UNIVERSITY OF KWAZULU-NATAL (UKZN)

The Effectiveness of the Vukuzakhe Programme in Developing Emerging Contractors – A Case of KZN Department of Transport

By

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DECLARATION

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ABSTRACT

The era of racial segregation in South Africa resulted in numerous challenges that led to the skills deficiency and inadequacy of the black population, adversely affecting their participation in the country' productive resources. This resulted in a number of black businesses not participating in the economic growth opportunities. As a result, the government created various initiatives to advance black businesses. This study assessed the effectiveness of the Vukuzakhe Emerging Contractor Development Programme (VECDP) in developing emerging contractors within the KwaZulu Natal Department of Transport (KZN DoT). The focus of the study was on contractors who participated in Vukuzakhe programme and that successfully achieved a CIDB Grade 3 grading after completion of the programme. A quantitative approach using purposive sampling method was used for the study. The study population was 110 contractors who were spread across KZN, out of which a sample of 86 of them participated in the survey. The questionnaire was designed using a Likert Scale and compared the performance of the participants on three key aspects; operational efficiencies, human resource management and financial management. The outcomes were assessed pre-vukuzakhe and post-vukuzahe programme. All of the 86 respondents completed the questionnaire, resulting in a completion and a participation rate of 100%. The data was extracted into Microsoft Excel and analysed using SPSS. On all the three aspects mentioned above,the results from the study showed that the abilities and skills of the participants improved greatly after the programme. The mean values of all factors under each key aspect by comparism were significantly different and higher after the programme. Thus, it was clear that the Vukuzakhe programme has been effective in developing emerging contractors. The researcher recommended that the success of the programme is phenomenal and that the DoT should continue administering this programme. It was further recommended by the reseacher that future studies should also be carried out, on other key aspects beyond the three areas that were covered in this study. As a limitation, the findings of this study is only applicable to the Vukuzakhe Programme and may not be extended to other emerging contractors development programme.

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LIST OF ACRONYMS

BBBEE	-	Broad Based Black Economic Empowernment
CIDB	-	Construction Industry Development Board of South Africa
CE	-	Civil Engineering
CDP	-	Contractor Development Programme
DCCI	-	Durban Chamber of Commerce and Industry
DoT	-	Department of Transport
ECDP	-	Emerging Contractor Development Programme
EME	-	Emerging Micro Enterprises
IT	-	Information Technology
HSE	-	Health, Safety and Environment
KZN	-	KwaZulu-Natal
NCDP	-	National Contractor Development Plan
OSHA	-	Occupational Health and Safety Act
ROTI	-	Road Transport Infrastructure Investment
RRTF	-	Rural Road Transport Forums
SEDA	-	Small Enterprise Development Agency
SMME	-	Small, Micro and Medium Enterprises
SA	-	South Africa
VECDP	-	Vukuzakhe Emerging Contractors Development Programme

CHAPTER ONE

INTRODUCTION AND OUTLINE OF STUDY

1.1 The Introduction

Since the transition of South Africa (SA) from apartheid to democratic government, there has been a major drive by the government to promote small, micro and meduim enterprises (SMMEs) in the national economic initiatives (Masutha & Rogerson, 2014). The SMME initiatives are fundamental aspects in dealing with many objectives for the national rebuilding, economic restructuring and poverty alleviation. Again, the era of racial segregation in SA also brought about many local challenges that led to skills inadequacy and deficiency of the black population, which is essential for them to fully participate in the nation's productive resources (Pillay, 2015). As a result, a good number of black businesses have not been able to participate in the economic growth and initiatives that will ideally encourage start-ups in SA. In addition, SMME promotion is considered a vital channel for job creation especially in the context of the declining growth of new employment opportunities occurring in large formal enterprises (Masutha & Rogerson, 2014). As from 1995, the national government started putting into place enterprises and initiatives that are targeted at supporting SMMEs, which is mirrored from global best practices (Masutha & Rogerson, 2014). In view of the persistent need to promote the above mentioned initiatives by the national government and the growing levels of unemployment across the country, the SMME development have been a significant post-apartheid policy. According to Lose, Nxopo, Maziriri and Madinga (2016), this also led to the establishment of Small Enterprise Development Agency (SEDA) and other enterprise development agency initiatives by different provincial government, in other to provide support to various business incubators. In acknowledging the contributions that SMMEs add towards SA's economic growth, there is a necessity to promote, nurture and monitor the effectiveness of these business incubator programmes. This is in a bid to provide programmes in building sustainable start-up enterprises for both local and external communities (Lose, et al., 2016). This study seeks to evaluate The effectiveness of the Vukuzakhe Programme in Developing Emerging Contractors in the KwaZulu-Natal (KZN) Department of Transport (DoT). This study will also review businesses that have attained Grade 3 in the Construction Industry Development Board (CIDB). This chapter will discuss the background and study

motivation, focus of the study and the problem statement. This chapter also outlines the background, problem statement, significance of the study, research objectives, research questions, research methodology, limitations of the study and the overall structure of the study.

1.2 The Background of the study

The KZN DoT encountered a concerning situation post 1994, where the road construction industry was dominated by white professionals and leading construction businesses in SA. These leading construction businesses received the majority of the construction projects. It was then necessary for DoT to overcome these historical economic differences by creating new economic opportunities to previously disadvantaged people. The Department decided to create a business incubator type of programme that is linked to the DoT objectives, which will assist in building new black-owned contractors in the construction industry. This drive led to the formation of the Vukuzakhe Emerging Contractor Development Programme (VECDP) in addition to other emerging contractor development programmes like the Rural Road Transport Forums (RRTF) and Zibambele (KZN Department of Transport, 2005). The VECDP being a Broad Based Black Economic Empowernment (BBBEE) Programme was designed to; provide access to road construction tender opportunities, empower and share skills to historically disadvantaged communities. The VECDP was also designed to provide capacity development on programmes like business development, technical training, organizational development and various learnerships (KZN Department of Transport, 2005). VECDP was also set up to ensure that increased black emerging contractors, participate in the economic development in the country by owning, managing and controlling sustainable road construction businesses (Department of Public Service and Administration, 2009). The VECDP was intended to follow the pattern of business incubation operating under the DoT in KZN. President Cyril Ramaphosa in his recent speech (February 8, 2019) clearly indicated that the SA government will continue to focus on business incubation programmes that is aimed at growing emerging businesses (Koigi, 2019). Hence, it is important for government to continue to monitor the progress and performance of these enterprise development initiatives. This study is

therefore focused on assessing the effectiveness of the VECDP in the province of KwaZulu-Natal.

1.3 Significance of the Study

According to the department of Trade and Industry (DTI), emerging micro enterprises (EME's) represent 98% of the total number of firms that employ 55% of the country's labour force and thus accounting for 24% of the total South African wage-bill. The performance of small firms contributes towards SA GDP and provides concrete evidence to the assertion that small businesses are the key drivers to service delivery, job creation and economic growth (African News Agency, 2019). Another view indicated that about 80% of small firms' fail to survive beyond their first year, while a small 9% survive after 10 years (Crampton, 2018). Their operational efficiencies or lack thereof is also a huge contributor to the Government's successful implementation of infrastructural projects. Previous studies showed that lack of management competence, poor financial management, poor bookkeeping and record management, account for more than 60% of the reasons that leads to the business failure of business incubators (Verduyn, 2018).

The Government's various enterprise development initiatives, including contractor incubator programs, have always fallen short to provide timeous and sustainable solutions to the internal challenges facing small emerging businesses (Pillay, 2015). Some reasons attributable to this include; the weak impact of uncoordinated interventions of these support programs, operational efficiencies of these programmes in producing sound emerging contractors, deficiencies in terms of skills development and the inability to carryout sound financial based decisions as a business. This study will enable the DoT to assess the effectiveness of the VECDP with regards to contractors' general business operation. This will help the government to put in place systems to monitor these initiatives and measure programme success or failures. This study will also assist the KZN DoT to assess how enterprise developments initiatives improve the general skills of the previously disadvantaged black population in the province, so as to ensure that they can remain sustainable businesses in the future.

1.4 Focus of the Study

The study's focus was to assess the effectiveness of the Vukuzakhe Programme in developing emerging construction contractors in the KZN department of transport. The programme will be assessed by evaluating the performance of these contractors with regards to operational efficiencies, human resources capacity and financial management capacity. The study was conducted on emerging construction companies (otherwise known as Emerging Micro Enterprises – EMEs) under the DoT's Vukuzakhe Emerging Contractor Development Programme (VECDP) that have attained CIDB Grade 3. This study excludes EME's that have not attained Grade 3.

1.5 Problem Statement

The problem of the study arrises out of a challenge for emerging construction companies to grow in a sustainable manner. South Africa is faced with enormous economic disparities that are not reflective of the demographical landscape of the country. KwaZulu-Natal is not immune to this challenge with reports signaling an economy which is more unfavourable to the historically disadvantaged individuals (Ntuli & Allopi, 2014). The domination of non-black-owned companies continue to define the construction sector especially at the maturity stages while black-owned companies are concentrated at the start-up phases. The legislative prescripts that have been designed to foster the incubation of black-owned companies into mature entities that are dominant in the main economic mainstream, have yielded little progress in achieving the objects of these BBBEE Laws.

The major challenge facing the government departments is compliance with the legislative prescripts that underpin its operations. In this context, the BBBEE Codes of Good Practice provide clear guidance with respect to enterprise & supplier development in the service delivery chain of a measured entity. The constraints that face enterprise development and growth often manifest themselves in poor and sluggish execution of these contracted infrastructural projects due to the Governments' lack of a holistically packaged and coordinated approach to enterprise development through incubator programmes.

This study will focus on evaluating The effectiveness of the Vukuzakhe Emerging Contractor Development Programme in developing emerging contractors at the KZN DoT. The SA government over the years, have been investing in enterprise development and business incubator programmes for BBBEE small businesses in the construction industry (Ethekwini Economic Growth & Development, 2013). Even though the VECDP has been set up and a good number of BBBEE construction businesses have been benefitting from it, there is a gap as to how the programme is monitored by the DoT over time.

From an operational efficiency point of view, there is a concern as to whether construction businesses within the VECDP and the participating workers (labourers, foreman, etc.) are gaining proper construction experience in aspects like construction materials management, plant management, site management and use of project management techniques. It is also important to understand the condition of these businesses with regards to technology advancement, access to information and technology and the efficient construction standard operating procedures. This study will contribute towards evaluating operational efficiencies of existing construction incubates under VECDP's in the province, and will ensure that the DoT is developing construction incubates that will compete efficiently against established construction companies in SA.

There is also a concern of a potential gap in the human capital maturity and agility of these construction incubates. To maintain business sustainability, it is essential that these firms are growing and developing with regards to general construction technical skills, entrepreneurial skills and marketing skills. This study is also aimed at assessing their understanding of the health, safety and environment (HSE) legislations guiding the construction industries in SA. For instance, a lack of competency in HSE will affect these firms in creating safe working environment for their workers, which will minimise potential injuries and fatalities in course of work.

A previous report showed that financial management and cash flows remains a huge challenge to small businesses, as around 44% of business highlighted this to be their key challenge (African News Agency, 2019). There is also a problem as to how these construction incubates maintain good cash flow, bookkeeping and accounting systems.

This gap also extends to financial aspects like ability to raise business finance, sound financial analysis of their businesses and proper application of business planning.

The purpose of the study is to assess the effectives of the VECDP in improving the operational efficiencies, human resources management skills capacity and financial management skills capacity of emerging contractors.

1.6 Research Objectives

The research objectives were as follows:

- To assess the effectiveness of the Vukuzakhe Programme on the operational efficiencies of emerging contractors.
- To assess the effectiveness of the Vukuzakhe Programme on the human resources management skills capacity of emerging contractors.
- To assess the effectiveness of the Vukuzakhe Programme on the financial management skills capacity of emerging contractors.

1.7 Research Questions

The findings from this study are anticipated to provide answers to the questions below:

- How has the Vukuzakhe Programme improved the operational efficiencies of emerging contractors?
- How has the Vukuzakhe Programme improved the human resources management skills capacity of emerging contractors?
- How has the Vukuzakhe Programme improved the financial management skills capacity of emerging contractors?

1.9 Research Methodology

The study utilised a pragmatism approach which is normally linked with quantitative study (Cooper & Schindler, 2011). The pragmatism follows the view that is based on practical, applied research where different viewpoints on research and the study subject is helpful in solving a business phenomina. Hence, the study utilised quantitative approach (Cooper & Schindler, 2011). Purposive sampling was used in selecting the

participants for the study. The purposive sampling style is a type of non-probability sampling that is best used when the researcher needs to investigate a certain cultural domain or pattern from a known population (Tongco, 2014). The total population for the study was 110 contractors at CIDB Grade 3, out of which 86 were selected utilising the purposive sampling technique. All the 86 contractors participated in the study, resulting in a participation and response rate of 100%. The first part of the research questionnaire comprises of the biographical data while the second part was made up of three specific aspects; operational efficiencies, human resource management and financial management, in order to test the effectiveness of the VECDP before and after the programme. The participants were required to complete the questionnaires before the end of the forum. The feedback from the respondents was kept confidential in the course of the study and data analysis. The data collected from the questionnaires was transferred into Microsoft Excel and analysed using the Statistical Package for Social Sciences (SPSS) version 25 for Windows together with Microsoft Excel. The researcher ensured that both descriptive and inferential statistics were utilised in the analyses. The feedback was presented using frequency distributions, means, pie charts, bar charts and histograms.

Ethical clearance approval (HSS/0045/019M) was obtained from the University of KwaZulu-Natal's ethics committee before commencing with the study. The researcher ensured that ethical concerns were addressed in order to ensure the appropriateness of wordings in the questionnaire and during data collection. The respondents were informed that their participation was voluntary and that they were at liberty to stop at any stage in the study. The researcher ensured that anonymity was maintained and no participants was coerced into completing the questionnaires.

1.10 Limitations of the Study

The main limitation to the study was the unavailability of these VECDP contractors to partake in the research surveys at the planned times. The availability of the internal stakeholders within DoT also posed a risk of delaying the study.

The results from this study is unlikely to be applicable to the entire EME's in SA as this study focused only on emerging construction contractors in KZN DoT. Budgetary

constraints may also pose a limitation in terms of research coordination, as some participants could raise issues on cash constraints to attend briefings and research questionnaire collections.

1.11 Outline of Chapters

This study is outlined in five chapters with the following details:

Chapter One: Chapter one presents the introduction to the study. It also entails the study motivation, study focus, problem statement, objectives of research and research questions. It further presents the study scope, assumptions and study structure.

Chapter Two: Chapter two covers the literature of the study. It reviews the definitions of enterprise development programmes and business incubation. It also reviews global perspectives on enterprise development, various case studies and challenges encountered. It presents the role of the KZN DoT in economic development, challenges faced by the DoT and challenges facing emerging contractors. This chapter further reviews a number of competency areas that these contractors should focus on to increase their effectiveness, drawing on support from the literature.

Chapter Three: Chapter three deals with the research methodology. It discusses the research paradigms, research design method, study location, sample population, as well as sampling and data collection strategy. It also covers reliability and validity, data analysis and questionnaire administration and distribution.

Chapter Four: Chapter four presents the results presentation, data analysis and provides a discussion of the presented results. This chapter also indicates how the research results agree or disagrees with existing literatures.

Chapter Five: Chapter five presents the study conclusions and recommendations for future study.

