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CHALLENGES FACING EMERGING CONTRACTORS IN KWAZULU-NATAL

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DECLARATION

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

_____

Lindiwe Shwala (The above declaration is acknowledged)

February 2018

ABSTRACT

Despite institutions and programmes in place to develop small, medium, and micro enterprises (SMMEs) contracting firms working in South Africa, the challenges SMME contractors face have persisted; thus, a recurrent concern for construction clients in South Africa. This threatens the sustainability of the industry and that of the economy at large, considering the roles that SMMEs and the construction industry play in the economic development of any country.

This study attributed the challenges that the SMME contractors in South Africa's construction industry to the unique nature of small businesses in South Africa as they go through transformation. The problem stemmed from lack of information on the level of agreement among small contracting businesses in South Africa on the nature of the challenges that they face. This prevents the design and implementation of intervention programmes for capacity building to transform the industry.

The study aimed to highlight the challenges faced by emerging contractors in a bid to proffer solutions to address these challenges. Its five objectives were to determine the causes underlying: (1) training needs of the emerging contractors, (2) required business and financial management skills, (3) lack of collateral to access finance, (4) late payments by clients, and (5) limited access to employment opportunities.

This study adopted survey research using structured questionnaire to collect data from SMME contractors based in KwaZulu Natal province of South Africa. Participants of CIDB contractor grades 2 to 5 were targeted. 100 questionnaires were administered with a response rate of 65 per cent. On average, the respondents were 36 years old and had 8 years of construction industry working experience. The interval scale data obtained were analysed using descriptive statistics.

This study observed that South African emerging contractors are characterised by low level of experience and formal construction related training, lack of required skills, lack of access to finance, lack of employment opportunities and lack of cash flows to sustain their businesses due to delays in payment. Therefore, this contributes to failure of emerging contractors to sustain their businesses in the long run. Implications and conclusions are then drawn.

Key Words: Challenges, CIDB, Emerging contractor, Skills, SMMEs.

DEFINITION OF KEY TERMS

Construction industry – In broad, it is that sector of the economy which plans, designs, constructs, alters, maintains, repairs and eventually demolishes buildings of all kinds, civil engineering works, mechanical and electrical engineering structures and other similar works (Ofori, 1990). This agrees with the industry as involving general and allied construction activities for buildings and civil engineering works (Lavendar, 2014) amidst the persistent lack of consensus on its definition (see Ofori, 2015).

Emerging contractors – Construction companies owned and managed by historically disadvantaged individuals (HDIs), which have not yet succeeded in developing into major companies showing all signs of maturity [along the five growth stages: existence/inception, survival, success/growth, take-off/expansion, and resource maturity] as defined by Churchill and Lewis (1983) [and supported by Scott and Bruce (1987)] (Martin and Root, 2010). Emerging contractors are not yet established (Martin and Root, 2012).

Skills – A predefined and operationalized personal quality that has the three key features of being productive, expandable, and social (Green, 2011). While knowledge is related to facts, concepts, and propositions, the terms skills and competence (or competency) refer to procedural cognitive constructs which are necessary for acting (Nussbaumer et al. 2007).

Small, medium and micro enterprises (SMMEs) – SMMEs (both the sole proprietor and a firm with 499 employees and everything in between) encompass a wide range of firms from established traditional family businesses down to self-employed informal enterprises, with and with an annual average turn over from less than 1 million rands to 60 million rands(Shankantu, 2012). SMMEs are further classified into four broad groups: survivalist, micro, small and medium enterprises (Shankantu, 2012).

Small business – One in which management is independent, usually the managers are also owners; capital is supplied and ownership is held by an individual or small group; and one in which the area of operations is mainly local, workers and owners are in one home country, but markets need not be local (Scott and Bruce, 1987). SMMEs are, often, small businesses, which can be formal or informal with the formal small businesses in South Africa having major problems trying to survive and grow (Strydom, 2017).

LIST OF ABBREVIATIONS

1. ASGISA – Accelerated and Shared Growth Initiative of South Africa
2. BBBEE – Broad – Based Black Economic Empowerment
3. BEE – Black Economics Empowerment
4. CETA – Comprehensive Economic and Trade Agreement
5. CIDB – Construction Industry Development Board
6. CIP – Construction Industry Performance
7. DOL – Department of Labour
8. DPW – Department of Public Works
9. DTI – Department of Trade and Industry
10. ECDM – Emerging Contractor Development Model
11. ECDP – Emerging Contractor Development Programme
12. EPWP – Expanded Public Works Programme
13. GDFI – Gross Domestic Fixed Investment
14. ISEDS – Integrated Small Enterprises Development Strategy
15. JIPSA – The Joint Initiative on Priority Skills Acquisition
16. JV – Joint Venture
17. KZN – KwaZulu Natal
18. MFMA – Municipal Finance Management Act
19. MINMEC – Minister and Members of the Executive
20. NCDP – National Construction Development Programme
21. NDPW – National Department of Public Works
22. NIOSH – National Institute for Occupational Safety and Health
23. NSDS – National Strategy for the Development of Statistics
24. NURCHA – National Urban and Reconstruction Agency
25. PFMA – Public Finance Management Act
26. PPPFA – Preferential Procurement Policy Framework
27. SAFCEC – South African Federation of Civil Engineering Contractors
28. SAQA – South African Qualification Authority
29. SARS – South African Revenue Services
30. SEDA – Small Enterprise Development Agency
31. SETA – Sector Education and Training Authorities
32. SMME – Small, Medium and Micro Enterprises

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CHAPTER 1: INTRODUCTION

1.1 Background of the study

Beyond the common standard criterion of employee size, the definition of the term small and medium enterprise (SME) is dynamic and evolving according to the cyclical movements of the national economies of many countries (Acar *et al*., 2005). South Africa's construction industry has also moved towards the alternative (and more inclusive) term of small, micro and medium enterprise (SMME) contractors. This is geared towards effective transformation and infrastructure delivery within South Africa's construction industry (Martin and Root, 2012). Initiatives have been taken since the inception of the South African democracy in 1994 for promotion of SMMEs within the construction industry as part of the small business development articulated in the Department of Trade and Industry's (DTI) 1995 White Paper. As a result, various institutions and programmes have been established to that effect by the different construction stakeholders in South Africa. Some of the institutions and programmes include the Construction Industry Development Board (CIDB), Black Economic Empowerment (BEE), National Construction Development Programme (NCDP), and Emerging Contractor Development Programme (ECDP).

However, many emerging or SMME contractors in South Africa are still facing various challenges (see Sawers *et al*., 2008; Smit and Watkins, 2012; Thwala and Phaladi, 2009) resulting in failure of construction projects, SMME contracting businesses, and, eventually, employment growth in South Africa (Kesper, 2001). This will potentially add to the growing concerns of construction quality among the South African client (CIDB, 2011a). As such, the challenges faced by SMME contracting firms in South Africa have implications for the sustainability of the country's construction industry (Ugwu and Haupt, 2007; Urban and Naidoo, 2012). This realization gives credence to prioritizing dynamic capabilities of SMEEs in South Africa (Sawers *et al*., 2008) for them to continue to serve as hubs of new construction business ventures and innovation (Ndabeni, 2008). CIDB's mandate of promoting a regulatory and developmental framework needs to be complemented with putting to the fore the real challenges facing SMME contractors in South Africa. SMME contractors in South Africa grapple with transformation issues (Martin and Root, 2010), which can be broadly categorised under finance, training and regulatory environment (Rogerson, 2008).

These three broad challenges have been reported for the construction sector in South Africa's KwaZulu-Natal province (Ntuli and Allopi, 2013) and North West province (Thwala and Phaladi, 2009); however, not on the level of agreement among small contracting businesses in South Africa on the nature of the challenges that they face. KwaZulu-Natal is a more recent study and, as a result, serves as the point of reference. Being able to fill this identified gap will further add to unlocking growth limitations, developing a sustainable contracting capacity and elevating the potential for enterprise development among the contractors. This gap, if unaddressed, can potentially undermine efforts of existing institutions and programmes towards creating an effective industry strategy (Rwelamila, 2002) and further aggravate the challenges of SMME contracting firms in South Africa's construction industry.

1.2 Statement of the problem

The lack of information on the level of agreement among the SMME contractors in South Africa of the causes of the challenges that they face is preventing the design and implementation of intervention programmes for capacity building, which can improve their skills and enhance their performance towards transforming the construction industry in South Africa. The main research

question is what causes do SMME contractors in KwaZulu–Natal agree on as being responsible for challenges they face under finance, training and regulatory environment?

This is important because SMMEs drive economic activities (Ndabeni, 2008), which, in turn are driven by the construction industry (Dang and Low, 2011). The specific problems to be addressed with regard to the challenges facing SMMEs construction contracting companies in KwaZulu-Natal include those related to accessing job opportunities, late payments by employers, finance by financial institutions as well as managerial training and development in the public and private sectors, as supported by the relevant similar existing studies (e.g., Ntuli and Allopi, 2013; Rogerson, 2008; Smit and Watkins, 2012; Urban and Naidoo, 2012).

1.3 Aim of the study

The aim of the study was to investigate the level of agreement among the SMME contractors on the causes of the challenges facing SMME contracting firms.

1.4 Objectives of the study

The five objectives related to the aim of this study include determining the level of agreement among the SMME contractors as a result of the:

i) Training needs of the SMME contractors;
ii) Inadequacy of business and financial management skills;
iii) Lack of collateral to access finance;
iv) Late payments by clients/employers; and
v) Limited access to employment opportunities.

1.6 Methodology of the study

The study has been based on qualitative and quantitative methods of data analysis. The first phase involved secondary data collection method through review of the relevant publications (journal articles, conference proceedings, books based on original research, and government gazette) on the challenges facing SMME contractors and efforts to alleviate them. During the second phase, a structured questionnaire was administered through a cross-sectional survey solely targeting managerial and technical personnel within SMME contracting firms at KwaZulu-Natal province of South Africa. The interval-scale data gathered were then analysed using descriptive statistics.

1.7 Scope of the study

This study was limited to SMME contractors in KwaZulu Natal (KZN) province. The target population of the study was limited to 100 emerging construction companies in KZN that are registered on the CIDB database between CIDB grades 2 to 5.

1.8 Limitations of the study

This study initially focused on emerging contractors within the Ethekwini municipality but, due to the inclusiveness of the CIDB database, extended to contractors in other municipalities within KZN province. The survey will be conducted on a sample of 110 contractors.

1.9 Importance of the study

The study aims to highlight the challenges faced by emerging contractors in a bid to proffer solutions to address these challenges. As such, this study is important for:

i) Establishing the priorities of the training needs of the emerging contractors for the necessary upgrading programmes;
ii) Determining the required business and financial management skills of the emerging contractors for improved capacity;
iii) Identifying constraints around sources of and requirements for funding for the necessary intervention to assist emerging contractors; and
iv) Determining how some of the barriers in the procurement processes can be eliminated for better job opportunities.

1.10 Ethical considerations

Ethical conduct and principles as upheld among scholars (e.g., Kelley *et al*., 2003; Williams and Dewett, 2005) were adhered throughout the research project. Good practices were followed throughout the survey research. The university's internal process was also followed including acquiring the required ethical clearance certificate discussed subsequently.

1.11 Structure of the dissertation

The dissertation has been structured into five main chapters as follows:

This current Chapter 1 introduces the research, the problem and the problem statement and main research question, leading to the aim and research objectives.

The subsequent Chapter 2 discusses previous studies on the challenges particularly facing emerging contractors in South Africa's construction industry.

Chapter 3 explains the research methodology employed in the study, including tools and instruments used of data collection.

Chapter 4 presents the results and data analyses for the study. The descriptive statistics used were discussed and the findings related to existing studies.

The last Chapter 5 makes conclusions to the study and recommendations drawn from the conclusions. The implications, limitations, and future directions are also discussed.

1.12 Summary

This introductory chapter highlighted the role of emerging (or SME/SMME) contractors in South Africa's construction industry. It stressed the implications of transformation and resultant existing institutions and programmes to develop and empower SMME contractors. Most importantly, it presented the persistent challenges facing SMME contractors in South Africa, which it attributed to a gap in consensus among the contractors with regard to the identified challenges. Consequently, the study purposed to close the gap identified focusing on SMME contractors in KwaZulu-Natal to come up with findings that could serve as a basis for the necessary intervention programmes.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The construction industry is an important player in the economy of South Africa. It was reported that in March 2009 the construction industry contributed greatly to the total gross domestic fixed investment (GDFI) and employed 458 000 people (Stats SA, 2009). In addition, small, micro and medium enterprise (SMME) contractors in the expanding sector, in 2008 despite the recession, contributed a far larger share of the GDFI approximately 55%, amounting to about R 23 billion (DTI, 2008:96).

The Department of Trade and Industry's (DTI) 1995 White Paper underscored that the creation of an enabling environment for reconstruction, growth and development in the construction industry plays a vital role in the South African economy. Such efforts provide a physical infrastructure which is fundamental to the development of the country and its activities that, in turn, affect the lives of all South Africans. The DTI White Paper further illustrated that construction activities, on the average, contribute 35% to the GDFI. This means that the needs to unlock growth constraints, develop a sustainable contracting capacity, and elevate the development of previously disadvantage individuals and enterprises are vital (CIDB, 2005). Hence, it is imperative that government provides leadership to establish the framework for contractor development (CIDB, 2009).

In order to achieve growth, employment creation and poverty eradication, South Africa has initiated provincial contractor development programmes (CIDB, 2011b). The National Department of Public findustry for equity, empowerment and promotion of SMMEs and, eventually, skills development for emerging SMME contractor development programmes (CIDB, 2008). Emerging SMME contracting companies in South Africa often fail to develop into sustainable businesses (Martin and Root, 2012). Research has indicated that the companies that currently exist often face internal and external challenges (Strydom, 2017). Some of these reported challenges include barriers to access finance, legal constraints, a lack access to job opportunities, and a lack of required skills, amongst others.

Since the establishment of the CIDB, the construction industry in South Africa has shifted its focus from predominantly first world oriented construction environment to the one that focuses on the basic needs of the population and its economic circumstances (Rwelamila, 2002). This shift was directed towards the development of new construction policies aimed at promoting stability, fostering economic growth and economic competiveness, creating new sustainability employment, and addressing the historical imbalances as the industry is being regenerated for development (Department of Public Works, 2004). Post 1994, the government in South Africa and all the relevant stakeholders of CIDB was mandated, amongst other things, to implement a standardised application of best practices in construction and within the framework of government policy.

The role of the CIDB in South Africa is to facilitate and promote the improved contribution of the construction industry to the South African economy (CIDB, 2005). The main aim for the CIDB is to:

i) Ensure uniformity in construction procurement;
ii) Facilitate effective and efficient infrastructure delivery;
iii) Facilitate construction industry performance improvement; and
iv) Facilitate the development of emerging sector, industry transformation and skills development.

