106	84.1
	White	3	2.4
	Indian/Asian	12	9.5
	Coloured	5	4.0
	Other	--	0.0
Highest educational qualification			
	Grade 8 and below	20	15.9
	Grade 12	51	40.9
	Tradesman	5	4.0
	Certificate	10	7.9
	National Diploma/Higher Diploma	20	15.9
	University Degree	10	7.9
	Post-Graduate Degree	10	7.9
	Other	--	0.0

Table 4.1 indicates that 55.5% of the respondents have been practicing for less than 5 years as contractors, 69% were male and owned their businesses, 69% of the respondents were owners of SMMEs, 84.1% were Black African and 56.8% had Grade 12 and below as their highest educational qualification.

4.2.2 Organisations with which contractors have registered

The results on the organisations which the contractors have registered with are presented in the Figure 4.1.

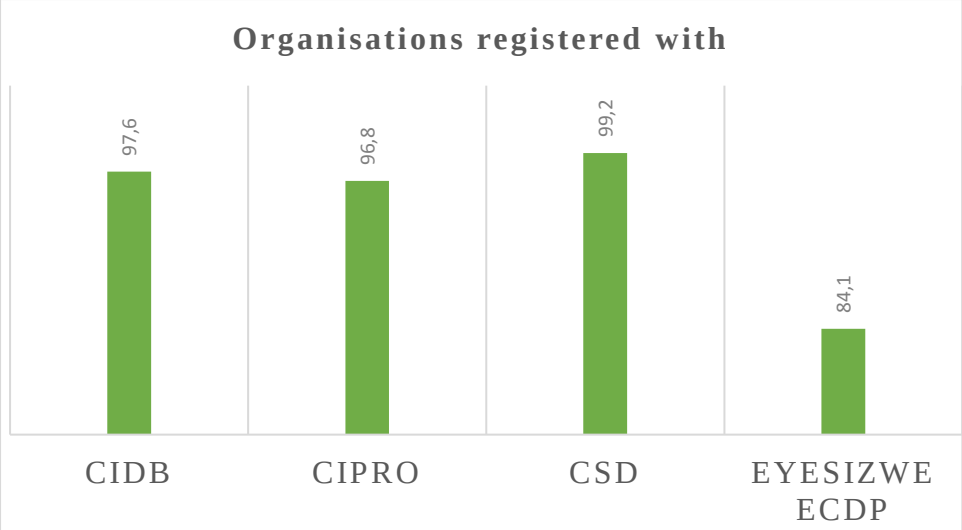

Figure 4.1 Organisations that contractors have registered with

From Figure 4.1, it is evident that almost all the respondents had registered with cidb (97.6%), CIPRO (96.8%), CSD (99.2%) and Eyesizwe ECDP (84.1%). Most contractors within the eThekwini Metropolitan area had registered with both CSD and cidb.

These findings reaffirmed previous studies which suggested that construction SMMEs in South Africa had registered with various institutions such as cidb, CIPRO, CSD and Eyesizwe ECDP. Construction Industry Development Board was established under the custodianship of the Department of Public Works, for the purpose of supporting and promoting contractor development in the construction sector (Anthony, 2013; Letchmiah, 2012; Smallwood et al 2011). The establishment of CIDB was based on the recommendation of the Construction Industry Development Board Act 38 of 2000. Over the years, cidb has initiated several measures to support emerging businesses in the construction industry by developing regulations to standardise practices and procedures in the public sector so as to achieve best practices in the industry.

CIPRO was established in accordance with the provisions of the Companies Act 71 of 2008 in order to provide a modern environment for companies, creating a progressive regulatory framework that provides for simple, easy company registration and enhanced governance and disclosure standards for businesses in South Africa. CIPRO was established in March 2002 as a result of the merger of two former directorates of the DTI, namely: the South African Companies Registration Office [SACRO] and the South African Patents & Trade Marks Office SAPTO. The vision of CIPRO is be the global leader in the efficient registration of businesses

and intellectual property rights. CSD serve as the source of all supplier information for all spheres of government and other organisations in South Africa.

4.2.3 The types of projects which the contractors are involved in

The study sought to identify the types of projects that the contractors within the eThekwini Metropolitan area were involved in. The findings which emerged from the study are presented in Figure 4.2.

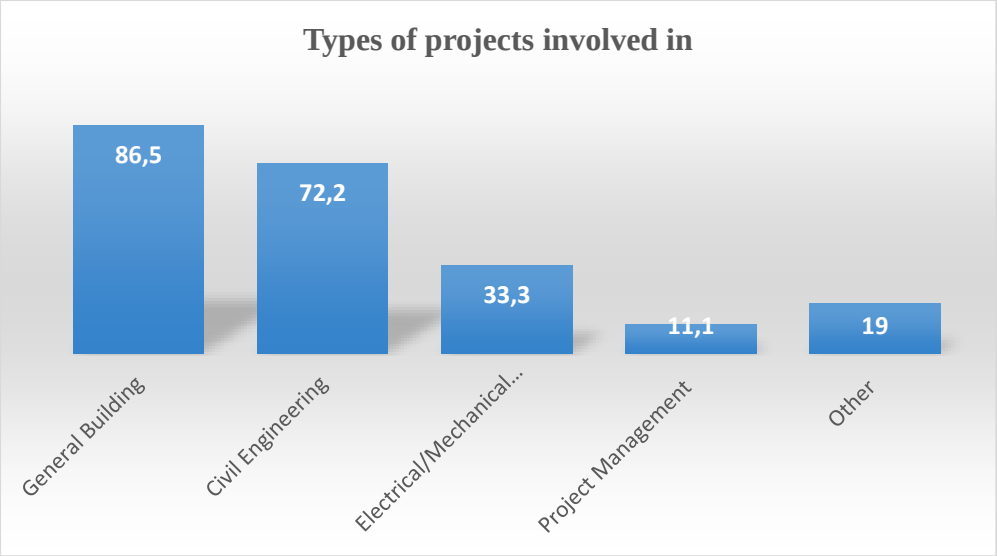

Figure 4.2 The types of projects which the contractors are involved in

Figure 4.2 shows that the most contractors were involved in projects such as General Building (86.5%) and Civil Engineering (72.2%). These findings confirmed previous research.

The Construction Monitor (2016b) reported that "around 95% of cidb registered Grade 2 to 4 General Building (GB) and Civil Engineering (CE) contractors were Black-owned (where "Black ownership is defined as ownership control of 51% or more); and 50% women-owned (where women ownership is defined as 51% or more). Around an average of 88% of all Grade 5 and 6 GB and CE contractors were Black-owned, while around 75% of all Grade 7 and 8 GB and CE contractors were Black-owned". The Construction Monitor (2016) in its report states that "Black ownership of Grade 9 contractors had improved in both GB and CE classes of works from 25% to 33% in CE and from 30% to 40% in GB, respectively, from quarter to quarter.

4.2.4 Grade of the contractors in the cidb

The study sought to identify the grades of the various contractors within the eThekwini Metropolitan area. Findings from the study are shown in Figure 4.3.

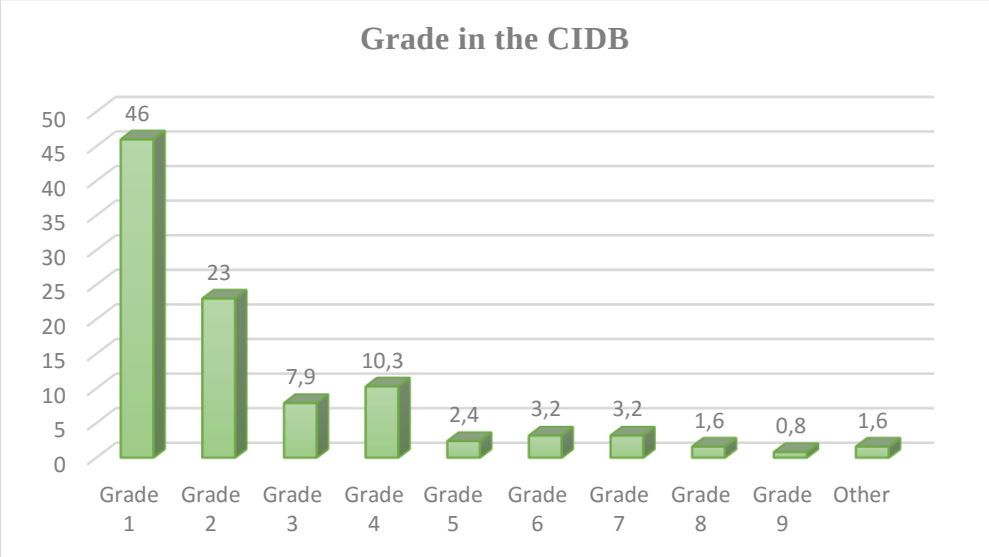

Figure 4.3 Grade of the contractors in the cidb

From Figure 4.3, 46% of the respondents, which represented the majority indicated that they were in Grade 1. Previous studies (Construction Monitor, 2016; Ntuli & Allopi, 2013) suggested that although, no reliable statistics are published on Grade 1 contractors it is estimated that they constitute 79% of registered contractors. KwaZulu-Natal and Gauteng account for 50% of the contractors on the Register.

4.2.5 Number of employees employed by the contractors

The number of persons employed by the respondents is shown in Figure 4.4.

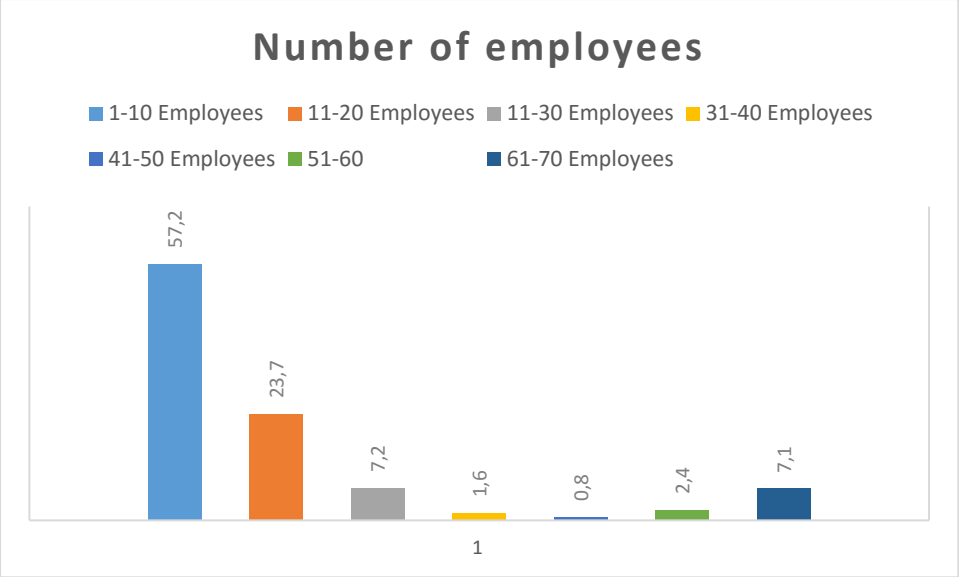

Figure 4.4 Number of employees employed by the contractors

Figure 4.4 reveals that 57.2% (majority) of the respondents reported that they employed 1-10 workers. It is evident that emerging construction SMMEs employ not more than 10 workers. Further, it is evident that 80.9% of the respondents were registered in Grades 1 and 2 with less than 20 employees. This finding affirms similar opinion offered by Macqueen (2005: 2), who advocates that informal SMMEs employ less than ten people. However, International Finance Corporation (2010:1) states that SMME includes registered businesses who employ fewer than 200 employees.

4.2.6 The company's annual turnover in previous year

The research sought to find out from the respondents what their annual turnover was in the previous financial year. The aim was to determine the viability of their firms. The results relating to the company's annual turnover in the previous year are presented in the Table 4.3.

Table 4.3 The company's annual turnover in previous year

		Frequency	Percentage	Cumulative
	<100,000	46	29.6	29.6
	R100,000-200000	13	10.4	40.0
	R210,000-300000	7	5.6	45.6
	R310,000-400,000	6	4.8	51.4
	R410,000-500000	10	8.0	59.4
	R510,000-600000	--	--	59.4
	R610,000-700,000	10	8.0	67.4
	R710,000-800000	1	0.8	68.2
	R810,000-900000	1	0.8	69.0
	R910,000-990000	--	--	69.0
	R1m-5m	16	11.2	80.2
	R6m-10M	7	5.6	87.4
	R11m-15M	16	11.2	98.6
	R16M-20M	3	2.4	100.0
	Total	126	100.0	

The results are shown in Table 4.3 where 69%% of the respondents indicated that their organisations had less than R1 million as annual turnover in the previous financial years, 11.2% had annual turnovers between R1 million and R5 million.

The findings are contrary to previous studies. According to the National Small Business Act, SMMEs have an annual turnover of approximately less than R150,000 up to R25 million depending on the size. In South Africa, small businesses are generally more established as opposed to medium and micro enterprises and they have more complex business practices. The annual turnover for small businesses is between R2 million and R4.5 million. Medium enterprises on the other hand are usually characterised by the decentralisation of power to an

additional management layer. They have an annual turnover of less than R4 million to R50 million depending upon industry. Micro enterprises mostly lack formality in terms of registration, and their turnover is less than the Value Added Tax (VAT) registration limit R100,000 per year. Micro enterprises have less than R150,000 as annual turnover. Chiloane-Tsoka and Boya (2014) discovered that SMMEs annual turnover varies from R500,000 to R25 million

4.2.7 Average total number of full time permanent employees employed

Table 4.4 shows the average total number of full-time permanent employees currently employed by the various construction firms within the eThekwini Metropolitan area in the KwaZulu-Natal province.

Table 4.4 Average total number of full time permanent employees employed

		Frequency	Percent	Cumulative Percent
	<10 Employees	100	79.4	79.4
	10-20 Employees	6	4.7	83.7
	21-30 Employees	2	1.6	85.3
	31-40 Employees	3	2.4	87.7
	41-50 Employees	2	1.6	89.3
	51-60 Employees	13	10.3	100
	61>	--	--	100
Total		126	100.0	

From Table 4.4, 83.7% of the respondents employed less than 20 full time employees in their firms. There may be several factors which have accounted for the inability of the respondents (SMMEs) to employ more employees including the size of the firm, access to finance, government support and many others. According to Macqueen (2005: 2), informal SMMEs employ 0-50 employees. However, Chiloane- (2014) in their study found that most SMMEs employed 5 to 200 employees.

4.2.8 Policy mandate

The study sought to find out how policy mandate affected SMMEs within the eThekwini Metropolitan area in the KwaZulu-Natal province. The study further investigated the

understanding of the respondents on the various policies which regulates the SMME sector. The respondents were asked to indicate their level of understanding using the three Likert scale point such: no understanding = 1; some or average understanding = 2; and full or complete understanding = 3. Six items measured the policy mandate. The results of the study are shown in Figure 4.5.