1.12 Chapter Summary

This chapter presents the introduction, study background, significance of study and focus of the study. This chapter further covered the problem statement, research objectives, research question, study scope and several assumptions made for the study. This study helps to assess The effectiveness of the VECDP in the KZN province for CIDB Grade 3 contractors. The literature review underpinning this study is outlined in the next chapter.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The preceding chapter outlined the introduction of the study. The literature related to the study is expounded in this chapter. The literature review is essential to this study as it provides background insight ranging from definitions, historical, trends, and concepts on emerging contractor development globally and in South Africa. It evaluates the views of various authors and studies, thereby providing a basis for the evaluation of the present study. This chapter assesses definitions of SMMEs, business incubation, contractor development, the relationship between business incubation and contractor development, government owned enterprises, advantages and disadvantages in enterprise development of emerging contractors. It also highlights the context of previously underprivileged enterprises in SA, business models for contractor development, challenges they face and government initiatives in encouraging their business survival rate. This chapter further examines the effectiveness of some of the enterprise contractor development programmes, thereby highlighting how they have succeeded and failed. A review of the present legislation surrounding this study is also presented.

2.2 The Role of the KwaZulu-Natal Department of Transport in Economic Development

2.2.1 Overview of Road Infrastructure on Economic Development

This study appraises the current challenges faced by government departments in the execution of their constitutional mandates relating to infrastructure delivery and stimulating economic growth. A focus on the role that the private sector can play in providing contractor development support as a solution to assisting departments to accelerate infrastructure, forms an important element of this study. Road infrastructure is the key driver of economic development with some authors describing it as the “hands and feet” underpinning the reconstruction and future of our developmental state (Hlotywa & Ndaguba, 2017). Road transport infrastructure investment (ROTI) in any country is of paramount importance because it improves the economic chains and

promotes growth and development in the country (Hlotywa & Ndaguba, 2017). The economy of any country is boosted by adequate road infrastructure which enhances the standard of living of the citizens, facilitates economic development and improves overall human well-being (Hlotywa & Ndaguba, 2017). It does this by creating avenues for economic derivatives that should be allocated to different parts of the country through unhindered and free-flowing transportation systems (Berg, 2015).

ROTI in growing economies, improves the standard of living thereby leading to the country's ability to generate jobs, expand economic activities and entrepreneurial activities as well as avenues for growing population of youths in the country (Hlotywa & Ndaguba, 2017). According to Lenz, Skender and Mirkovic (2018), a study in European Union member states showed that that there are strong links between economic growth and a combination of other human resources like investments, road infrastructure and trade openness. A greater emphasis was placed on the fact that infrastructure policy is a prerequisite for regional developmental policy, even though it does not warranty regional competitiveness but crafts the essential circumstances for realising the goals of regional development (Lenz, et al., 2018). According to Peter, Rita and Edith (2015), their study reviewed the relationship between public investment and economic growth in South Africa, Botswana and Namibia. The outcome of the study was that the effect of public investment on growth is insignificant even though it may have the correct sign (Peter, et al., 2015). On the other hand, private investment is observed to have a long-run positive growth effect in South Africa and Namibia (Peter, et al., 2015).

2.2.2 The Role of KwaZulu-Natal Department of Transport

The KZN DoT is one of the 13 departments in the KZN province and is the third largest in terms of budget allocations after the Department of Health and Education. The important role of transport in the development and robust growth of KZN's economy cannot be undervalued. A highly efficient and well-managed transport system is a strong driver for growth in the economy and development of any province and it also requires sound investment in the province's transport infrastructure (Shah, 2018). The transport infrastructure in a province can support and stimulate economic growth for sound creation of jobs and reduction of poverty levels. A previous poverty and inequality report

views poverty and inequality as the result of a lack of access to income and services within households which also reflects their capability to generate income (Shah, 2018). Most citizens in the province are located in rural areas where job opportunities are in shortage and access to goods and services is either poor or non-existent (Shah, 2018).

Development in the rural areas is one of the five national priorities which cannot be achieved without the total participation and support of the DoT. The budget speech of 2017 to 2018 as mentioned by the MEC Mxolisi Kaunda indicated that R9.96 billion has been put aside to drive radical social economic transformation and expand roads, as well as transportation infrastructure and services to KZN citizens equitably (KZN Department of Transport, 2018). The necessity for the DoT to intensify investment on road infrastructure in rural areas is exceedingly critical, as it forms part of the National Development Plan (Shah, 2018).

2.3 KZN DoT Strategic Goals and Present Challenges

2.3.1 Strategic Goals

The KZN DoTs vision is “Prosperity through Mobility”, which implies that all the activities of the Department and the manner in which the Department delivers services to communities, should contribute to increasing the wealth and quality of life of all the citizens of the province (KZN Department of Transport, 2015). According to this Service Delivery Improvement Plan 2015/16 to 2017/18 (KZN Department of Transport, 2015) some of the strategic goals of DoT KZN includes;

a. Providing mobility and accessibility within the province to achieve 33000km of road infrastructure by 2020.
b. Effectively managing the surfaced road infrastructure network by reducing the number of roads classified as “poor to very poor”, to less than 30% by 2020.
c. Creating and promoting an integrated transport system.
d. Creating and promoting a safe road environment by decreasing road fatalities by 30% in 2020.
e. Promoting sustainable economic transformation in the transportation sector.

As much as the DoT KZN has been pursuing these strategic goals, they are also facing challenges. These challenges are core aspects that this study is centred on. Some of the challenges include, training of employees, management of the existing systems, leadership issues and contractor management. The role of contractor management comprises the management of all contractors that are utilised by the DoT KZN in maintaining and improving road infrastructure in the province.

2.3.2 DoT Present Challenges

The DoT in KZN encountered a concerning situation Post 1994, where the road construction industry was dominated by white professionals and leading construction businesses in SA. These leading construction businesses received the majority of construction projects. It was then necessary for DoT to overcome these historical economic differences by creating new economic opportunities to previously disadvantaged people. The department decided to create a business incubator type of programme that is linked to the DoT, which would assist in building new black-owned contractors in the construction industry. This drive led to the formation of the VECDP, in addition to other emerging contractor development programmes like the Rural Road Transport Forums (RRTF) Zibambele (KZN Department of Transport, 2005). The VECDP, being a Broad Based Black Economic Empowernment (BBBEE) Programme, was designed to; provide access to road construction tender opportunities, empower and share skills to historically disadvantaged communities. The VECDP was also designed to provide capacity development on programmes like business development, technical training, organisational development and various learnerships (KZN Department of Transport, 2005). Additional challenges faced by DoT KZN are also in the aspect of service delivery and infrastructure development, local economic development (LED), institutional development and enterprise development.

2.4 Small, Medium and Micro Enterprises

2.4.1 Overview on Small, Medium and Micro Enterprises

The Small Business Act, 102 of 1996 (SEDA, 2015) defines SMMEs as business entities employing a maximum of 100 employees . It is also referred to as small business that play an important role in the economy and can be drivers of economic growth (Bureau for Economic Research Report, 2016). The definition of SMMEs encompasses a very broad range of firms. Small businesses range from medium-sized enterprises, such as established traditional family ventures employing over a hundred people, to informal micro-enterprises (Report, 2016/2017). SMMEs contribute significantly to national GDP and have proved to be a major contributor to job creation. Other elements of the definition of SMMEs state that the business owner is engaged in administration and the yearly revenue is less than R5 million with principal assets lower than R2 million. Furthermore, SMMEs are businesses with turnover of between R5 million to R35 million that contributes between 52 to 57% GDP (Bureau for Economic Research Report, 2016). They also provide employment of about 61% to the economy. According to SEDA (2015), SMMEs are accountable for 97.5 % of companies in SA and they add to 35.8 % of the country's GDP. Also, 54.5% of all the formal private sector employees are directly employed by SMMEs. This is more than 40% of all salaries that are received annually in the country.

There is a potential within the SMMEs to entirely alter the dynamics of the country's employment rate as they have the capacity to drive innovation and investment (SEDA, 2015). The government of SA understood the importance and potential within SMMEs and as a result the Ministry of Small Business Development was formed at the beginning of 2014 (SEDA, 2015). The ministry was founded to accelerate economic transformation via increased involvement of SMMEs in the mainstream economy.

2.4.2 Performance of SMMEs in South Africa

A very small number of SMMEs operate in the construction section and this is represented in the Table 2-1 below.

Table 2-1: SMMEs Sector and Key Indicators 2015 Quarter 2 (Adapted from SEDA 2015).

KEY INDICATORS	2015Q2
Number of SMMEs	2 251 821
Number of formal SMMEs	667 433
Number of informal SMMEs	1 497 860
SMME owners as % of total Employment	14%
% Operating in trade & accommodation	43%
% Operating in community services	14%
% Operating in construction	13%
% Operating in fin. & Business services	12%
% Contribution to GDP	42%
% Black owned formal SMMEs	134%
% Operated by income group ← R30k pa	7%

From the Table 2-1 above on the 2015 2nd Quarter report on accelerating SMMEs growth in SA, only 13% of SMMEs are operating in the construction sector. However, it was needful for the researcher to assess the latest trends on performances within the SMMEs in the country with focus on the construction sector by province. Previous reports prior to 2018 showed that the number of SMMEs in SA slipped from 2.48 to 2.44 million and continued to decline over the year into the 1st Quarter of 2018 (SEDA Report, 2018). The report showed contractions in the number of owners (1.4%) and employment (15.9%). Further observation revealed that negative impact can be observed at the entry levels, with the number of 2-3 year old enterprises dropping by over 15% year-on-year and the dropout of these SMMEs was more in the younger age groups of 25-34 years (SEDA Report, 2018). In the 1st Quarter of 2018, about 35% of SMMEs operated in Gauteng, followed by close to 14% in KZN and 13% in Limpopo. The Table 2-2 below shows summary of the SMME owners by province.

Table 2-2: SMME Owners by Province (Adapted from SEDA Report 2018)

Occupation	2017Q1		2017Q4		2018Q1		Quarterly change		Yearly change	
	Number	Distrib.	Number	Distrib.	Number	Distrib.	Number	%	Number	%
Western Cape	281 062	11.3%	268 477	11.2%	269 256	11.0%	778	0.3%	-11 807	-4.2%
Eastern Cape	236 608	9.5%	194 060	8.1%	212 292	8.7%	18 232	9.4%	-24 316	-10.3%
Northern Cape	23 569	1.0%	21 344	0.9%	23 904	1.0%	2 559	12.0%	335	1.4%
Free State	117 145	4.7%	114 035	4.7%	114 584	4.7%	549	0.5%	-2 560	-2.2%
KwaZulu-Natal	384 675	15.5%	330 551	13.7%	333 461	13.6%	2 910	0.9%	-51 214	-13.3%
North West	130 883	5.3%	131 280	5.5%	125 535	5.1%	-5 745	-4.4%	-5 348	-4.1%
Gauteng	830 923	33.5%	807 787	33.6%	847 329	34.7%	39 542	4.9%	16 406	2.0%
Mpumalanga	192 178	7.8%	222 369	9.2%	201 922	8.3%	-20 447	-9.2%	9 744	5.1%
Limpopo	281 835	11.4%	317 537	13.2%	314 880	12.9%	-2 657	-0.8%	33 045	11.7%
Total	**2 478 877**	**100.0%**	**2 407 440**	**100.0%**	**2 443 163**	**100.0%**	**35 722**	**1.5%**	**-35 714**	**-1.4%**

From the Table 2-2 above, the SMME owners in KZN declined from 15.5% (Q1) to 13.7% (Q4) in 2017. The year-on-year change in KZN of SMME owners further declined by 13.3%, indicating a significant reduction in the province.

The distribution of SMMEs by industry are somewhat similar; the trade and accommodation sector appear to be largest in all the provinces. This particular sector accounted for 38% SMMEs in SA, but is representatively smaller in the Western and Northern Cape (25% and 22% respectively). Table 2-3 below shows the SMMEs by province and industry in Q1 of 2018.

Table 2- 3: SMMEs by Industry in Quarter 3 of 2018 (Adapted from SEDA Report 2019)

KEY INDICATORS	2017Q3	2018Q2	2018Q3	q-o-q change	y-o-y change
Number of SMMEs	2 251 286	2 440 760	2 556 891	4.8%	13.6%
Number of formal SMMEs	631 810	683 621	734 023	7.4%	16.2%
Number of informal SMMEs	1 552 889	1 670 416	1 756 314	5.1%	13.1%
Number jobs provided	9 141 056	9 593 640	10 067 628	4.9%	10.1%
% operating in trade & accommodation	42.6%	39.3%	40.4%	1.1% pts	-2.3% pts
% operating in community services	13.9%	14.0%	13.7%	-0.2% pts	-0.1% pts
% operating in construction	12.2%	14.5%	14.7%	0.2% pts	2.5% pts
% operating in fin. & business services	11.8%	13.4%	13.3%	-0.1% pts	1.5% pts
% black owned formal SMMEs	76.1%	74.8%	75.1%	0.3% pts	-1% pts
% contribution of SMEs* to turnover of all enterprises#	41.5%	38.7%	37.9%	-0.9% pts	-3.6% pts

Table 2-3 above shows the SMMEs by industry in Quarter 3 of 2019, but excludes micro enterprises, agriculture, financial intermediation, insurance and government institutions. Focusing on construction, it is clear that the SMMEs have grown from year to year by 2.5% (SEDA Report, 2019). This shows that the construction industry is still an important aspect of the SMME sector, hence the need for each province to continue investing in it to ensure infrastructure development. However, the Durban Chamber of Commerce and Industry (DCCI), through a statement by the Vice President Gladwin Malishe, highlighted that the construction SMME sector was very weak. He encouraged construction SMMEs to come together, to set a vision and to invest in themselves without relying on government for projects and tenders (Majola, 2018). The CIDB survey substantiated this, as the last quarter of 2018 report showed a decline in construction company revenues in KZN (The Mercury, 2019).

In summary, there is a growing trend in the SMME construction sector in SA. However, there is a need for the encouragement of construction SMMEs through the Vukuzakhe Programme, in other to foster growth in the KZN province.

2.5 Enterprise Development

Enterprise development can be defined as the act of investing time and capital in assisting people to establish, expand and improve their businesses (Masutha & Rogerson, 2014). Enterprise development assists people in making a living, helping them out of poverty, which later culminates to long-term economic growth for themselves, their families and their communities (Tripathi & Gautam, 2011). The development of new enterprises remains critical to the growth and sustainability of a developmental state. It comes as no surprise therefore, that many governments develop policies which ensure that enterprises are on the forefront of the economic development agenda (Masutha & Rogerson, 2014). However, the global impact of the recession, increasing budget deficits and general budgetary constraints resulting in cuts of government programs, often disadvantaging new business start-ups. This has also brought value-adding interventions under scrutiny (Masutha & Rogerson, 2014). With local governments continually operating under pressure to deliver basic services, it begs the question as to what extent enterprise development receives priority in the allocation of constrained municipal resources.

Enterprise development is a critical tool that is a necessary element for supporting economic growth (Francke & Alexander, 2019). The Tourism Empowerment Council of South Africa (TECSA) promotes that enterprise development policies should contain the following outcomes: public and private sector partnerships, economic growth and the encouragement of an entrepreneural culture amongst the historically disadvantaged groups. Enterprise development should be viewed holistically to encompass entrepreneurship training and business development, mentoring and coaching (Verwey, 2011). Supporting the need for private sector involvement, enterprise development should also be viewed in the light of mentorship and business training offered by large corporations.