The CIDB's role is crucial because the construction industry operates in a unique project specific environment, combining different investor's professionals and contractual agreements. It impacts directly on the immediate beneficiary communities and the South African public at large; therefore, the industry's improved efficiency and effectiveness will enhance quality, health and safety, and value for money in the sector (Egan, 1998). Cost, time and quality performance indicators are the three basic and, arguably, most important performance indicators in the construction industry (Babu and Suresh, 1996; Zhang and Xing, 2010), all within satisfactory health and safety performance (Li *et al*. 2015).

In terms of CIDB Act 38 of 2000, the CIDB may develop target and performance indicators related to the best practice standard and guidelines as well as establish mechanisms to monitor their implementation and evaluate their impact. Subsequently, the DPW developed the construction industry indicators for the CIDB to use. The indicators are aimed at improving the performance in the construction industry in South Africa. These construction industry indicators rely heavily on international experiences as they were mainly adopted from the UK; however, there have been efforts at contextualizing these indicators for small contracting businesses and emerging SMMEs in South Africa's construction industry.

2.2 History of contracting development

Ofori (2015) revealed that initiatives for developing construction companies in the poorer countries began in the 1970s when it became apparent that the performance of companies was a major impediment to the national socio – economic development efforts of these countries. These companies do face unique challenges within their business environment within political, administrative and legal frameworks. The most notable international organisation that has been involved in this effort is the World Bank which has financing, training and equipment hire – purchase schemes.

In South Africa, contractor development has a long history. Watermeyer (1995) demonstrated that the Soweto Development Programme was based on previous experience. Through this programme, the client (usually a public sector client) appoints a development team supporting a number of construction projects, which may be part of a large contractor or consultants firm, is appointed on a fee basis. Moreover, trainees are categorised into 'levels', according to factors which indicate their development needs. Thereafter, the development team addresses the needs of the contractor accordingly and:

- Train, advices and assists the contractor;
- Procures, supplies, issues and deliver materials to the construction sites;
- Arranges for specialist work to be carried out; and
- Coordinates contractor payment.

2.3 The case of emerging contractors in South Africa

In South Africa, contractors enter the market at the lower end in the general building contracts category thus rendering the sector extremely competitive and unsustainable as established by other notable public institutions including DPW and CIDB. Thwala and Phaladi (2009) shows those emerging contractor policies intended for Black Economic Empowerment (BEE) are being used as job creation opportunities which contribute to the overcrowding of emerging markets.

Since 1995, DPW has been actively involved in developing and implementing programmes to promote small scale contractors within the built environment. An increased participation by HDIs in the main stream economy; has been observed through these programmes, championed by DPW together with the CIDB.

As reported by Thwala and Phaladi (2009), there has been an increased economic activity in an economically depressed environment through this participation. Previously, contractor development programmes focused mainly on the under 500 000 range market, which was discovered not to be sustainable market, given the number of new players in the market. The researchers alluded that this result in only a few of these businesses being sustainable and the cost of contractor development consequently being extremely high compared to that of the sustainable businesses.

Research conducted by Seeletse (2012:1) reveals that small enterprises constitute 80% of the business sector in South Africa. However, emerging contractors find it difficult to penetrate the construction sector. As reported the Gauteng Local Government and Housing MEC (2010:1) the boom in the construction industry during the erection of the 2010 FIFA World Cup infrastructure has benefited only big companies at the expense of emerging contractors.

2.4 Impediments to growth and development in the industry

According to white paper for creating environment for reconstruction, growth and development in the construction industry, the following are some of the fundamentals impediments to growth and development in the contracting industry:

- There are interconnected structural problems within the industry, which are associated with the declining demand in recent decades as well as the volatile nature of construction demands;
- The development of this emerging sector is frustrated by its inability to access finance and credit as well as vocational or management training;
- As a major client of the industry, the limited capacity of the public sector to manage its procurement function has given rise to bottlenecks which escalate the cost of development for both the industry and the public;
- The public sector fiscal capacity and the limited ability to mobilise private – sector finance and initiatives constraints increased investment in physical infrastructure.

Furthermore, the absence of a statutory authority to co –ordinate and promote industry growth and development initiatives is impeded by transformation and reform. Therefore, it is against the background of the need for accelerated delivery and development that the combined and mutually reinforcing effect of the impediments outlined above can be characterised as an industry – wide crisis Malongane, (2014). Musingi (2007:311) identified the following as some of the major challenges facing the contracting industry.

2.4.1 Inadequate Capital

Most of the contractors in eh lower classes of registration lack adequate capital which would otherwise have enabled them to bid for large and lucrative contracts. Therefore they are limited to small jobs which do not attain growth or inspire them to achieve a higher class of registration. Moreover, because of limited capital funds they sometimes fail to comply with contract completion dates, one of the major challenges facing the construction industry.

2.4.2 Shortage of Construction Equipment

Lack of construction equipment is another problem facing small contractors. Since they do not have adequate capital, they cannot acquire substantial numbers of construction equipment, hence, the vicious cycle.

2.4.3 Inadequate Skilled Personnel

Some contractors formed construction companies without possessing any technical skills themselves. Moreover, they do not employ the required personnel on a permanent basis; the argument being that the said personnel requires higher salaries or those contractors will be paying them for nothing during absence of work. Contractors therefore depend on hiring skilled personnel at the same time they intend to tender for jobs. In some cases, contractors submit a list of skilled personnel with whom they have made prior arrangements to be available at short notice should the contractor secures a contract and the expected skilled personnel are no longer available as they would already have been hired by the other contractors.

Research conducted by Tihomola (2010:50) indicates that many businesses tend to employ inexperienced and unqualified personnel. Sadly, this practice stems from a reluctance of businesses to pay competitive salaries; thereby sacrificing the quality of their work.

2.4.4 Inadequate Management Skills

The problem of inadequate management skills is very similar to that of a lack of skilled personnel. Many small contractors do not have adequate personnel with management skills to ensure that all the necessary legal documents are in order, the jobs is executed in a manner that will ensure that there are no conflicts with clients, and the sites are well managed in order for the contractors to realise a profit.

2.5 Current barriers to the development and growth of emerging contractors

According to Spencer (2005:41) small and medium sized contractors can be separated as those who affect smaal sized contractors and medium sized contractors respectively. Spencer, citing Dlungwana and Rwelamila (2003), argued that contractors can also be distinguished from each other by various variables such as the size of their annual turnover, capacity and capability.

Thwala and Phaladi (2006:87) argued that small and medium contractors face increasing competition owing to the long term real decline in demand and many contractors responded by shedding labour. However, while emerging contractor development policies were intended for black economic empowerment, capital is limited and the cost thereof is high. Moreover, while government has made some efforts to increase accessibility to finance, the targeted programmes have enjoyed limited success due to the low awareness and usage of existing promotional programmes.

In addition, high interest rates also pose a threat to the growth of micro enterprises, and the effect of the recession can be felt by these contractors as the inadequacy of external finances deters enterprises with growth potential from expanding.

In his research, Ofori (2002:1) found that while small and medium contractors throughout the world face many challenges, contractors in developing countries have additional problems that differ from those experienced by their counterparts in the developed world. Lack of resources for training contractors, poor construction procurement systems as well as a lack of management capacity and resources to equip managers to operate their business enterprises efficiently and effectively indicates additional challenges experienced by developing countries as shown by research. Several

researchers have analysed problems facing emerging contractors and the following barriers have been identified.

2.5.1 Skills – related barriers

Spencer cited by Haukki and Engdelhl (2001:62) contended that the Skills Development Act (Act No. 97 of 1998) provides an institutional framework for devising and implementing national sector and workplace strategies to develop and improve skills and the workforce. However, South Africa is characterised by an efficient investment in human capital (Thwala and Phaladi, 2006:89). This has resulted in a labour force with a skewed distribution of craft skills, career opportunities and workplace experience.

It is noted that while the promulgation of the Skills Development Act of 1998 is commendable, micro enterprises already express concern about the administration costs of recovering levies in the form of grants for training undertaken. According to Phaladi and Thwala cited in Kesper (2000) subsidies for costs of designing a workplace training programme as an alternative to using external training institutions and the relatively high fees charged by private training institutions after the closure of the former industrial training board are being granted through levies from industry.

The purpose of the Skills Development Act is to:

- Increase the levels of investment in the education and training of the labour force;
- Improve the employment prospects of previously disadvantaged individuals due to unfair discrimination, and;
- Redress the disadvantages through training and education.

According to Wasi *et al*. (2001:6) deficiencies in planning and management skills are acknowledged to be the greatest single problem for small scale contractors in general. Further, in developing countries, the local construction industry lacks the capacity of undertaking large construction projects which results in a continuation of colonial construction companies undertaking all major construction projects. As a result, smaller contractors experience difficulties in acquiring experience in these types of projects which in turn leads to contractors with limited technical and management skills (Wasi *et al*., 2001:7).

Tihomola (2010:49) stated that small business owners and their staff members acquire the necessary skills to ensure the survival and the success of their business through training. This research further cites Van Aardt *et al*. (2008:249) who assert that about 80% of the problems experienced in business are caused by a lack of management skills. Moreover, these entrepreneurs lack the critical business skills required to run their businesses successfully.

Wasi *et al*. (2001:7) concluded that these deficiencies affect the ability of small scale contractors to acquire materials and manage their works successfully, thus generally contributing to poor performance. Often, these contractors resort to hiring graduates with little or no experience and assign them to oversee projects. Their lack of skills and experience at both supervisor and worker levels has, however, also been a contributing factor to poor performance.

One of the contributing factors towards failure of contractor development is financial management skills. Wasi *et al*. (2001:10) further noted that financial management skills enable contractor to better manage their finances, thereby facilitating appropriate expenditures to keep their businesses operational. However, research also reveals that many contractors are experiencing cash flow problems. This could mean that money might be spent on things rather than operating costs to keep the company operational.

2.5.2 Financial Barriers

Baitani and Mullungu (2007:9) reported that a construction business, like any other business, requires financing both for the establishment of the basic infrastructure in terms of acquisition and expansion of capital items, and for working capital to run the business. It is also noted from external sources. However, small companies are experiencing constraints resulting in little or no access to finance.

Access to finance by emerging construction companies remains the main constraint to construction SMMEs (Shakantu and Kajimo, 2007:6). These researchers indicated that this is a result of the fact that construction SMMEs has limited access to capital markets, partly due to the perception of higher risk, information barriers and the higher costs of intermediation for smaller firms. As a result, small construction companies often ar unable to obtain long term finance from finance institutions as a form of debt and equity.

Through it was noted by Chilipunde as cited by Carson (2006:31) that credit by suppliers appears to be the most common source of external financing for equipment among emerging contractor, Shakantu (2007:7) indicated that efforts to promote SMME access to finance might have resulted in a greater impact on development and growth, but access is limited and the cost of capital is high.

Efforts were made by government to increase accessibility to finance through targeted programmes, however, research shows that targeted programmes have had limited success due limited awareness and usage of existing promotional programmes. In addition to insufficient access, high interest rates as a result of the recession pose a poor financial policies make lending to construction enterprises.

Shakantu (2007:7) also highlighted that poor financial policies make lending to construction businesses as compared to trading enterprises. Thwala and Phaladi (2006:89) indicated that efforts to promote the access of small contractors to finance might have more impact on development and growth, but access is limited and the cost of capital is high. These researchers argue that while government has made some efforts to increase accessibility to finance, the targeted programmes have had limited success due to a low awareness and usage of existing promotional programmes. Moreover, high interest rates also pose a constraint on the growth of micro enterprises. Shakantu (2007:12) reported that fundamental difficulties are evident in terms of discrimination by financial institutions against micro enterprises with little collateral, difficulties in accessing information and lack of exposure.

2.5.3 Lack of access to Job Opportunities

Access to job opportunities has a significant contribution to the survival of an enterprise. Government has a vital role to play by ensuring that there is a conducive regulatory environment for emerging contractors. Contractor development is measured through growth in the CIDB grade of a contractor, which is one component of development CIDB (2009). Shakantu (2006:4) indicates that the CIDB contractor registers are filled by micro enterprises aiming to secure small contract, which results in fierce competition between these companies. This competition then translates into desperate tenderers and unsustainable overbidding.

The preferential policy is used by Government departments, local authorities and public corporations are required as required by the Preferential Procurement Policy Framework, Act No. 5 of 2000 (PPPFA). Through this act, a different public sector entity gives preference to previously disadvantage enterprises when awarding tenders. In addition, the Act also enables public entities to use an unbundling system, which is a tender process that divides construction work that can be performed by one contractor into smaller works so that they can be executed by more than one contractor CIDB (2004:8).

However, research reveals that although a preferential procurement system is in place, emerging contractor still face work flow problems. Once contractors have completed a project they usually have to wait for some time before receiving the next project Mbonane (2005:16).

2.5.4 Delays in Payments

Mvubu and Thwala (2009:4) postulate that emerging contractors experience problems due to lack of payments by clients. The Joint Building Committee Contract 2000, clause 13:11 stipulates that the employer shall pay the contractor within 7 calendar days and 21 calendar days in terms of state provisions is allowed from date of issue of the payment certificate.

However, a study conducted by the Department of Housing (2006) reveals that problems regarding delays in the payment of contractors still exist. This study further indicates that these problems can be attributed mainly to, amongst other things, the unwieldy nature of payment processes as well unnecessary bureaucracy in the processing of claims, lack of capacity within client secondary contributing factors include delays such as lack of clarity on the part of articulated in the Human Settlements Concepts Paper (2006:8).

Kapulala et al cited by Chilipunde (2010:35) indicates that erratic cash flow problems experienced by contractors which often forces them to delay or suspend work to delays or non – payment; the public sector being the main defaulter in this respect. Moreover, contractors are unable to meet numerous contractual obligations, resulting in work costs escalating beyond their budget as a result of claims and interest. In the case of labour – based construction, delays in payment could result in strikes, unrest and serious disruptions. Delays in payment by clients can be identified as a major obstacle that affects the growth of small contracting enterprises.

2.5.5 Barriers to training and mentoring

International research conducted by the National Institute for Occupational Safety and Health (1999:9) describes training as communication directed at a defined population for the purpose of developing skills, modifying behaviour and increasing competence.

Usually, training focuses exclusively on what needs to be known, whereas education is explained as a longer term process that incorporate the goal of training and also explains why certain information must be known. Education emphasises the scientific foundation of the material presented.

According to research, both education and training induce learning, a process that modifies knowledge and behaviour through teaching and experience.

Similarly, Moss (2007) cited Chilipunde (2014:144) observed that training is a form of education or teaching that transfers knowledge. In the process, the trainer has certain responsibilities which include: presenting, demonstrating, guiding and administration – also referred to as mentoring CIDB (2008). Mentorship is essential in order to accelerate the process of development.