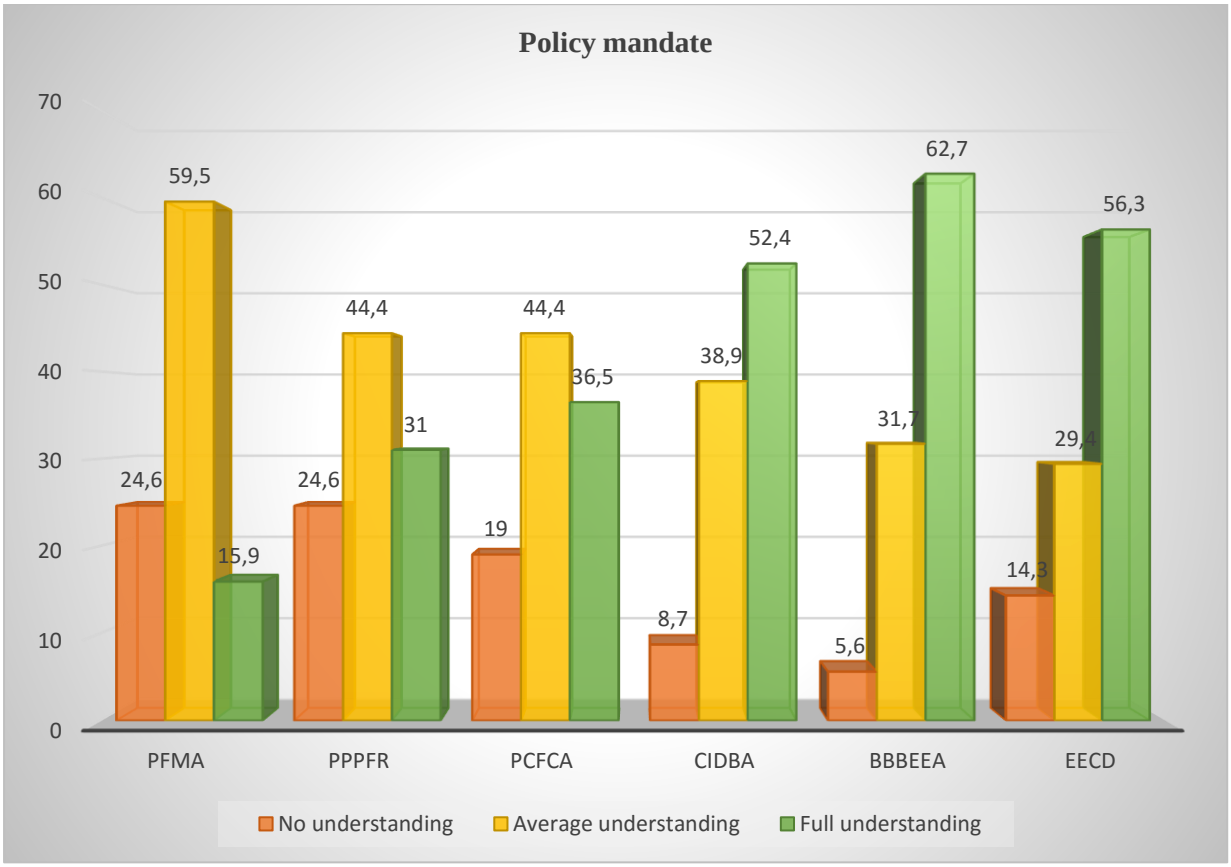

Figure 4.5 Policy mandate

From Figure 4.5, 24. 59.5% of the respondents reported that they had some or average understanding on the Public Finance Management Act. Therefore, a general conclusion can be drawn based on the findings that the construction SMMEs have some level of understanding on the Public Finance Management Act which regulates the SMME sector in South Africa.

4.2.9 Financial related challenges

The study also investigated the financial related challenges facing SMMEs in the public sector. Twelve items measured the financial related challenges confronting the SMMEs owners. The results from the field research are shown in Figure 4.6.

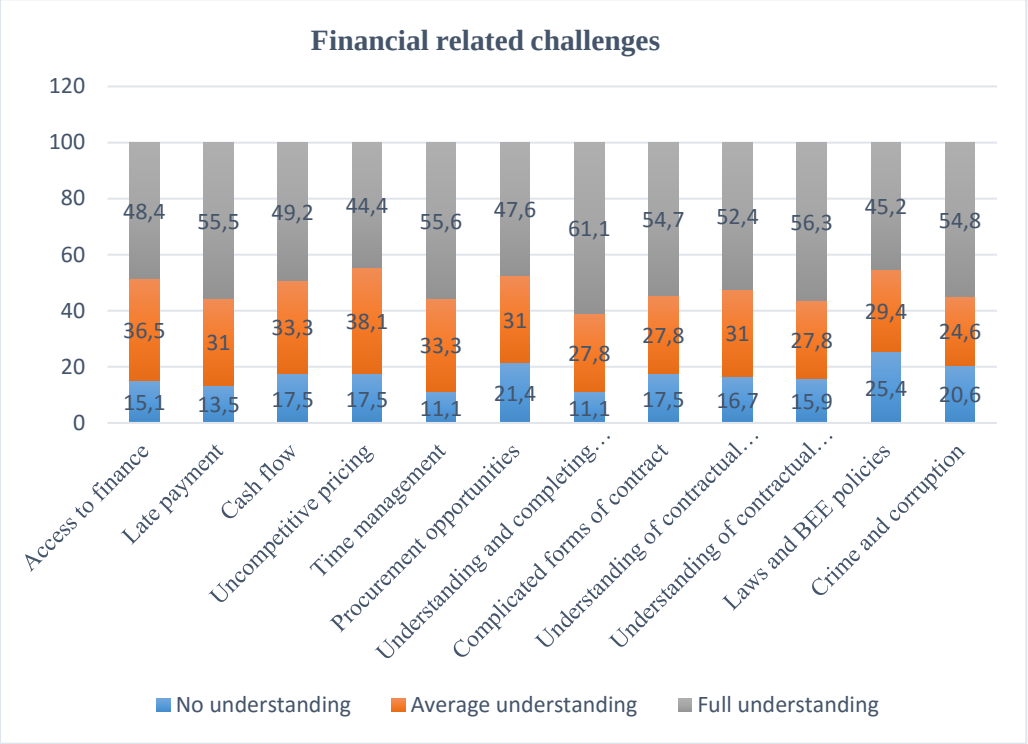

Figure 4.6 Financial Related challenges

Table 4.6 shows the following, namely that respondents reported full or complete understanding with respect to: lack of access to finance to their desired project (48.4%); late payment by government (55.5%) suggesting that that delayed payment by the South African government is one of the financial challenges facing SMMEs owners; limited cash flow (49.2%); uncompetitive pricing (44.4%); time management issues (55.6%); procurement opportunities (47.6%); difficulty in understanding and completing documents (61.1%); understanding of the complex and complicated form of contract (54.7%); understanding of contractual obligations (52.4%); understanding of contractual documentation (56.3%); fragmentation and inconsistencies in the application of the laws and BEE policies and preferential point system (45.2%); and crime and corruption (54.8%)

4.2.10 Human resource management related challenges

In addition to these challenges, the study further investigated the human resource management related challenges affecting SMMEs owners. There are 11 items measuring the human resources challenges. The results from the study are shown in Figure 4.7.

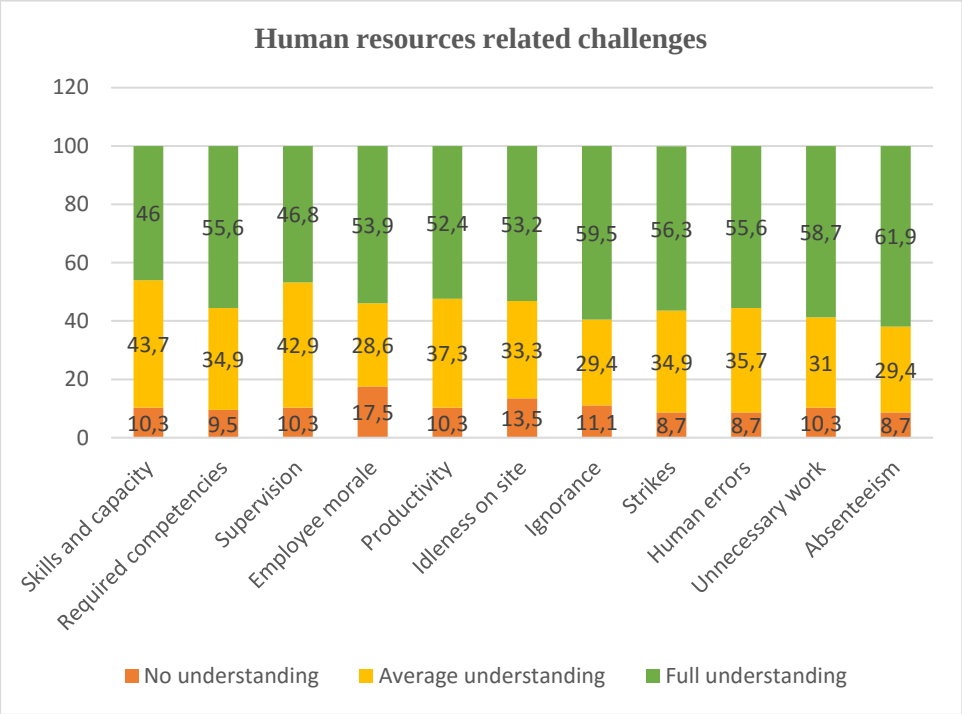

Figure 4.7 Human resource management related challenges

Figure 4.7 shows that the human resource related challenges facing SMMEs include: skills and capacity shortage (46.0%); lack of required competencies (55.6%); inadequate supervision (46.8%); low employee morale (53.9%); low productivity (52.4%); idleness on site (53.2%); ignorance (59.5%); strikes (56.3%); human errors (55.6%); unnecessary work (58.7%); and absenteeism (69.1%).

4.2.11 Supply chain management related challenges

The study also conducted an investigation into the supply chain management related challenges facing SMMEs. There are nine items in the questionnaires which measured this challenge. The scoring patterns are shown in Figure 4.8.

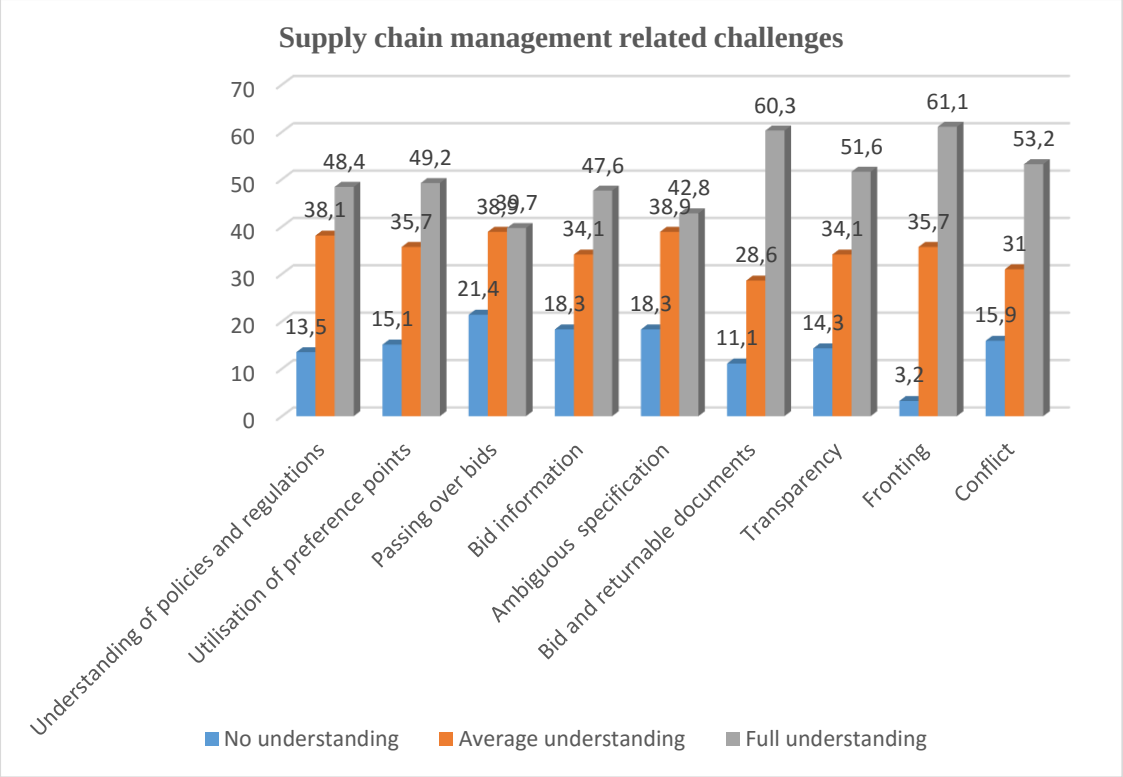

Figure 4.8 Supply chain management related challenges

It is evident from the Figure 4.8 that the supply chain management related challenges include: understanding of policies and regulations (48.4%); incorrect utilisation of the preference points, (49.2%); passing over bid for incorrect reasons (39.7%); lack of bid information on the bid register (46.7%); ambiguous specifications, (42.8%); incorrect bid documents and returnable documents (60.3%); transparency (51.6%); fronting (61.1%); and conflict by government officials (53.2%).

4.2.12 Quality management related challenges

The study also examined the quality management related challenges facing SMMEs owners within the within the eThekwini Metropolitan area in the KwaZulu-Natal province. There are 6 items measuring these challenges. The results are shown in Figure 4.9.

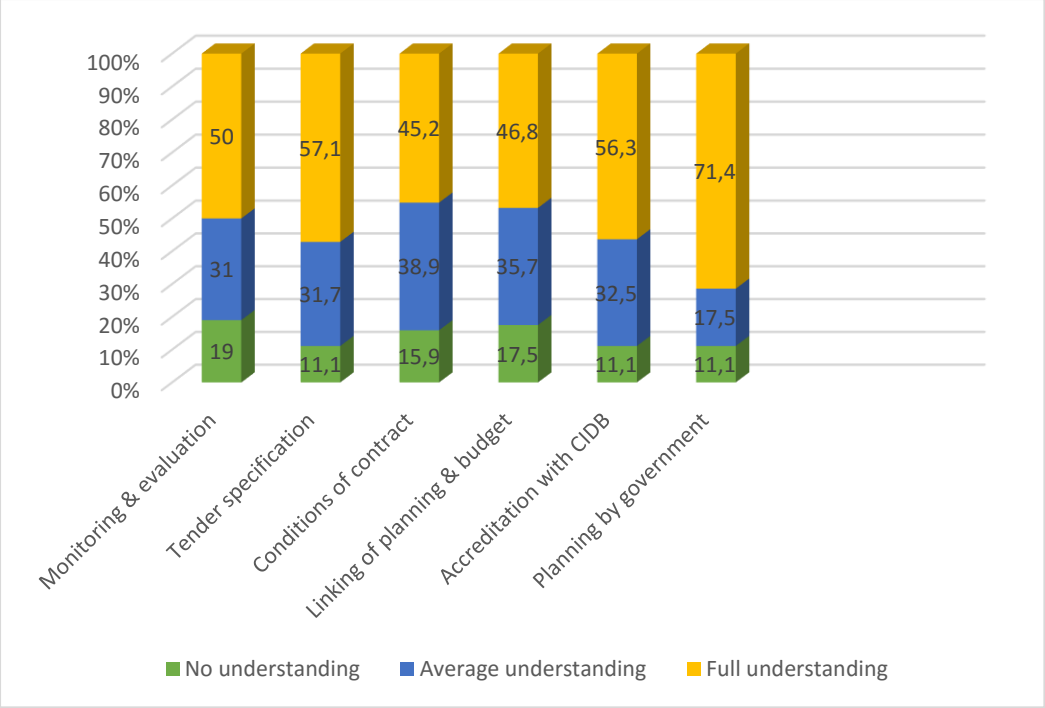

Figure 4.9 Quality management related challenges

The results from the study as shown in Figure 4.9 indicate that the quality management related challenges confronting the SMMEs within the eThekwini Metropolitan area are as follows: monitoring and evaluation by SCM officials (50%); correct tender specifications (57.1%) correct conditions of contract (45.2%); linking of planning and budget (46.8%); accreditation with cidb (56.3%) had full understanding of and planning by government; (71.4%).