2.6 Contractor Development Programme

The SA government in conjunction with the CIDB has developed business models that assist in the development and support of emerging contractors (Mohlala, 2015). Some of the initiatives and interventions put together through this consortium are the Emerging Contractor Development Programme (ECDP) and the National Contractor Development Programme (NCDP) (Mohlala, 2015). The NCDP is set up at improving the capacity of contractors and stimulating equity ownership amongst varying categories of contractors and grades. They also assist in cultivating the expertise of contractors in the execution of capital projects across the public sectors in all provinces of SA. An emerging construction business needs to register with the CIBD in order to comply with the construction projects statutiry requirements under the civil engineering (CE) category. Contractors listed in the CIDB (CE) category operate mainly in the in water, sewerage, roads, railways, harbours, transport, urban development and municipal services.

2.7 Emerging Contractor Development and Challenges

An emerging contractor can be identified as a person or enterprise which is managed and controlled by previously disadvantaged individuals and who is working to overcome business limitations that emanate from the effects of apartheid (Francke & Alexander, 2019). These small businesses are also known as emerging contractors which could be operating in one or more different industry segments like construction, manufacturing, etc. In the context of this study, the emerging contractor referred to are SMME construction contractors. According to Sweis, Bisharat, Bisharat and Sweis (2014), a study was carried out on the performance of contractors at a global level in order to establish the most critical factors in public infrastructure projects based on the views of clients, contractors and engineers. The study identified the following aspects as challenges that influence emerging contractor development and their performance (Sweis, et al., 2014).

2.7.1 Challenges Facing Emerging Construction Contractors

According to Sweis, et al., (2014), the study identified the following aspects as challenges that influence emerging contractor development and their performance.

These issues are grouped under the following headings, namely operational efficiencies, human resource management and financial management.

a. Operational Efficiencies

- Experience in Construction and Contractor Management
- Standard Operating Procedure and Project Management
- Materials, Plant and Equipment Management
- Technical Systems and Information Technology
- Overall Operational Capacity

b. Human Resource Management and Training

- Engineering and Entrepreneurial Skills Training
- Management Capability
- Marketing Competency and Adequacy
- Knowledge of Regulation and Legislation
- Overall Human Resource Capacity

c. Financial Management

- Cash Flow Management
- Job Costing and Estimation Skill
- Bookkeeping, Accounting Systems and Financial Statement Analysis
- Business Planning
- Business Capital
- Overall Finance Growth

These issues are also used in evaluating the effectiveness of the emerging construction contractors' development.

2.7.2 Operational Efficiencies

In reviewing some of the operational challenges that face emerging construction businesses, that if managed adequately, can assist in improving their effectiveness, the following issues are reviewed.

- **Experience in Construction, Project and Contractor Management:**

Emerging contractors usually face challenges with regards to the adequate experience in the construction and contractor management. According to Wentzel, Smallwood and Emuze (2016), most of these contractors do not have a background or training in construction and the complexities involved in contractor management. Lack of experience and training in construction and contractor management can affect the growth of the SMME construction contractor, thereby limiting the business growth and delivery of projects in the public sector (Wentzel, et al., 2016). The government through the CIDB programme has set up skills training in these areas, to enable emerging contractor businesses enhance their construction, project and contractor management experience (Johannesburg Development Agency, 2013).

Experience in the contractor's line of work and contractor management enables the contractor to ask the correct question and also assists in how their on-site inspection is done (Snook, 2017). Demonstrated experience also enables the contractor to choose the correct form of software, which will enable them to construct their projects appropriately and on time. Emerging construction business owners are required to have adequate construction site management skills; such as coordination, active listening, problem solving, management of material resources, system analysis, persuasion ability and operations monitoring (Johannesburg Development Agency, 2013). It is recommended for the emerging contractor to undergo small and short-term courses, in order to improve the above mentioned qualities, as this is vital to their management of construction projects. As a business owner, the emerging contractor needs to understand the basics of construction site management (Holtkamp, 2017).

- **Standard Operating Procedures and Project Management:**

Standard operating procedures (SOP's) are a set of instructions that are usually put together by the contractor to enable the workers to perform their routine work optimally (Henshall, 2017). The goal of SOPs is to realise efficiency, quality and consistency in the performance of a job (Childress, 2018). Construction businesses require SOPs as a number of their activites require measurement and repetition in order to realise the technical aspects of the expected outcome based on particular standards. Also, the

administrative part of the business is needed to document these procedures so that labourers that are under the contractor can utilise them in executing their constrution task.

Construction is quite challenging and stressful even for professional managers that are trained in project management (Martin, 2016). Project management is the focal point of any construction project as the manager puts reality into the ‘construction dream’ (Martin, 2016). Absence of efficient project management drags a project down and this results in missed deadlines. It is vital for emerging contractors to understand project management properly in the implementation of public sector infrastructure projects and on how to improve their competence (Mohlala, 2015). Competence in project management deals with the execution of a project efficiently in a way that demonstrates a good knowledge of the environment, utilisation of project management and leadership skills (Wentzel, et al., 2016). Poor project management can be demonstrated in the area of planning and scheduling of contractors. Although there are cost implications in having a project management staff within an SMME construction contractor, it is important to have a qualified personal that oversees project management related issues (Mmemezi, 2017). Competence in project management is achieved via series of acquired knowledge through training, utilisation of skills and knowledge (Mohlala, 2015).

- **Materials, Plant and Equipment Management:**

Materials management is an integrated approach that comprises of people, organisation and methods utilised to efficiently identify, calculate, procure, fast track, review transport, receive and store equipment during the project lifestyle (Caldas & Menches, 2015). The usual goal in construction management is to make sure that the right quality and quantity of materials are obtained in a structured manner and at a reasonable cost (Caldas & Menches, 2015). According to El Sawalhi and El-Al Kass (2012), appropriate materials management adds to the efficiency of a project and also minimises cost, thus ensuring a successful project. An emerging contractor is expected to understand materials management (El Sawalhi & El-Al Kass, 2102). Some of the aspects include; establishing materials requirement, evaluation of vendor, purchasing, site storage and site distribution

Good project management in construction makes efficient use of labour, materials and equipment. An efficient construction project manager endeavours to see that all the machineries are properly managed and utilised to deliver on construction projects (Randunupura & Hadiwattege, 2013). Many emerging contractors are not well equipped with regards to plant and equipment management, as many of these are hired ad hoc depending on the public project they are delivering. Emerging contractors need to have the skill to make adequate decisions in terms of managing their plant and equipment (Randunupura & Hadiwattege, 2013). They need to be able to demonstrate good ownership integrity when leasing equipment in order to ensure that the equipment is properly maintained and repaired, while they work on acquiring their own equipment (Manaf & Razali, 2014). Proper management is essential as it also ensures that the safety aspect of machinery use is given a priority by the contractor (Manaf & Razali, 2014).

- **Technical Systems and Information Technology:**

Technical systems and technology deals with information technology infrastructure that is designed at keeping the construction site in good condition (Edwards & Holt, 2013). Lack of access to good technical systems can hinder the growth of the emerging contractor and limit the degree of projects they have access to in the public sector (Liu & Zhao, 2013). As much as the basic goal is the development of the emerging contractor, the public sector like the DoT expects improvement on emerging contractor technology agility (Higgins, 2019). Most of the emerging contractors depend on a manual approach to execute their projects. But changing times will put more pressure on emerging contractors in order to elevate their capabilities with regards to technical systems and information technology (Edwards & Holt, 2013). Some of the basic technical systems and information technology that emerging contractors are expected to use to improve agility, includes; computer aided design (CAD), tools software, cost evaluation software, quantity calculation software and communication networks (Wentzel, et al., 2016).

2.7.3 Human Resource Management and Training

In reviewing some of the human resource management and skills training challenges that face emerging construction businesses, which if managed properly can assist in improving their effectiveness, the following issues are reviewed.

- **Engineering and Entrepreneurial Skills Training:**

The SA construction sector plays a vital role in the growth of the local economy. It was identified by the CIBD that a dynamic and fulfilling construction industry is only feasible if those employed within it have the essential competencies and skills to execute their roles effectively (Ntuli & Allopi, 2014). Lack of engineering and entrepreneurial skills is currently a gap for emerging contractors in the public sector, as there have been recorded incidences of poor project completion which investigations have shown to be due to a deficiency in contractor competency (Dlungwana & Wall, 2014). An example of such engineering and entrepreneurial skills training was organised by South African National Roads Agency (SANRAL), in other to enhance the skills of new start-ups (CIBD levels 1 to 3) (Skills Training News, 2017).

- **Management and Marketing Competency:**

A lack of adequate management and promotion of small businesses is the reason for the demise of many emerging businesses in SA (Crampton, 2018). It is important for emerging construction company owners to have some form of marketing skills, which can be acquired through short term marketing courses and training (Dlungwana & Wall, 2014). This will enable the emerging contractor owner to understand how to deal with the outside business world and to manage the relationship management between them and other contractors (Dlungwana & Wall, 2014). A good number of black-based businesses are faced with issues of not paying their workers timeously due to cash flow management stemming from internal irresponsibility on the part of the contractor (Wentzel, et al., 2016). Adequate management skill will enable the business owner to treat employees well and position the business for long term sustainability (Crampton, 2018). Basic marketing competence will also enable them to know how to promote their businesses within the public sector and the private sector for business growth (Sweis, et al., 2014).

- **Health and Safety Regulation/Legislation:**

The Act and its existing Regulations objective is to control the growth and development of the construction industry. Common law principles govern the construction industry and gives one the right to freedom of contract (Department of Labour, 2014). The objective of the regulation is to make sure that in all building projects, the individuals who perform work on the construction project are protected based on the regulations of the Occupational Health and Safety Act (OSHA) (Gladwin & Civin, 2014). It is important for emerging contractors such as those listed under the Vukuzakhe programme, to have a clear understanding of the implications of the Act and its application in their daily business ventures (Gladwin & Civin, 2014).

- **Overall Human Resource Capacity:**

The greatest valuable assets of any business are their human resource ability to build capacity skills with regards to training on the job and overall job performance (Yamoah, 2014). Capacity building in human resources is closely affiliated with education, training and general human resource development of the organisation (Yamoah, 2014). According to Watson (2013), capacity building is necessary for the development of human capital which can take place at the individual and societal level of a firm. This helps in improving the skills and knowledge of employees and workers in other to achieve results that are sustainable and measurable for the organisation (Watson, 2013).

2.7.4 Financial Management

In reviewing some of the financial management challenges that confront emerging construction business, which if handled properly can help in improving their effectiveness, the following issues are reviewed.

- **Cash Flow Management:**

A widely used adage in the finance world is “Cash is King”. This slogan basically emphasises the necessity of cash and decent cash flow to any business (Aren & Sibindi, 2014). It is said that the failure rate of SMMEs in SA ranges between 70% and 80%, with cash flow management being one of the top-ten reasons for small businesses failure (Aren & Sibindi, 2014). As a means of improving cash flow management, emerging contractors must pay close attention to accounts receivable, accounts payable and inventory, which are seen as the three important levers of cash management (Zayed & Liu, 2014). Therefore it is important for the contractor to be able to manage these three levers to efficiently maintain a good cash flow management (Zayed & Liu, 2014).

- **Estimation and Job Costing:**

Good business owners and contractors are expected to be able to win and perform jobs efficiently. In doing so, they require accurate information to bid and estimate jobs through proper assessment of the job and scheduling (Hradsky, 2017). Good estimation and proper job costing results in better profitability, good project estimation, adequate management decisions and more aligned financial reporting (Hradsky, 2017). A proper job estimation and costing takes into consideration aspects like stock management, buy-outs, sundries and labour, in order to ensure that the task is profitable (Dillon & Stanton, 2016). Understanding the profitability of the job helps an entrepreneur to know whether the project will move in the right or wrong direction. Estimation and job costing also helps to track the project by phases and types, which is an essential ability that an emerging construction contractor should possess (Hradsky, 2017). Estimation and job costing will help the contractor to manage the variation in material pricing before the bid is submitted for evaluation and after the bid is successfully awared to the contractor (Hradsky, 2017). It is vital because an understanding of estimation and job costing feeds into the overall management of the projects or jobs being handled by the contractor (Dillon & Stanton, 2016).

- **Book Keeping, Accounting Systems and Financial Statement Analysis:**

Bookkeeping can be defined as the process of capturing and organising a business's financial transaction which is usually managed by a bookkeeper (Adamson-Pickett, 2018). It is the responsibility of the bookkeeper to record transactions, disseminate invoices, carryout payments, handle accounts and also get financial statements ready (Adamson-Pickett, 2018). The basic difference between bookkeeping and accounting is that the bookkeeping sets the pace for the process of accounting, which can either be managed by the business owner (for start-ups), a bookeeper or a hired accountant by the entrepreneur. A good number of small businesses fail after starting up for many reasons, of which a key reason is the entrepreneur's poor understanding of basic bookkeeping and accounting systems (Cravenho, 2015). Bookkeeping and proper accounting system is necessary for the sustainability and future success of any small business venture, as it preserves the financial integrity of the business through adequate records (Adamson-Pickett, 2018). Poor accounting results in serious issues for the entrepreneurs like getting involved in tax frauds and high possibility of tax evasions which destroys the rising reputation of the business (Cravenho, 2015). Even though the business owner or entrepreneur may hire a person for bookkeeping and general financial systems, it is essential that the entrepreneur understand the accounting basics like assets, liabilities, revenue, expenses and equity (Adamson-Pickett, 2018). This enables the entrepreneur or the contractor to have a clear overview of the financial position of the business.

In addition to bookkeeping and accounting systems, successful entrepreneurs should also be diligent in consistently improving the efficiency of their businesses through proper financial statement analysis (Boitnott, 2015). A good entrepreneur should have a fair understanding of financial ratios like the current ratio, inventory turnover, gross margin, return on investment and revenue per employees (Boitnott, 2015). A good understanding of the these ratios can help the entrepreneur have a better view of the business health and efficiency.

- **Business Planning for Entrepreneurs and Business Owners:**

Good business leaders have a better understanding of the place of business planning as a vital roadmap for business success (Leonard, 2018). There is a degree of success that an entrepreneur or a business owner can have without planning, but business planning sets a better platform for the business owner to reach greater heights in their overall operation (Leonard, 2018). Efficient business owners take business planning more seriously, as it helps them to project the future of their businesses, identify potential avenues from where to receive fundings and also to develop their skills better as entrepreneurs (IESE Business School, 2016). What is common in iterature under business planning is that it is an important skill that an entrepreneur must possess in order to reach greater heights in business. This study seeks to uncover how VECDP improved the contractors understanding of business planning in becoming better as developing contractors.

- **Entrepreneur and Business Finance: Expansion and Working Capital:**

The contribution of SMMEs to the growth of any economy cannot be under estimated. However, efficient management of cash flow is a major lifeblood of any SMME. A study on SMMEs in Nigeria uncovered that in order to improve the position of many SMMEs, the government should assist them with long and short term credit facilities in other to facilitate business growth (Oyedokun, 2016). Beyond obtaining credit facilities from the government, the entrepreneur can also try to raise some capital for their business by themselves through adequate management of resources and cash flow in the business (Hendricks, 2014). Small business loans from other commercial lenders can also provide better terms and interest rates for the entrepreneur, which can be easily accessed when the business plan of the entrepreneur is in tact (Hendricks, 2014).