Mentorship affords selected contractors, who are awarded contractors in term of the programme, the benefit of exposure to the experience of those individuals who have extensive experience in the construction industry. This exposure is designed to address many of the common shortcomings encountered in such contractors while they still lack sufficient experience (Watermeyer, 2001:6).

According to the CIDB status report (2009:39) access to theoretical and practical training supported by mentoring is core to any contractor development programme. Moreover, it is vital that training should be meaningful and relevant to the target graduation level of development for contractors, and that this training is accredited.

However, this requirement is compounded by the problem that the South African Qualification Authority (SAQA) accreditation does not exist for many subject areas and the Contractors Development Programmes (CDPs) are therefore often reliant on their own assessments. Theoretical competence can be verified by formal qualification among these contractors in preparation for the participation in both the public and private sector construction industries. The CIDB (2009) reported that the quality of some of these mentorship programmes is unacceptable.

The challenge of skills development through its construction industry performance unit and the CIP are addressed by the CIDB (2008). There is an undisputable link between the quality of projects delivered by contractors and skills they possess. Quatey *et al*. (2001:15) postulate that in order to bridge the gap between the growth of an inexperienced contractor and a fully – fledged contractor, and between a contractor executing contracts with a higher value or risk profile, or both, mentorship is essentially required.

Moreover, mentorship is also essential in accelerating the development of selected contractors; as a result overcoming the barriers which they face. As such mentorship can be observed as the 'helping hand' which assists the selected contractors to cross the divide between small contractors and larger ones.

Through knowledge obtained through practical experience in the construction industry, mentors are able to:

- Offer guidance and advise to selected contractors regarding their shortcomings and areas in which they need to improve their competency level;
- Improve skills such as technical, managerial, administrative, commercial as well as business skills of key staff members; and
- Establish business systems within SMMEs.

2.6 The role of the public sector and other entities toward emerging contractor development

2.6.1 Construction Industry Development Board (CIDB)

Parliament through Act 38 of 2000, has established the CIDB as a statutory body for reform and improvement of the construction sector for effective delivery, to provide leadership to stakeholders as well as to enhance the role of the industry in the country's economy.

The CIDB mandate as summarised in the abstract of the CIDB Annual Report (2004/2005:12) is as follows: "provide strategic direction and develop effective partnerships for growth, reform and improvement of the construction sector; promote sustainable growth of the construction industry as well as sustainable participation of emerging contractors; promote improved performance and best practices; promote improved procurement and delivery management; and develop methods for mentoring and regulating the performance and registration of projects and contractors".

2.6.2 National Contractor Development Programme (NCDP)

The NCDP is a government programme comprising a partnership between the CIDB, national and provincial public works and other willing stakeholders in which the participating stakeholders commit their resources to developing previously disadvantaged individuals (CIDB Status Quo Report, 2009:3).

These stakeholders assist to empower previously disadvantaged contractors through:

i) the establishment of an enabling environment for contractor development; and
ii) enhancement and strengthening of contractor development mechanisms, including:
   - through emerging contractor development programmes (ECDPs);
   - joint ventures (JVs) including appropriate mechanisms; and
   - facilitating performance improvement of contractors and supporting the creation of a pool of skilled artisans, supervisors, technicians and technologists for the construction industry.

2.6.3 Construction Registers

The construction register service was established in terms of the CIDB Act 38 of 2000. Thus register offers a basis for sustainable contractor development and growth through improved delivery, performance and sustainable empowerment. The register comprises two interlinked national registers, namely, the register of contractors and the register of projects (CIDB Act 38 of 2000:9).

Each register promotes an enabling development framework in terms of construction industry capacity, infrastructure delivery and growth. Used together they offer employers and contractors alike great benefits with regard to identifying opportunities, challenge and growth within the construction industry.

2.6.4 Register of Contractors

The CIDB Act (2000:10) illustrates that the register of contractors has been established to support:

- risk management during the tendering process;
- reduce tendering costs to both clients and contractors;
- enable effective access to work and development opportunities for the emerging sector;
- reduce the administrative burden associated with the awarding of contracts;
- assess the performance of contractors in the execution of contracts and thus provide a performance record for contractors; and
- promote minimum standards and best practices as well as to regulate the behaviour of contractors within the industry.

In addition to the preceding list of support functions, to also store and provide data according to the volume, nature, performance and development of contractors and target groups, based on the size and distribution of contractors operating within the industry including enabling contractor access to the private sector, as well as facilitating private sector procurement.

2.6.5 Register of Projects

The register of projects has been established in terms of the CIDB Act to obtain information on the value, nature and distribution of projects as well as to provide the basis for the bestpractice project assessment scheme in order to contribute to the development of the construction industry through promotion of public and private sector clients' performance.

2.6.6 The Role of the National Department of Public Works Regarding Contractor Development

The National Department of Public Works maintains a fragmented strategy towards contractor development through the Contractor Incubator Programme (CIP) and the Emerging Contractor Development Programme (ECDP). According to this strategy, the ECDP targets contractors transacting business of up to 500 000, while the target for the CIP is to empower these emerging contractors to become sustainable so that the contracting enterprise can operate profitably.

2.6.7 Contractor Incubator Programme

The National Department of Public Works has embarked on the development and implementation of an incubator programme to promote the development of sustainable contracting enterprises owned and controlled by Historically Disadvantaged Individuals (HDIs) (NDPW, 2007:6), hence the establishment of the NDPW CIP. Furthermore, the CIP targets projects within the R1,5 million to R30 million range to provide opportunities to achieve sustainability.

The representatives of all the programme stakeholders into a CIP unit consisting of NDPW clients, NDPW consultants, the CIDB, CETA (and other Setas), financial institutions, mentors, training providers and other government departments including provincial DPWs, the DTI and so forth are incorporated through the CIP. The following Table 2.1 presents the contract enterprises targeted.

Table 2.1: ECDP and CIP contract enterprises

Contract Enterprises targeted in the ECDP and the CIP code	Maximum Value of contract that contractor is considered capable of performing	At least one contract with value greater than :	Employable Capital (EC) of at least (Net Asset Value x Bank Rating Factor) + Financial Sponsor
1 (ECDP)	R 200 000	0	R 0
2 (ECDP)	R 500 000	80 000	R 0
3 (CIP)	R 1 500 000	260 000	R 0
4 (CIP)	R 3 000 000	800 000	R 600 000
5 (CIP)	R 5 000 000	1 600 000	R 1 250 000
6 (CIP)	R 10 000 000	3 000 000	R 2 250 000
7 (CIP)	R 30 000 000	8 000 000	R 6 000 000

Source: NDPW Realignment Strategy and Management Plan for the ECDP

However, due to insufficient staff and high vacancy rates, the CIP management team capacity is currently severely constrained as reported by NDPW. In addition, unclear policy on the use of external resources resulted in inadequate management resources and inadequate management systems being put in place with the option of sourcing part – time staff also being limited. The CIP's objective is to create an enabling environment within which selected contracting enterprises can develop into sustainable contracting enterprises. Therefore, this programme is aimed at creating an enabling environment within which qualifying existing contracting enterprises can develop (CIDB Status Quo Report, 2009:13).

Furthermore, the programme entails focused supply – side support through a structured mentorship centred enterprise development programme. The report further indicates that this programme is implemented over a three – year cycle and focuses on the development of contractors in CIDB grades 3 – 7. To date, 134 contractors have entered the programme, but none have yet completed. The Report further indicates that there is in total 33 contractors who have since increased their CIDB grading by more than one more than one grade (CIDB, 2009:14).

2.6.8 The Operation Framework for the Contractor Incubator Programme

The Management Plan on CIP (2007:5) highlighted that this incubator programme has been developed based on the understanding of:

- The characteristic of a sustainable construction contracting enterprise, and
- The role of clients in promoting sustainability.

The following are the five key components of the operational framework for the CIP:

- Programme management for the integration of respective components of the incubator programme,
- Integration of the incubator programme with the strategic plan of the DPW for the procurement of construction work which will ensure accessibility to appropriate work for participants of the incubator programme,
- Adherence to the DPW procurement policy when selecting participants and in procuring their services,
- Implementation of development programme through mentorship,
- Aligning institutional support structures to continuously improve the commercial and managerial capacity of participating contracting enterprises

2.6.9 Institutional Capacity and Management Model

Through the NDPW CIP, a regulatory framework has been established in support of contractors, and the business processes of the NDPW CIP are also aligned to the Preferential Procurement Policy and the Public Finance Management Act (Act No. 1 of 1999)(PFMA). The NDPW CIP business process model targets categories such as marginalised groups such as black SMME, women, youth and the disabled as defined by the Department (CIDB, 2009:14)

Furthermore, the Reports indicate that the aim of NDPW is to ensure that funds are committed towards the programme through annual planning, in order for CIP participants to access work opportunities at one financial category higher than non – participants (up to Grade 5). In addition, contractor performance is measured through successful completion of the contract according to the quality requirements, agreed budget and schedule. The CIP matches the ability of a construction contracting enterprise with the demands of the contract to ensure that quality, schedule and cost requirements are attained. The following Figure 2.1 typifies how CIDB's support mechanism for the contractor development works.

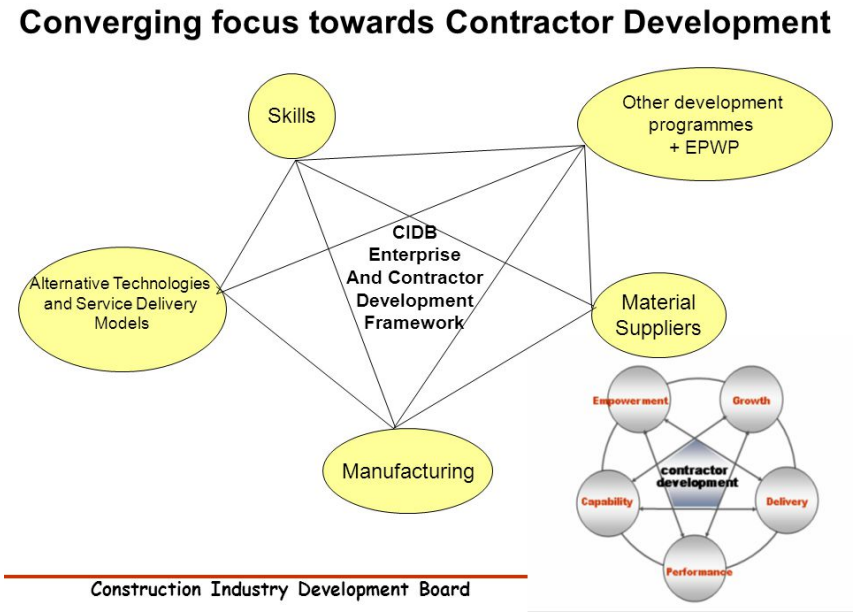


Figure 2.1: CIDB contractor development programme

2.7 The Role of the Small Enterprise Development Agency (SEDA) in small business

After the political transformation in 1994, the government adopted the White Paper on National Strategy for the Development and Promotion of Small Business in South Africa on 20 March 1995. An enabling environment for the accelerated growth of small enterprises following a history

characterised by the dominance of large capital intensive firms and the continued neglect of small enterprises (Integrated Small Entreprise Development Strategy, 2005:4) was created through the White Paper. The Strategy on Integrated Small Business Development recognizes that not all small businesses are the same. Small businesses differ in their development needs, opportunities as well capacities. Moreover, small businesses contribute to the goals of job creation, equity and poverty reduction in diverse ways (DTI, 2005:4).

The Small Entreprise Development Agency (SEDA) is an agency of the DTI which supports small businesses in South Africa. In December 2004, SEDA was established through the National Small Business Amendment Act, 2004(Act 29 of 2004). The Act is mandated for implementation of small business strategy of the government, integration of government funded small enterprise support agencies across all tiers of government as well as designing and implementing a standard and common national delivery network for small enterprise development. The mission of SEDA is development, support and promotion of small enterprises throughout the country by ensuring their growth and sustainability in co – ordination with various role players as well as through global partnership that make international best practices to local entrepreneurs (National Small Business Act, 1996:4).

2.8 Emerging Contractor Skills Development and Mentorship Programmes

Rogers (2007) cited by Hoffmeister *et al*. (2011:6) describe mentoring as a main element in construction work. For example, having experienced workers on construction sites who oversee and mentor less experienced workers is common practice. However, according to Watermeyer & Jacquet (2001:6) mentorship should not be confused with the provision of third party management support.

Researchers have found that in order to facilitate the growth and transition of an inexperienced contractor to that of a fully – fledged contractor, and that of a contractor executing with a higher value or risk profile, or both mentorship plays an important role. Moreover, mentorship is required to accelerate the development of selected contractors and in so doing overcome the impediments they face.

As such, mentorship can be viewed as the catalyst which assists the selected contractors to cross the divide between small contracts and larger ones (Watermeyer and Jacquet, 2001:6). Furthermore, mentorship affords selected contractors, the benefit of exposure to the experience of those individuals who have extensive experience in the construction industry, particularly contractors who are awarded contractors in terms of the programme.

Many of the common shortcomings encountered among such contractors and the lack of a track record regarding poor pricing structures are addressed by the exposure including the winning of non – profitable tenders, late starts to contracts, late submission of payment claims and the late commissioning and handover of contracts.

Hoffmeister *et al*. (2011:5) shows that a mentor is a trusted and respected advisor, however, the relationship between a mentor and trainee especially within the construction industry may be different from the mentoring relationships in other industries due to diverse and rapid tasks, short term relationships that trainees have with their mentors as well as the constantly changing work environment and crews. Moreover, jobs within the construction industry could last for a short period, as a result the length of any mentor – trainee relationship varies widely according to the job at hand; however, in most many instances the relationship is short – term.

According to Watermeyer and Jacquet (2001:6) based on the knowledge they gained through practical experience in the construction industry and through their acquired skills construction mentors are able to:

- Provide guidance and advised to selected contractors in the areas in which they need to improve their competencies;
- Develop the managerial, technical, commercial, administrative including business skills of the key staff members; and
- Develop business systems with emerging companies.

Research performed by Hoffmeister *et al*. (2011:1) continues to illustrate that there are two potential areas foe developing mentorship relationships on the construction sites. Trainees are in most cases mentored by their more experienced co-workers or supervisors. Trainees work under experienced supervisors in order to help them to become accustomed to the industry and serve as role models during the apprentices. However, a mentorship programme must not relieve contractors of any of their contractual responsibilities or prejudice the competitive position of selected and non – selected contractor in awarding contracts (Watermeyer and Jacquet, 2001:6).

Watermeyer and Jacquet (2011:6) illustrated that in so doing, the client's risk exposure may be reduced to non – performance and as a results it may provide some comfort to creditors and financiers, while affording selected contractors an opportunity to overcome business challenges. Spencer (2005:47) argued that having an effective mentoring programme in place in the construction industry is critical to the development of emerging contractors as well as the industry as a whole.