4.2.13 Good governance

Nine items measured good governance. The key findings are shown in Figure 4.10.

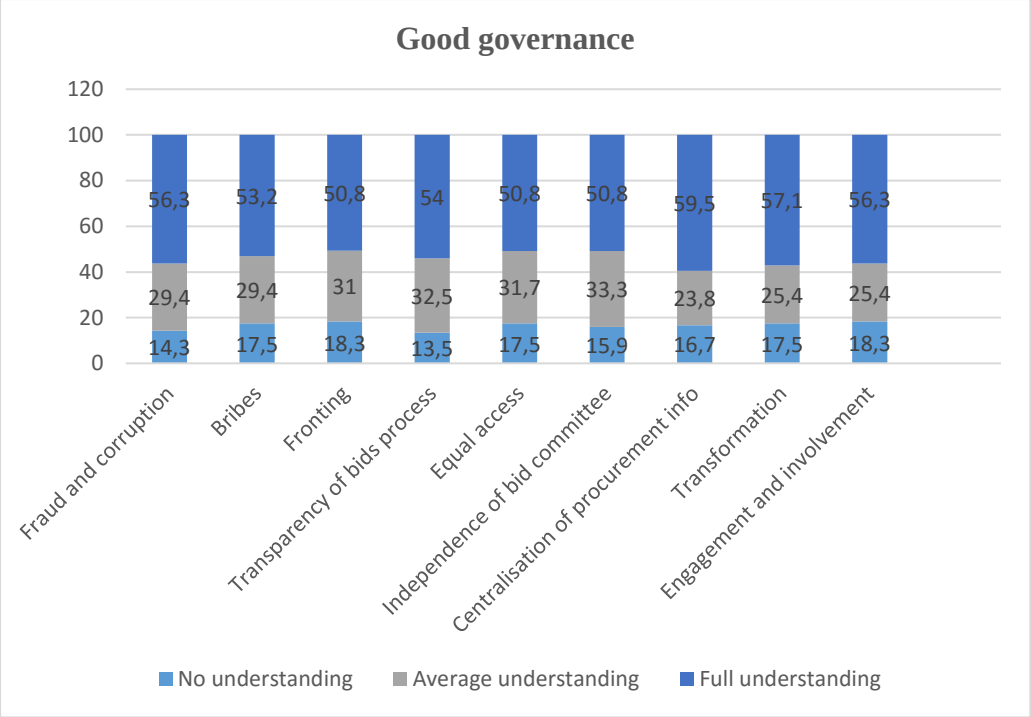

Figure 4.10 Good governance

As reflected in the Figure 4.10, the governance related challenges affecting the SMMEs within the eThekwini Metropolitan area include: fraud and corruption (56.3%); bribes (53.2%) fronting (50.8%); transparency of the bid process (54%); equal access to the procurement opportunities (50.8%); independence of the bid committee (50.8%); centralisation of the procurement information (59.5%); transformation (57.1%); and of open engagement and involvement (56.3%).

4.2.14 Ways in which SMMEs get access to procurement information

The findings from the study on the ways in which SMMEs get access to procurement information are presented in Figure 4.11.

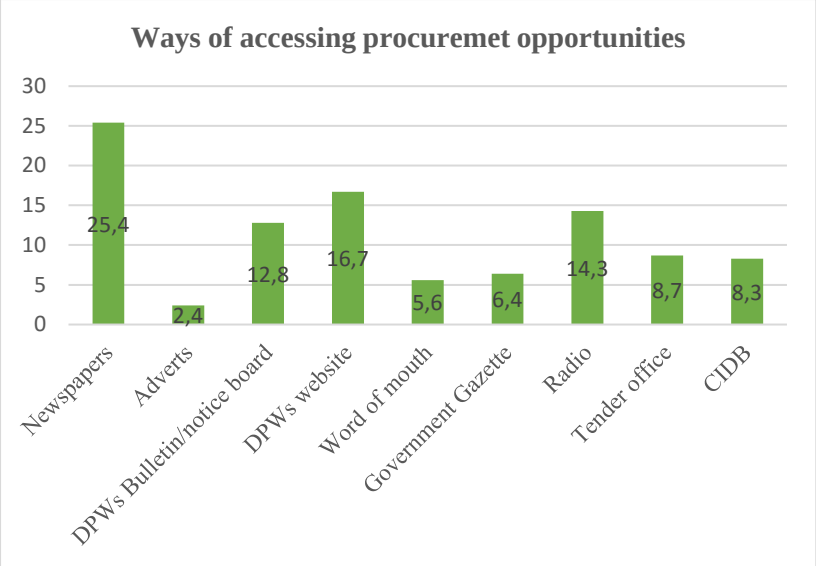

Figure 4.11 Ways of accessing procurement opportunities

The information from Figure 4.11 shows that the sources of accessing procurement opportunities by the construction SMMEs include newspapers (25.45%), DPWs website (16.7%), and radio (14.3%). The analysis of the findings reveal that the most common sources where the SMMEs owners access procurement opportunities are newspapers and the DPWs website.

4.2.15 Effective ways of receiving tender documents

The study sought to identify the most effective ways of receiving tender documents or procurement information for tendering. The findings are shown in the proceed Table 4.5.

Table 4.5 Effective ways of receiving tender documents

Variable	Frequency	Percentage (%)
Government gazette	53	42.1
Newspapers	34	27.0
Direct invitation	20	15.9
Notice board	15	11.9
Other	4	3.2
Total	126	100

From Table 4.5, 42.1% of the respondents said that the most effective way of receiving tender documents is through the government gazette. Another 27% of the respondents also indicated

that the most effective way is through the newspapers. It appears that most of the respondents believed that the government gazette is the most effective receiving tender documents.

4.2.16 Understanding of the tender documentation

The respondents were asked to rate their understanding of the tender documentation. The findings are shown in Table 4.6.

Table 4.6 Understanding of the tender documentation

Variable	Frequency	Percentage (%)
No understanding	5	4.0
Some understanding	58	46.0
Not sure	14	11.1
Full understanding	49	38.9
Total	**126**	**100**

From Table 4.6, 46.0% of respondents reported they had some understanding of tender documentation. It is concerning that almost a quarter of respondents had this level of understanding.

4.2.17 Getting the tender document is very expensive

The study sought to find out from the respondents whether getting the tender document was very expensive. The findings are presented in Table 4.7.

Table 4.7 Getting tender document is expensive

	Frequency	Percent	Cumulative Percent
Totally agree	54	42.9	42.9
Agree	43	34.1	77.0
Disagree	20	15.9	92.9
Totally disagree	9	7.1	100.0
Total	126	100.0	

The information from Table 4.7 shows that 77% of the respondents agreed that getting the tender document was very expensive. This could have major implications on their businesses as well as South Africa.

4.2.18 Contribution of SMMEs

A number of previous studies have investigated the contribution of SMMEs sector in South Africa. Nevertheless, this study also aims to carry out the same or similar investigation into the contribution of SMMEs but within the eThekwini Metropolitan area in the KwaZulu-Natal province. The results are shown in Figure 4.12.

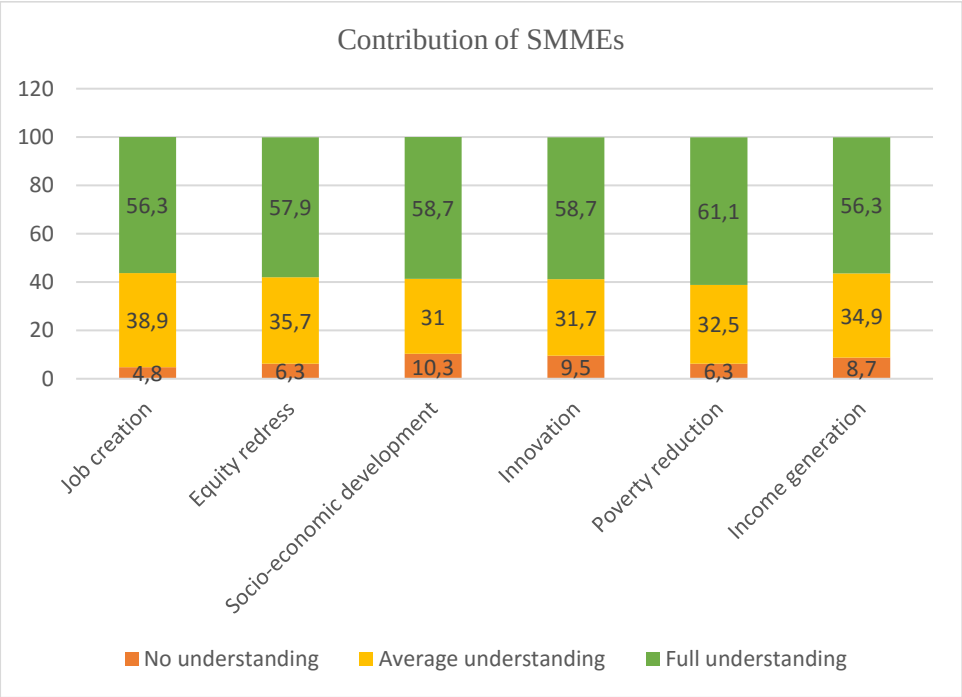

Figure 4.12 Contribution of SMMEs

From the Figure 4.12, it is evident that the key contribution of the construction SMMEs within the eThekwini Metropolitan area in the KwaZulu-Natal province include: job creation (56.3%); equity redress (57.9%); socio-economic development (61.1%); and income generation (53.6%).

4.2.19 SMMEs Participation in Programmes

The Table 4.8 shows the level of SMME participation in programmes such as SEDA, SEFA, NEFA, Vukuzakhe and Eyesizwe.

Table 4.8 SMMEs Participation in Programmes

Statement	N	Percentage (%)
SMMEs Participation in SEDA		
Yes	90	71.4
No	19	15.1
Unsure	17	13.5
SMMEs Participation in SEFA		
Yes	59	46.8
No	56	44.8
Unsure	11	8.8
SMMEs Participation in NEFA		
Yes	54	42.9
No	56	44.4
Unsure	16	12.7
SMMEs Participation in VUKUZAKHE		
Yes	81	64.3
No	32	25.5
Unsure	13	10.3
SMMES Participation in EYESIZWE		
Yes	98	77.8
No	20	15.9
Unsure	8	6.3

From the Table 4.8, the results reveal that the construction SMMEs within the eThekwini Metropolitan area participatated in the programme such as: SEDA (71.4%); SEFA (46.8%); NEFA (44.4%); Vukuzakhe (64.3%); and Eyesizwe (77.8%). Although it is evident that the construction SMMEs participated in all the programmes, however the most participated programmes were Eyesizwe and SEDA. The significance difference between the two programmes and others was that these programmes provide a number of supports for emerging contractors. Another significance difference between Eyesiwe and SEDA and other programmes is that these two programmes focus more on the Black African small businesses.

4.2.20 SMMEs Participation in other programmes

Aside from the SMMEs participation in programmes such as SEDA, SEFA, NEFA, VUKUZAKHE and EYESIZWE, the study also intended to find out whether SMMEs participated in other programmes. The results are shown in Table 4.9.

Table 4.9 SMMEs Participation in other programmes

		Frequency	Percent
	Bargaining Council	121	96.0
	BCEA	4	3.2
	National Gazelle	1	.8
	Total	126	100.0

The results from Table 4.9 revealed that almost all (96%) of SMMEs have been taking part in Bargaining Council.

4.2.21 Eyesizwe Emerging Contract Development impacts on SMMEs

The impact of Eyesizwe Emerging Contractor Development on the SMMEs is shown in Table 4.10.

Table 4.10 Eyesizwe Emerging Contract Development impact on SMMEs

		Frequency	Percent
	No Understanding	39	31.0
	Some understanding	34	27.0
	Full understanding	53	42.0
	Total	126	100.0

As seen in Table 4.10, 42% of the respondents reported that they had full understanding that Eyesizwe Emerging Contract Development impacts on their firms indicative of a significant impact on SMMEs in South Africa.

4.2.22 Whether Government provides procurement opportunities for SMMEs

The study sought to determine whether government is doing enough to provide procurement opportunities to SMMEs. The results are presented in Table 4.11.

Table 4.11 Whether Government provides procurement opportunities for SMMEs

		Frequency	Percent	Valid Percent
	Yes	21	16.7	16.7
	No	105	83.3	83.3
	Total	126	100	100.0
Total		126	100.0	

From Table 4.11 it is evident that most (83.3%) respondents indicated that government was not doing enough to provide procurement opportunities to SMMEs.

4.2.23 Recommendations to government

Recommendations from SMMEs owners or contractors to the government are shown in Figure 4.13.

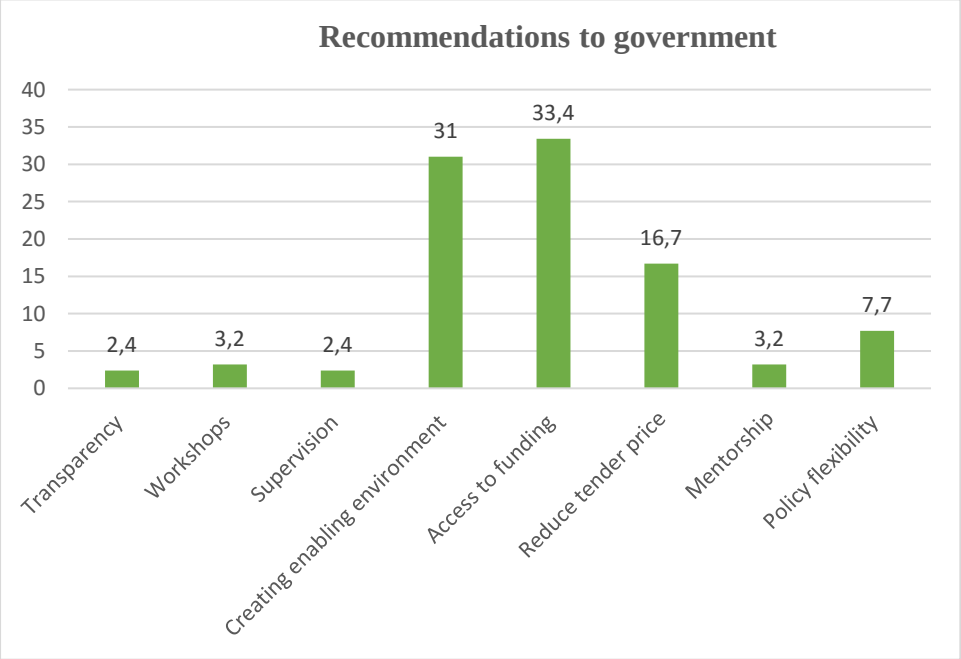

Figure 4.13 Recommendations to government

From Figure 4.13, 31% of the respondents recommended that government should create an enabling business environment for them to operate while 33.4% recommended that government should provide access to funds for the SMMEs.