The participants of the Vukuzakhe programme are well positioned to receive funding from the DoT, Department of Trade and Industry and other South African government entrepreneur focused initiatives (Whall, 2018). As much as these avenues of expansion capital are available for construction entrepreneurs, it is important that the business owners manage these funds well in other to maintain good working capital (Drake,

2015). However, this research study seeks to assess the effectiveness of the VECDP in developing emerging contractors with better ability to raise expansion capital and manage working capital.

2.8 Structure of Contractor Development Programme

There appears to be an unwavering agreement by various scholars that there is no uniform approach to contractor development. A study by Watermeyer, Jacquet and Noyana (2001) further indicated that CDPs should be aligned to the prioritised needs of the nation's construction industry or the implementing organisation. Regardless of the nature of CDPs, certain fundamental rules still exist. In line with observation by Kobole, these rules are on what CDPs are based on (Watermeyer, et al., 2012). This study by Kobole summarised key aspects which are related to CDPs operation. They are as follows;

- CDPs are made up of contractor selection and registration. This ensures that the correct type of contractors participate in carrying out construction projects;
- CDPs comprise some kind of training and mentoring. This is to ensure that the developing contractors acquire basic abilities which they will use to manage their enterprises on a sustainable basis;
- CDPs comprise of continous contractor performance assessment, improvement and grading. This ensures that contractors become competitive in providing construction goods. Continous grading qualifies the changing status levels of contrctors as performance improves or diminishes.

The CIDB NCDP framework document supplies a guideline for implementing CDPs (CIDB, 2015). According the CIDB (2015), the Figure below shows a CDP as being made up of six aspects. These aspects include the following;

a. Programme Strategy and Targeting: The NCDP summary framework document targets specific contractors as making up the core aspect and design of a CDP. Strategy definition involves establishment of targets for contractor development, developing the criteria for inclusion and exit strategy.
b. Contractor Assessment: This deals with the selection of contractors who meet the entry level requirments in line with the target of the CDP in order to

determine their developmental needs. In this study, it is important to note that the study is foused on CIDB Grade 3 contractors even though they started from Grade 1 or Grade 2.

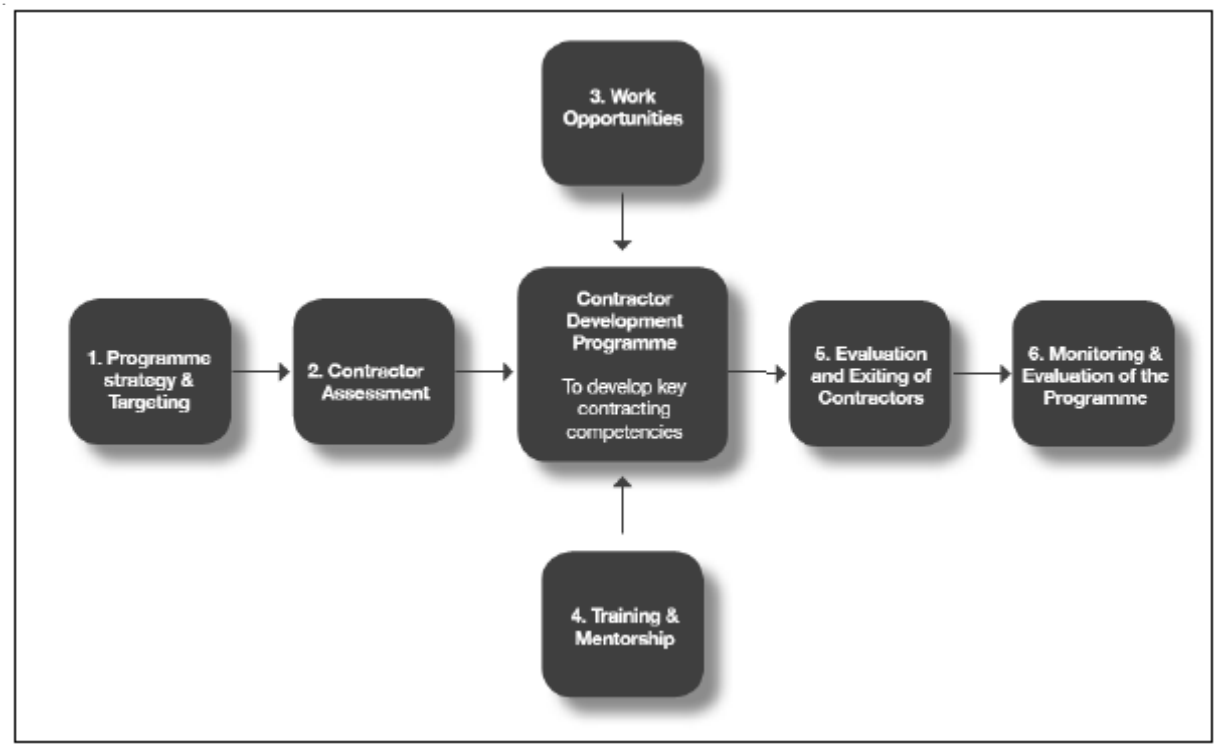

Figure 2-1: NCDP Guidelines for Implementing Contractor Development Programme (Source: CIDB, 2015)

c. Work Opportunities: It is essential to note that any form of development programme that is not aligned to work opportunities will unlikely result in the realisation of the objectives of the CDP. A successful CDP is linked to a provision of work opportunities for the developing contractor.

d. Training and Mentorship: The provision of theoritical and practical training promotes the capacity of the business. Training is usually outsourced to either an accredited training provider, a mentor or a consultant. It is important to highlight that the training should be in line with the need of the contractor.

e. Evaluation and Exiting of Contractors: The minimum criteria needed for managing an existing enterprise and for supervising construction works that the contractor would have acquired when leaving the CDP should be pre-

defined. It is important that the achievement of the CDP is constantly evaluated against pre-defined performance standards.

f. Monitoring and Evaluation of the Programme: The success of the CDP is dependent on continous montoring and evaluation. As a start, the programme must meet its designed goals and again, it must ensure that the developing contractor is receiving the required support. Activities like monthly reporting, internal auditing, mentor's monthly report and internal reviews should always be monitored and assessed.

The above steps shows a typical structure of a CDP. However, depending on the institution, the structure may vary between implementing institutions.

2.9 Research Conceptual Framework

The conceptual framework for this study is dependent on the outcomes of the literature review. In assessing the effectiveness of the VECDP in the KZN DoT, the study reviewed one independent variable, that is: the effectiveness of the VECDP. The three dependent variables of the study are operational effeciencies, human resource management and financial management. The conceptual framework of this study evaluated the impact of these dependant variables before and after the VECDP.

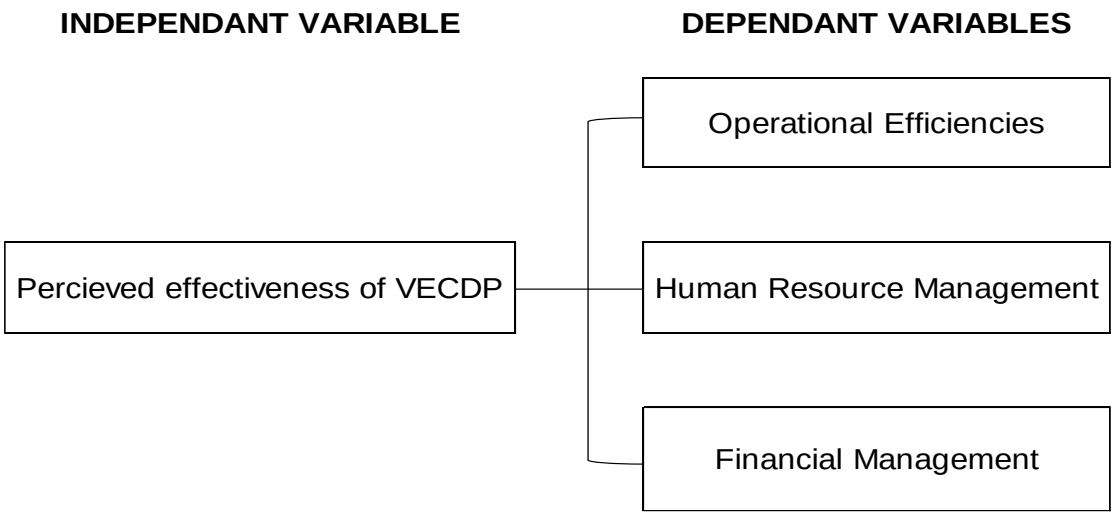

Figure 2- 2: Research Conceptual Framework

2.10 Summary

The VECDP is an initiative by the SA government to empower emerging contractors to compete and gain access mainly because of being part of the previously disdvantaged population. The VECDP SMME initiative is a fundamental aspect in dealing with many objectives for the national rebuilding, economic restructuring and poverty alleviation. The Vukuzakhe programme will enable the growth of emerging contractors within the DoT in KZN. This study will strive to evaluate the impact of the highlighted factors as independent factors and their impact on the programme's effectiveness. This chapter reviewed the literature surrounding the study. The next chapter presents the research methodology.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The literature review in the previous chapter identified three key areas that influence the effectiveness of the VECDP in developing emerging contractors. This chapter outlines the research methodology guiding this study. This chapter will review aspects like research paradigm, research strategy, pilot study, questionnaire design, administration and data analysis, sample size and target population. The last section of the chapter reviews the reliability, validity and ethical considerations for the study.

3.2 Research Objectives

The research objectives are as follows:

a) To assess the effectiveness of the Vukuzakhe Programme on the operational efficiencies of emerging contractors.
b) To assess the effectiveness of the Vukuzakhe Programme on the human resources management skills capacity of emerging contractors.
c) To assess the effectiveness of the Vukuzakhe Programme on the financial management skills capacity of emerging contractors.

3.3 Research Paradigm

The research paradigm can be defined as the approach to carrying out a research that has been verified by scholars previously and has been in use for a period of time (Cooper & Schindler, 2011). It is also seen as a range of beliefs and agreements that are common among scholars on how a study should be reviewed and addressed (Kivunja & Kuyini, 2017). The known research paradigms are the postpositivist approach, transformative approach, constructivism approach and pragmatism approach. Every researcher utilises one of these approaches as a guide in building a research methodology and to undertake the research study in a way that is most appropriate (Creswell & Creswell, 2018). The pragmatism approach accomodates the researchers choice in terms of methods, techniques and procedures that are befitting to the needs and purpose whether it be quantitative or qualitative (Creswell & Creswell,

2018) . According to Saunders, Lewis and Thornhill (2012), the quantitative design uses numbers to estimate the outcome of the research problem and thereby tries to provide accurate measurements of sets of information. The quantitative research approach is usually applied where the research is targeting to make an objective position (Saunders, et al., 2012). Hence, the pragmatism paradigm is used for the study as it fits the assessment VECDP's effectiveness.

3.4 Research Design

The goal of this study is to assess the effectiveness of the Vukuzakhe programme in developing emerging construction contractors in the KZN DoT. A quantitative study will be undertaken in conducting the evaluation. It is essential as it will enable the researcher to evaluate how effective the programme is to be by many contractors who started the programme a couple of years back.

3.5 Research Strategy

The research strategy can be presented in the form of quantitative or a qualitative study. Both strategies of research were assessed to ensure that the most suitable one is selected for good results. The qualitative strategy highlights the view that the world is not easily analysed using theories (Saunders, et al., 2012). This style of study debates that there is the need for the understanding of human behavioural changes. The qualitative strategy uses a non-probability sampling style which does not allow one to generalise in the study (Cooper & Schindler, 2011). In contrast, the quantitative study strategy helps the research to experiment, which enables the researcher to assess a cause and the outcome of it (Saunders, et al., 2012). This study adopts a quantitative apporoach as it enables the data to be collected in a bid to linking contractors development to contractor success. In this study, a combination of the online and manual surveys were utilised and the result will be used to assess the current effectiveness of the VECDP.

3.6 Location of the Study

The study was carried out in the KwaZulu-Natal province of South Africa and focused solely on the contractors under the DoT, eThekwini Region.

3.7 Target Population and Sample Size

The target population can be defined as an entire group of individuals from which the sample might be taken from (Kenton, 2018). It is also seen as the whole set of elements for which the survey data are to be used in other to make interpretations (Creswell & Creswell, 2018). The Figure 3-1 below shows the sampling process.

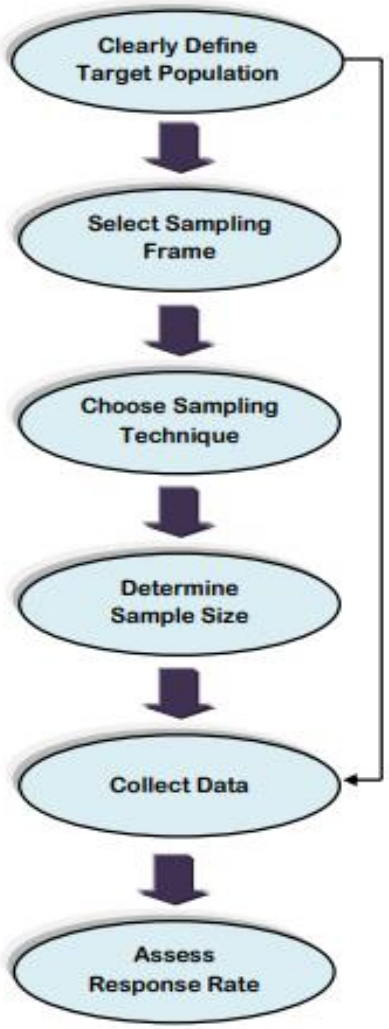

Figure 3-1: Sampling Process Steps (Adapted from Taherdoost, 2016)

The Figure 3-1 illustrates the stages involved in sampling. The process starts with defining the target population, selecting the sampling frame, choosing the sampling technique, determining the sampling size, collecting the data and evaluating the response rate (Taherdoost, 2016). The target population for this study is 110 participants and they include all the CIDB Grade 3 construction businesses that are registered under the VECDP. These contractors are scattered across the province of KZN while some

now operate outside the province. The Figure 3-2 below shows the two methods of sampling and the kinds of each sampling method.

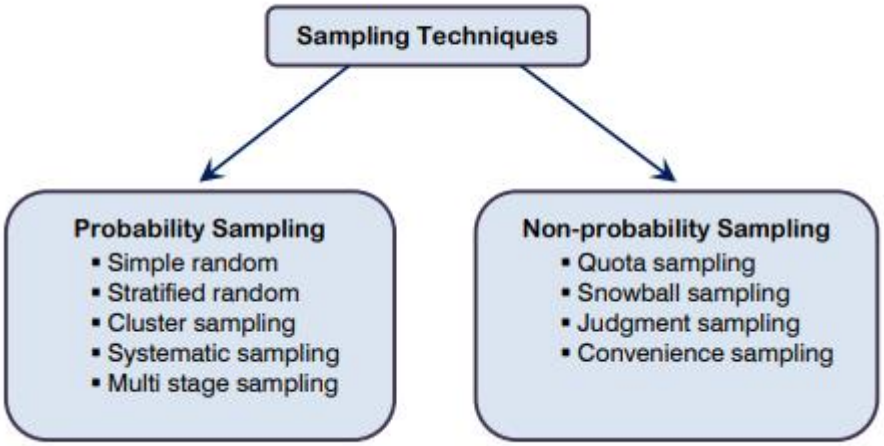

Figure 3-2: Sampling Techniques (Adapted from Taherdoost, 2016)

The Figure 3-2 above shows the two sampling techniques which are probability and non-probability sampling techniques. The study utilised the non-probability sampling technique and specifically used the judgment sampling, otherwise known as the purposive sampling method. The purposive sampling style is a type of non-probability sampling that is best used when the researcher needs to investigate a certain cultural domain or pattern from a known population (Tongco, 2014). Purposive sampling was used in selecting the participants for the study. The sampling frame received from DoT consisted of more than 320 contractors. Based on the selection criteria which I used for purposive sampling, the population resulted in a 110 elements. Hence, the focus was on selecting CIDB Grade 3 construction businesses that are currently based in the KZN province. The sample size was 86 participants.