An institutional framework to devise and implement national sector and workplace strategies to develop and improve skills in the South African workforce is provided by the Skills Development Act; Hauki *et al*. (2001:62). The aim of the Act is to:

- Ensure Increased levels of investment in the education and training of the labour force;
- Ensure Improvement in the employment prospects of persons who were previously disadvantaged by unfair discrimination, and;
- Decrease disadvantage through training and education.

A need exists to address the skills shortage among the emerging contractors, particular women (60%), youth (30%) and others (10%), in line with the Skills Development Act of 2003, as amended. As illustrated in the Eastern Cape Department of Roads and Transport (ECDP) policy document (200:12) mentorship should be provided to emerging contractors in order to curb non – performance in contracts.

The documents further reveals that it is common practice that when a mentor is provided as part of a contract within a contract and there is non – performance by the Emerging Contractor, the obligations of the contractor to perform are taken over by the mentor in order for the work to be executed implemented.

It is therefore imperative that the duties of a mentor are clearly defined and the mentoring mechanisms are put in place to ensure that each party adheres to his or her obligations. Research conducted by Watermeyer and Jacquet (2001:6) shows that in order to address mentorship; provision for the services and of an accredited mentor in the contract should be made by clients by including a measurable item for mentorship in the bill as a result mentors should be appointed by contractors and be reimbursed for their services in accordance with contract's provisions. Therefore a contract between the mentor and the client does not exist (Watermeyer & Jacquet, (2001:6).

2.9 Skills development for SMME development

In accordance with skills Development Act of 1998, skills policy is expressed in the National Skills Development Strategy (NSDS), National Skills Authority, National Skills Fund and the Sector Education and Training Authorities (SETAs). These are viewed by Kraak (2004:117) as an attempt to address incoherence in skills development and enterprise training activities. Learnerships are aimed at providing workplace learning in a more structured and systematic form, together with the levy – grant system, which makes industry investment skills development industry investment skills development compulsory, are key elements of the new institutional arrangements as the primary form of workplace training.

Critical to the success of establishing a culture of entrepreneurship in South Africa is Education and training. Together with finance, upgrading of skills as well as the need for training is critical for South African SMME policy (Rogerson, 2007:28).

The need is growing for smart, adaptive and innovative entrepreneurs (Rogerson, 2007:29) with the increasing globalisation of economies around the world as well as South Africa. A lack of technical and managerial skills can no longer be a reason for the failure of SMME businesses.

Research by Rogerson (2007:17) found that a number of studies show that lack of training and management skills is the most prevalent causes of general business failure amongst SMMEs in South Africa. Research conducted by Rogerson (2007:16) indicates that a number of research contributions to skills development and training linked to the SMME economy in South Africa have been made in the past decade. However, at the broadest level, there is a collection of investigations which confirm that a large segment of the SMME entrepreneurs of South Africa present limited skills, affirming the importance of training and the acquisition of skills for enterprise development.

The focus should be on Education and training of SMMEs in terms of business, technical as well as entrepreneurial skills. According to Perks and Struwig (2005:171) there are certain skills required to turn micro enterprises into small enterprises. Research undertakes by Perks and Struwig (2005:173) reveals that four general categories for competencies exist, as listed below:

a) Personal Skills

The personal skills necessary for entrepreneurs to develop include good organisational skills, sound communication and negotiation skills, good problem solving, good leadership skills, an ability to deal with stress effectively, as well as a high degree of independent decision – making skills.

b) Technical Skills

Most secondary source defines technical skills as the ability to use the tools, procedures and techniques of a specialised field. The five categories defined by Perks and Struwig (2005:171), which are broad but interrelated, are:

- knowledge of service,
- product knowledge,
- knowledge of the market,
- process knowledge, and
- knowledge of methods of communication.

c) Business operations Skills

In addition, the skills required to operate an enterprise effectively include:

- Business management;
- Financial management;
- Record keeping,

- Customer relations, and
- Interpersonal relations.

d) Management Skills

The following are competencies of a skilled manager (Perks and Struwig, 2005:173):

- Providing positive and constructive feedback;
- Rewarding good performance;
- Communities effectively by soliciting ideas and feedback, presenting a clear vision of the future and seeking to inform, educate and inspire;
- Effectively management of teams by composing teams wisely and maintaining their optimal functioning;
- Managing the environment by maintaining as well as creating an attractive, functioning work space and encouraging healthy relationships;
- Matching skills by identifying people's abilities and assigning tasks appropriately; and
- Identifying people who thrive on challenges and seeking to push them beyond their current limits.

2.10 SMME DEVELOPMENT INITIATIVES

2.10.1 JIPSA Initiatives on SMMEs

The Joint Initiative on Priority Skills Acquisition (JIPSA) was launched in March 2006, with the aim to develop the skills identified by ASGIA (Accelerated and Shared Growth of South Africa) as an immediate priority. JIPSA is a short – term initiative, with an envisaged life span of only three years aiming to relieve critical skills shortages in a number of years, including skills in the public service delivery, infrastructure development, information and communication technology as well as for the ASGISA priority sector according to DTI (2008:31).

2.10.2 The Expanded Public Works Programme

In the past, a large proportion of our population did not possess the skills to effectively participate in construction projects in order to earn a living. The EPWP is one of government's many initiatives to address the need for skilled labour in the growing economy as well as needs of the large numbers of unskilled and unemployed people who have not yet benefited from economic development in South Africa (DPW 2004:1).

The EPWP encompasses creating temporary work opportunities for relatively unskilled labour due to the fact that most unemployed people are unskilled. All of these work opportunities are combined with training or education or skills development, to ensure that there is an increase in the ability of people to earn an income once they exit the programme. The Department of Labour (DOL) in consultation with the SETA coordinates training as well as skills development aspects of the programme (DPW 2004:1).

The former President Mbeki announced The Expanded Public Works Programme (EPWP) in his state of the Nation Address in February 2003 with the aim of directly absorbing a significant number of unemployed people to earn an income beyond their participation in the programme (DTI, 2008:33). The DTI annual report further notes four EPWP programmes under the Department of Public Works, namely:

- An infrastructure programme (civil works projects);
- An environment programme;
- An economic programme (SMME development); and
- A social development programme.

2.11 Funding Programme

Thwala and Philadi (2006:89) reported that although there are government initiatives to increase accessibility to finance, targeted programmes have had limited success due to limited success due to limited or lack of awareness and usage of the promotional programme. Moreover, the relationships between SMMEs and major banks in South Africa have not always been easy (DTI, 2008:35). As a result, banks have been criticised for being over cautions, even though micro – lending arm targeting small businesses was established by major financial players. However, DTI (2008:35) stipulated that there should be a clear distinction between the relationships with small and medium businesses, and their relationships with micro or very small enterprises.

It is further reported that lending to SMMEs is profitable however these businesses seldom experience difficulty in accessing loans from financial institutions. In additions, the cost of entering loan micro enterprises is inconsistent in terms of the typical size of the loans granted.

Post 1994, the South African government has recognised the importance of fostering an enabling environment for the creation of growth of small enterprises through the White Paper on national strategy regarding the development and promotion of small business in South Africa (DTI, 2005:3). The objectives of the White Paper are:

- to create an enabling legal framework;
- streamlining regulatory conditions;
- facilitating access to information and advice including marketing and procurement;
- facilitating access to finance and affordable physical infrastructure;
- providing skills development through training of entrepreneurship;
- industrial relations improvement and the labour environment;
- encouraging joint ventures within enterprises;
- access to applicable technology;
- institutional strengthening including introducing differential taxation and other financial incentives as well as capacity building.

Since the publishing of this White Paper in 1995, different support institutions and measures have been implemented. While these have assisted in the pursuit of the objectives mentioned above, some critical challenges still remain (DTI, 2005:3). Furthermore, Government recognises that efforts to address these challenges and finding ways to improve the operating conditions for small businesses need to take place; this includes efforts to address market failures, mainly where they impact on government's special development goals. The development of a wider group of institutions in the realm of small – enterprise development is the result of the White Paper, and the inculcation of a more co – operative approach among a growing number of partners both within and outside government (DTI, 2005:3).

- Khula Enterprise Finance (hereafter referred to as Khula) and NURCHA construction Finance and Services are among the institutions offering finance to SMMEs. Khula is not a traditional financial institution but an entity that facilitates access to credit facilities for SMMEs through commercial banks, micro – credit outlets, and retail financing intermediaries (see www.info.gov.za). Khula is a wholesale financing institution which operates across the private and public sectors, through a network of channels to supply required funding to small businesses. Khula's channels include South Africa's retail financial institutions, leading commercial banks, specialist funds as well as joint ventures. It is primary aimed at addressing the funding shortcomings in the SMME market that are not addressed by commercial banks and other financial institutions. The Khula Credit Indemnity Scheme assist

small businesses by facilitating access to finance individuals who wish to start or expand small to medium sized enterprises but do not have sufficient collateral /security to support facilities provided by participating banks. The scheme covers facilities from R10 000 to R3 million (Khula Entreprise Finance website).

- NURCHA is an innovative development finance company that offers Construction Support Services as well as bridging finance to Contractors and Developers. NURCHA is funded by the South African Government in partnership with Soros Foundation, different overseas donors and other commercial donors (see www.nurcha.co.za). However, in order to qualify for a bridging finance loan, from NURSHA, the company must have entered into a valid viable contract with a recognised and reputable employer within the private or public sector. Moreover, NURCHA is specifically geared towards providing project finance for contractors who find it difficult to access finance from conventional financial institution, requiring little or no collateral for construction finance (provided the project is viable). NURCHA does not disqualify contractors on the basis of their credit records however; the enterprise should be solvent and a legal entity.

- NURCHA acknowledges that each contractor has different needs and the level of experience also varies; which result in some contractors requiring more support and management than others. Therefore, NURCHA assess individual needs of contractors and the risks associated with a particular project and subsequently structures the loan accordingly. Finance is only offered for projects that have been assessed as being viable and profitable for contractors but a high premium is placed on the viability of projects. However, interest reates including fees are determined according to the extent of risk management and support required by the contractor.

- In addition, administering of loan facilities, progress monitoring and giving general advice to contractors in implementing their projects is doen by experienced and qualified construction professionals assigned by NURCHA.

2.12 Targeted Procurement

According to section 217 of the Constitution of The Republic of South Africa, when organs of the state enters into a contract for the provision of goods and services, this must be done in accordance with the system that is fair, equitable, transparent, competitive and cost effective. The Constitution further states that an organ of the state can implement a procurement policy providing for the protection and advancement of persons or categories of persons disadvantaged by unfair discrimination. As a result, an affirmative policy in South Africa to support the changed environment and socio – economic objectives of government was developed, which in turn led to a development of targeted procurement policy (Nkado, 2000:3).

Nkado (2000:3) described procurement as a system aimed at providing business and employment opportunities for marginalised individuals and communities at the same time allowing social objectives to be linked to procurement. This process affords opportunities for targeted enterprises that lack capacity, resources, or expertise to perform contracts in their own right to participate in the process. Through thi system, bidders are required to compete on the basis of both products and the process.

2.12.1 Preferential Procurement Policy Framework Act (PPPFA)

Procurement can be described as the process that creates, manages and fulfils contracts (PPPFA 2003:1). The CIDB (2005:1) defines procurement as procurement in the construction industry

including the invitation, award and management of contracts. Watermeyer (2003:2) describes procurement as a process that creates, manages and fulfils contracts relating to:

- the provision of supplies,
- services or engineering and construction work, acquisition or granting of any rights and concessions;
- the disposals of property as well as the hiring of anything.

However, construction procurement involves not only engineering and construction work contracts but also services relating to any aspects of construction including professional services, supplier's contracts that involve the purchase of construction materials and equipment, disposals of surplus materials and equipment as well as disposals in a form of demolitions (CIDB, 2005:1).

According to Watermeyer (2003:2) preferential procurement policy that promotes objectives additional to those associated with the immediate objective of the procurement itself. At the same time, the question arises as to whether or not the objectives of preferential procurement policies conflict with primary procurement objectives, and if so to what extent and how can this be managed with acceptable limits. The existing literature reveals that South Africa has undergone a major change in regulating in recent years. Research by Watermeyer (2003:2) shows that South Africa is among the few countries in the world to subject procurement to its constitution. The secondary procurement objectives are established by Section 217 of the Constitution of the Republic of South Africa (Act 108 of 1996).

Law makers have opted for the establishment of a regulatory framework within the constitution and the PPPFA (Act 5 of 2000) which requires accounting officers (heads of departments/municipal managers) and accounting authorities (board or other governing bodies, including chief executive officers) in organs of the state (departments, municipalities, constitutional institutions, trading entities, public entities including municipal entities), through other pieces of legislation (Public Finance Management Act, Act 1 of 1999): Municipal Finance Management Act, Act 56 of 2003) to conduct their procurement within this framework.

In order to transform the socio – economic landscape in South Africa (PPPFA 2003:1), the state may use Preferential procurement as one of the tools. Therefore, transforming a country where serious inequalities have existed for more than 300 years, the Preferential Procurement policy Framework Act (Act 5 of 2000) give effect to section 217(2) of the constitution that provides a framework within which procurement policies must be implemented. This Act requires organs of eh state (i.e., those responsible procurement) to established their preferential procurement policy and to implement it within a framework.

2.12.2 Targeted / Affirmative Procurement Policy

Govender and Watermeyer (2000:3) reported that the political and economic structures of apartheid designed to protect the interest of the minority, restrict economic opportunities as well as access by the black majority to property, were inherited by the democratically elected South African government of 1994. Moreover, employment and business opportunities for marginalised individuals and communities are provided through Targeted enterprises, even those who may not possess all the necessary resources, capacity or expertise with which to fulfil contracts in their own right (Govender and Watermeyer, 2003:4). This is implemented in such a manner that does not guarantee contracts to such enterprises.

However, targeted enterprise status is accorded for small contracts value below a predetermined financial threshold to tip the scales in their favour. Contracts above a certain financial threshold

requires bidders to compete on the basis of both that which is to be constructed or maintained and the social benefits which target groups that is; business for targeted enterprises and / or employment for targeted labour may derive in the execution of the contract (social deliverables). Govender and Watermeyer (2000:4) further demonstrate that business linkages between large and small – scale enterprises are promoted through targeted procurement. However, such linkages are not only confined to physical construction activities, but extend to materials supply, service provision, manufacture transportation, and so forth.

Researchers have further observed that, in South Afrrica there are a number of policy instruments within government, to redress the effects of eh apartheid system and the legacy of inequality. Moreover, a range of issues including past unfair discrimination in education training and employment opportunities, past employment practices and the promotion and facilitation of income – generating assets are addressed through legislation. As a result, public sector procurement has been used a tool to increase the base of economic activity, provide economic opportunities for the previously disadvantaged individuals and to addressed skewed racial ownership patterns as indicated in the PPPFA Act 23 of 2000.