It is evident that most of the respondents are of the view that government should support SMMEs with easy access to funds as well as creating enabling business environment. These recommendations supported the similar recommendations offered by previous researchers. It was recommended that government as well as financial institutions should provide financial opportunities to SMMEs (Chimucheka & Mandipaka, 2015; Mahlaka, 2014). Mahlaka, (2014) argues that 13% of overdraft or credit applications and 10% of bank loan applications by most SMMEs were rejected. Therefore, there is the need for more financial support for the SMMEs to enable them function more effectively and efficiently. According to National Credit Regulator (2011), nearly half percent of SMMEs in South Africa are not able to access funding from bank because they are not listed with the Companies and Intellectual Property Commission. Moneyweb (2013) suggests that in spite of the government measures to assist SMME sector, some of these measures are deemed as completely ineffective and that they have so far changed nothing. Friedrich and Isaacs (2010) in their study also recommended that in order to promote the effective functioning of SMMEs the government must support them with resources such as finance.

Chimucheka and Mandipaka (2015) in their previous study recommended that in order for SMMEs to get access to funds, policymakers and SMMEs must consider the Grameen Bank-type model (GBM) which is based on the voluntary formation of small groups of underprivileged people and is meant to provide loans to those SMMEs without collateral, which is normally a hindrance to access finance by small businesses.

Government should strive hard to create enabling business environment for the SMMEs to operate through the improvement and provision of adequate infrastructure such as road networks, buildings and communication technologies. Business environments should be established in such a way that ensures the emergence of new enterprises, allowing previous ones to grow, and the large and small enterprises to coexist by supporting one another. An effective legal and regulatory framework should be established to promote competition through the elimination of excessive restrictive licensing requirements and allowing other international and regional financial institutions with better SMME-lending tools to enter the market (Ibid).

4.3 Descriptive statistics

Using the descriptive statistics, the results are shown in the Table 4.12.

4.3.1 Individual items and their mean scores

The individual items and their respective mean scores are shown in the Table 4.12.

Table 4.12 Individual items and their mean scores

Variables	No.	Mean	Std. Deviation
Policy mandate	**126**	**2.2632**	**.43223**
* PFMA	126	1.91	.633
* PPPFAR	126	2.06	.746
* PCFCA	126	2.17	.728
* CidbA	126	2.44	.651
* BBBEEA	126	2.57	.599
*Eyesizwe Emerging Contractor Development	126	2.42	.731
Financial Related Challenges	**126**	**2.3938**	**.58138**
* Access to finance	126	2.33	.725
* Late payment by government	126	2.42	.719
* Cash flow	126	2.32	.755
* Uncompetitive pricing	126	2.27	.742
* Time management	126	2.44	.688
*Access to procurement opportunities	126	2.26	.792
*Understanding and completing tender documents	126	2.50	.690
* Complex and complicated forms of contract	126	2.37	.767
* Poor understanding of contractual obligations	126	2.36	.753
* Poor understanding of contractual documentations	126	2.40	.750
* Fragmentation and inconsistencies in the laws	126	2.20	.820
* Crime and corruption	126	2.34	.800
HRMG Related Challenges	**126**	**2.4761**	**2.55759**
*Skills and capacity shortages	126	2.36	.663
* Lack of required competencies	126	2.45	.665
* Inadequate supervision	126	2.37	.665
* Low employee morale	126	2.37	.765
* Low productivity	126	2.40	.683
* Idleness on site	126	2.40	.716
* Ignorance	126	2.48	.690
* Strikes	126	2.48	.654
* Human error/mistake	126	2.47	.653
* Unnecessary work	126	2.48	.678
* Absenteeism	126	2.53	.653
SCM Related Challenges	**126**	**2.3871**	**.63687**
* Understanding of policies and regulations	126	2.35	.708
* Incorrect utilisation of preference points	126	2.36	.721
* Passing over bids for incorrect reasons	126	2.18	.763
* Lack of bid information on bid register	126	2.30	.762
* Ambiguous specifications	126	2.27	.731
* Incorrect bid documents and returnable documents	126	2.49	.690

* Lack of transparency	126	2.39	.715
* Fronting	126	2.58	.556
* Conflict by government officials	126	2.37	.745
QM Related Challenges	**126**	**2.3452**	**.58696**
* Monitoring and evaluation by SCM officials	126	2.31	.774
* Correct tender specifications	126	2.46	.689
* Correct conditions of contracts	126	2.29	.727
* Linking of planning and budget	126	2.29	.749
* Accreditation with cidb	126	2.45	.688
* Planning by government	126	2.26	.750
Good Governance	**126**	**2.4206**	**.72099**
* Fraud and corruption	126	2.42	.731
* Bribes	126	2.33	.769
* Confronting	126	2.33	.768
* Transparency of bid process	126	2.40	.718
* Equal access to procurement opportunities	126	2.33	.759
* Independence of bid committees	126	2.35	.741
* Centralisation of procurement information	126	2.42	.763
* Lack of transformation	126	2.40	.770
* Open engagement and involvement	126	2.38	.778
Contribution of SMMES	**126**	**2.5053**	**.51723**
* Job creation	126	2.52	.590
* Equity redress	126	2.52	.616
* Socio-economic development	126	2.48	.678
* Innovation	126	2.49	.666
*Poverty reduction	126	2.55	.615
*Income generation/revenue growth	126	2.48	.654

The Table 4.12 displays the results of the study using the mean score values and the standard deviation. The overall mean (composite mean) for each of the dimension was computed by adding the individual items and divided by the number of items. For instance, there were 6 items which measured the policy mandate, ranging from PM1-PM6. The composite mean was computed using the SPSS by adding all the individual items and divided by 6. Besides, each of the items were ranked using a 1 to 3 point Likert scale.

The overall mean score for the policy mandate was 2.2632. The score suggests that policy mandate positively influenced construction SMMEs within the eThekwini Metropolitan area in the Kwazulu-Natal province. The individual items which relate to the policy mandate were ranked using the mean scores on the scale of 1 to 3. The mean score values for policy mandate reflects that BBBEEA has the highest mean (*M* = 257), followed by cidb Act (*M* = 2.44), Eyesizwe Emerging Contractor Development (*M* = 2.42), PCFCA (M = 2.17), PPPFAR (M =2.06), and lastly, PFMA with a moderate mean (M = 1.91).

Several studies (Ayandibu & Houghton, 2017; Khosa & Kalitanyi, 2014; Rogerson, 2006) found that South Africa has a complex legislative framework which regulates the activities of SMMEs. This regulatory framework is a challenge which threatens the survival and growth of many SMMEs in South Africa.

Public Finance Management Act is one of the key government policies which regulate SMMEs in South Africa. This Act promotes good financial management at national and provincial levels. It requires accounting officers to have a procurement system that is fair, equitable, transparent, competitive and cost-effective, as required by the Constitution. It also authorises the National Treasury to issue procurement regulations as and when necessary (Letchmiah, 2012).

With respect to the Preferential Procurement Policy Framework and Regulation 2017, 44.4% reported that they had some or average understanding. From the analysis, one would draw a conclusion that the majority of the respondents (SMMEs contractors) had understanding on how the Preferential Procurement Policy Framework and Regulation 2017 regulates the SMME sector in South Africa. Preferential Procurement Policy Framework Act is intended to give effect to the Section 217(2) of the Constitution to provide a framework for preferencing (Letchmiah, 2012). The new Preferential Procurement Framework Regulations, 2017, promulgated to give substance to the Procurement Act, and signed into law on 20 January 2017, replace the current regulations that came into operation in 2011 (Balkaran, 2017; UNIDO, 2017; Pilane, 2017).

In terms of the Prevention and Combating of Fraud and Corruption Act, only 36.5% had full understanding of the provisions of this Act. This is of serious concern because the majority of respondents had limited knowledge and awareness of the legislative framework that regulated their activities or business. The Prevention and Combating of Corrupt Activities Act (PCCA) (Act 12 of 2004) was introduced to act as anti-corruption statute in South Africa. The Act applies to the public sector procurement through the establishment of a national Register of tender defaulters in the Office of the National Treasury; and through placing an obligation on organs of state to report corrupt activities relating to the procuring and withdrawal of tenders (Sewpersadh & Mubangizi, 2017; Letchmiah, 2012).

In relation to the Construction Industry Development Board Act, 52.4% of the respondents indicated that they had full or complete understanding. This finding implies that most of them

will be able to comply with the relevant provisions in the Act which relate to their business. However, of concern is the large proportion with little or no knowledge and awareness of the cidb. This Act establishes the cidb, outlines its mandate in terms of documentation, standardisation and government procurement policy. Additionally, the Act also mandates the board to: keep a register of national contractors; track projects of a certain value and assess the satisfaction of their completion and; establish best practices through the establishment of a Code of Conduct (Ambe & Badenhorst-Weiss, 2012; Smallwood et al 2011).

Regarding the Broad-Based Black Economic Empowerment Act, most respondents (62.7%) they had full or complete understanding. According to Ambe and Badenhorst-Weiss (2012) and Smallwood et al. (2011), BBEEA oversees the development of qualification criteria for specific service providers and contractors and development and execution of a preferential procurement policy.

Concerning Eyesizwe Emerging Contractor Development, more than half (56.4%) reported that they had full or complete understanding. Of concern again is the large proportion that had little or no knowledge and awareness of this programme. Sitharam and Hoque (2016: 279) discovered that "most SMMEs do not understand the laws that govern them; that the regulatory and legal aspects of doing business are extremely intricate, time-consuming, conflicting and costly, and, therefore, due to their inability to absorb compliance costs, many small businesses simply do not comply. Fumo and Jabbour (2011) discovered that regulatory and legal issues are crucial challenges that affect SMMEs. The author argues that SMMEs owners usually do not understand the law and, as a result, they end up paying penalties and fines.

Furthermore, the financial related challenge had an average mean score of 2.3938. The results suggest that financial related changes had a significant impact on the construction SMMEs. The mean score values for the financial related challenges reflect that the difficulty in understanding and completing tender documents has the highest mean score (M = 2.50); followed by time management (M = 2.44); late payment by government (M = 2.42); poor understanding of contractual documentation (M = 2.40); complex and complicated form of contract (M = 2.37); poor understanding of contractual obligations (M= 2.36); crime and corruption (M = 2.34); access to finance (M = 2.33); cash flow (M= 2.32); uncompetitive pricing (M = 2.27); access to procurement opportunities (M = 2.26); and fragmentation and

inconsistencies in the application of the laws and BEE policies and preferential point system (*M* = 2.20).

These findings reaffirm previous studies. Numerous studies (Sitharam & Hoque, 2016: citing Haron et al., 2013; Jeppesen, 2005) have confirmed that access to finance is a big challenge confronting informal SMMEs. Because of lack of records, geographical dispersion and high transaction costs SMMEs have a relatively higher risk profile, which limits their access to finance *vis a vis* the established firms.

Bolton (2004) points out that delayed payments affect the growth performance of emerging contractors and prevents them from obtaining new work because the limited profits they make are retained by clients as security for previous contracts. According to the cidb's *Drivers of the Cost of Public Sector Construction* (2017), late interim payments and delayed settlement of final accounts – often, up to 90 days after invoice submission – undermine the performance of contractors; and is at the heart of the disputes and litigation, the time extensions, the risks of non-completion, and other difficulties that plague construction projects (cidb, 2008). Fin Mark Trust (2006) discovered that only 2% of new SMMEs in South Africa are able to access bank loans.

Abor and Quartey (2010) argued that growth and survival of SMMEs are threatened by lack of full understanding of cash inflows and outflows. Abor and Quartey (2010) and Smit and Watkins (2012) in their studies further expressed the view that the failure of micro businesses in South Africa is due to regulatory constraints. Olawale and Garwe (2010) discovered that SMME Growth Index has repeatedly identified the regulatory burden as a critical challenge facing SMMEs in South Africa. According to Olawale and Garwe (2010), South Africa has complex and rigid regulatory framework which affects SMMEs.

Crime and corruption have been identified as critical issues affecting SMMEs worldwide, including South Africa. The United Nations Office of Drug and Crime (2007) has ranked South Africa amongst the world's five most-murderous nations. Brown (2001) in his previous study also indicates that most businesses in South Africa are facing big challenges because of crime and violence. Brown (2001) argues that the effects of crime on businesses in South African cannot be underestimated. These findings are supported by the statistics released by the South African Police Service Crime Statistics (2009).

According to Ambe and Badenhorst-Weiss (2012: citing Stemele, 2009), procurement actors in national and provincial governments spent about R21 billion wastefully and fruitlessly, in ways that contravened laws and regulations in 2010. In 2009, it was found that the country lost over R13 billion due to corruption practices across various government organisations.

The HRM related challenges had the overall mean score value of 2.4761. The results imply that HRM related challenges had strong positive effect on the construction SMMEs. However, the mean score values for the individual items reveal that employee absenteeism had the highest mean score (*M* = 2.53), followed by ignorance (*M* = 2.48), strikes (*M* = 2.48), and unnecessary work (*M* =2.48) with the same mean score, human error/mistake (*M* = 2.47), lack of required competencies (*M* = 2.45), low productivity (*M* = 2.40) and idleness on site (*M* = 2.40) with the same mean score value, inadequate supervision (*M* = 2.37) and low employee morale (*M* = 2.37) with the same mean score value and skills and capacity shortages *(M* = 2.36). The analysis of the mean score values suggest that all the items which fall under the human resource related challenges had moderate effect on the construction SMMEs.

These findings clearly demonstrate that most construction SMMEs are experiencing human resource management related challenges. Makhitha (2016) in his study identified that human resource management challenge is one of such challenges confronting SMMEs in South Africa. The recent findings by Makhitha (2016) reaffirms previous findings by Horgath-Scott, Watson and Wilson (1996), who advocated that human resource management challenges threaten the survival and growth of SMMEs. Horgath-Scott et al. (1996) in their study identified several challenges which relate to human resource management challenges including lack of skills, insufficient staff with competencies, low level of employee motivation and morale, poor attitude towards work and industrial actions.

Ambe and Badenhorst-Weiss (2012) and Naude et al. (2013) in their studies argued that the most restrictive factors impeding contractor success in public procurement are skills and capacity shortages, which hamper contractors' ability to deliver quality work and meet deadlines. Further studies revealed that the few Black engineers that tertiary institutions do produce often end up becoming consultants, therefore the proliferation of contractors with substandard educational backgrounds in the sector (Letchmiah, 2012; Kajimo-Shakantu, 2007). The high attrition rate of construction start-ups can be attributed to the low levels of managerial competence and low rates of financial literacy that plague their internal environment (Sitharam

& Hoque, 2016). Emerging contractors often have very little collateral and, therefore, also struggle to obtain credit from financial institutions to procure essential plant and equipment; and have no recourse to inter-generational wealth (Pillay & Mafini, 2017; Letchmiah, 2012).