3.8 Questionnaire Design

The survey forms were used in collecting data for this research. This approach provides an avenue which allows for the gathering of uniform data from sample size. It is also very useful in the collection of analysis of the data (Sekaran & Bougie, 2016).

3.8.1 Construction of the Questionnaire

A questionnaire was constructed in order to assess the conceptual framework as shown in Figure 2-2 of the literature review. This questionnaire was divided into three sections (Section A, B and C). The **section A** was made up of the biographical data like gender, age, education, etc. The **section B** (Contractors' Competency or Adequacy BEFORE the Vukuzakhe Programme) part of the questionnaire is divided into three parts, which are operational efficiencies, human resource management and financial management before the VECDP. The **section C** (Contractors' Competence or Adequacy AFTER the Vukuzakhe Programme) covered the operational efficiencies, human resource management and financial management with focus on after VECDP. These three parts served as the important dependent variables influencing the independent variable (Effectiveness of VECDP). The questionnaire was made up of close ended questions that minimised the likelihood of misunderstanding the feedback. The answers on the Likert Scale were weighted as shown below;

Table 3-1: Scale Weight Response Options

Answer	Weighting
Very Bad	1
Bad	2
Neutral	3
Good	4
Excellent	5

The Table 3-1 shows that the Likert Scale was used as a data collection instrument. It was used because it is usually designed to evaluate how strongly subjects agree or disagree with statements on a five-point scale (Sekaran & Bougie, 2016). The option "Neutral" was included to take into consideration respondents that will not participate and also respondents that were not clear about any question or statement in the questionaire . The respondents were allowed to select the choice answers that showed their emotions the most.

3.8.2 Administration of Questionnaires and Data Collection

The manual questionnaires was distributed to the participants' who were invited to a face to face forum set up by the researcher. Other forms of data collection included online questionaires distributed using surveying software. These questionnaires were collected at the end of the programme. They were also informed of the freedom to participate in the survey or to exit at any time. The respondents' feedback was kept confidential throughout the study as the researcher's intention was not to release the specific feedback to KZN DoT but to communicate outcomes and recommendations. These forms were put away by the researcher and later reviewed for collection of data information. The data collected was transferred into Microsoft Excel for data analysis.

3.9 Data Analysis

The data gathered through the questionnaires were transferred into Microsoft Excel. This data was cleaned up and the possibility of errors were examined using the Statistical Package for Social Sciences (SPSS) version 25 for Windows. The researcher ensured that both descriptive (like mean, frequency, etc.) statistics were utilised in the analysis. The feedback was presented using frequency distribution, mean, pie charts, bar charts and histograms and further data analysis was also applied using the paired samples t-test. This type of statistical analysis is utilised in assessing the equality of variances for a variable estimated for samples that are not independent of one another (Wegner, 2015). The feedback of the data analysis is interpreted in the descriptive statistic section of chapter 4.

3.10 Pilot Study

The pilot study is a smaller portion of the entire study that is carried out before the intended study (Crossman, 2019). It is usually done to establish the best way to carry out a main study. Through the pilot study, the researcher is able to test the research questions, assess the feedback of the respondents and possibly modify the research, thereby preparing for the main study. (Junyong, 2017). The pilot study can also be used to establish the nature of statistical parameter and analysis required for future analysis. Pilot study was carried out on five CIDB Grade 3 construction businesses that were

independent of the study.These respondents for the pilot study had no concerns on the design and relevance of the study.

3.11 Ethical Considerations

Ethics in research denotes certain rules or expected norms of conduct while undergoing a research (Saunders, et al., 2012). Ethical consideration is essential as it permeates each stage of the research process like information or data collection thorough questionnaire, data review, reporting and dissemination of conclusions (Sekaran & Bougie, 2016). Ethical clearance approval was obtained from the University of KwaZulu-Natal's ethics committee before commencing with the study. The researcher ensured that ethical concerns were addressed in order to ensure the appropriateness of wordings in the questionnaire and during data collection. The respondents were informed that their participation was voluntary and that they were at liberty to stop at any stage in the study. The researcher ensured that anonymity was maintained and no participants was coerced into completing the questionnaires and all participants nullified the need for agreements in this regard.

3.12 Reliability and Validity

3.12.1 Reliability

Reliability denotes the extent to which the questionnaire is free from error and also shows consistency with regards to measurement over a period of time (Sekaran & Bougie, 2016). Reliability further shows the capability of the research instrument which is aimed at producing similar results under varying conditions (Saunders, et al., 2012). To ensure good reliability, the questions should be administered over time and the questionnaire should also maintain internal consistency. The internal consistency reviews the responses of questions in the questionnaire to another. Also, the Cronbach's alpha was used to test this consistency with regards to the questions.

3.12.2 Validity

Validity reviews if the correct concept was monitored or measured on the research instrument (Sekaran & Bougie, 2016). The validity refers to the degree by which the research design and the research instrument efficiently measures the study. Hence,

validity's focus is on internal, external, content, criteria and is also related to the construct (Creswell & Creswell, 2018). In order words, a good validity measure ensures that the approach used to conduct the study matches the ideas being tested and evaluated. The research design of the questionnaire was set up such that the outcomes denotes the participant's feelings and emotions with regards to the effectiveness of the VECDP.

3.13 Summary

This chapter presented the research methodology utilised for the study. The structure and content of this chapter ensured that this study will produce the most appropriate outcome considering the time and the wherewithal surrounding this study. Purposive sampling was used for in order to assess the effecetiveness from a known population. The questionnaire administration and data collection was done in the manner outlined as it was not easy to gather all these contractors within the shortest possible time in a place. This was due to the fact that many of them were contrained mainly in terms of time. The next chapter presents the results, interpretation and discussion of the results.

CHAPTER FOUR

RESULTS, FINDINGS AND DISCUSSION OF FINDINGS

4.1 Introduction

The previous chapter reviewed the research methodology applicable to this research. This chapter presents the results, interpretation and discussion of findings. This chapter started by presenting the biographical information of the respondents, starting from the participants age range, gender, highest level of education and how long they have been in the construction sector. This chapter also presents the Cronbach's statistics on the three sections of the questionnaire, i.e before they joined the programme and after the programme. The pattern and observations made from the questions before and after the VECDP was reviewed. The feedback was substantiated with some literature to quantify the pattern of the respondent's feedback in line with literature.

4.2 Research Objectives

The study population was made up of 110 participants residing in the eThekwini Region of KwaZulu-Natal. A total of 86 respondents participated in the study by completing the questionnaire. According to Lindemann (2018), there is no specific minimum acceptable response rate but will depend on how the researcher distributes and collects the survey. Usually, a 40% response response rate is considered acceptable. The summary of the participants are presented in the table below.

Table 4- 1: Survey Summary Report

Description	Count
Sample Population	86
Number of Respondents	86
Participation Rate	100%
Number of respondents who started and completed the questionnaire	86
Completion rate	100%

4.3 Reliability

Cronbach's statistics was calculated to establish the reliability of the Likert scale. Cronbach's alpha values that are more than 0.7 denotes a high degree of internal consistency (Tavakol & Dennick, 2011). A reliability for a new construct is deemed to be between 0.6 and 0.8 (Lindemann, 2018). The Cronbach's alpha was calculated separately for Operational Efficiencies, Human Resource Management and Financial Management. The calculated Cronbach's alpha is presented in the table below;

Table 4- 2: Cronbach's Alpha

Cronbach alpha	Before	After
Operational Efficiencies	0.933	0.772
Human Resource Management	0.831	0.855
Financial Management	0.922	0.824

4.4 Section A – Contractor General Information

This section provides the summary of the respondents general information ranging.

4.4.1 Gender

Table 4-3 below summarises the age range of the contractors.

Table 4-3: Gender

Response categories		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	52	60.5	60.5	60.5
	Female	34	39.5	39.5	100.0
	Total	86	100.0	100.0	

The results from Table 4-3 above shows that majority of the respondents are males while a good proportion are females. The domination of males in the construction sector creates a need Government to embark on concerted efforts to encourage women participation in this sector.

4.4.2 Age of Contractors

Table 4-4 below summarises the age range of the contractors.

Table 4-4: Age of Contractors

Response categories		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	25-30	22	25.6	25.6	25.6
	30-35	60	69.8	69.8	95.3
	36-40	2	2.3	2.3	97.7
	> 40	2	2.3	2.3	100.0
	Total	86	100.0	100.0	

The results from Table 4-3 above clearly shows that majority of the VECDP business owners are younger in age as 95% were below 36 years, denoting that majority are more of millenials. This is also a positive outlook for the provincial government, as it shows that the government of KwaZulu-Natal province is investing in the younger generation as emerging contractors. The recent trends in the business world has shown that entrepreneurs are getting younger and younger (Swenson, 2018).

4.4.3 Highest Level of Education

Table 4-5 below summarises educational levels of the respondents.

Table 4-5: Highest Level of Education

Response categories		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	> Gr12	4	4.7	4.7	4.7
	Certificate	56	65.1	65.1	69.8
	Diploma	21	24.4	24.4	94.2
	Undergrad	5	5.8	5.8	100.0

Table 4-5 shows the educational levels of the respondents. A good proportion 65% of the respondents have matric certificates while about 30% had post-matric qualifications. Participants with less than a Matric certificate represented 5% of the respondents.

4.4.4 Number of years in Construction Sector

Table 4-6 below summarises the number of years the respondents businesses have been operating in the construction sector.

Table 4-6: Number of years in Construction Sector

Response categories	Frequency	Percent	Valid Percent	Cumulative Percent
0-3yrs	11	12.8	12.8	12.8
>3-5yrs	21	24.4	24.4	37.2
>5-7yrs	27	31.4	31.4	68.6
>7-10yrs	15	17.4	17.4	86.0
>10yrs	12	14.0	14.0	100.0
Total	86	100.0	100.0	

A greater proportion of the respondents 37% have been in business between 0 (zero) to 5 years which is one of the most difficult times of beginning a business. A significant proportion 49% have been in business between 5 and 10 years.
The relatively high percentage 63% of companies that have been in business for more than 5 years suggest some positive elements associated with the programme.

4.4.5 Business Ownership

Table 4-7 below summarises the business ownership of the participants. The number of participants in Close Cooperations versus Private Companies share a slight variance.

Table 4-7: Business Ownership

Response categories		**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Close cooperation	40	46.5	46.5	46.5
	Private company	46	53.5	53.5	100.0
	Total	86	100.0	100.0	

4.4.6 The issue that best presents your business constraint

The table below summarises the business business issues that best represented the participants constraints.

Table 4-8: The issue that best represent your business constraint

Response categories		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Lack of adequate access to finance	24	27.9	27.9	27.9
	Insufficient business support services	27	31.4	31.4	59.3
	Cash flow	16	18.6	18.6	77.9
	Lack of access to market	6	7.0	7.0	84.9
	Increased competition	13	15.1	15.1	100.0
	Total	**86**	**100.0**	**100.0**	

The current study from the Table 4-8 uncovered that majority of the current business constraint revolves around lack of adequate finance (28%) and insufficient business support services (31%). According to Sibanda, Hove-Sibanda and Shava (2018), the availability of finance to growing enterprises and business support remains a strong challenge towards their growth. Limited access to finances affects the growth of the business; previous studies have shown that better access to finance and support enabled the growth of SMMEs and growing enterprises (Sibanda, et al., 2018). It is therefore not new to observe that the major business constraint encountered by growing SMMEs revolves around access to finance and business support services.

Cash flow also account for a substantial percentage (19) of the businesses contraints. As majority of emerging contractors enter the construction industry through Government contracts, they become highyl succeptable to poor cash flows caused by poor expenditure management systems in the public sector.

The study also revealed that 15 percent of the respondents considered increased competition to be an important contraint. Increased competition further limit growth as contractors operate on thin profit margins in order to compete with well established companies.

4.4.7 CIDB Grading Before and After the VECDP

The Table 4-9 below summarises the CIDB grading of the participants before and after VECDP.

Table 4-9: CIDB Grading Before and After Programme

CIDB Grade	Before Vukhuzakhe (%)	After Vukhuzakhe (%)
1	81,4	0
2	1,2	0
3	17,4	100

The table above shows the CIDB of the respondents before and after the VECDP. The result clearly shows that the 82.6% of the contractors who entered the VECDP at Grades 1 and 2 improved to Grade 3 after the programme citing business growth associated with the VECDP.

4.5 Section B (Part 1) – Operational Efficiencies

This section provides the summary of the respondents (before and after the Vukuzakhe programme) to statements and comments around business opearational efficieicies.

4.5.1 Experience in the Line of Work and Contractor Management

Figure 4-1, 4-2 and 4-3 below shows the feedback of the respondents on their line of work, contractor management and construction site management.

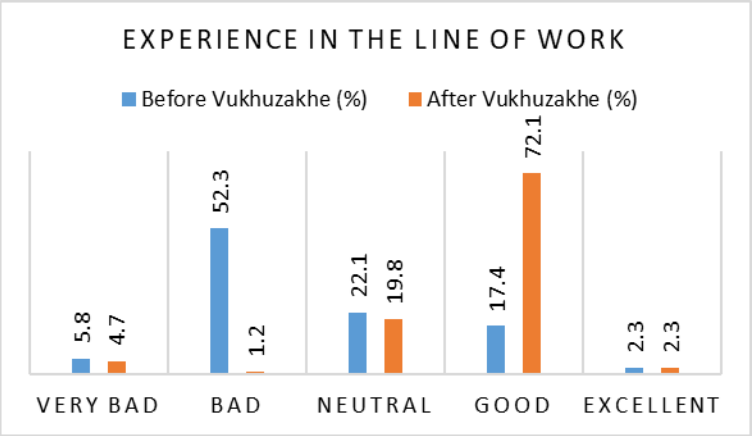

Figure 4-1: Experience in the Line of Work

The figure reveals that that 58% of the respondents did not have good experience in their line of work before they joined the VECDP. A higher proportion of 74% improved in their experience after the VECDP.

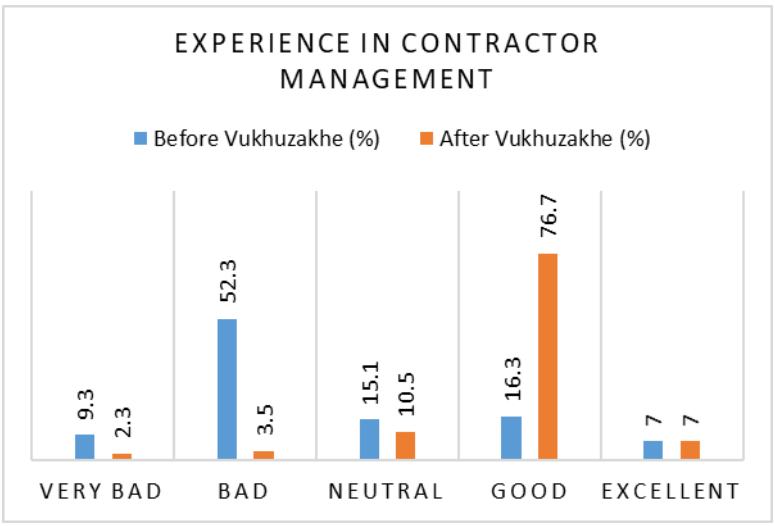

Figure 4-2: Experience in Contractor Management

The figure 4-2 above reveals that that 61% of the respondents did not have good experience with regards to contractor management before they joined the VECDP. A higher proportion of 60% improved in their experience in contractor management after the VECDP.