Watermeyer *et al*. (1998:1) alluded to Targeted Procurement in a practical, realistic and measurable manner allowing government to achieve certain socio – economic objectives, through engineering and construction works contracts. Furthermore, it enables organs of the state to operationalize policies in a transparent, targeted, visible and measurable manner when engaging in economic activity with the private sector, without compromising principles such as cost, efficiency, competition, transparency and equitability. In order to address some of the constraints experienced within the South African construction industry, in August 1996, the National Department of Public Works implemented and Affirmative Procurement Policy. This policy mainly targeted Affirmable Business Enterprises (ABEs), defined as enterprises registered with South African Revenue Services (SARS), confirming to labour standards and which black persons own, manages and control and with turnovers within prescribed limits (Govender and Watermeyer, 2000:4).

2.12.3 Black Economic Empowerment (BEE)

Research conducted by Spencer (2005:37) indicates that the historical and deliberate marginalisation of black South Africans from contributing freely in the mainstream economy resulted in a society marked by vast inconsistencies and inequalities. As a result, the Government's BEE policy objective is to further strengthen South Africa's shared economy in order to meet the need of all the people of South Africa and significantly minimise the gulf between citizens irrespective of the race; in terms of skills and opportunities in the shortest possible time.

However, much frustration among historically disadvantage citizens was generated by the slow pace owing to the market system, it left to its own devices, would not undo the damage caused by the imbalances of the past (Spencer, 2005:38). As a result, in its view, Government has to intervene. Consequently, the construction industry has suffered similar challenges as a result BEE in the construction industry need to be expedited.

The DTI Strategy for Broad – Based Black Economic Empowerment indicates that to define BEE too broadly equates BEE with economic development and transformation in general. The strategy indicates that government defines BEE as an integrated and coherent socio – economic process that directly contributes to the economic transformation of South Africa and brings about significant

increases in the numbers of black people who manage, own and control the country's economy, as well as significant decreases in income inequalities.

According to the Broad – Based Black Economic Empowerment Act of 2003, 'Black People' includes 'Africans, Coloured and Indians'. As described by the act, 'broad based economic empowerment' with an emphasis on 'broad based' refers to the economic empowerment of all people who were previously marginalised, particularly black people including women, youth, people living in rural areas as well as people with disabilities (Spencer, 2005:39). The socio – economic strategies of the Act are to increase black ownership including management of businesses; address equal representation in the workplace; preferential procurement; facilitate community and worker ownership of 'enterprises and productive assets' develop skills as well as foster investment in businesses that are owned by black people.

2.13 Summary

This chapter discussed the diverse efforts by the South African construction industry stakeholders to address the challenges facing emerging contractors. It underscored that emerging contractors are characterised by low levels of experience as well as training in construction, lack of necessary skills, lack of access to finance, lack of job opportunities and lack of poor cash flows to sustain their enterprises due to delays in payment by employers. Many studies carried out in South Africa and internationally confirmed this perception. However, further research is required to support the quest to obtain the status quo among emerging contractors in terms of further explored among emerging contractors. These challenges form the basis for the questionnaire design used in the survey as expounded under the next chapter.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

The aim and purpose is to outline the research methodology utilised in this study, the issues pertaining to where the research originated and to outline how the information was gathered. Generally, research methodologies were broadly classified into qualitative and quantitative research. The difference between these two methods has been prominent in many publication on research methods; for example, Myers (2009) claims that quantitative research investigates general trends across populations and focuses on number, whereas qualitative research constitutes an in – depth study of social and cultural phenomena which focuses on text.

When discussing research methodology, there are three major dimensions that need to be considered, namely the research philosophy, data and research reasoning. Research methodology refers to the procedures as well as principles of logical thought processing which are applied to a scientific investigation (Rudestam and Newton, 2001).

Therefore, research methodology can be considered as the overall approach to achieve the aim and objectives of the research. On the other hand, research approach to achieve the aim and objectives of the research. On the other hand, research methods can be defined as tools used to perform a research. Thus, within the research methodology, different research methods including the tools may be used to achieve the aim and objectives of the research.

This research considered the importance of proceeding along this journey, by following a methodology that first considered all the existing research regarding emerging or SMME contractor development as reflected in Chapter 2.

3.2 Methodology Design

3.2.1 Definition of Research Methodology Terms

Buys (2002) cited by Lengama (2010:55) stipulated that research methodology can be defined as the method used by researches to solve problems. Researchers describe research methodology as the

principles and processes of a logical thought procedure which are applied to a scientific investigation (Legama, 2010:55).

Runeson and Skitmore (1999:39) cited by Lengama (2010:55) continued to define research methods as techniques used in research to achieve certain results. Moreover, it is imperative that the most suitable methodology is employed at the commencement of the research so that the most suitable research methods and approaches are adopted.

According to Johnson and Duberley (2000:2), the term "epistemology" is derived from two Greek words, namely "episteme" which refers to knowledge or science and "logos" which means information, knowledge, account or theory. Furthermore, these two words demonstrate how epistemology is usually understood as "being concerned with knowledge about knowledge". Therefore, epistemological assumption is the theory of the best way of conducting a study by focusing in hard facts or opinions is an (Lengama, 2010:55).

According to Welma *et al*. (2005:58), a paradigm can be described as a pattern of the person's thinking; a principal model among examples or models to follow according to which design actions are taken. The researchers further defined "ontology" as: the theory that people make about reality. The following Figure 2.1 is the research onion model (see Cools and Bellens, 2012; Saunders *et al*. 2016), which typifies the different philosophies through to data collection and data analysis

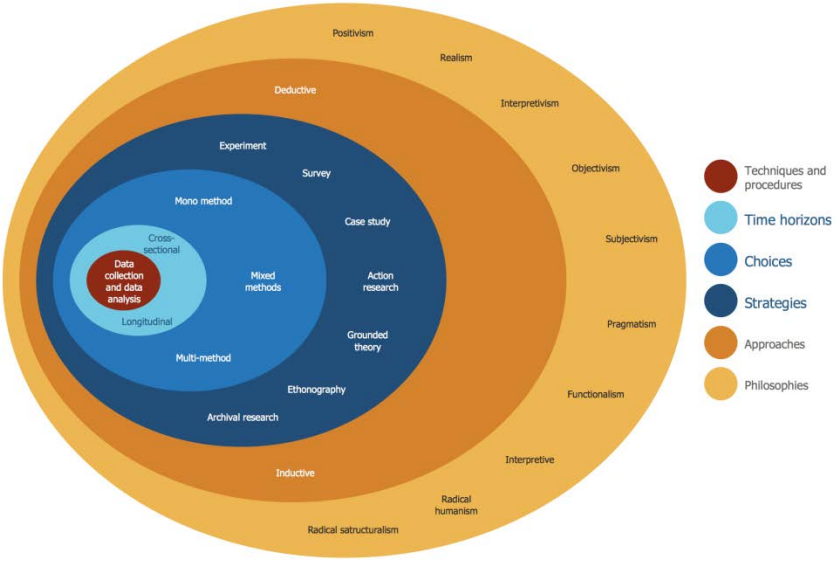


Figure 3.1: Research onion model

3.2.2 Description and Choice of Research Methods

According to Mancosa, (2002) there are three types of research, namely; quantitative, qualitative as well as combined research. Myers (2009:8) distinguishes between the two methods stating that qualitative researches an in – depth study of social and cultural phenomena which focuses on text whereas quantitative research investigates general trends across populations and focuses on numbers. Similarly, Milesand Huberman (1994) maintained that qualitative research focuses on an in –depth examination of research issues under investigation.

3.2.2.1 Qualitative Research Methodology

Leedy and Ormrod (2010:137) alluded that there are five common qualitative research designs, that is:

a) Case study: whereby a researcher collects extensive data on the individual(s), programme(s) or event(s) on which an investigation is focused. These data often include observations, interviews, documents (e.g., newspaper articles) past records and audio – visual materials.
b) Ethnography: In this method, the researcher focuses on the whole group; particularly, a group that shares the same culture in depth. The researcher studies the group in its natural setting for a prolonged period of time, often for some months or years. Site – based fieldwork is key to ethnography.
c) Phenomenological paradigm: as described by Leedy and Ormrod (2010:141), the therm "phenomenology" refers to a person's views of the meaning of an event, and as opposed to the event it exists eternal to the person.
    - Similarly, a phenomenological study is described as a study that attempts to understand people's views, perspective, and understandings of a certain situation, in other words, a phenomenological study attempts to answer the research question
    - According to Wellman (as cited by Chilipunde, 2010:56), the phenomenologists argued that researcher observation was not the reality but an interpretation of reality. Chilipunde further argued that according to various researchers, it is impossible to detach the researcher from assumptions due to cultural inheritance, especially concerning the philosophical dualism (i.e. between observable and intangible mind technological achievements. Research undertaken by Chilipunde (2010:56) further indicates that the phenomenological paradigm assumes that reality is socially constructed and therefore an understanding thereof is subjective, varied across situations and cultures, and is consciously ideological (Leedy and Ormond 2010:141). With these kinds of methods, phenomenological researchers depend almost exclusively on lengthy interviews with a carefully selected sample of participants.

d) Grounded theory study: A prescribed number of procedures for analysing data and constructing a theoretical model and used in this study. Typically, a grounded theory study focuses on a process (including interactions and actions of people) related to a certain topic, with the goal of developing a theory about that process. This approach is rooted in sociology, but is also used in fields such as education, geography, anthropology, social work, nursing and psychology).
e) Content analysis: this is a detailed and systematic examination of the contents of a particular body of materials for the purpose of identifying patterns, themes or biases. Content analyses are typically performed on forms of human communications, including books, newspaper, films, television, art, music, video tapes of human interactions, and transcripts of conversations, Internet blogs and bulletin board entries.

3.2.2.2 Qualitative Research Methodology

Leedy and Ormrod (2010:182) describe this type of research as descriptive quantitative research involving either identifying the characteristics of an observed phenomenon or exploring possible possible correlations among two or more phenomena. Thus, descriptive research examines a situation as it is; however, it does not involve changing or modifying the situation under investigation, nor is it intended to determine cause – and – effect relationships.

According to Leedy and Ormord (2010:182)

a) Observation studies in qualitative studies, observations are usually recorded in great detail, possibly with field notes or video tapes that capture the wide variety of ways in which people or other animal species act or interact. Based on the said data, the researcher constructs a complex yet integrated picture of how certain humans or non – humans spend their times.

b) Correlational research: this study examines the extent to which differences in one variable or characteristic are related to differences in over one variable or characteristic. A correlation exists if, when one variable increases, researchers gather data about more than one characteristic for a particular group of people or other appropriate units of study. These data are numbers that reflect specific measurements of the characteristics in question.
c) Developmental design: there are two developmental designs, namely a longitudinal study and cross – sectional study. Often when researchers plan to study how particular characteristics changes as people grow older, they use one of these two methods. In a cross – sectional study, people from several different age groups are sampled and compared, while in a longitudinal study, a single group of people is studied over a long period of time; that is the course of several months or years and data related to the characteristics under investigation are collected at different times.
d) Survey research or descriptive: Leedy and Ormrod (2010:187) found that survey research encompasses acquiring information about more than one group of people, perhaps about their characteristics, attitudes, opinions, or previous experiences, by questioning them and tabularising their answers. The ultimate goal for using this kind of research method was to learn about a large population by surveying a sample of that population. Research conducted by Leedy and Ormrod (2010:187) revealed that a survey is quite simple in design, with the researcher posing a number of questions to willing participants, ssummarising their responses with percentages, providing frequency counts or more sophisticated statistical indexes, and subsequently drawing inferences about a particular population based on the responses of the sample. Survey research typically is about conducting face – to face interview.

3.3 Selected research methods and reliability

For the purpose of this study, only one type of research methodology approach was employed, namely survey or descriptive in the form of questionnaires. According to Fyvie (20010:82 – 83), two forms of questions, prevail in questionnaires, that is, “open” and “closed” questions. Open questions allow respondents to phrase answers in their own words, choose the wording, the length Open questions allow respondents to phrase answers in their own words, choose the wording, the length of their answers and additional matters to be raised in the answer while closed questions allows only answers that fit into categories were established in advance by the researcher. According to Denscome (2003), there is no golden formula for questionnaire design. However, the following guidelines were recommended by Leedy and Ormord (2010:194) for the formulation of a questionnaire that encourages people to be corporative and yields responses that can be used and interpreted:

- Keep it short;
- Keep the task of the respondent simple;
- Provide instructions that are clear;
- Use clear, simple and unambiguous language;
- Provide a reasoning for any items whose purpose may not be clear;
- Check for unjustified assumptions implied in the questions;
- Structure questions in ways that do not provide clues about preferred or more desirable responses;
- Check for consistency;
- Carry out one or more pilot tests to establish the validity of the questionnaire to be time to confirm that it addresses the requirements; and
- Scrutinise the nearly – finished product one more time to confirm that it addresses the requirements; and
- Structure the questionnaire to be attractive and professionally presented to the reader.

3.4 Population and sampling

For the purpose of this study, respondents included SMME contractors graded between 2 and 5 on the CIDB construction register service and were active in the General Building (GB) and Civil Engineers (CE) categories of works only. According to the CIDB (2010/11) there is a total of at least 2 385 registered SMME contractors (grade 2 – 5) within the selected geographical area of KwaZulu Natal which rendered it impossible to distribute questionnaires to and expect responses from everyone.

As a result, only 100 questionnaires were administered to project participants who were conveniently sampled under the purposively sampled SMME grades 2 to 5 contractors of construction project and programme managers working with the KZN department of education. The participants spanned the different disciplines involved in the construction chain.

3.5 Data Collection Procedures

The final level of importance in research methodology is the extraction of data (Gasa, 2012:108). Leady and Ormond (2005) cited by Gasa (2012) stated that data or facts are required to solve any research problem. However, these facts contain desired aspects of truth and to abstract the meaning of the data, certain methodologies are required. Chilipunde (2010:61) explained that two types of data exists, namely primary and secondary data.

3.5.1 Primary Data

In this study, primary data constitutes information obtained from questionnaires and responses garnered from interviews conducted with SMME contractors. These respondents were better suited to reflect on actual situations, which facilitated accurate comparisons. The aim was to design a clear, unambiguous questionnaire with limited or no open – ended questions and to utilise a series of check boxes to enable easy completion.

3.5.2 Secondary Data

Mullins (1994:23) cited by Chilipunde (2010:65) described secondary data as data previously collected for purposes other than the research at hand. In this study, secondary data were obtained through a review of existing material such as conferences papers, journal publications, dissertations, unpublished thesis, books and the Internet. The data were selected according to their relevance to the study. Databases of the following services, amongst others, were consulted:

- Sabinet Online;
- Emerald insight;
- Google;
- CIDB website;
- Department of Public works websites;
- National Treasury website;
- The DTI website.