According to BER (2016:8), "management or managerial skills is a critical factors for the success of any organisation". However, in South Africa, the skill gap is national issues which is affecting many businesses. Hutchinson et al. (2009:5) advocated that "managerial education/skills are required to assist micro businesses in South Africa to engage in and actively pursue and/or commit to the business activities". Hutchinson et al. (2009) concur that the skills crisis is a national phenomenon, because most entrepreneurs cannot afford the high cost of training and advisory services.

Schwartz and Hornych (2010) also found that SMMEs in South Africa faced common challenges including lack of competent people. The authors argued that most SMMEs failed to invest in the training and development of their workers which is a contributing factor to the lack of competencies. Sitharam and Hoque (2016, citing Martin & Staines, 2008) found that "the lack of managerial competency — a set of skills that encompasses the use of financial ratios and inter-firm comparisons to measure effectiveness (Ntuli & Allopi, 2013); financial planning literacy; and an understanding of accounting information — are the main reason for business failure". According to Muriithi (2015) employee competency is developed out of the managerial ability to combine both tangible and intangible resources to develop capabilities which upon excelling results to competencies.

Also, using the scale of 1 to 3, the results show that the supply related challenges had a composite mean score of 2.3871. The mean score therefore suggests that supply related challenges had moderate positive impact on the construction SMMEs. Among the individual items which measured the financial related challenges, fronting had the highest mean score (M = 2.58), which was followed by Incorrect bid documents and returnable documents (M = 2.49), lack of transparency (M = 2.39), conflict by government officials (M =2.37), incorrect utilisation of preference point (M = 2.36), lack of understanding of policies and regulations (M = 2.35), lack of bid information on bid register (M = 2.30), ambiguous specifications (M = 2.27), and passing over bids for incorrect reasons with a moderate mean score (M = 2.18). The findings from the present study agreed with existing studies. Most SMMEs in South Africa are faced with supply chain management related challenges which threaten their growth and

survival. According to Van Zyl (2006), every entity or municipality is required by the law to develop a sector-based supply chain management policy in line with SCM framework. The SCM policy prescribes that such government entities adhere to, develop and implement sector customised procurement programme. The main challenges is compliance with SCM prescripts which has been identified as part of audit findings and the lack of compliance by small businesses lead to poor service delivery or unskilled service providers benefiting in procurement opportunities. Ambe and Badenhorst-Weiss (2011b) noted that non-compliance to SCM policy was due to lack of skills, capacity and knowledge of the workforce to be able to fully implement SCM across various spheres of government. Research found that fronting is a form of fraud and corruption; and the construction industry has quite a reputation for this (mal)practice and is seen as having one of the poorest records of transformation (Letchmiah, 2012).

Besides, on the scale of 1 to 3, the study show that the quality management related challenges had the composite mean score of 2.3452. The mean score value suggests that the quality management related challenges has moderate positive impact on the construction SMMEs. However, when it comes to the ranking of each item, the results show that correct tender specifications had the highest mean score value (M = 2.46), followed by accreditation with cidb (M = 2.45), monitoring and evaluation by SCM officials (M =2.31), correct conditions of contract (M = 2.29), linking of planning and budget (M = 2.29) and planning by government with a moderate mean score value (M =2.26). The findings from this current study agreed with existing or previous studies. SMMEs in South Africa are facing quality management related challenges. The findings supported the result of previous studies presented in the chapter above. A study carried out by Kajimo-Shakantu (2007) with an emerging contractor through an interview reveals that there is reticence in the private sector about hiring Black contractors. The general public perception is that Black-owned contracting firms build skew buildings. Pillay and Mafini (2017) suggest that an over-reliance on unskilled labour in South Africa (due to a reduction in qualified, skilled labour) has led to poor quality outputs and general underperformance in the construction sector. The perception created by the poor workmanship of Black contractors, then, is that preferential procurement amounts to squandering of public resources (Ibid).

Moreover, good governance had a composite mean score of 2.4206, which suggests that it had a moderate positive impact on the construction. However, in ranking the individual items, the

results show that fraud and corruption and centralisation of procurement information had the highest mean score respectively (M = 2.42), which was followed by transparency of bid process and Lack of transformation with the same mean scores (M = 2.40), open engagement and involvement (M = 2.38), independence of bid committees (M = 2.35), bribes, confronting and equal access to procurement opportunities with the same mean score values (M = 2.33). The results presented in this study align with reviewed literature. Chiboiwa et al. (2016) in their study are of the view that that poor corporate governance may lead to high labour turnover. They further argue that organisations need to develop procurement code of ethics that can be benchmarked against International standards. Saudry (2007) contends that accountability constitutes a primary pillar to public procurement policy. Jeppeseon (2010) indicated that organisations that are without accountable systems and transparent procurement policies are subjecting themselves to danger of being entangled with increased misuse of funds and corruption.

Finally, on the scale of 1 to 3, the contribution of SMMEs had the composite mean score of (M= 2.5053). The mean score suggests that construction SMMEs contribute significantly to towards the socio-economic development of the South African economy. Furthermore, when it comes to the ranking of the individual items, the findings suggest that poverty reduction had the highest mean score (M = 2.55), which was followed by job creation and equity redress with the same mean scores (M = 2.52), innovation (M = 2.49), and socio-economic development and income generation with the same mean score value (M = 2.48).

The results are in keeping with the findings of previous studies. Globally, research showed that the SMMEs sector acts as a vehicle for job (Mahembe, 2011; United Nations Industrial Development Organisation [UNIDO] 1991; World Bank, 2011). In South Africa, SMMEs sector represent a significant tool to address the challenges of job creation, economic growth and equity in the country (Cass, 2012). The NCR (2011:7), while citing the White Paper on National Strategy for the Development and Promotion of Small Business in South Africa (1995) highlighted “the importance of SMMEs as agents of job creation, economic growth and equity in South Africa” (NCR, 2011:7). Kongolo (2010) also confirms that the SMMEs sector in South Africa has accounts for almost 91% of businesses and contributes 60% towards the country’s employment. A report released by Statistics South Africa (2013) also showed that SMMEs is a vital tool in the creation of sustainable jobs. Statistics South Africa (2013) has estimated that SMMEs provides more than 61% of employment in South Africa.

Adelzadeh (2006) alleges that poverty is a nationwide issue in South Africa. Almost half of the population in South Africa continues to live under a poverty datum line. It was estimated that over 22 million people in South Africa live in poverty (Development Bank of Southern Africa [DBSA], 2005). According to Chimucheka and Mandipaka (2015), the SMME sector in South Africa has been playing a critical role in alleviating poverty in the country. This findings underscores the relevance of the previous study conducted by Nieman et al. (2003).

The World Bank Report (2006) claims that although the implementation of the pro-poor policies, South Africa still remains one of the highest country worldwide in terms of income inequality. World Bank Report (2006) indicated that the social security system failed has failed to restore equality in South Africa. However, studies revealed that SMMEs has being making significant contribution towards the addressing inequalities (Fatoki & Smit, 2011; Bartel & Martin 1990). Bartel and Martin (1990:775) contend that a major reason why SMMEs has been receiving increased attention from both scholars and the public press is the growing recognition of the substantial economic and social contributions it brings.

4.3.2 The composite scores and their ranking

The Table 4.13 shows the composite scores ranked by their means.

Table 4.13 Composite scores and their ranking

Variable	**Means**	Ranking
Policy Mandate	2.2632	7th
Financial Related Challenges	2.3938	4th
HRMG Related Challenges	2.4761	2nd
SCM Related Challenges	2.3871	5th
QM Related Challenges	2.3452	6th
Good Governance	2.4206	3rd
Contribution of SMMES	2.5053	1st

The measurement scale used was the 3 point Likert scale, on the weight-scoring response choices: no understanding =1; average understanding = 2; and full understanding = 3. Using this measurement scale, 1 means very low impact, 2 mean neutral and 3 means high impact.

It is evident that the contribution of the construction SMMEs had the highest mean score value of 2.5053. The mean score value further suggested that the construction SMMEs had a moderate significant impact on job creation, poverty alleviation, equity redress, socio-economic development and income generation. This also implies that there was a direct

relationship between the construction SMMEs and all the sub-dimensions. The analysis of the mean score value suggests that even though the contraction SMMEs were faced with numerous challenges, they still they contributed positively (significantly) towards the South African economy.

The HRM related challenges had the mean score of 2.476, indicating a positive direction. Using the mean score value, the findings suggest that HRM related challenges had a moderate positive effect on the construction SMMEs within the eThekwini Metropolitan area in the Kwazulu-Natal province. This could be further interpreted that there was a direct positive relationship between HRM related challenges and the construction SMMEs.

Furthermore, good governance had the mean score of 2.4206. However, the strength showed a moderate impact or effect. Therefore, using the mean score it can be suggested a direct positive relation existed between good governance and the construction SMMEs. In order words, good governance had a positive significant effect on the construction SMMEs.

The financial related challenges also indicated a mean score value of 2.3938. Using the mean score, it can be argued that there was a positive moderate relationship between financial related challenges and the construction SMMEs. Better still, one would argue that financial related challenges affect the operations, growth and sustainability of the construction within the eThekwini Metropolitan area in the Kwazulu-Natal province.

Besides, the findings revealed that SCM related challenges had a mean score of 2.3871. Using the scale of 1 to 3, the mean score value of 2.3871 is considered as moderate. Therefore, it can be interpreted that SCM related challenges had a positive moderate effect on the construction SMMEs within the eThekwini Metropolitan area in the Kwazulu-Natal province.

In addition, it is evident from the Table that the QM related challenges had a mean score of 2.3452. By implication, one would argued that QM related challenges positively influenced the construction SMMEs located within the eThekwini Metropolitan area in the Kwazulu-Natal province. In other words, it can be interpreted that QM had a significant positive relationship with the construction SMMEs.

Lastly, the results showed that policy mandate had a mean score of 2.2632. The interpretation of the mean score indicates that there was a positive moderate relationship between policy mandate and the construction SMMEs. In other words, policy mandate positively influenced

the growth, sustainability or survival of the emerging construction SMMEs in the eThekwini Metropolitan area.

4.4 Inferential statistics

Inferential statistics were further utilised to analyse the findings of the study. The used were Cronbach's alpha coefficient correlations, factor analysis, ANOVA and t-test.

4.4.1 Reliability - Cronbach's alpha coefficient correlations

The most common instrument for testing reliability of research instrument is Cronbach's alpha coefficient correlations. According to Sekaran and Bougie (2013) a reliability score of 0.7 and above is acceptable as reliable. However, the score below 0.700 is unreliable and should not be accepted. The reliability scores for the various constructs are shown in Table 4.14.

Table 4.14 Reliability - Cronbach's alpha coefficient correlations

Dimension	N of items	Cronbach's coefficient alpha
Policy mandate	6	0.700
Financial related challenges	17	0.873
HRM related challenges	10	0.874
SCM related challenges	9	0.726
QM related challenge	6	0.890
Good governance	9	0.708
Contribution of SMMEs	6	0.896
All dimensions	59	0.963

From Table 4.14, the reliability of the seven dimensions were assessed separately. The reliability of all the dimensions were combined and assessed together. As seen in Table 4.20, there were 6 items measuring policy mandate. The reliability score was a =0.700 According to the rule the score from 0.700 and above is considered reliable, hence the instrument should be accepted. Again, there were 17 items in the research instrument which measured financial related challenges affecting SMMEs and the reliability score was a = 0.873. Therefore, these items were reliable. Furthermore, there were 11 items measuring HRM related challenges, where the score showed that the items were not reliable. However, 1 item (i.e. item 4) was excluded or deleted from the 11 items. The reliability score for the remaining 10 items was a = 0.874. There were also 9 items measuring SCM related challenges. The reliability score for these 9 items was a =0.726. Also, 6 items were measuring QM related challenges, which gave

the reliability score of a = 0.890. There were 9 items measuring good governance and the reliability score was a = 0.708. Furthermore, there were 6 items which measured contribution of SMMEs, which gave the reliability score of a = 0.896.

There were 59 items in all which measured the seven dimensions. The total reliability score for the 59 items was a = 0.963. The overall score means that the scales used were reliable.

4.4.2 Validity-Factor analysis

The validity of the research instrument was further using the factor analysis. Seven dimensions were considered in the factor analysis. Both KMO and Bartlett's test and Component Matrix[a] were used. Hair et al. (2010) suggested that KMO measure of sampling adequacy index ranges from 0 to 1, reaching 1 when each variable is perfectly predicted without any error by other variables. The following interpretations were given these scores: 0.80 and beyond is considered as “meritorious”; 0.70 and beyond is considered as “middling”; 0.60 and beyond is considered as “mediocre”; 0.50 and beyond is considered “poor”; and below 0.50 is considered as “unacceptable”.

Table 4.15 KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.714
Bartlett's Test of Sphericity	Approx. Chi-Square	8306.713
	Df	1711
	Sig.	.000

From Table 4.15, the KMO and Bartlett's Test score was 0.714. The score implies that data set complies with the requirements of sampling adequacy and sphericity for the factor analysis performed. With reference to the various interpretations of the scores provide above, the research instrument is considered as “middling”, therefore it is valid.

The principle component analysis extracted seven components (factors) and is presented in Table 4.16, which made use of verimax rotation in making the components (factors) more interpretable.

Table 4.16 Validity- Component Matrixa

Component	1	2	3	4	5	6	7
PM_1	.098	-.002	.167	.331	.601	.190	.219
PM_2	.128	-.315	.090	.307	.408	.476	.102
PM_3	.301	-.115	-.074	.211	.462	.346	-.269
PM_4	.356	.251	.376	.480	-.063	.085	.223
PM_5	.180	.484	.075	.570	.061	-.099	-.169
PM_6	.207	.335	-.179	.706	.173	-.147	.070
FRC_1	.219	-.145	-.207	.003	-.033	.377	.008
FRC_2	.628	-.292	.060	-.012	-.059	.171	.221
FRC_3	.783	-.208	.093	-.168	-.049	.055	.042
FRC_4	.768	.249	.092	-.007	-.193	.099	-.021
FRC_5	.858	-.190	.023	.034	-.091	.115	.065
FRC_6	.746	.002	-.016	.019	-.209	.012	.033
FRC_7	.754	-.229	-.034	.135	-.095	.169	-.144
FRC_8	.781	-.130	-.128	.175	-.021	-.190	-.139
FRC_9	.791	-.166	.084	.082	-.172	.053	-.026
FRC_10	.735	-.232	-.095	.304	-.044	-.102	-.108
FRC_11	.665	.273	-.092	.268	-.116	.036	-.272
FRC_12	.689	.319	-.118	.113	-.219	-.003	-.283
HUMRC_1	.788	-.203	-.045	.043	-.087	-.144	-.011
HUMRC_2	.800	-.171	-.092	.256	-.252	-.015	.107
HRMRC_3	.824	-.197	.111	.143	-.136	.025	.074
HUMRC_4	-.004	-.060	-.034	-.018	-.035	-.070	.403
HUMRC_5	.870	-.155	.016	.119	-.115	.065	.127
HUMRC_6	.873	-.183	-.024	.109	-.188	-.018	-.091
HUMRC_7	.240	-.064	.094	.131	-.030	-.034	-.092
HUMRC_8	.819	-.199	-.075	-.040	-.262	.183	.063
HUMRC_9	.786	-.253	-.081	-.079	-.302	.214	.001
HUMRC_10	.689	-.192	-.266	-.041	-.011	-.038	.009
HUMRC_11	.786	-.133	.004	-.061	-.174	.162	.195
SCM_1	.799	-.148	-.036	.181	-.003	-.070	-.005
SCM_2	.733	-.085	-.229	-.016	.249	-.130	-.060
SCM_3	.633	-.153	-.146	-.299	.373	-.293	-.048
SCM_4	.682	-.175	-.352	-.153	.268	.023	-.246
SCM_5	.803	.098	-.092	.050	.127	.061	-.173
SCM_6	.213	-.018	.037	.039	-.153	-.061	-.361
SCM_7	.751	.313	-.012	-.058	-.016	.219	.111
SCM_8	.499	-.063	-.165	-.453	.306	.292	-.242
SCM_9	.536	.403	-.046	-.203	.291	.073	-.069
QMC_1	.664	-.134	-.285	.018	.291	-.200	.131
QMC_2	.720	-.148	-.190	.013	.274	.039	.039
QMC_3	.670	.373	-.272	.060	.076	.066	.105
QMC_4	.800	-.078	-.094	-.163	.175	-.202	.296

Component	1	2	3	4	5	6	7
QMC_5	.535	.589	.072	.038	-.032	.162	.090
QMC_6	.736	-.062	-.113	-.013	.081	-.422	.053
GG_1	.578	.528	-.102	-.274	.021	.232	.031
GG_2	.564	.508	.090	-.352	-.110	.146	.158
GG_3	.701	.447	.070	-.277	.069	.077	-.052
GG_4	.762	-.002	.070	-.273	-.050	-.116	-.035
GG_5	.815	-.040	-.102	-.105	.035	-.334	.121

a. 7 components extracted.