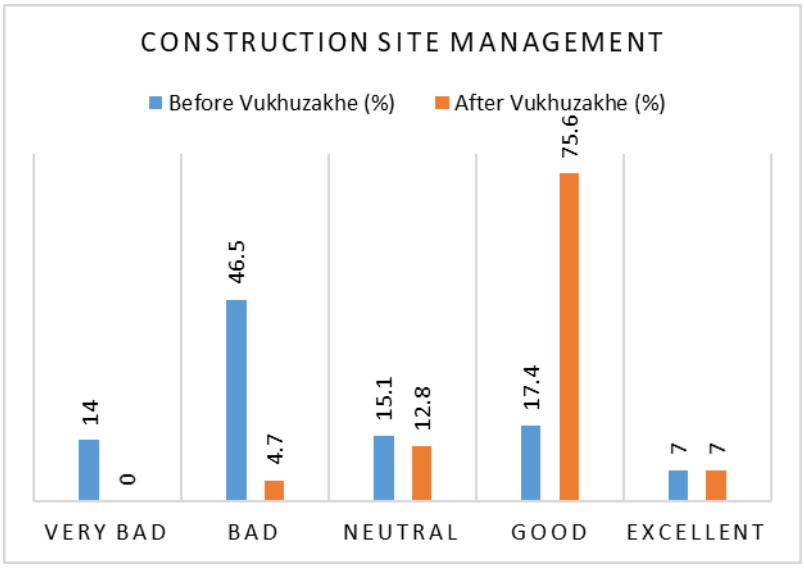

Figure 4- 3: Construction Site Management

The figure 4-3 above reveals that that majority of the participants improved in construction management after the programme, as almost 58.2% agreed that their site management skills was good and excellent.

As indicated by Figures 4-1 to 4-3, experience in the contractor's line of work, contractor management and construction site management are necessary parameters that drive operational efficiencies. As indicated in the literature, lack of experience and training in construction and contractor management negatively affects the growth of the business (Wentzel, et al., 2016). Improved experience that is demonstrated by a contractor enables the contractor site management in their line of work. It also assists the contractor management to ask the correct questions and also ensures that their work inspection is properly done (Snook, 2017). Demonstrated experience also enables the contractor to choose the correct form of software, which will enable them to manage reaching their projects appropriately and on time (Snook, 2017).

The literature showed that emerging construction business owners are required to have adequate construction site management skills which can range of coordination, active listening, problem solving, management of material resources, system analysis, persuasion ability and operations monitoring (Johannesburg Development Agency,

2013). It is evident that exposure of the contractor to the VECDP has improved their construction site management skills to an adequate level.

The results of this research in this aspect shows that all majority of the respondents improved post the VECDP, thus demonstrating the effectiveness of the programme in improving contractor effectiveness from an operational point of view.

4.5.2 Materials, Plant and Equipment Management

Figure 4-4 and 4-5 below outlines the feedback of the respondents with regards to materials management, as well as plant and equipment management.

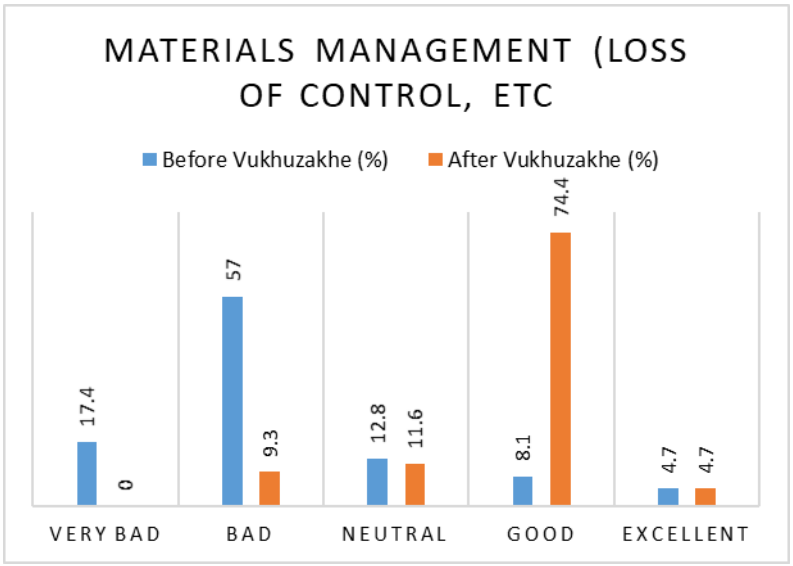

Figure 4-4: Materials Management (Loss of Control)

The results from the respondents shows that the participant's understanding of materials management was poor prior to the programme. A very poor proportion of 57% indicated that their materials management ability was bad. In contrast, an improved proportion of 66% agreed that their materials management ability improved after the programme.

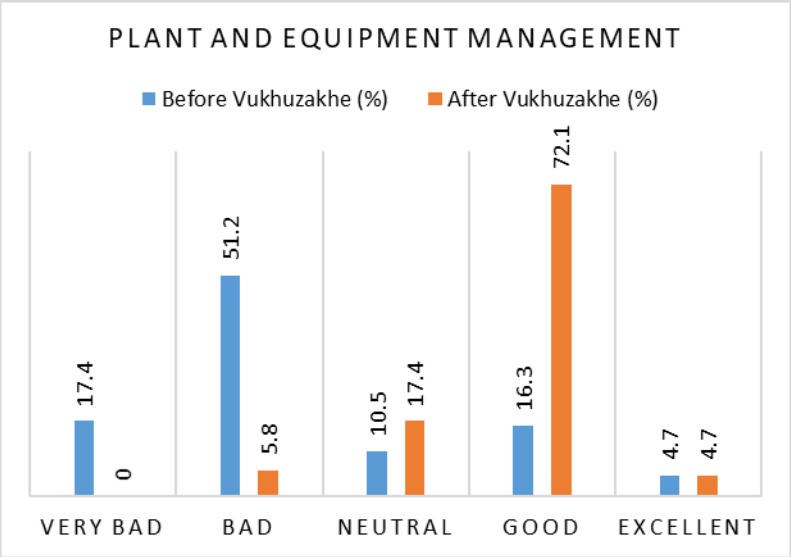

Figure 4- 5: Plant and Equipment Management

In comparison to 21% prior to the programme, a high proportion of 56% from the respondents improved their plant and equipment management ability after the programme. This shows that the programme was able to improve the effectiveness of the participants with regards to plant and equipment management.

The feedback of the respondents from Figure 4-4 and 4-5 above shows that the abilities of the participants improved significantly after the programme on materials, plant and equipment management. Successful projects require the project managers to efficiently manage the materials for construction effectively (Caldas & Menches, 2015). Most times, emerging constructors lack in this aspect and it later affects the overhead costs of their project thereby affecting their business profitability and cash flow (Caldas & Menches, 2015). The feedback of the respondents shows that the study was successful in improving their material management skills.

Many emerging contractors are not well equipped with regards to plant and equipment management, as many of these are hired depending on the public project they are delivering. Emerging contractors need to have the skill to make adequate decisions in terms of managing their plant and equipment (Randunupura & Hadiwattege, 2013). Also, they need to able to demonstrate good ownership on leased equipment in order to ensure they are properly maintained and repaired, as they work on acquiring their

own equipment (Manaf & Razali, 2014). Proper management is very essential as it also ensures the safety aspect of machinery use is given a priority by the contractor (Manaf & Razali, 2014). The results therefore show that this study was fruitful in improving the participants materials, plant and equipment management ability which is vital for the success of any construction incubator.

4.5.3 Project Management and Documented Standard Operating Procedures

Figure 4-6 and 4-7 below shows the feedback of the respondents with regards to project management and standard operating procedures.

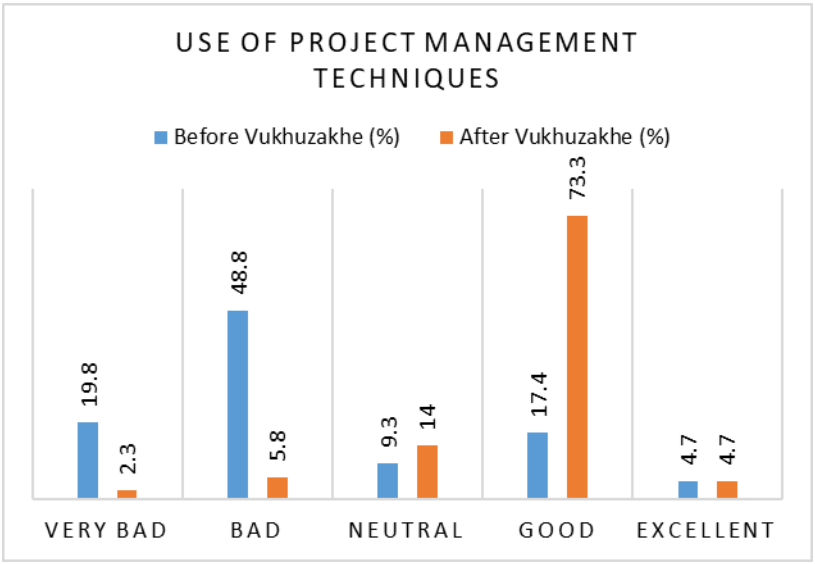

Figure 4-6: Use of Project Management Techniques

The feedback of the respondents from Figure 4-6 above shows that 22% of the participants were good and excellent in terms of project management techniques prior to the programme. A large proportion of 56% of the participants improved their project management skills after the programme.

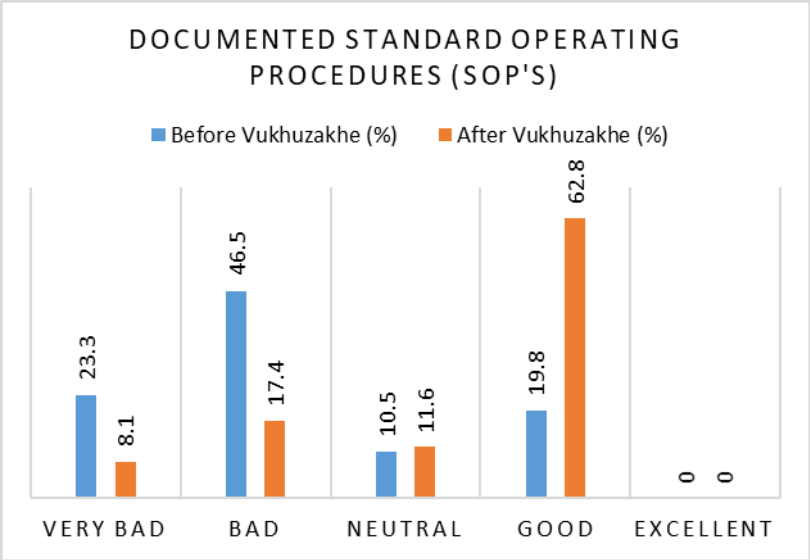

Figure 4-7: Documented Standard Operating Procedure (SOP)

The results from Figure 4-7 above showed that only a small proportion of 20% was good in the documentation of SOP prior to the programme, while their ability improved to 63% after the programme.

The results from this study showed that project management techniques of the participants improved after participating in the VECDP. The importance of project management skills was highlighted in the literature as it is imperative for the success of any construction project. Construction is quite challenging and stressful even for professional managers that are trained in project management (Martin, 2016). The absence of adequate project management skills normally delays a project and this can result in not achieving timelines (Mohlala, 2015). Poor project management can be demonstrated in the area of planning and scheduling of contractors. Hence, it is important to have a qualified personal that oversees project management related issues (Mmemezi, 2017).

SOPs are set up instructions that are usually put together by the contractor to enable the workers perform their routine optimally (Henshall, 2017). The goal of SOPs is to realise efficiency, quality and consistency in the performance of a job (Childress, 2018). Construction businesses require SOP as a number of their work require measurement and repetition in order to realise the expected outcome. This forms part of the technical

and admistrative part of construction, as technicality is invoved in putting together methods based on a particular standard. However, the administrative part of the business is needed to document these procedures so that labourers that are under the contractor can utilise them in executing their constrution task. The feedback of the respondents showed that the VECDP was able to improve the effectiveness of the contractor with regards to SOP. In addition, the VECDP from the results above in Figure 4-6 have proven its effectiveness in developing emerging construction contrators.

4.5.4 Business/Technical Systems and Access to Information and Technology

Figure 4-8 and 4-9 below shows the feedback of the respondents with regards to business and technical systems, as well as access to information and technology.

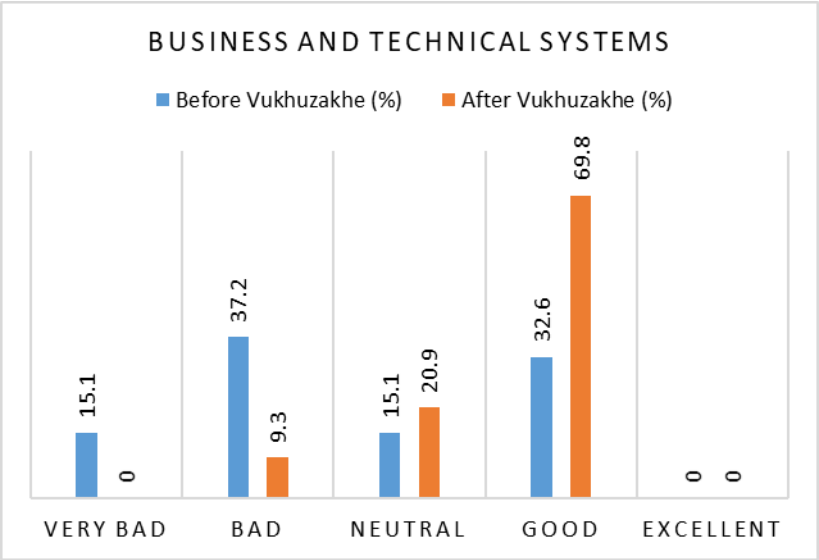

Figure 4-8: Business and Technical Systems

The Figure 4-8 above shows the feedback of the respondents on business and technical systems before and after the programme. The results from the figure shows that the proportion of respondents who were good before and after the programme increased from 33% to 70% respectively. However, it is important to indicate that the respondents who were neutral increased from 15% to 21%. It is recommended to uncover why these participants remained neutral to the question.