3.5.3 Questionnaire Design

Research performed by Desta (2006) cited by Chilipunde (2010:66) demonstrated that a research design should ensure the evidence collected addresses the research questions and is also vital to ensure consistency and rigidity. This is required because questionnaire provides the data to test the

validity of the problem statement as well as to acquire relevant data; the appropriate questions need to be posed. The questionnaire was designed to gather information that is relevant to the objectives. A 5 point Likert scale (from 1 = strongly disagree to 5 = strongly agree) was utilised in the design of the questionnaire in order to rate the responses as presented under Annexure 1. There are two sections (Section A and Section B). Table 3.1 presents the summary of the number of questions asked under each objective for Section B. Simple, clear and unambiguous language was employed and inputs from the literature review were used to design the questionnaire.

Table 3.1: Breakdown of questionnaire

Section B		No. of questions
Part	Related objective	
1	Need for training	5
2	Lack of business and financial management skills	9
3	Lack of collateral to access finance	7
4	Delayed payments by employers	6
5	Limited access to employment opportunities	6
		33

3.5.4 Document analyses

Document analyses are a systematic procedure for reviewing or evaluating documents, both printed and electronic material. It requires that data be examined and interpreted in order to elicit meaning, gain understanding, and develop empirical knowledge (Corbim and Strauss, 2008). Document analysis yields data, experts, and quotations that are then organised into themes, categories and case example through content analysis (Labuschagne, 2003).

According to Eisner (1991:110) document analysis is often used in combination with other qualitative research methods as a means of triangulation. “By triangulating data, the researcher attempts to provide a confluence of evidence that breeds credibility” (Eisner, 1991:110). Documents analysed in qualitative research include all documents related to the research (Bowen, 2009).

3.5.5 Data analysis and interpretations

Qualitative data analysis is a range of processes and procedures whereby the researcher moves from the qualitative data that have been collected into some form of explanation, understanding or interpretive philosophy, (Lewis, Taylor and Gibbs, 2010). Data reduction refers to the process of selecting, focusing, simplifying, abstracting, and transforming data (Neuman, 2011).

Accordingly, data reduction will occur continuously during the course of this study to validate the findings. During the data collection phase, data reduction will still occur. Data analysis will start with hermeneutical analysis (telling the respondents’ story using their own words or meaning – what it means to them). The purpose of starting with hermeneutical analysis will be to increase the level of accuracy in data presentation before it is analysed and interpreted through the researcher’s lens.

3.5.6 Validity and reliability

Golafshani (2003) stated that validity and reliability are two factors that any qualitative researcher should be concerned about when designing a study. According to Creswell and Miller (2000) the choice of validity procedures is governed by two perspectives; the lens with which the researchers paradigm assumptions. Notably, “the concepts of validity is a contingent construct, inescapable grounded in the processes and intentions of particular research methodologies and projects”

(Winter, 2000:1). Creswell and Miller (2000) further suggest that the validity is affected by the researcher's perspective of validity in the study and choice of paradigm assumptions. Creswell (2003) listed eight primary strategies that are used to check accuracy of findings: triangulation, member – checking, thick description, clarification of researcher bias, presentation of negative or descriptive information, spending prolonged time in the field, used of peer debriefing and use of external auditors to review the project. "Validity is much more than technique. It bores into the essence of science itself (Scheurich, 1997:81).

For the purpose of this study, only one type of research methodology approach was employed, namely survey research or a descriptive survey in the form of questionnaires. According to Fyvie (2010:82 – 83), two forms of questions prevail in questionnaires, that is "open" and "closed" questions. Open questions allow respondents to phrase answers in their own words, choose the wording, the length of their answers in their own words, choose the wording, the length of their answers and additional matters to be raised in the answer while closed questions.

3.7 Ethical considerations

Because qualitative methods are used to examine situations in great detail, ethical concerns that might otherwise go unnoticed are more clearly in focus. Neuman (2011) emphasizes that ethical researchrequires balancing the value of advancing knowledge against the value of non – interference in the lives of others. It is critical that researcher does not cause any harm to those being studied (Israel and Hay, 2006). An ethical researcher anticipates risks before beginning research including basic safety concerns (Mouton, 1996). According to Creswell (2003) there are ethical issues in all the stages of the research project. According to Saunders, *et al*. (2012), "*ethics in research refer to the standards of behaviours that guide your conduct in relation to the rights of those who become the subject of your work, or are affected by it".* Ethical concern will emerge at all stages of the research, namely: when formulating and clarifying the research topic; designing the research and gaining access; collecting data; processing and storing the data and analysing the data and reporting the findings (Saunders, et al. (2012). In general, the guidance (and compliance thereof) provided by the *University of the Witswatersrand*: *Guidelines for Human Research Ethics Clearance Application (Non – Medical)* was strictly adhered to ensure that the research is carried out in an ethical manner. The participant information sheet and consent form are presented under Annexure 2 leading to the eventual ethics clearance certificate under Annexure 3.

3.7.1 Ethics and purpose statement

According to Israel and Hay (2006) deception occurs when participants understand one purpose for a study whilst the researcher has a different purpose. To avoid any kind of misrepresentation on the purpose of the study, during the data collection planning stage, when invitations to participate are made a detailed explanations on what study aims to achieve will be communicated to allow potential respondents to make an inform decisions about whether to participate or not. The researcher objectives will be explained and the problem statement that the study aims to address will be shared with all respondents and key informants in order to enrich the study and gain overall support for the study.

A draft of the Participant Information Sheet explaining what the research is about, and what is expected of participants is provided in Annexure 2. For this research, informed consent was

obtained as per the Consent Form included in Annexure 2. The eventual ethics clearance certificate is attached under Annexure 3.

3.9 Summary

This chapter defined the research philosophy and the methodology design employed in this study. It raised issues that informed the research methodology, illustrating where the study originated, while also outlining the criteria required for a sound methodology with regards to competitiveness, which was developed in the design of the interview instrument. The outcomes of the questionnaires directed the study and in turn evaluated the success of the design method. The results and data analyses are discussed in the next chapter.

CHAPTER 4: RESULTS AND DATA ANALYSIS

4.1 Introduction

This chapter presents the results from the mono method cross-section survey, how they were analysed descriptively for the three objectives of this study, and brief discussions emanating from the results analysed with respect to each objective.

4.2 Profile of the Respondents

Out of the 100 respondents targeted from different managerial and technical level construction personnel working at SMME contracting firms, a total of 65 completed questionnaires were received as of the due date of response, which was 15 December 2016. The 65% response rate achieved was higher than the average of 52.7% for surveys used in organizational research (Baruch and Holtom, 2008). This response rate, in addition to paying attention to the questionnaire length (Galesic and Bosnjak, 2009), can be attributed to constant reminders, personal administration through paper surveys (Nulty, 2008) extension of the response due date (Shinn *et al*., 2007). The summary of the demographic information of the respondents is presented in Table 4.1.

Table 4.1: Respondents demographic information

Item	Category	Frequency (freq.)	Cumulative (cum.) freq.	Relative cum. freq. (%)
Age (in years)	21-25	3	3	4.62
	26-30	14	17	26.15
	31-35	15	32	49.23
	36-40	15	47	72.31
	41-45 (and above)	18	65	100
Project type	General bldg. constr. works	20	20	30.77
	Civil engrg constr. works	5	25	38.46
	Both	40	65	100
Construction experience (in years)	0-5	21	21	33.87
	6-10	24	45	77.58
	11-15	12	57	91.94

	16-20	2	59	95.16
	21-25	3	62	100
Total working experience (in years)	0-5	16	16	27.59
	6-10	20	36	62.07
	11-15	15	51	87.93
	16-20	4	55	94.83
	21-25	3	58	100
Personal involvement	Owner	38	38	59.38
	Partner	13	51	79.69
	Employee	13	64	100
Academic qualification	Grade 8 and below (i.e., Pri. Sch.)	3	3	4.76
	Grade 12 (i.e., Sec. Sch.)	12	15	23.81
	Others (e.g., trade certificates)	4	19	30.16
	National diploma and above	44	63	100
Field of study	Engineering	17	17	47.22
	Finance	5	22	61.11
	Law	3	25	69.44
	Others (e.g., HRM, I.T., supply chain)	11	36	100

The final cumulative frequency is based on the total number of respondents who provided information for each item. Missing data is a common phenomenon in a survey research and is, as a result, central to cautiously making generalization about the results and subsequent discussions (Graham, 2009). Only slightly more than half (55.38%) of the respondents provided information with regard to the field of study, the last question under the demographic information. The low response rate to this particular question could be attributed to the questionnaire design since the options were not explicitly provided unlike the other preceding questions, making it, arguably, less user-friendly (Dillman *et al*., 1993). A further analysis of the returned questionnaires revealed that the missing response on the field of study was predominantly from the e-mailed questionnaires, where the researcher did not have the opportunity of a face-to-face contact. This realization confirmed Fan and Yan's (2010) conclusion on the specific factors to consider in a web-based survey. Since the scope of the study was KwaZulu-Natal, the following Figure 4.1 presents the percentage composition of the respondents' location.

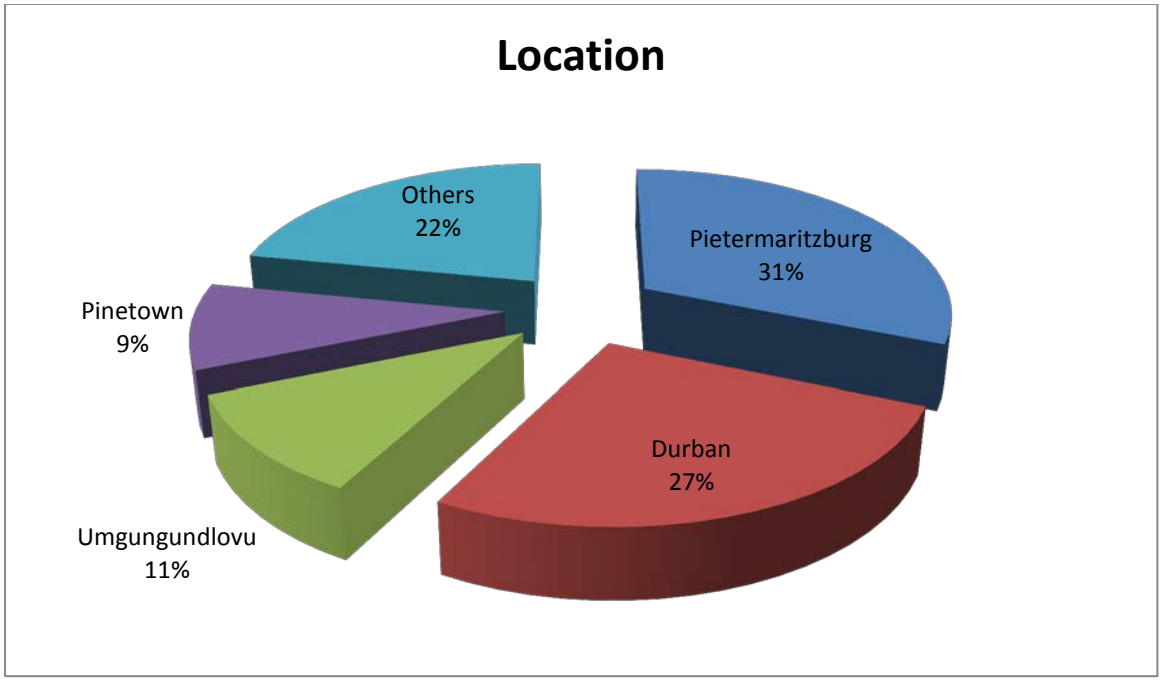


Figure 4.1: Respondents location distribution

As summarised in Figure 4.1, the majority of the respondents are based in Pietermaritzburg and Durban which are two of the largest cities in Kwazulu-Natal. In the category of others are some other cities with just one respondent, except for eThekwini with two respondents. As summarised under Table 4.1 (presented before Figure 4.1), the age group distribution was almost homogenous except for those in the 21-25 years age group. The mean age of the respondents was about 36 years, which underscores South Africa construction industry newer and more informed generations of actors (Helmsing, 2003), saddled with the responsibility of ensuring sustainability of the industry (Ugwu and Haupt, 2007). Most of the respondents (61.54%) are involved in both civil engineering and general building works as against another 30.77% and 7.69% who have only been involved on general building works and civil engineering works, respectively. The mean years of construction working experience and total working experience are eight and nine years respectively. A smaller number of the respondents possessed construction work experience and total work experience of 16 years and above, which again supports the prevalence of the newer generations of actors. Lastly, most of the respondents are involved on their SME projects in the capacities of owners (about 60%) and graduated with at least a national diploma (about 70%). Project learning is tied to the level of participation (Sense, 2008) while experience is tied to competence (Paloniemi, 2006). Consequently, the data obtained from the respondents can be regarded as credible and reliable enough.

4.3 Data analysis and discussion

Nominal and interval data were sought in this study. Nominal data make use of unique identifiers and are analysed by descriptive statistics mode and median while interval (or Likert scale) data use numbers to indicate order and reflect a meaningful relative distance between points on the scale; hence, analysed by descriptive statistics mean and standard deviation (see Boone and Boone, 2012; Jamieson, 2004; Velleman and Wilkinson, 1993). The sample mean is calculated as an estimate of the mean of the population while the standard deviation of a sample is calculated as an estimate of the variability of the population (Altman and Bland, 2005). Consequently, the data analysis performed is

limited to descriptive statistics as expounded by Thompson (2009). It should be noted that descriptive data analysis is a concept between confirmatory and exploratory data analyses (Abt, 1987). Section A of the questionnaire sought nominal scale data and were analysed descriptively as discussed in the preceding section. Section B sought interval scale data, which were also analysed descriptively as discussed in the subsequent sections, based on the structure of the Section B of the questionnaire. The structure relates to the different objectives established for the purpose of achieving the aim and answering the main research question in this study.

4.3.1 Training needs

The first objective of this study was to investigate the challenges facing SMME contractors in South Africa as a result of training needs. Section B (Part 1) was used to collect data for achieving this objective. The following Table 4.2 presents the ranking in descending order of training needs based on the mean rating of the variables by the respondents.

Table 4.2: Findings on SMME contractors' training needs

Rank	Variable	Mean rating (M)	Standard deviation (SD)
1	Training in terms reading and interpretation of construction programme /bar chart	3.65	1.28
2	Training in terms of financial management and cost management	3.55	1.43
3	Training in terms of interpretation of building drawings	3.42	1.37
4	Training in terms of reading and writing skills	3.37	1.21
5	Training in terms of management and administration of the building site	3.31	0.97

Table 4.2 revealed the training needs among the SMME contractors in South Africa as highest for *reading and interpretation of construction programme /bar chart* (M = 3.65, SD = 1.28) and lowest for *management and administration of the building site* (M = 3.31, SD = 0.97). These findings agree with existing studies on the need to evaluate training for contractors involved on public works projects, both in South Africa (McCord, 2005) and beyond (Tabassi and Bakar, 2009).