According to the rule of thumb items >0.45 are considered as significant. From Table 4.16, 45 items loaded perfectly on Factor 1. Out of the total, 11 items relate to financial challenge, 9 items also relate to HRM challenges, 8 items also relate to SCM related challenges, 6 items relate to QM related challenges, 8 items relate to good governance, and the rest of the 3 items relate to contribution of SMMEs. From the analysis, majority of the items in the Factor 1 relate to financial challenges, therefore Factor 1 can be called financial related challenges.

In relation to Factor 2, 5 items loaded significantly. Out of the 5 items, 1 item relate to policy mandate, 1 item of relates to QM related challenges, and the rest of the 3 items relate good governance. Since most of the items relate to good governance, Factor 2 can be named good governance.

Furthermore, 6 items loaded significantly on Factor 3. These 6 items relate to the contribution SMMEs, hence, Factor 3 can be terms as contribution of SMMEs.

Also, 4 items loaded perfectly or significantly on Factor 3. Out of the 3 items, 2 relate to policy mandate, while the remaining 1 item relates to financial challenges. Therefore, since most items relate to policy mandate, Factor 4 can be called policy mandate.

Again, 2 items on the Factor 5 loaded significantly. However, all these items related to policy mandate. Therefore, Factor 5 can be called government regulation.

Lastly, 1 item loaded significant on Factor 6, which relates to the policy mandate. Therefore, Factor 6 can be called policy mandate.

4.4.3 Correlations

The study utilised Pearson moment correlation to determine the relationship among the variables in the study. The results of the study are shown in Table 4.17.

Table 4.17 Correlations

Table 4.26 Correlations		Finance	Policy	HRM	SCM	QM	Governance	Contribution
Policy	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	126						
Finance	Pearson Correlation	.318**						
	Sig. (2-tailed)	.000						
	N	120	120					
HRM	Pearson Correlation	.054	.146					
	Sig. (2-tailed)	.557	.118					
	N	122	116	122				
SCMC	Pearson Correlation	.269**	.697**	.097				
	Sig. (2-tailed)	.003	.000	.291				
	N	124	118	120	124			
QM	Pearson Correlation	.311**	.765**	.154	.662**			
	Sig. (2-tailed)	.000	.000	.090	.000			
	N	126	120	122	124	126		
Governance	Pearson Correlation	.293**	.610**	.093	.497**	.603**		
	Sig. (2-tailed)	.001	.000	.307	.000	.000		
	N	126	120	122	124	126	126	
Contribution	Pearson Correlation	.269**	.474**	.080	.464**	.498**	.361**	
	Sig. (2-tailed)	.002	.000	.381	.000	.000	.000	
	N	126	126	126	126	126	126	126

From Table 4.17, there exists significant positive relationship between all the variables such as policy mandate, finance, HRM, SCM, QM governance and contribution. Policy mandate and financial related challenges indicated a positive significant relationship (r = .318**, p<, 0.01). Also, the relationship between which exists between financial related challenges and HRM related challenges was positively significant (r = .269**, p<0.01). Furthermore the relationship between HRM challenges and SCM related challenges was positively significant (r = .311**, p<0.01). In addition, the results indicated that the relationship between SCM and QM related challenges was positively significant (r = .293**, p<0.01). A positively significant relationship existed between QM and good governance (r = .497**, p<0.01). Finally there was a significant positive relationship between good governance and contribution of SMMEs (r = .269**, p<0.01).

4.4.4 ANOVA: All dimensions on years of experience, position, race and educational qualification

ANOVA was carried out to determine whether the demographic variables such as years of experience, position, race and educational qualification have significant relationship with any of the variable in the study. The results are shown in Table 4.18.

Table 4.18 ANOVA

Dimension	Years of experience		Position		Race		Education	
	F	**P**	**F**	**P**	**F**	**P**	**F**	**P**
Policy mandate	0.836	0.505	0.809	0.521	1.694	0.172	2.399	0.032
Finance challenges	1.065	0.377	1.257	0.291	5.880	0.001	3.907	0.001
HRM challenges	0.615	0.653	1.389	0.242	3.798	0.012	1.872	0.091
SCM challenges	3.564	0.009	0.464	0.762	5.319	0.002	2.198	0.048
QM challenges	7.133	0.000	0.207	0.934	3.690	0.014	1.391	0.224
Good Governance	2.655	0.036	0.856	0.493	6.176	0.001	4.747	0.000
Contribution of SMMEs	7.657	0.000	1.437	0.226	6.405	0.000	2.711	0.017

From Table 4.18, in terms of age, the results of the study showed that there was no statistically significant difference in the policy mandate, ($F = 0.836$, $p>0.05$), financial related challenges ($F = 1.065$, $p>0.05$), and HRM related challenges, ($F = 0.615$, $p>0.05$). However, there was a statistically significant difference in the SCM related challenges ($F = 3.564$, <0.05), QM challenges ($F = 7.133$, $p<0.05$), good governance ($F = 2.655$, $p<0.05$) and contribution of SMMEs ($F = 7.657$, $p<0.05$).

With respect to position, the findings revealed that there was no statistically significant difference in the policy mandate, ($F = 0.809$, $p>0.05$), financial related challenges ($F = 1.257$, $p>0.05$), and HRM related challenges, ($F = 3.798$, $p<0.05$), SCM related challenges ($F = 0.464$, $p>0.05$), QM challenges ($F = 0.207$, $p>0.05$), good governance ($F = 0.856$, $p>0.05$) and contribution of SMMEs ($F = 1.437$, $p>0.05$).

Concerning race, the findings revealed that there was no statistically significant difference in the policy mandate, ($F =1.694$, $p>0.05$). However, there was a statistically significant

difference in the financial related challenges (F = 5.880, p<0.05), and HRM related challenges, (F = 3.798, p<0.05), SCM related challenges (F = 5.319, p<0.05), QM challenges (F = 0.934, p<0.05), good governance (F = 6.176, p<0.05) and contribution of SMMEs (F = 6.405, p<0.05).

Lastly, with respect to years of experience, the results showed that there was no statistically significant difference QM challenges (F = 1.391, p>0.05). Nevertheless, there was there was a statistically significant difference in the policy mandate, (F = 2.399, p<0.05), financial related challenges (F = 3.907, p<0.05), and HRM related challenges, (F = 1.872, p<0.05), SCM related challenges (F = 2.198, p<0.05), good governance (F = 4.747, p<0.05) and contribution of SMMEs (F = 2.711, p<0.05).

4.4.5 One sample-test

One sample t-test was employed to determine whether gender influences the dimensions such as policy mandate, finance, HRM, SCM, QM, good governance and contribution of SMMEs. The results are shown in Table 4.19.

Table 4.19 One sample t-test on all the dimensions

T-test						
	T	Df	Sig. (2-tailed)	Mean Difference	Mean	Standard deviation
Policy mandate	6.836	126	0.000*	.26323	2.2632	.43223
Financial challenges	7.419	119	0.000*	.39375	2.3937	.58138
HRM challenges	2.056	121	0.042*	.47609	2.4761	2.55759
SCM challenges	6.768	123	0.000*	.38710	2.3871	.63687
QM challenges	6.602	125	0.000*	.34524	2.3452	.58696
Good governance	6.549	125	0.000*	.42063	2.4206	.06423
Contribution of SMMEs	10.966	125	0.000*	.50529	2.5053	.51723

* p < 0.01

From Table 4.19, there was a significant difference in the perceptions of male and female workers in the Department of Public Works concerning Policy Mandate, Financial Challenges, SCM Challenges, QM Challenges, Good Governance, and Contribution of SMMEs at the 1% level of significance. However, there was no significant difference in the perceptions of male and female regarding HRM challenges.

4.6 Chapter Summary

The chapter presented the key findings which emerged from the study as well as discussed the findings in accordance with the literature review. The study found that the procurement related challenges which affected the emerging contractors or SMMEs within the KwaZulu-Natal province were, namely: policy mandate (Mean = 2.2632); finance or funding (Mean = 2.3938); human resource management (Mean = 2.4761); supply chain management (Mean = 2.3871); quality management (Mean = 2.3452); and good governance (Mean = 2.4206). The results (Mean= 2.5053) further showed that SMMEs contributed significantly to the South Africa economy in terms of poverty reduction (Mean = 2.55), job creation (Mean = 2.52), innovation (Mean = 2.49), and income generation (Mean= 2.48). The study further tested the relationship between these challenges. Policy mandate and financial related challenges indicated a positive significant relationship (r = .318**, p<, 0.01). Also, the relationship between which exists between financial related challenges and HRM related challenges was positively significant (r = .269**, p<0.01). Furthermore the relationship between HRM challenges and SCM related challenges was positively significant (r = .311**, p<0.01). In addition, the results indicated that the relationship between SCM and QM related challenges was positively significant (r = .293**, p<0.01). A positively significant relationship existed between QM and good governance (r = .497**, p<0.01). Finally there was a significant positive relationship between good governance and contribution of SMMEs (r = .269**, p<0.01).

CHAPTER FIVE: QUALITATIVE DATA ANALYSIS AND DISCUSSION OF RESULTS

5.1 Introduction

This chapter focuses on the data collected from the government officials through opened ended questionnaires. Data was collected from the government officials on the following research objectives: to establish how government seeks to enhance SMME participation in public procurement; and to make recommendations pertaining to the most appropriate approach to assist SMMEs in accessing public procurement opportunities in the construction sector. A total of 6 questionnaires were distributed to the respondents and were all retrieved, representing 100% response rate. The first section of the chapter contains the results on the demographic information of the research participants which then followed by the findings in relations to the objectives.

5.2 Demographic Information

The results on the demographic information of the participants are shown in the Table 5.1.

Table 5.1 Demographic information

Statement	N	Percentage (%)
Division		
HRM	1	16.7
SCM	3	50.0
Procurement	2	33.3
Position		
Deputy Director	1	16.7
Director	5	83.3
Highest Qualification		
Honours/BTech/BSc	6	100
Gender		
Male	4	66.7
Female	2	33.3
Other	--	
Years of experience		
3 Years	1	16.7
6 Years	3	50.0
8 Years	2	33.3

About half (50%) of the respondents belonged to SCM division in the Department of Public Works. About 83.3% held the position of Deputy Director within the Department of Public Works. All the respondents, representing 100% had qualification in Honours/Btech/BSc. Approximately 66.7% of the respondents were males in the Department of Pubic Works. Half (50%) of the participants indicated that they had being working with the DPWs for the past 6 years.

5.3 Government involvement in SMMEs

The respondents were asked to express their level of involvement with SMMEs development. Based on the data collected and analysed, it is evident that the respondents were involved in the development of SMMEs at various levels within the DPWs. The following are some of the views expressed by the respondents

One is responsible in ensuring the development of contractors registered on cidb grade 1&2 in particular through Eyesizwe Contractor development Programme. The programme ensures that contractors are capacitated in financial management, costing of work, implementation of work and others. Currently, all work done by contractors cidb grade 1&2 is targeted only to contractors registered under Eyesizwe Contractor development Programme (Respondent 1). Another respondent expressed the view that: *I have being assisting them in managing their project indirectly via works inspectors* (Respondent 2). Also, one of them said that: I *have being assisting the contractors with documentation through the provision of professional service providers. My role is to ensure that the contractors go through the right documentation processes* (Respondent 3).

5.4 Government initiatives for SMMEs met their desired outcomes

The respondents were asked to indicate whether the government initiatives for construction SMMEs have met their desired outcomes, by responding using the five point Likert scale: strongly disagree = 1; disagree = 2; neutral = 3; agree = 4 and strongly agree = 5. The results are shown in Table 5.2.

Table 5.2 Government initiative for SMMEs met their desired outcomes

Item	Frequency	Percent	Cumulative Percent
Disagree	2	33.3	33.3
Neutral	2	33.3	66.7
Agree	2	33.3	100.0
Total	6	100.0	

From Table 5.2, it is evident that the responses were evenly distributed. This means that the government initiatives for SMMEs neither or not met their desired outcomes.

5.5 Level of satisfaction/alignment of DWPs with construction SMMEs

The respondents were asked to indicate their level of satisfaction/alignment of DWPs programmes with development of construction SMMEs. The results are shown in Table 5.3.

Table 5.3 Level of satisfaction/alignment

	Frequency	Percent	Cumulative Percent
Partially satisfied	2	33.3	33.3
Not sure	1	16.7	50.0
Aligned/satisfied	1	16.7	66.7
Fully aligned/satisfied	2	33.3	100.0
Total	6	100.0	

The results from Table 5.3 show that 50% of the respondents were either partially satisfied with or unsure about how they felt about the DPWs programmes concerning the development of the construction SMMEs.

5.6 Cidb discipline and grading the respondent are developing/incubating

The study sought to find out the cidb discipline and grading respondents were developing or incubating. The findings suggest that all the respondents were developing and incubating SMMEs who fall within grade 1, 2 and 3.

5.7 Kind of assistance and support official in the DPWs offer to construction SMMEs

The participants reported that the various assistance and supports offered by the DPWs to the construction SMMEs included provision of training and development programmes, provision of tender information costing and pricing and organising workshops and conferences.

5.8 Whether DPWs mentor construction SMMEs after assisting them

The study sought to establish whether the government official mentored the construction SMMEs after assisting them by ensuring that they develop and sustain in the competitive market. The results are shown in Table 5.4.