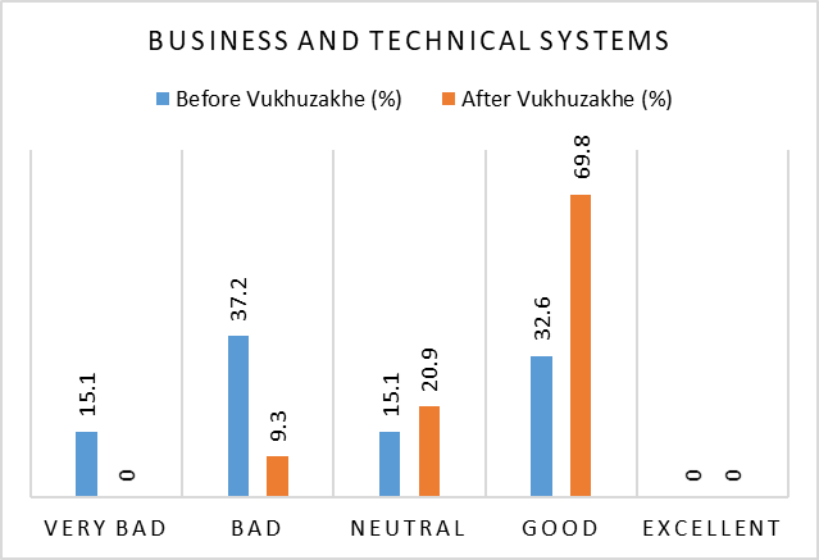

Figure 4-9: Access to Information and Technology

The results from Figure 4-9 above shows that respondents' access to information and technology was bad prior to the programme. After the programme as well, the respondents access to information and technology dropped from 58% to 19%. In the same way, the proportion that improved after the programme increased form 27% to 58%.

Technical systems and technology comprises of aspects of construction sector that deals with information technology infrastructure, which is designed at keeping the construction site in good condition (Edwards & Holt, 2013). When a contractor lacks access to good technical systems, it can hinder the growth of the emerging contractor and limit the degree of projects they could potentially have access to from the government (Liu & Zhao, 2013). As much as the basic goal is the development of the emerging contractor with no experience, the public sector like the DoT expects improvement on emerging contractor technology agility (Higgins, 2019). It was also observed from the literaturre that most of these contrators depend on manual methods in executing their projects (Edwards & Holt, 2013). However, the researcher foresees that changing times will put more pressure on emerging contractors in other to improve their technological agility (Edwards & Holt, 2013). The feedback of the respondents from Figure 4-8 and 4-9 shows that the programme was effective in developing the contractors in business technical systems and information technology.

4.5.5 Growth in Overall Operational Capacity

Figure 4-9 below shows the feedback of the respondents with regards to growth in overall operational capacity.

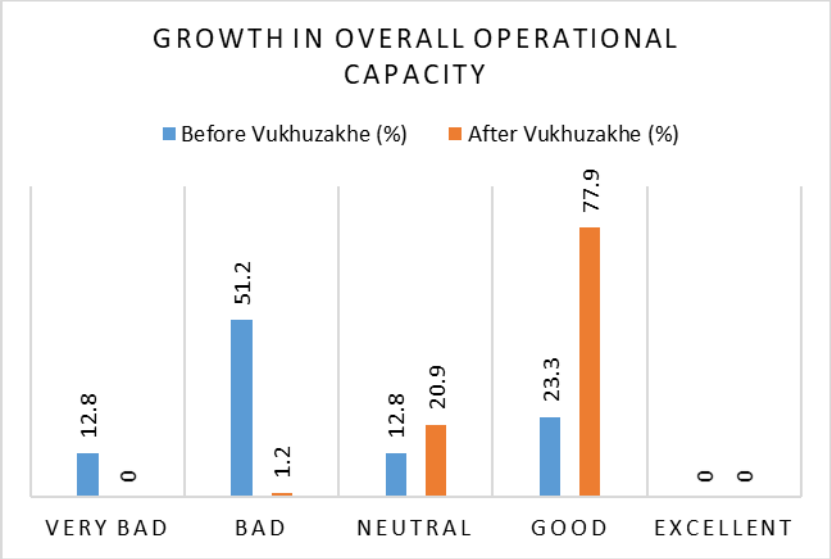

Figure 4-10: Growth in Overall Operational Capacity

The feedback from Figure 4-10 above shows the respondents feedback to the overall operational capacity. The response indicated that the overall operational capacity before and after the programme increased by a difference of 55%. This indicates that the contractors participation in the programme improved their effectiveness in terms of operational capacity.

A firm's operational capacity determines the degree and extent of business dealing that the firm can cope with per period of time (Mininni, 2017). It also deals with the potential acitivies and production output that a business can achieve in a given time (Mininni, 2017). The operational capacity is also part of what CIDB grading covers as some businesses can handle projects up to R1 million while others can handle projects over R2 million. The results from this study shows that contractors in the VEDP programme have been successful in increasing their CIDB grading from level 1 to Grade 3 as previosly displayed in Figure 4-9.

4.6 Section B (Part 2) – Human Resource Management

This section provides the summary of the respondents (before and after the Vukuzakhe programme) to statements and comments that are related to human resource management.

4.6.1 Engineering and Entrepreneurial Skills

Figure 4-11 and 4-12 below presents respondents feedback on engineering skills and entreprenurial skills.

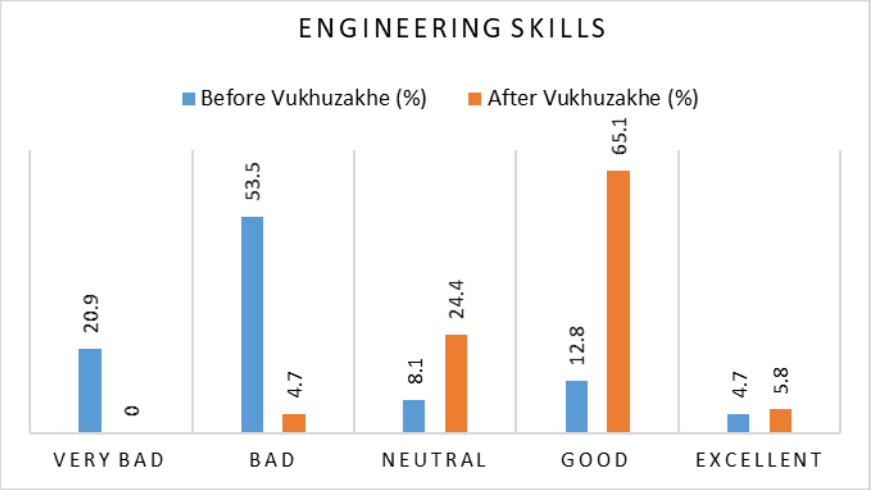

Figure 4-11: Engineering Skills

The response of the respondents shows that 17% indicated that their engineering skills were improved prior to the programme, while 71% indicated that their skills were improved after the programme.

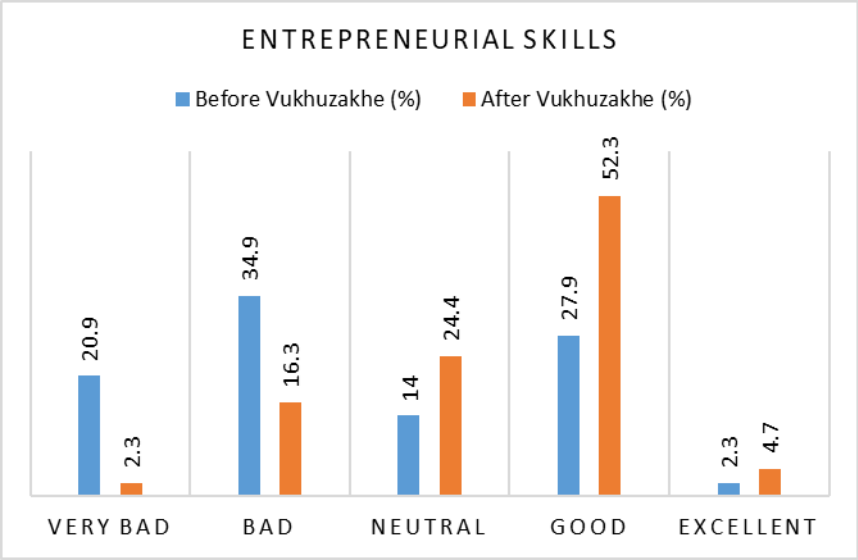

Figure 4-12: Entrepreneurial Skills

The result from Fibure 4-12 above shows that 56% of the respondents were bad prior to the programme and improved after the programme, as the proportion that were struggling with regards to entrepreneurial skills further dropped to 19% indicating an improvemenet through the programme's effectiveness.

The literature identified that it was essential for a growing emerging contractor to improve with necessary engineering skills in other to demonstrate construction competency over time (Ntuli & Allopi, 2014). The engineering skills growth of the emerging contractor is also a proof that they are growing and that business incubator programme via VECDP is effective (Dlungwana & Wall, 2014). Entrepreneurial skills is also vital for any emerging contractor as they need to face the challenges involved in the day to day running of the business, which will enable them to improve their competence (Dlungwana & Wall, 2014). One such programme was organised by the South African National Roads Agency (SANRAL) in other to enhance the skills of new start-ups (CIDB levels 1 to 3) (Skills Training News, 2017). The results from Figures 4-11 and 4-12 above shows that the VECDP has been effective in developing emerging contractors' engineering and entrepreneurial skills.

4.6.2 Management Adequacy and Management Skills

Figure 4-13 and 4-14 below shows respondents feedback on management adequacy and management skills.

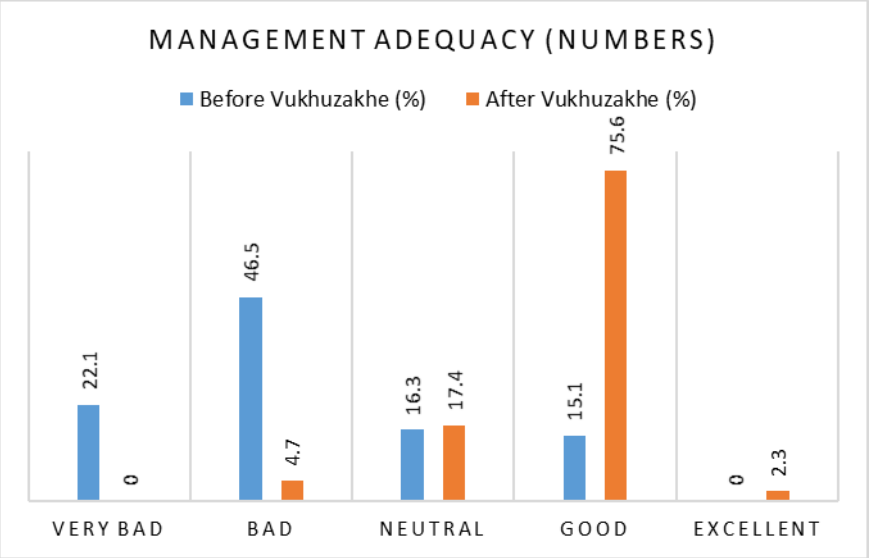

Figure 4-13: Management Adequacy (Numbers)

The results from Figure 4-13 above shows that 69% of the respondents indicated that their management adequacy was bad prior to the programme. However, the decrease from 69% to 5% after the programme shows that their management adequacy improved greatly after the programme. In the same manner, only 15% was good in management adequacy prior to the programme, but later improved to 78% after the programme.

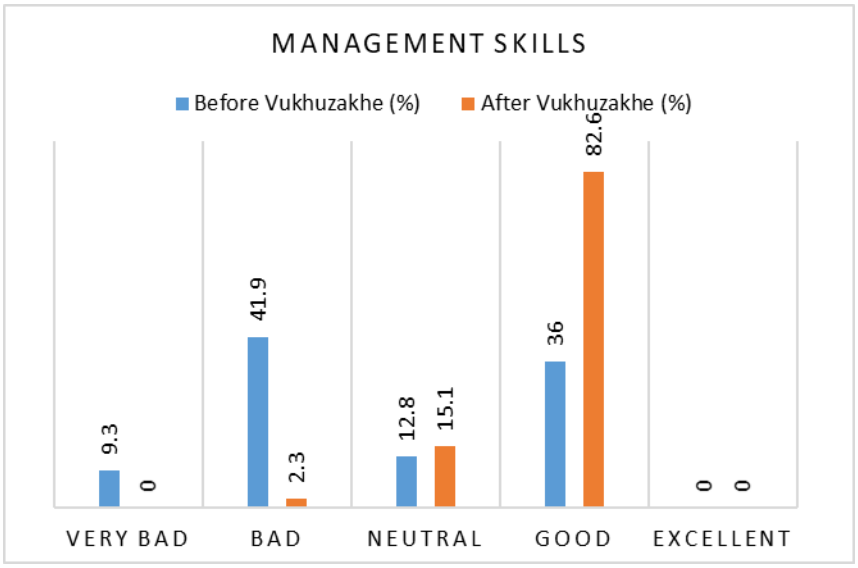

Figure 4-14: Management Skills

The results from the Figure 4-14 above shows that the management skills of the participants improved from 36% that was good before the programme to 83% after the programme.

An entrepreneur who runs a successful business must possess the right array of management skills in order to manage the business efficiently (Agarwal, 2016). As the literature highlighted, a lack of adequate management and promotion of small businesses is the reason for the demise of many emerging businesses in SA (Crampton, 2018). It is very essential for emerging construction company owners to have some form of business management skills, which can be acquired by basic management training or through a number of business incubation programmes (Wentzel, et al., 2016). Adequate management skills will enable the emerging contractor owner understand how to deal with their employees and relationship management between them and other contractors (Dlungwana & Wall, 2014). The results from Figure 4-13 and 4-14 shows that the programme has been successful in improving the effectiveness of the respondents with regards to management adequacy and management skills ability.

4.6.3 Marketing Adequacy and Marketing Skills

Figure 4-15 and 4-16 below presents the respondents feedback on marketing adequacy and marketing skills.

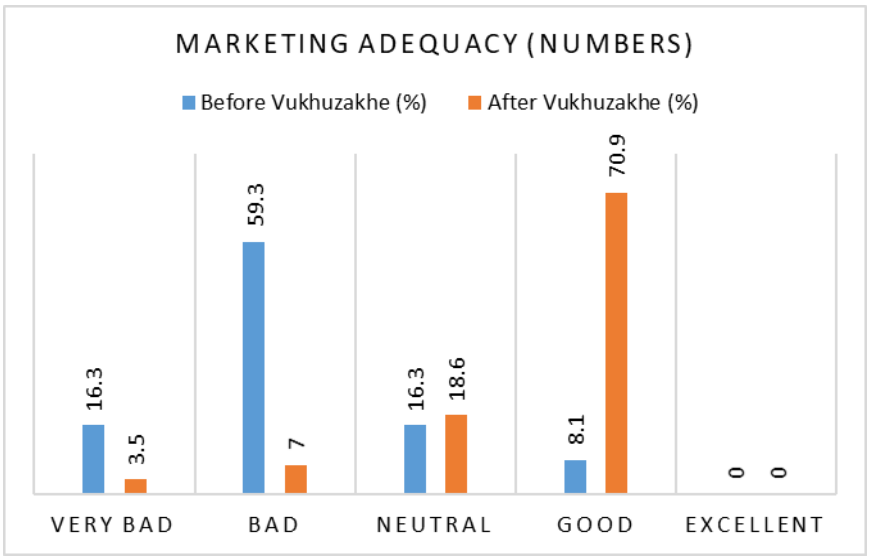

Figure 4-15: Marketing Adequacy (Numbers)

The results from Figure 4-15 above shows that marketing adequacy abilities of the participants were bad 76% and only 8% was good prior to the programme. After the programme, the participants became better as 71% were good and only 11% of the participants were bad after the programme.