4.3.2 Business and financial management skills

The second objective of this study was to investigate the extent of agreement on the challenges facing SMME contractors in South Africa as a result of inadequacy of business and financial management skills. Section B (Part 2) was used to collect data for achieving this objective. The following Table 4.3 presents the ranking in descending order of the extent of agreement based on the mean rating of the variables by the respondents.

Table 4.3: Findings on business and financial management skills

Rank	Variable	Mean rating (M)	Standard deviation (SD)
1	Finance management	3.91	1.04

2	Cash – flow management	3.74	1.25
3	Financial control	3.71	1.23
4	Leadership and communication	3.66	1.15
5	Contract Administration	3.65	1.15
6	Contract documents interpretation	3.65	1.27
7	Site management	3.63	1.17
8	Credit management	3.58	1.27
9	Book keeping	3.57	1.17

Table 4.3 revealed the highest level of agreement on the inadequacy of business and financial management skills among the SMME contractors as *finance management* (M = 3.91, SD = 1.04) and lowest level of agreement on the inadequacy of *book keeping* (M = 3.57, SD = 1.17). The level of agreement was the same on the inadequacy of *contract administration* and *contract documents and interpretation* (M = 3.65); however, the variability was lower on the former (SD = 1.15) as compared to the latter (SD = 1.27). These findings corroborate the existing ones on the need for business sustainability and operational skills among SMEs in South Africa (Urban and Naidoo, 2012).

4.3.3 Collateral to access finance

The third objective of this study was to investigate the extent of agreement on the challenges facing SMME contractors in South Africa as a result of the lack of collateral to access finance. Section B (Part 3) was used to collect data for achieving this objective. The following Table 4.4 presents the ranking in descending order of the extent of agreement based on the mean rating of the variables by the respondents.

Table 4.4: Findings on collateral to access finance

Rank	Variable	Mean rating (M)	Standard deviation (SD)
1	Late payments by clients	3.65	1.64
2	Difficulties in obtaining loans to finance projects	3.58	1.58
3	High tendering costs	3.55	1.33
4	Access to finance	3.52	1.50
5	Difficulties in obtaining guarantee bonds, sureties and insurance bonds	3.51	1.46
6	Inflexible credit terms from banks	3.47	1.55
7	Inflexible credit terms from suppliers	3.42	1.46

Table 4.4 revealed the highest level of agreement on the challenges related to collateral to access finance among the SMME contractors as arising from *late payments by clients* (M = 3.65, SD = 1.64) and the lowest level of agreement on *inflexible credit terms from suppliers* (M = 3.42, SD = 1.46). The lowest variability (SD = 1.33) was on *high tendering costs*. These findings agree with those of the other existing studies on SMMEs' access to finance, both in South Africa (Fatoki and Odeyemi, 2010) and beyond (Juan García-Teruel and Martinez-Solano, 2007).

4.3.4 Payments by clients/employers

The fourth objective of this study was to investigate the extent of agreement on the challenges facing SMME contractors in South Africa as a result of the late payments by clients/employers. Section B (Part 4) was used to collect data for achieving this objective. The following Table 4.5 presents the ranking in descending order of the extent of agreement based on the mean rating of the variables by the respondents.

Table 4.5 revealed the highest level of agreement on the challenges related to late payments by employer among the SMME contractors as arising from *consultants' valuation and certification of interim payments* (M = 3.09, SD = 1.33) and the lowest level of agreement on payments to contractors being settled within 30 days of invoice submission (M = 2.72, SD = 1.59). Notably, the level of agreement was lowest among the respondents on late payments by the client, with an overall highest mean rating of 3.09 (described as "not sure" on the interval scale). The findings agree with those of the other existing studies in South Africa (Phaladi and Thwala, 2008) and elsewhere (Abdul-Rahman *et al*., 2013).

Table 4.5: Findings on late payments by clients

Rank	Variable	Mean rating (M)	Standard deviation (SD)
1	Valuation and certification of interim payments by consultants is always on time	3.09	1.33
2	Employer s / clients always adhere to the JBCC /GCC in terms of payment clauses	2.98	1.39
3	Payment process by client / employers is easy	2.94	1.45
4	Final accounts are always settled on time by employers	2.85	1.37
5	Progress payments to contractors are always settled on time	2.80	1.62
6	Payments to contractors are settled within 30 days of invoice submission	2.72	1.59

4.3.5 Employment opportunities

The fifth and last objective of this study was to investigate the extent of agreement on the challenges facing SMME contractors in South Africa as a result of limited access to employment opportunities. Section B (Part 5) was used to collect data for achieving this objective. The following Table 4.6 presents the ranking in descending order of the extent of agreement based on the mean rating of the variables by the respondents.

Table 4.6: Findings on limited access to employment opportunities

Rank	Variable	Mean rating (M)	Standard deviation (SD)
1	Fraud and corruption is a contributing factor towards difficulties in securing construction job opportunities in government	3.54	1.50
2	Tender documents prices are reasonable / affordable	3.38	1.32
3	SMMEs contractors find it easy to access advertised job opportunities	3.23	1.47
4	SMME contractors get a fair chance to compete for jobs	3.17	1.30
5	Government procurement system makes it easy for SMME contractors to access job opportunities	3.03	1.33
6	Government contractor development programmes makes it easy for SMMEs contractors to access job opportunities	3.02	1.30

Table 4.6 revealed the highest level of agreement on the challenges related to limited access to employment opportunities among the SMME contractors in South Africa as *fraud and corruption in securing government projects* (M = 3.54, SD = 1.50) and the lowest level of agreement on *accessibility to job opportunities through government contractor development programmes* (M = 3.02, SD = 1.30). The level of agreement on *SMME contractors getting a fair chance to compete for jobs* also shared lowest variability (SD = 1.30) with *contractor development programme's accessibility to job opportunities*, which an existing study (Dlungwana and Rwelamila, 2004) has alluded to.

4.4 Summary

This chapter presented the results, data analyses and discussions of the findings from the cross-section survey. The results suggested a growing trend, among SMME contracting firms, of more informed generations of major actors (owners and partners), who have been involved on both civil engineering and general building works. While the findings have been based on at the core of SMME contractors in KwaZulu Natal, it could, nonetheless, be representative of the South African construction industry. Descriptive analyses of the data obtained from these experienced actors have validated some of the existing findings on the challenges facing SMME contractors in South Africa and beyond. The rankings servings of the specific challenges with respect to core training needs, business and financial management skills, lack of collateral to access finance, late payments by clients/employers, and limited access to employment opportunities have been presented. The next chapter discusses the challenges further towards making conclusions to the study and recommendations drawn from the conclusions.

CHAPTER 5: CONCLUSION AND RECOMMENDATION

5.1 Introduction

This final chapter outlines the findings of the research and how the objectives have the study have been achieved. Recommendations based on the level of agreement of the SMME contractors on the challenges are provided. These challenges span those relating to employers or clients, institutional weaknesses, minimal support from the industry, lack of required skills and unethical behaviour or corruption. Lastly, implications, limitations, and future directions of the study are discussed.

5.2 Achievement of study objectives

The first objective of this study was to determine the level of agreement among the SMME contractors on their training needs. This objective was achieved through descriptive analysis of the interval scale data obtained on Section B (Part 1). The statistical results revealed the strongest level

of agreement on training for reading and interpretation of construction programme. The lowest level of agreement was on management and administration of the building site.

The second objective of this study was to determine the level of agreement among the SMME contractors on the inadequacy of business and financial management skills. This objective was achieved through descriptive analysis of the interval scale data obtained on Section B (Part 2). The statistical results revealed the strongest level of agreement on finance management. The lowest level of agreement was on book keeping.

The third objective of this study was to determine the level of agreement among the SMME contractors on the lack of collateral to access finance. This objective was achieved through descriptive analysis of the interval scale data obtained on Section B (Part 3). The statistical results revealed the strongest level of agreement on late payments by clients. The lowest level of agreement was on inflexible credit terms from suppliers.

The fourth objective of this study was to determine the level of agreement among the SMME contractors on late payment by clients. This objective was achieved through descriptive analysis of the interval scale data obtained on Section B (Part 4). The statistical results revealed the strongest level of agreement on valuation and certification of interim payments by consultants as being the main cause. The lowest level of agreement was on payments to contractors within 30 days.

The fifth and last objective of this study was to determine the level of agreement among the SMME contractors on causes of limited access to employment opportunities. This objective was achieved through descriptive analysis of the interval scale data obtained on Section B (Part 5). The statistical results revealed the strongest level of agreement on fraud and corruption. The lowest level of agreement was on the enabling role of government contractor development programmes.

5.3 Conclusion on the overall research

From the findings of the survey, the need for training on reading and interpretation is high and should be prioritised for SMME contractors. More so, since these skills are core to being able to monitor, control, and report progress on construction projects. It can be safely concluded that management and administration of the building site relate more to on-the-job skills and, as a result, easier to be learned. This could have accounted for the lowest level of agreement on it.

Inadequacy of business and financial skills was attributed to finance management, making it possible to conclude that SMME contractors face financial problems. This is mostly due to delayed payments by employers and which has a negative impact on sustaining their businesses and results in a lack of collateral to access finance. This problem must be addressed as it hampers the growth and development of SMME contractors.

Although claims are mostly certified on time by the consultants, delays in payments by employers pose a risk to SMME contractors with regard to sustaining their businesses and keeping up with payments to creditors in order to maintain a healthy credit record, which in turn will assist contractors to access finance from financial institutions. Lastly, fraud and corruption makes it difficult for SMME contractors to access job opportunities.

5.4 Recommendations

Following from the inter-relatedness of the causes of the challenges, it can, therefore, be advanced that a need exists for government to implement new holistic and systemic strategies. The following recommendations are therefore suggested in order to address the challenges facing the SMME contractors within the construction industry:

- Legislation to create an enabling environment for SMME contractors should be periodically reviewed to address the challenges identified during the "lessons learnt" session. This will allow for effective contractor development programmes.
- Results drawn from Contractor Development Programmes need to be recorded and a database must be established in order to monitor progress on the implementation. This will also allow for accountability on then parts of the actors.
- The CIDB should revisit the framework and strategies on contractor development and introduce new approaches in consultation with the SMME contractors to obtain their views in order to address the shortcomings.
- Contactor Development Programmes should instil a culture of continuous learning, knowledge creation and knowledge sharing through education among SMME contractors.
- Government should set aside funding for SMME contractors to access, after being awarded a contract, in order to initiate the project without requiring collateral, as well as increasing the percentage of retention money to recover the money lent at inception.
- Government must also implement strict measures to ensure that employees comply with a 30 day payment period of invoices in order to assist SMME contractors to sustain their businesses. Contract administration needs to be enforced.
- Lastly, fraud and corruption including any other unethical behaviour should not be tolerated at any point and must be dealt with accordingly. This requires attitudinal change on the parts of all the players to cub this in particular.

5.4 Study limitations

The limitation of this study has been restricted to the small sample size of 65 respondents and not having performed inferential statistical analysis. However, being an exploratory study, these limitations do not constitute adverse effects.

5.5 Directions for future research

Since this study was limited to challenges facing SMME contractors in KZN Province, further research is required to investigate other challenges facing these contractors in other provinces as well as developing countries.

In – depth research at a doctoral level is required to analyse all other types of challenges facing SMME contractors within the construction industry at large. In addition, ways to address these challenges compared to those in developing countries need to be further researched. Investigations into ways to improve public private partnerships with regards to contractor development should be further tested.

REFERENCES

Abt, K. (1987), "Descriptive data analysis: a concept between confirmatory and exploratory data analysis", *Methods Archive*, **26**, pp.77-88.

Abdul-Rahman, H., Kho, M. and Wang, C. (2013), "Late payment and nonpayment encountered by contracting firms in a fast-developing economy", *Journal of Professional Issues in Engineering Education and Practice*, *140*(2), p.04013013.

Acar, E., Kocak, I., Sey, Y. and Arditi, D. (2005), "Use of information and communication technologies by small and medium-sized enterprises (SMEs) in building construction", *Construction Management and Economics*, 23(7), pp.713-722.

Altman, D.G. and Bland, J.M. (2005), "Standard deviations and standard errors", *BMJ*, 331(7521), p.903.

Amra, R., Hlatshwayo, A. and McMillan, L. (2013, September), "SMME employment in South Africa", In proceedings of *Biennial Conference of the Economic Society of South Africa*, Bloemfontein.

Babu, A.J.G. and Suresh, N. (1996), "Project management with time, cost, and quality considerations", *European Journal of Operational Research*, *88*(2), pp.320-327.

Baruch, Y. and Holtom, B.C. (2008), "Survey response rate levels and trends in organizational research", *Human Relations*, 61(8), pp.1139-1160.

Boone, H.N. and Boone, D.A. (2012), "Analyzing likert data", *Journal of Extension*, 50(2), pp.1-5.

Churchill, N.C. and Lewis, V.L. (1983), "The five stages of small business growth", *Harvard Business Review*, 61(3), pp.30-50.

CIDB (2005), *Annual Report 2004/5 of the Construction Industry Development Board*, CIDB Head Office, Groenkloof, Pretoria, South Africa.

CIDB (2009), *Guidelines for Targeting for Contractor Development Programmes*, CIDB Head Office, Groenkloof, Pretoria, South Africa.

CIDB (2011a), *Construction Quality in South Africa; A client perspective*, CIDB Head Office, Groenkloof, Pretoria, South Africa.

CIDB (2011b), *Baseline study of provincial contractor development programmes – review of the contractor development programmes: towards an NCDP monitoring and evaluation system*. CIDB Head Office, Groenkloof, Pretoria, South Africa.

Cools, E. and Bellens, K. (2012), "The onion model: Myth or reality in the field of individual differences psychology?", *Learning and Individual Differences*, 22(4), pp.455-462.

Dang, G.T. and Low, S.P. (2011), "Role of construction in economic development: Review of key concepts in the past 40 years", *Habitat International*, 35(1), pp.118-125.

DTI (1995), "National Strategy for the Development and Promotion of Small Business in South Africa", *White Paper of the Department of Trade and Industry tabled in Parliament on March 20*, DTI, South Africa.

Department of Housing (2006), *Annual Report*, Department of Housing, South Africa.

Department of Public Works (DPW) (2004), *Skills for infrastructure delivery in South Africa*, Department of Public Works, South Africa

DTI (2008), *The Small, Medium and Micro Enterprise Sector of South Africa,* Department of Trade and Indutry, South Africa.

Dillman, D.A., Sinclair, M.D. and Clark, J.R. (1993), "Effects of questionnaire length, respondent-friendly design, and a difficult question on response rates for occupant-addressed census mail surveys", *Public Opinion Quarterly*, 57(3), pp.289-304.

Egan, J. (1998), *Rethinking Construction – The Report of the Construction Task Force*, Department of Trade and Industry, London.