Table 5.4 Mentorship of SMMEs

Variable	Frequency	Percentage (%)
Yes	3	50.0
No	3	50.0
Total	6	100

Table 5.4 shows that half of the respondents mentored the construction SMMEs after assisting them in order to ensure that they develop as well as to become sustainable in the competitive market. This finding is of concern because without proper mentoring the SMMEs will not benefit optimally from the various programmes and will likely fail.

The study further probed why the government official at the DWPs failed to mentor the construction SMMEs after assisting them to ensure they develop and sustain. The respondents expressed the following views why they failed to mentor the construction SMMEs after assisting them:

The training is done through private entity or outsourcing. Therefore, it is difficult to monitor or mentor contractors since the ECDP does not provide space (Respondent 1). *Construction SMMEs require proper site mentorship to ensure they develop and become sustainable* (Respondent 3). *SCM is primarily dealing with procurement. A team of specialist must be formed to ensure development and sustainability on all awarded contracts* (Respondent 5).

The study further probed the reasons for the government officials at the DWPs mentoring the construction SMMEs after assisting them to ensure they develop and sustain. The respondents expressed the following opinions:

Assisting them with site quality control and assurance will help them to be developed and sustained. Also, I assist by monitoring and evaluating their progress (Respondent 2). I provide some forms of mentorship to the SMMEs to enable them compete with others who are already established (Respondent 6).

5.9 Government provides procurement information to SMMEs

The study also investigated whether the government is doing enough to provide procurement information to construction SMMEs. The results are shown in Table 5.5.

Table 5.5 Government provide procurement information to SMME

Variable	Frequency	Percentage (%)
Yes	2	33.3
No	4	66.7
Total	6	100

Table 5.6 reveals that most (66.7%) reported that government did not provide procurement information to SMMEs. This finding is of concern if government initiatives are to succeed.

The study probed further what should be done if government does not provide procurement information to SMMEs. The respondents expressed the following views in support of their arguments:

NQF accredited trainings must be in place for new entrepreneurs. Government must provide costing and pricing training for grades 1 and 2 (Respondent 3). *Government needs to provide enough information and training to its officials first before going to the SMMEs because it's thought the officials that SMMEs can be capacitated* (Respondent 5). *Training, support and extension services should be provided to the construction SMMEs* (Respondent 6).

5.10 Procurement opportunities available for emerging contractors

The study investigated the kinds of procurement opportunities available for emerging contractors in the DPWs. The respondents expressed different views about the procurement opportunities available for the emerging contractors. The following are the views expressed by the respondents in support of the procurement opportunities available for emerging contractors:

The procurement opportunities available for emerging contractors include registering of SMMEs on Eyesizwe database and encouraging them to quote for work in the category cidb 1,2 &3 (Respondent 1). *Construction/maintenance and pricing for grades 1&*2 (Respondent 3). *Pre-qualifying criteria and functionality scoring. Alignment for targeted groups/SMMEs* (Respondents 5).

However, one respondent expressed the view that there is no procurement available for emerging contractors.

No, this is due to the fact that we wait for Sector Departments to provide the budget then only do we know if there are any potential projects to be implemented through emerging SMMEs. All Sector Departments have no plans whatsoever for upcoming financial year. Infrastructure Project Implementation Plans are only developed as and when depending on whatever project is decided at that particular time for maintenance. However, through ECDP we are able to procure all services for grade 1& 2 as directed (Respondent 6).

5.11 Availability of procurement opportunities

The study further probed, if indeed there are procurement opportunities available for emerging contractors, then how do the DPWs provide and disseminate them to contractors. The following are the views expressed by the respondents:

The DPWs provides and disseminates the procurement opportunities available through tender process (Respondent 1). *By stating the requirements on all adverts for works, by spreading the information on all sites, briefing meetings* (Respondent 3).

5.12 Procurement process implementation challenges

The respondents were asked whether they had experienced any challenges while implementing the procurement process. The results are shown in Table 5.6.

Table 5.6 Challenges while implement the procurement process

Variable	Frequency	Percentage (%)
Yes	5	83.3
No	1	16.7
Total	6	100

From Table 5.6, approximately 83.3% of the respondents said that they experienced some forms of challenges while implementing the procurement process.

The study probed further by asking the respondents to list or mention the specific challenges they had experienced while implementing the procurement process. The respondents mentioned the following challenges which relate to the implementation of the procurement process.

Unavailability of database (Respondent 1). *Service providers for specialised work are either not yet convinced to register on Eyesizwe database* (Respondent 2). *Constant delays are experienced due to non-prioritisation of appointing critical posts. For example, Vryheid Sub-*

District and Nongoma Sub-District offices under Zululand have no SCM administrative officers. This only leaves the office clerical officials who may not be capable of quality administrative SCM submissions and adherence to required turnaround times (Respondent 4).

5.13 How DPWs integrates planning to procurement demands and budget process

The study sought to identify how the DPWs integrate planning to procurement demands and budget process. The respondents expressed varied views on the subject.

According to one of the respondents: *the DPWs integrate planning to procurement demands and budget process by allocating a budget for SMMEs like Eyesizwe database members* (Respondent 1). Another respondent expressed the view that: *the budgeting planning is done through MTEF every financial year which sets aside the budget for all line items that need to be procured in a financial year. This therefore means all sections within the District Office need to provide budgetary inputs on items required within that financial year for procurement* (Respondent 3). Also, a participant said that: *DPWs integrate planning to procurement demands and budget process through MTEF input and IPIP development* (Respondent 5).

5.14 Short and long-term strategies to support and help emerging contractors

The study also investigated the short- and long-term strategies to support and help emerging contractors with procurement challenges. Several strategies were identified through the views expressed by the respondents. A participant expressed the view that: *packaging the works into small, medium high in terms of complexity. Small repairs and maintenance works to be allocated to emerging contractors* (Respondent 2). Another respondents said that as part of the short and long term strategies the following should be provided: *training and access to information, extension services and support* (Respondents 3). One of the respondents also said the following: *provision of mentorship and ring-fencing of project for emerging contractors* (Respondent 4). In addition, one of them expressed the opinion as follows: by registering them on the database, having quarterly meetings with them to know new developments (5). Again, one of them said that: *DPWs should employ capable SCM officials at District levels as short term and provide training to officials in order to enable them to translate the technical know-how to emerging contractors. As a long -term strategy the DPWs should focus on improving the current failing and neglected ECDP in order to allow for developing contractors capacitation in all aspects of their work* (Respondent 6).

5.15 Benefits and shortcomings of SMME programmes and procurement process

The study also examined the benefits and shortcomings of SMME programmes and procurement process. The respondents mentioned several benefits of SMME programmes and procurement process by expressing the following opinions:

Benefits are that they increase the SMMEs pool, getting competitive prices and lifting previously disadvantaged individuals and fair distribution of the country's wealth (Respondent 1). *SMME programme helps capacitate contractor on current and innovative ways of implementing their projects efficiently* (Respondent 3). *Equitable share and development of entrepreneurs* (Respondent 4).

However, the respondents expressed the following views in relations to the shortcomings of SMME programmes and procurement process: *The shortcoming is that when it is not administered in the way that benefits SMMEs, it may not necessarily address the concerns/challenges of SMMEs as a whole.* (Respondent 3). *SMME programmes and procurement process involve huge cost which sometimes the DPWs are not able to afford* (Respondent 4).

5.16 Suggestions and recommendation on how to resolve procurement challenges

The respondents made several suggestions and recommendations on how to resolve procurement challenges. The following recommendations were made.

SMMEs should partner with established businesses or sub-contractors (Respondent 2). *DPWs need to have a fixed number of contractors (grade 1-6) to be trained within realistic period, and exit strategy* (Respondent 3). *Department is doing well in sharing information that can assist SMMEs to grow but more training and development programmes should be provided for officials and emerging contractors* (Respondent 4). *The Department should start listening to officials' concerns and address them as mentioned above* (Respondent 5). *Creating more opportunities for disadvantaged construction SMMEs to bridge the gap between the rich and poor South African*s (Respondent 6).

These recommendations are in keeping with similar recommendations provided by previous studies. Chimucheka and Mandipaka (2015) in their study also suggested that the government should strive hard to create enabling business environment for the SMMEs to operate through the improvement and provision of adequate infrastructure such as road networks, buildings and

communication technologies. They suggested that the business environments should be established in such a way that ensures the emergence of new enterprises, allowing previous ones to grow, and the large and small enterprises to coexist by supporting one another.

5.17 Chapter Summary

The chapter presented and discussed the results of the study in accordance with the data gathered from the government official at the DPWs. Based on the results, it is evident that the contractors or SMME owners were involved in the development of SMMEs at various levels within the DPW. The participants reported that the various assistance and supports offered by the DPW to the construction SMMEs included provision of training and development programmes, provision of tender information costing and pricing and organising workshops and conferences. However, the participants presented different arguments on the kind of mentorship programme provided by the Department. While some argued that the Department provided mentorship training programmes, others on the other hand argued that there was no mentorship programme. Most of the contractors argued that the government did not provide procurement information to SMMEs. The study found that the challenges experienced by SMME owners were unavailability of database, delays in payment by the government and lack of SCM administrative officers. The research participants recommended that SMMEs should partner with established businesses or sub-contractors. It was further suggested that the Department should create more opportunities for disadvantaged construction SMMEs to bridge the gap between the rich and poor South Africans.

CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter presents the conclusions and recommendations based on the key findings. The study objectives were: to identify challenges faced by SMMEs in accessing procurement opportunities; to establish how Government seeks to enhance SMME participation in public procurement; to assess SMME perceptions of effectiveness of the current system of government-targeted procurement in the public construction sector and to make recommendations pertaining to the most appropriate approach to assist SMMEs in accessing public procurement opportunities in the construction sector.

6.2 Conclusions

6.2.1 Objective one: challenges facing the construction SMMEs

The study found six main challenges which SMMEs are faced with, including policy mandate, HRM related challenges, financial related challenges, SCM related challenges, QM related challenges and governance.

With respect to policy mandate (Mean= 2.2632), the study found that the main challenges encountered by the SMMEs owners include the Preferential Procurement Policy Framework and Regulation 2017, the Prevention and Combating of Fraud and Corruption Act, the Construction Industry Development Board Act, the Construction Industry Development Board Act and the Eyesizwe Emerging Contractor Development affects their operations.

Concerning financial related challenges (Mean = 2.3938), the study identified the following: access to finance; government delay in payment; limited cash flow; uncompetitive pricing; time management is access to procurement opportunities; difficulty in understanding and completing tender documents; complex and complicated forms of contact; poor contractual obligations; poor contractual documentation; crime and corruption.

Regarding HRM related challenges (Mean = 2.4761), the study concludes that main HRM related challenges include skills and capacity shortages, lack of required competencies, inadequate supervision low employee morale, low productivity, idleness on the site, strike action, human errors or mistakes, unnecessary work and absenteeism.

In terms of SCM related challenges (Mean = 2.3871), the study concludes that the following challenges affect the construction SMMEs: policies and regulations on supply chain management; incorrect utilisation of the preference points; passing over bid for incorrect reasons; lack of bid information on the bid register; ambiguous specifications; incorrect bid documents and returned documents; transparency; fronting; conflict by government official.

In relation to QM related challenges (Mean = 2.3452), the study concludes that the following challenges affect the construction SMMEs: monitoring and evaluation by SCM officials; correct tender specifications; correct conditions of contract; linking of planning and budget; accreditation with cidb; and planning by government.

6.2.2 Objective two: government initiative towards the enhancement of SMMEs

The study identified a number of government initiatives towards the enhancement of the construction SMMEs. These initiatives include training and development of government and official and SMME owners, dissemination of tender information to the construction SMMEs, assisting the construction SMMEs with costing and pricing, organisation workshops and conferences for government official and SMMEs stakeholders, particularly the owners.

6.2.3 Objective three: Perceptions of effectiveness of the current system of government in the targeted procurement in public in the construction sector

The study concludes the effectiveness of the current system in the public construction sector is very poor. The challenges which relate to current system of government in the targeted procurement include: fraud and corruption; bribes; fronting; transparency of the bid process; equal access to the procurement opportunities; independence of the bid committee; centralisation of the procurement information; transformation; and open engagement and involvement.

6.2.4 Objective four: recommendations pertaining to the most appropriate approach to assist SMMEs

The respondents recommended that government should create an enabling business environment for SMMEs to operate. Also, the respondents recommended that the government should provide more access to funds for the SMMEs. They also recommended that the prices for the tender should be reduced. They recommended the following:

- SMMEs should partner with established businesses or sub-contractors;
- Government should create more opportunities for disadvantaged construction SMMEs to bridge the gap between the rich and poor South African;
- Small repairs and maintenance works to be allocated to emerging contractors;
- Training and development of SMME owners;
- Provision of access to information;
- Provision of mentorship and ring-fencing of project for emerging contractors; and
- Registration of SMMEs on the database.

6.3 Recommendations

6.3.1 Flexible regulatory system for SMMEs

Government regulations governing SMMEs should be flexible enough to allow them to function more effectively and efficiently. This current recommendation also reaffirms a similar recommendation offered by Chimucheka and Mandipaka (2015), who advocated that effective legal and regulatory framework should be established to promote competition through the elimination of excessive restrictive licensing requirements and allowing other international and regional financial institutions with better SMME-lending tools to enter the market.

6.3.2 More access to finance

Limited access to finance is the first obstacle which threatens the survival and growth of SMMEs in South Africa. Even though the South Africa government encourages institutions to support SMMEs with financial assistance, yet access finance remains a big process. It is against this background that this study recommends that more access to finance should be created by the Government as well as other designated financial institutions.

6.3.3 Provision of access to information

SMMEs in South Africa are still faced with limited access to relevant information, particularly in relation to tender and procurement. Government should ensure that the SMMEs, especially the informal ones, should be given access to more information. The Government should identify the most effective medium or channel of communicating important information to the emerging SMMEs. Aside from the Government effort, emerging SMMEs should also adopt

the use of information and communication technologies to enable them get access to more information.

6.3.4 Mentorship programmes

Government should adopt a system of mentoring emerging SMMEs to enable them to develop and sustain in the competitive market. Besides, well-established SMMEs should also serve as mentors to the emerging SMMEs. These mentorship programmes will enable the emerging SMMEs to develop networks which will assist them to solve their problems.

6.3.5 Recruitment of highly qualified staff

International trends suggest that most SMMEs failed because they do not employ competent personnel to assist them. Human resources for employees are the most valuable assets of any organisation either small or large. Therefore, emerging SMMEs should employ competent personnel who possess the necessary requisites such as skills, knowledge, experience and high educational qualifications.

6.3.6 Investment in training and development

Lack of investment in training and development are among the various challenges confronting construction SMMEs. Training and development are critical for the success of any organisation irrespective of the size. It is against this background SMMEs should investment considerable amount money in training and developing their workforce.

6.4 Directions for future research

The current study investigated the construction procurement challenges faced by SMMEs in the public sector within the Department of Public Works within the eThekwini Metropolitan area, in the Kwazulu-Natal province. The study was limited in scope and geographical location. The study only applied to the officials at the Department of Public Works within the eThekwini Metropolitan area. This means that other officials within the Department of Public Works, other than those in the eThekwini Metropolitan area, were exempted from the study. Future research should be comparative in nature. The study was limited to only public sector organisations. Future research should focus on both private and public organisations in South Africa. A key limitation of the study is that the study investigated only those SMMEs in the construction industry. Future research should focus on SMMEs in other industries like mining and agriculture.