Fatoki, O. and Odeyemi, A. (2010), "Which new small and medium enterprises in South Africa have access to bank credit?", *International Journal of Business and Management*, 5(10), p.128.

Fan, W. and Yan, Z. (2010), "Factors affecting response rates of the web survey: A systematic review", *Computers in Human Behavior*, 26(2), pp.132-139.

Galesic, M. and Bosnjak, M. (2009), "Effects of questionnaire length on participation and indicators of response quality in a web survey", *Public Opinion Quarterly*, 73(2), pp.349-360.

Graham, J.W. (2009), "Missing data analysis: Making it work in the real world", *Annual Review of Psychology*, **60**, pp.549-576.

Green, F. (2011), "What is Skill? - An Inter-Disciplinary Synthesis", *Centre for Learning and Life Chances in Knowledge Economies and Societies (LLAKES),* Research Paper 20.

Helmsing, A.B. (2003), "Local economic development: New generations of actors, policies and instruments for Africa", *Public Administration & Development*, 23(1), pp.67-76.

Jamieson, S. (2004), "Likert scales: how to (ab) use them", *Medical Education*, 38(12), pp.1217-1218.

Juan García-Teruel, P. and Martinez-Solano, P. (2007), "Effects of working capital management on SME profitability", *International Journal of Managerial Finance*, 3(2), pp.164-177.

Kelley, K., Clark, B., Brown, V. and Sitzia, J. (2003). "Good practice in the conduct and reporting of survey research", *International Journal for Quality in Health Care*, 15(3), pp.261-266.

Kesper, A. (2001), "Failing or not aiming to grow?", Manufacturing SMMEs and their contribution to employment growth in South Africa, *Urban Forum*, 12(2), pp. 171-203.

Lavender, S. (2014), *Management for the construction industry*. Routledge.

Li, H., Lu, M., Hsu, S.C., Gray, M. and Huang, T. (2015), "Proactive behavior-based safety management for construction safety improvement", *Safety Science*, ***75***, pp.107-117.

Lyons, P. and Mattare, M. (2011), "How can very small SMEs make the time for training and development: skill charting as an example of taking a scenistic approach", *Development and Learning in Organizations: An International Journal*, 25(4), pp.15-19.

Martin, L. and Root, D. (2010), "Emerging contractors in South Africa: interactions and learning", *Journal of Engineering, Design and Technology*, 8(1), pp.64-79.

Martin, L. and Root, D. (2012), "Profiling emerging contractors for effective transformation in the South African construction sector", *Development Southern Africa*, 29(2), pp.209-223.

McCord, A. (2005), "A critical evaluation of training within the South African National Public Works Programme", *Journal of Vocational Education and Training*, 57(4), pp.563-586.

Ndabeni, L.L. (2008), "The contribution of business incubators and technology stations to small enterprise development in South Africa", *Development Southern Africa*, 25(3), pp.259-268.

Ntuli, B. and Allopi, D. (2013), "Impact of inadequate experience and skill on the construction sector in KwaZulu-Natal, South Africa", *Engineering, Technology & Applied Science Research*, 4(1), pp.pp-570.

Nulty, D.D. (2008), "The adequacy of response rates to online and paper surveys: what can be done?, *Assessment & Evaluation in Higher Education*, *33*(3), pp.301-314.

Nussbaumer, A., Gütl, C. and Albert, D. (2007), "Supporting Technology-enhanced Learning through Semi-automatic Detection and Management of Skill and Competence Structures" *In Conference ICL2007, September 26-28,* pp. 1-9. Kassel University Press.

Ofori, G. (1990), *The Construction Industry: Aspects of its Economics and Management*, Singapore University Press, Kent Ridge, Singapore.

Ofori, G. (2015), "Nature of the Construction Industry, Its Needs, and its Development: A Review of Four Decades of Research", *Journal of Construction in Developing Countries*, 20(2), pp.115-135.

Paloniemi, S. (2006), "Experience, competence and workplace learning", *Journal of Workplace Learning*, 18(7/8), pp.439-450.

Phaladi, M.J. and Thwala, W.D. (2008), "Critical success factors for small and medium sized contractors in North West province, South Africa", In: *5th Post Graduate Conference on Construction Industry Development, 16-18 March, University of Free State, Boemfontein, South Africa* (pp. 64-71).

Rogerson, C.M. (2008), "Tracking SMME development in South Africa: Issues of finance, training and the regulatory environment", *Urban Forum*, 19(1), pp. 61-81

Rwelamila, P.D. (2002), "Creating an effective industry strategy construction in South Africa", *Building Research & Information*, 30(6), pp.435-445.

Saunders, M., Lewis, P. and Thornhill, A. (2016), *Research methods for business students*, 7th edition, Pearson, England.

Sawers, J.L., Pretorius, M.W. and Oerlemans, L.A. (2008), "Safeguarding SMEs dynamic capabilities in technology innovative SME-large company partnerships in South Africa", *Technovation*, 28(4), pp.171-182.

Scott, M. and Bruce, R. (1987), "Five Stages of Growth in Small Business", *Long Range Planning*, 20(3), pp.45-52.

Sense, A.J. (2008), "The conditioning of project participants' authority to learn within projects", *International Journal of Project Management*, 26(2), pp.105-111.

Shinn, G., Baker, M. and Briers, G. (2007), "Response patterns: Effect of day of receipt of an e-mailed survey instrument on response rate, response time, and response quality", *Journal of Extension*.

Smit, Y. and Watkins, J.A. (2012), "A literature review of small and medium enterprises (SME) risk management practices in South Africa", *African Journal of Business Management*, 6(21), pp.6324-6330.

Strydom, J.W. (2017), "Longevity of SMMEs in Soweto: Does marketing play a role?", *African Journal of Science, Technology, Innovation and Development*, 9(6), pp.685-695.

Tabassi, A.A. and Bakar, A.A. (2009), "Training, motivation, and performance: The case of human resource management in construction projects in Mashhad, Iran", *International journal of project management*, 27(5), pp.471-480.

Thompson, C.B. (2009), "Descriptive data analysis", *Air Medical Journal*, 28(2), pp.56-59.

Thwala, W.D. and Phaladi, M.J. (2009), "An exploratory study of problems facing small contractors in the North West province of South Africa", *African Journal of Business Management*, 3(10), pp.533-539.

Ugwu, O.O. and Haupt, T.C. (2007), "Key performance indicators and assessment methods for infrastructure sustainability—a South African construction industry perspective", *Building and Environment*, 42(2), pp.665-680.

Urban, B. and Naidoo, R. (2012), "Business sustainability: empirical evidence on operational skills in SMEs in South Africa", *Journal of Small Business and Enterprise Development,* 19(1), pp.146-163.

Velleman, P.F. and Wilkinson, L. (1993), "Nominal, ordinal, interval, and ratio typologies are misleading", *The American Statistician*, 47(1), pp.65-72.

Watermeyer, R.B. (1995), *An Overview of Soweto's Contractor Development Programme, Regional seminar on Labour-based Roadworks*, University of the Witwatersrand, Johannesburg, South Africa.

Williams, S.D. and Dewett, T. (2005), "Yes, you can teach business ethics: A review and research agenda", *Journal of Leadership & Organizational Studies*, 12(2), pp.109-120.

Zhang, H. and Xing, F. (2010), “Fuzzy-multi-objective particle swarm optimization for time–cost–quality tradeoff in construction”, *Automation In Construction*, *19*(8), pp.1067-1075.

ANNEXURE 1: QUESTIONNAIRE

QUESTIONNAIRE – Challenges facing emerging contractors in KwaZulu Natal

Section A: Demographic information

This section requires some general and demographic information on you as a participant towards establishing the profile of all the study participants.

1. Physical location/City/District ……

2. Age (Tick appropriate box)

21 – 25	26 – 30	31 – 35	36 – 40	41 – 45 and above

3. Types of projects involved in (Tick appropriate box)

General Building Construction Works	Civil Engineering Construction Works	Both

4. Total experience in Construction Industry (Tick appropriate box)

0-5	6-10	11-15	16-20	21+

5. Total experience including other fields of study (Tick appropriate box)

0-5	6-10	11-15	16-20	21+

6. Personal involvement (Tick appropriate box)

Owner	Partner	Employee	Others (Specify)……..

7. Highest qualification (Tick appropriate box)

Grade 8 and below	Grade 12	N/Diploma & above	Others (e.g., Trade certs)

8. Fields of study (e.g. Engineering, Finance, Law or other) ……..

SECTION B: Study objectives

This section is in five parts and requires your response based on prior working experience with emerging construction contractors.

Part 1: Need for training (Classroom situations)

Training is defined as the academic instructions with notes/literature in a classroom situation on various aspects relating to the running of a construction or related business. In terms of SMME contractors please indicate the training needs (academic situation) with the following aspects on a scale of 1 to 5 as described below:

1. Poor
2. Low
3. Average
4. High / Above average
5. Very High / Excellent

(Tick appropriate box)

1. Training in terms of reading and writing skills

1	2	3	4	5

2. Training in terms of interpretation of building drawings

1	2	3	4	5

3. Training in terms reading and interpretation of construction programme /bar chart

1	2	3	4	5

4. Training in terms of management and administration of the building site

1	2	3	4	5

5. Training in terms of financial management and cost management

1	2	3	4	5

Part 2: Inadequacy of business and financial management skills

The following items are related to the inadequacy of business and financial management skills by SMMEs. Please indicate to what extent you agree that SMMEs lack business and financial management skills on a scale of 1 to 5 as described below:

6. Strongly disagree
7. Disagree
8. Not sure
9. Agree
10. Strongly agree

(Tick appropriate box)

1. Book keeping

1	2	3	4	5

2. Contract Administration

1	2	3	4	5

3. Leadership and communication

1	2	3	4	5

4. Finance management

1	2	3	4	5

5. Site management

1	2	3	4	5

6. Contract documents interpretation

1	2	3	4	5

7. Financial control

1	2	3	4	5

8. Cash – flow management

1	2	3	4	5

9. Credit management

1	2	3	4	5

PART 3: Lack collateral to access finance

The following items are related to lack of collateral to access project finance from financial institutions by SMMEs. Please indicate to what extent you agree that SMMEs lack collateral to access finance on a scale of 1 to 5 as described below:

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

(Tick appropriate box)

1. Access to finance

1	2	3	4	5

2. Inflexible credit terms from suppliers

1	2	3	4	5

3. Difficulties in obtaining guarantee bonds, sureties and insurance bonds

1	2	3	4	5

4. Late payments by clients

1	2	3	4	5

5. High tendering costs

1	2	3	4	5

6. Difficulties in obtaining loans to finance projects

1	2	3	4	5

7. Inflexible credit terms from banks

1	2	3	4	5

Part 4: Late payments by clients/Employers

The following items are related to late payment of invoices by employers or clients. Please indicate to what extent you agree that SMMEs experience late payments of their invoices by employer / clients on a scale of 1 to 5 as described below:

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

(Tick appropriate box)

1. Progress payments to contractors are always settled on time

1	2	3	4	5

2. Payments to contractors are settled within 30 days of invoice submission

1	2	3	4	5

3. Employer s / clients always adhere to the JBCC /GCC in terms of payment clauses

1	2	3	4	5

4. Final accounts are always settled on time by employers

1	2	3	4	5

5. Valuation and certification of interim payments by consultants is always on time

1	2	3	4	5

6. Payment process by client / employers is easy

1	2	3	4	5

Part 5: Limited access to employment opportunities

The following items are related to how difficult it is to access job opportunities by SMMEs contractors. Please indicate to what extent you agree that SMMEs experience limited access to employment opportunities on a scale of 1 to 5 as described below:

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

(Tick appropriate box)

1. SMMEs contractors find it easy to access advertised job opportunities

1	2	3	4	5

2. Tender documents prices are reasonable / affordable

1	2	3	4	5

3. Government procurement system makes it easy for SMME contractors to access job opportunities

1	2	3	4	5

4. Government Contractor Development Programmes makes it easy for SMMEs contractors to access job opportunities

1	2	3	4	5

5. SMME contractors get a fair chance to compete for jobs

1	2	3	4	5

6. Fraud and corruption is a contributing factor towards difficulties in securing construction job opportunities in government

1	2	3	4	5

ANNEXURE 2: PARTICIPANT INFORMATION SHEET AND CONSENT FORM

PARTICIPANT INFORMATION SHEET

Dear participant

I am a student of the University of Wits in Johannesburg studying towards an Msc degree in Construction Economics and Project Management. I am conducting a study on the challenges facing Small, Medium and Micro Enterprise (SMME) contractors in KwaZulu Natal as a basis for intervention by the construction industry development board (CIDB). This is in partial fulfilment of my MSc. Studies at the University of the Witwatersrand.

The study is about the challenges facing emerging contractors in South Africa, using SMME contractors in KwaZulu Natal as a reference. It is to be operationalised through responses from different levels of professionals working at SMME contracting firms, to some identified challenges faced by SMME contractors based on the findings from existing studies. The information required has been categorised into two main sections.

The research focuses solely on challenges facing SMMEs within the construction industry and is limited to the KwaZulu Natal province only. The findings of this study are crucial for the South African construction industry and your response, relative to this questionnaire, would be highly appreciated because it is valuable in shaping the future of the South African construction industry. Please note that the confidentiality of your responses is assured.

If you decide to take part in the study, the attached questionnaire should take a maximum of about twenty (20) minutes to complete.

Your participation in the study is totally voluntary and all information you provide will be treated in the strictest confidence. Further, if during completion of the questionnaire you encounter questions you do not wish to answer, you may skip those. You can also end at any time if you feel uncomfortable with proceedings or the content of the questionnaire.

The information on the findings from this study will be available at the University's library. Should you require, a summary of the findings of the study will be provided to you.

Responses can be forwarded to the following details provided as follows:

1532452@wits.ac.za; or 46lindiwe@gmail.com

If you have any queries or would like to know further information, please do not hesitate to contact me, Lindiwe Shwala on 0835906129 or email address 1532452@wits.ac.za

My Supervisor's contact details at the University are: Dr Oluwayomi Babatunde, on 011 – 7177658 or by email Oluwayomi.babatunde@wits.ac.za

Thanking you in anticipation of your help and significant response.

Ms Lindiwe Shwala

CONSENT FORM

PROJECT TITLE: Challenges facing emerging contractors in KwaZulu Natal

NAME OF RESEARCHER: Lindiwe Shwala

Please tick in the box after each statement to which you wish to consent.

1.	I agree to take part in the study	
2	I have been made aware of the purpose of the study and I have had the opportunity to consider the information contained therein	
3	I understand that my participation is anonymous and confidential	
4	I understand that my participation is voluntary and that I am free to withdraw from the study at any time	
5	I confirm that I have read and understand the information sheet for the titled study	

_____	_____	_____
Name of Participant	Date	Signature

ANNEXURE 3: ETHICS CLEARANCE CERTIFICATE