6.5 Chapter Summary

The study identified that SMMEs are faced with various procurement challenges include but not limited to government regulations, access to finance, qualified staff, quality management, supply chain management and poor governance system. In spite of these challenges, the study found that SMMEs make significant contribution to the socio-economic development of KwaZulu-Natal province, namely: job creation, poverty alleviation, promotion of equality and income generation. The study further made a number of recommendations to the government in an effort to address the challenges confronting the construction SMMEs, which include access to finance, provision of access to information, flexible regulations, mentorship programmes for the SMMEs and investment in training and development programmes. Beside the recommendations to the government, the SMMEs were also encouraged to ensure the recruitment of qualified personnel.

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APPENDIX A: ETHICAL APPROVAL

10 September 2018

Mr Thulani Alfred Mdadane 972160114

School of Engineering

Howard College Campus

Dear Ms Mdadane

Protocol reference number: HSS/1093/018M

Project title: An examination of the Construction Procurement challenges faced by Small, Micro and Medium Enterprises in the Public Sector: A case study of the Department of Public Works in KwaZulu-Natal

Full Approval — Expedited

Application In response to your application received 9 July 2018, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol has been granted FULL APPROVAL.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

.....

Professor Shenuka Singh (Chair)

Humanities & Social Sciences Research Ethics Committe

/pm

cc Supervisor: Prof Theo Haupt cc. Academic Leader Research: Prof Randir Rawatlal cc. School Administrator: Ms Nombuso Dlamini

Humanities & Social Sciences Research Ethics Committee
Dr Shenuka Singh (Chair)
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APPENDIX B: INFORMED CONSENT LETTER

AN EXAMINATION OF THE CONSTRUCTION PROCUREMENT CHALLENGES FACED BY SMALL, MACRO AND MEDIUM ENTERPRISES IN THE PUBLIC SECTOR: A CASE OF THE DEPARTMENT OF PUBLIC WORKS IN KWAZULU-NATAL

Date: 09 April 2018

TO WHOM IT MAY CONCERN

My name is Thulani Alfred Mdadane, student number 972160114 and an MSc student in the School of Engineering, Construction Studies Programme at the University of KwaZulu-Natal. You are invited to voluntarily participate in a research project titled "An Examination of the Construction Procurement Challenges faced by Small, Micro and Medium Enterprises in the Public Sector: A Case Study of the Department of Public Works in KwaZulu-Natal".

The aim of the study is to examine how government seeks to enhance SMME participation in public procurement, particularly, in the construction sector through the KwaZulu-Natal Department of Public Works. The insights shared by respondents of the study will provide guidance for government to properly and appropriately develop initiatives to support SMMEs through its procurement system. The study may provide an avenue for designing effective programmes required for improving the performance of small businesses.

The research objectives of this study are:

Objective 1: To identify challenges faced by SMMEs in accessing procurement opportunities.

Objective 2: To establish how government seeks to enhance SMME participation in public procurement.

Objective 3: To assess SMME perceptions of effectiveness of the current system of government targeted procurement in the public construction sector.

Objective 4: To make recommendations pertaining to the most appropriate approach to assist SMMEs in accessing public procurement opportunities in the construction sector.

The study is expected in involve 192 contractors and existing in the KZN Department of Public Works database called Eyesizwe Emerging Contractor Development Programme as well as ten

(10) officials working alongside this programme. It will involve structured interviews to the ten (10) government officials and questionnaire survey as approved by the University. Your precipitation in the study will be a maximum of 15 minutes to complete the survey instrument.

No perceived risk is involved in the research. I reassure you that only the summary of your response will be used in the report and your name will not be linked with the responses. Your confidentially and anonymity of records identify you as a participant will be securely maintained throughout the study.

Your participation for this study is voluntary you may refuse to participate or withdraw from the project at any time with no negative consequence. There will be no monetary gain from participating in this research project. Should you wish to research a summary of the key finding of the study it will be provided to you include your contact details.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Science Research Ethics Committee **(approval number HSS/1093/018M).**

If you have any questions or concerns about participating in this study, please contact me or the UKZN Humanities and Social Science Research Ethics Administration at the number or emails listed on the declaration consent.

Sincerely

Researcher: Thulani A Mdadane

Supervisor: Prof. Theo Haupt

DECLARATION OF CONSENT

I……(Full Name) hereby confirm that I have read and understand the contents of this letter and the nature of the research project has been clearly defined prior to participating in this research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire.

Participants Signature……

Date…….

APPENDIX C: GATEKEEPERS PERMISSION

Acting Head of Department
KwaZulu-Natal Department of Public Works
191 Prince Alfred Street
Oliver Tambo House
Pietermaritzburg
3201

Attention Mrs S Linda

Request for permission to conduct research

My name is Thulani Alfred Mdadane, Student Number 972160114 studying towards MSc in Construction Studies Programme at the University of KwaZulu-Natal. For the study approval process by Humanities and Social Science Research Ethics Administration, student required to obtain gatekeeper permission from organisation where they conduct research within the organisation.

Therefore I request the permission to conduct research at your organisation for the study entitled "An Examination of the Construction Procurement Challenges faced by Small, Micro and Medium Enterprises in the Public Sector: A Case Study of the Department of Public Works in KwaZulu-Natal".

The aim of the study is to examine how government seeks to enhance SMME participation in public procurement, in the construction sector through the KwaZulu-Natal Department of Public Works. The insights shared by respondents of the study will provide guidance for government to properly and appropriately develop initiatives to support SMMEs through its procurement system. The study may provide an avenue for designing effective programmes required for improving the performance of small businesses.

If you are willing to be involved, would you please sign and stamp the form below that acknowledges that you have read the Participant Information Sheet, you understand the nature of the study being conducted and the likely benefits of participation in this study and you give permission for the research to be conducted at the organisation.

Yours sincerely

……

Thulani Alfred Mdadane

I…… (name) …….(title) of

……..(organisation) having being fully informed of the nature of the research to be conducted and given my permission for the study to be conducted. I reserve the right to withdraw this permission at any time.

Signature:…… Date:……

Stamp:

APPENDIX D1: CONTRACTORS' QUESTIONNAIRES

AN EXAMINATION OF THE CONSTRUCTION PROCUREMENT CHALLENGES FACED BY SMALL MICRO AND MEDIUM ENTERPRISES IN THE PUBLIC SECTOR A CASE STUDY OF THE DEPARTMENT OF PUBLIC WORKS IN KWAZULU-NATAL

The personal information will not be used in any way to identify the respondent. Please place a tick in the appropriate block, circle or fill in the appropriate words, figures and information to complete the statements below.

SECTION A: DEMOGRAPHIC INFORMATION

1. How many years have you been practising as a contractor?

…….....

2. What is your gender? (please tick):

1.	Male	
2.	Female	

3. What is the position you hold in the company? (please tick):

1.	Owner	
2.	Partner	
3.	Manager	
4.	Worker	
5.	Other	

4. What is your population group (for research purposes only)?

1.	Black African	
2.	White	
3.	Indian/Asian	

4.	Coloured	
5.	Other	

5. Please indicate your highest educational qualification:

1.	Grade 8 and below	
2.	Grade 12	
3.	Tradesman	
4.	Certificate	
5.	National Diploma/Higher Diploma	
6.	University Degree	
7.	Post-Graduate Degree	
8.	Other	
6.	If other, specify below …… ……	

7. Mark all the organisations that your business is registered with? (Mark all that apply)

CIDB	CIPRO	CSD	EYESIZWE ECDP

7. What types of projects (class of work) are you involved in?[tick the appropriate box]

1.	General Building (GB)	
2.	Civil Engineering (CE)	
3.	Electrical/Mechanical Engineering	
4.	Project Management	
5.	Other	

8. Please indicate your grade in the cidb Grade of Contractors if you have registered:

Grade Number	
1. Grade 1	
2. Grade 2	
3. Grade 3	
4. Grade 4	
5. Grade 5	
6. Grade 6	
7. Grade 7	
8. Grade 8	
9. Grade 9	

9. How many employees do you have in your company?

……

10. What was your company's annual turnover in the previous financial year?

……

11. Kindly specify the average total number of full time permanent employees currently employed by your company including the owner

……..

SECTION B: POLICY CHALLENGES FACED BY SMME CONTRACTORS IN UNDERSTANDING POLICY AND LEGISLATIVE MANDATES

1. What is your level of understanding of the following policies/legislation where

1= No understanding; 2 = some or average understanding; 3 = full or complete understanding

POLICY MANDATE	1	2	3
Public Finance Management Act			

The Preferential Procurement Policy Framework Act and Regulation of 2017			
The Prevention and Combating of Fraud and Corruption Act			
Construction Industry Development Board Act			
Broad-Based Black Economic Empowerment Act			
Eyesizwe Emerging Contractor Development			

SECTION C1: CHALLENGES FACED BY SMMES CONTRACTORS

1. What impact do the following challenges have on your business using the scale of 1= No understanding; 2 = some or average understanding; 3 = full or complete understanding

Types of challenges	1	2	3
Financial related challenges			
Lack of access to finance to your desired projects			
Late payment by government			
Cash flow			
Uncompetitive pricing			
Time management related challenges			
Access to procurement opportunities			
Difficulty in understanding and completing tender documents			
Complex and complicated forms of contract			
Poor understanding of contractual obligations			
Poor understanding of contractual documentation e.g. (guarantees, retentions, insurance and initial programme of works)			
Fragmentation and Inconsistences in the application of the laws and BEE policies and preferential point system			
Crime and corruption			
Human resource management related challenges			

Skills and capacity shortages			
Lack of required competencies			
Inadequate supervision			
Low employee morale			
Low productivity			
Idleness on site			
Ignorance			
Strikes			
Human error/mistake			
Unnecessary work			
Absenteeism			
Supply Chain Management related challenges			
Lack of understanding of policies and regulations			
Incorrect utilisation of preference points			
Passing over bids for incorrect reasons			
Lack of bid information on bid register			
Ambiguous specifications			
Incorrect bid documents and returnable documents			
Lack of transparency			
Fronting			
Conflict by government officials			
Quality Management related challenges			
Monitoring and Evaluation by SCM officials			
Correct tender specifications			
Correct conditions of contract (GCC/JBCC)			
Linking of planning and budget			
Accreditation with cidb			
Planning by government			

Good Governance			
Fraud and Corruption			
Bribes			
Fronting			
Transparency of bid process			
Equal access to procurement opportunities			
Independence of bid committees			
Centralisation of procurement information			
Lack of transformation			
Open engagement and involvement			

SECTION C2: PROCUREMENT

1. How do you access procurement opportunities

…….

2. What is the most effective way of receiving tender documents/procurement information for tendering?[tick the appropriate box]

Government gazette	
Newspaper	
Direct invitations	
Notice board	
Posters	

3. How do you rate your understanding of tender documentation? [Tick only one box]

No understanding	
Partially understanding	
Not sure	

Understanding	
Fully understanding	

4. Getting a tender document is very expensive for emerging contractors (tick the applicable box)

Totally Agree	Agree	Disagree	Totally Disagree

SECTION C3: CHALLENGES FACED BY SMME CONTRACTORS

1. Based on your experience, what impact do you think construction SMMEs have on South African economic development in terms of the following aspects, using the following 4- point scale

   1= No understanding; 2 = some or average understanding; 3 = full or complete understanding

No	Contribution	1	2	3
	Employment or job creation			
	Equity redress (for example, correcting gender, race, age etc. imbalances)			
	Socio-economic development (for example, community upliftment)			
	Innovation (for example, new ideas, methods and materials)			
	Poverty reduction			
	Income generation /revenue growth			

2. Indicate whether your company participates in or has participated in any of the following programmes with X in the appropriate block?

Government initiatives/programmes	YES	NO	UNSURE
SEDA			
SEFA			
NEFA			
VUKUZAKHE			

EYESIZWE			
If other, please specify …….			

3. What impact has Eyesizwe Emerging Contractor Development had in your company?
1= No understanding; 2 = some or average understanding; 3 = full or complete understanding

1	2	3

4. Discuss whether government is doing enough to provide procurement opportunities to SMMEs

YES		NO	
If NO, what more do you think can be done? …… …… …….			

Thank you for your time and assistance in completing this questionnaire

APPENDIX D2: GOVERNMENT OFFICIALS QUESTIONNAIRE

QUESTIONNAIRE SURVEY FOR GOVERNMENT OFFICIALS

AN EXAMINATION OF THE CONSTRUCTION PROCUREMENT CHALLENGES FACED BY SMALL, MICRO AND MEDIUM ENTERPRISES IN THE PUBLIC SECTOR: A CASE STUDY OF THE DEPARTMENT OF PUBLIC WORKS IN KWAZULU-NATAL

SECTION A: BACKGROUND INFORMATION OF THE RESPONDENT

Kindly answer all questions, by indicating with X in the most relevant box or fill blank space when answering the questions.

1. Which office/division are you placed in within the Department of Public Works

.....

.....

2. What is your involvement with SMME development?

.....

.....

3. Please indicate the position you hold in the department

Chief Director		Construction Manager	
CFO		Project Manager	
Director		Built Environment Professional	
Deputy Director			
If other, please specify …… ……			

4. Please indicate your highest qualification

Doctoral degree		Certificate	
Master's Degree		Matric	
Diploma		Higher Diploma	
Honours/BTech/BSc		No Qualification	

5. Please indicate your Gender

Male		Female	

6. How long have you been in this position

……year(s)

7. Government initiatives for the construction SMMEs meet their desired outcomes. Do you agree or disagree

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

8. Indicate the level of alignment/satisfaction of your Department programmes with development of construction SMMEs

Level of satisfaction/alignment

1	2	3	4	5
Not aligned/ satisfied	Partialy aligned/satisfied	Not sure	Aligned/Satisfied	Fully aligned/Satisfied

9. What cidb discipline and grading are you developing or incubating?

……

……..

……

10. What kind of assistance and support do you offer to construction SMMEs

	Tick		Tick
Training		Linkages	
Funding (access to finance/funding)		Tender information	
Mentoring		Costing and pricing	
Subcontracting opportunities		Workshops and construction conferences	
Information sessions (NQF aligned)		Linkages	
Partnerships with other entities			
If other, specify …… …… …… …… ……			

11. Do you mentor the construction SMMEs after assisting them to ensure they develop and sustainable

Yes		No	

If NO, Why?

……
……
……
……

If YES, how?

……
……
……

Do you think government is doing enough to provide procurement information to construction SMMEs

Yes		No	

If yes, how?

……
……
……

If NO, What do you suggest being done?

……
……
……

What procurement opportunities do you have for emerging contractors?

……
……
……
……

If yes, how do you provide and disseminate to contractors?

……
……
……
……

Do you experience any procurement process implementation challenges?

Yes		No	

If yes, mention those challenges

……

……
……
……

12. How does DPW integrate planning to procurement demands and budgeting process?

    ……
    ……
    ……
    ……

13. What is the short term and long term strategies to support and help emerging contractors with procurement challenges?

    ……
    ……
    ……

14. What are the benefits and shortcomings of SMME programme(s) and procurement process?

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

Any comments / suggestions on how procurement challenges need to be resolved

……
……
……
……

Thank you for your time and assistance in completing this questionnaire