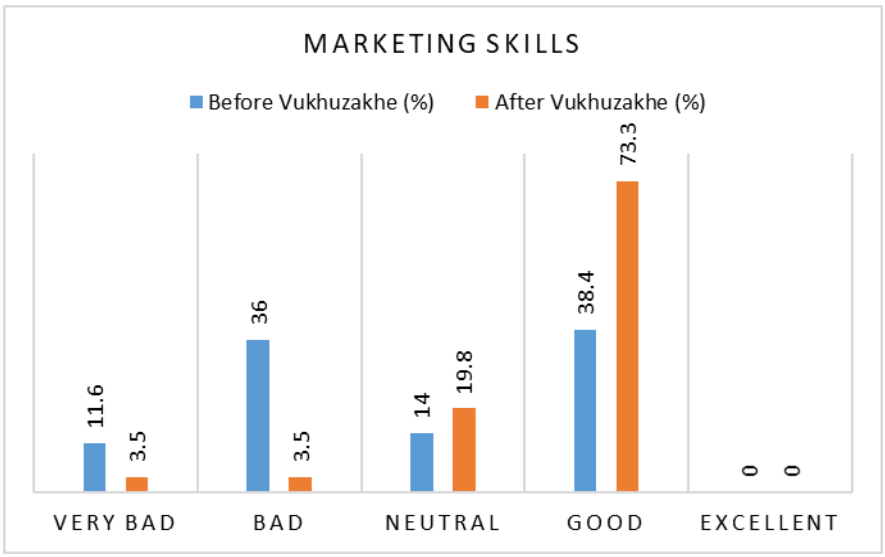

Figure 4-16: Marketing Skills

The results from the respondents shows that only 38% were good on their markerting skills prior to the programme. After the programme, their marketing skills almost doubled to about 73%.

Marketing is an essential process for entrepreneurs and start-up owners as no business can become established or even grow without a customer market. The core of the market involves the entrepreneur understanding of the process of gaining and retaining customers (Zacharakis & Bygrave, 2016). A lack of adequate marketing skills for the promotion of small businessses is an essential reason for the demise of many emerging businesses in SA (Crampton, 2018). Basic marketing competence will also enable them to know how to publicise their businesses within the public and private sectors for business growth (Sweis, et al., 2014). The feedback from the respondents on Figure 4-15 and Figure 4-16 shows that the VECDP was successful in increasing the effectivenessof the respondents with regards to their marketing adequacy and general marketing skills.

4.6.4 Understanding of Health and Safety Legislation/Regulations

Figure 4-17 below presents the respondents feedback on their understanding of the health and safety legislations/regulations.

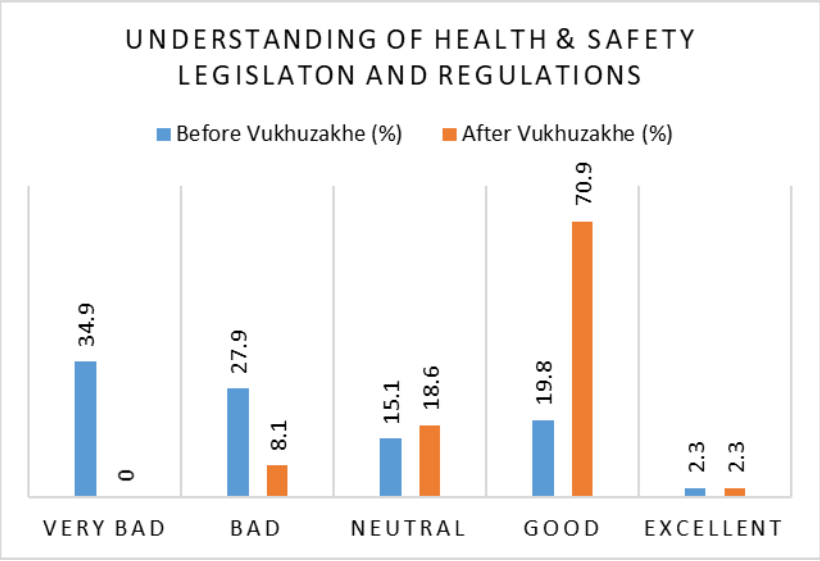

Figure 4-17: Understanding of Health and Safety Legislations/Regulations

The results from the respondents from Figure 4-17 above shows that a very small proportion was good on their understanding of health and safety regulations, as only 22% participants indicated that they were good or excellent prior to the programme. After the programme, the proportion of participants that were good and excellent improved to 73%.

Global safety regulators agree that it is important for all businesses to maintain a good health and safety standards, as this will ensure that workers and labourers are always protected from injuries, accidents and fatalities (Gladwin & Civin, 2014). Contractors are not only responsible for ensuring that projects are completed on time but are required to uphold all health and safety regulations. This makes it essential for emerging construction contractors in this study to have a good understanding of this regulation. The goal of the regulation is to ensure that in all building or construction projects, the individuals who perform work on the construction project are protected based on the regulations of the Occupational Health and Safety Act (OSHA) (Gladwin & Civin, 2014). The feedback of the participants from Figure 4-17 above shows that the programme was effective in improving the understanding of the respondents with regards to health and safety regulations that govern construction.

4.6.5 Growth in Overall Human Resource Capacity

Figure 4-18 below presents the respondents feedback on the growth in the overall human resource capacity.

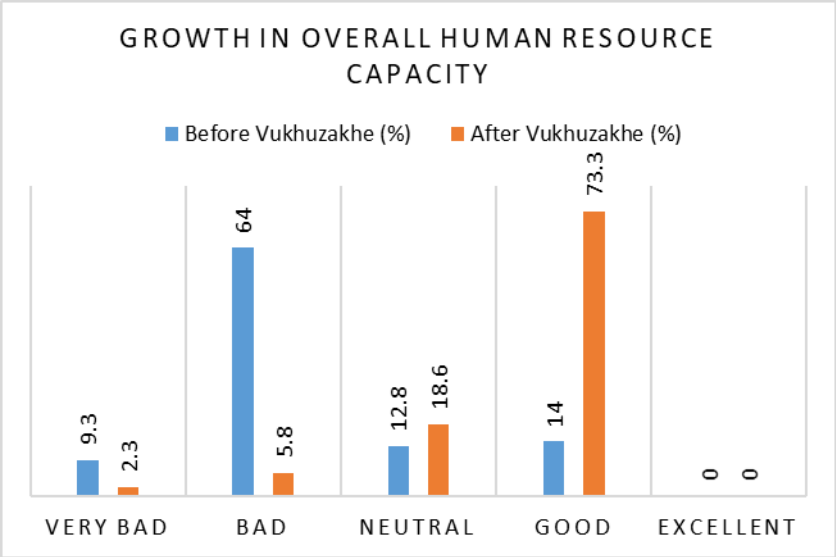

Figure 4-18: Growth in Overall Human Resource Capacity

The results in relation to growth in the overall human resource capacity from Figure 4-18 above shows that the VECDP was able to improve their human resource capacity from bad at 73% to good at 73%.

The greatest valuable assets of any business are their human resource ability to build capacity skills with regards to training on the job and overall job performance (Yamoah, 2014). Capacity building in human resources is closely affiliated with education, training and general human resource development of the organisation (Yamoah, 2014). According to Watson (2013), capacity building is necessary for the development of human capital which can take place at the individual and societal level of a firm. This helps in improving skills and knowledge of employees and workers in other to achieve results that are sustainable and measurable for the organisation (Watson, 2013). The feedback from the study from Figure 4-18 above shows that the programme was effective in improving the overal human resource capacity of the emerging contracts after their participation in the programme.

4.7 Section B (Part 3) – Financial Management

This section provides the summary of the respondents (before and after the Vukuzakhe programme) to statements and comments that are related to financial management.

4.7.1 Cash Flow Management

Figure 4-19 below presents respondents feedback with regards to cash flow management.

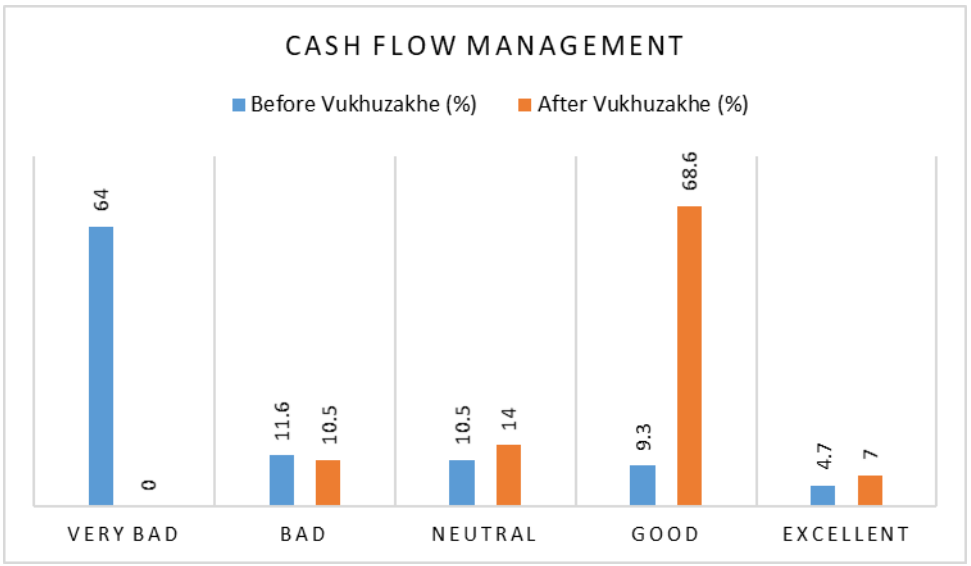

Figure 4-19: Cash Flow Management

The results from the Figure 4-19 above shows that only 14% of the respondents were good and excellent with regards to cash flow management prior to the programme. This proportion improved by 62% after the programme as more became good and excellent in cash flow management.

It is usually said in the finance world that “Cash is King”. This slogan highlights the importance of good and adequate cash flow to the success of any business (Aren & Sibindi, 2014).

Small business failure rates in SA is often related to cash flow management. This failure rate will become worse if the entrepreneurs cash flow managemenet ability is not improved (Aren & Sibindi, 2014). For a better cash flow management, the VECDP exposes the participants on aspects like; accounts receivable, accounts payable and inventory, which are seen as the three important levers of cash management (Zayed & Liu, 2014). Based on the results from Figure 4-19, the programme has been effective in

improving the cash flow management positions of the repondents which has ultimately helped in developing these emerging contractors.

4.7.2 Estimating and Job Costing Skills

Figure 4-20 below presents participants response on estimating and job costing skills.

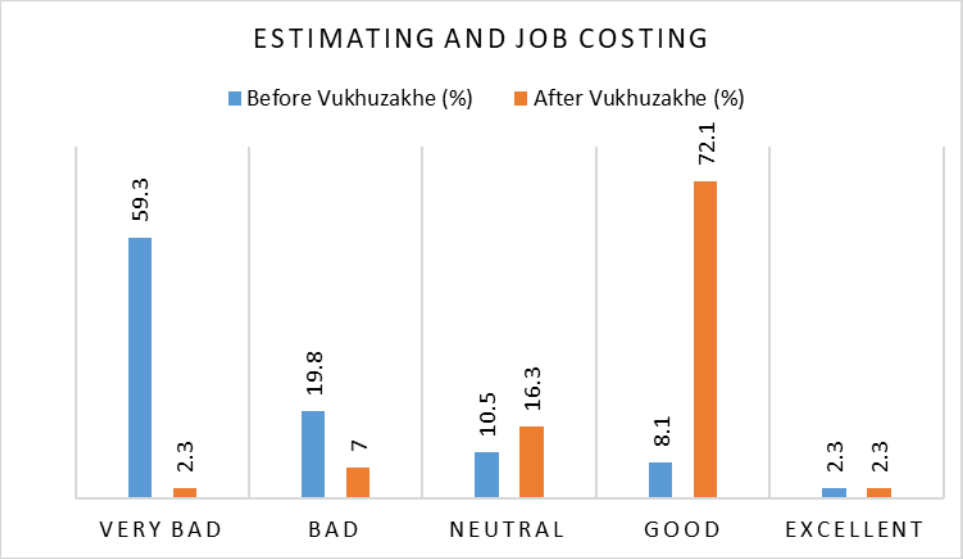

Figure 4-20: Estimation and Job Costing

The results from the Figure 4-20 above shows that only 10% of the respondents were good and excellent on estimating and job costing prior to the programme. This proportion improved after the programme as 64% more contractors became good and excellent with regards to estimating and job costing.

According to literature, good estimation and proper job costing results in better profitability, good project estimation, adequate management decision and more aligned financial reporting (Hradsky, 2017). Estimation and job costing also aids in tracking projects by phases and types, which is an essential ability that an emerging construction contractor should possess (Hradsky, 2017). It is for the emerging contractor to estimate and job cost, as it feeds into the overall management of the projects or jobs being handled by the contractor (Dillon & Stanton, 2016). The VECDP was successful in

improving the estimating and job costing ability of the contractors as their abilities were better from their responses after the programme as shown in Figure 4-20 above.

4.7.3 Bookkeeping and Accounting Systems

Figure 4-21 below presents the respondents feedback on bookkeeping and accounting systems.

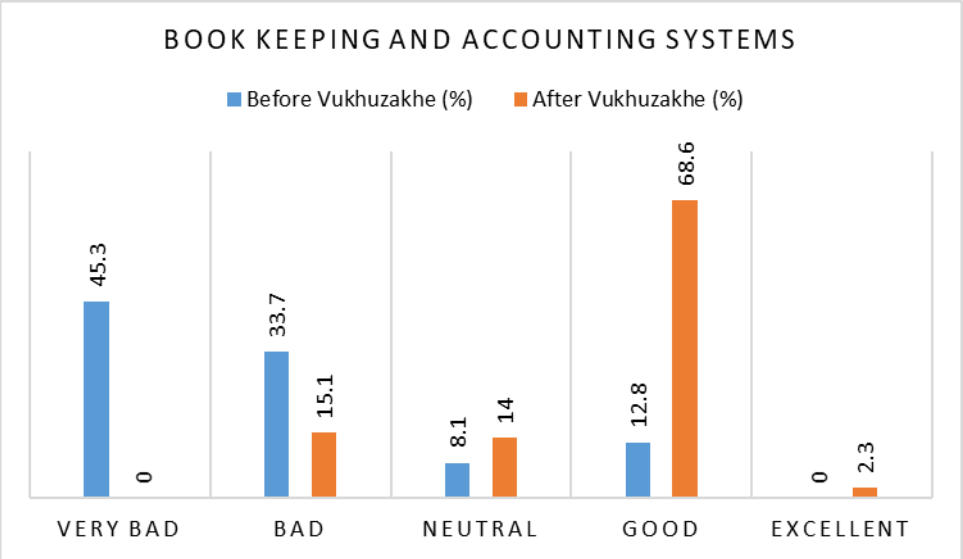

Figure 4-21: Bookkeeping and Accounting Systems

A review on Figure 4-21 above (prior to the programme), agrees with the literature that for many reasons, a significant number of small businesses fail after starting up. One of the key reasons is the entrepreneur's poor understanding of basic bookkeeping and accounting systems (Cravenho, 2015). Bookkeeping and proper accounting system is necessary for the sustainability and future success of any small business venture, as it preserves the financial integrity of the business through adequate financial records (Adamson-Pickett, 2018). The VECDP was effective in developing the contractors as it improved their bookkeeping and accounting systems skills.

4.7.4 Financial Statements Analysis

Figure 4-22 below presents the respondents feedback on financial statements analysis.

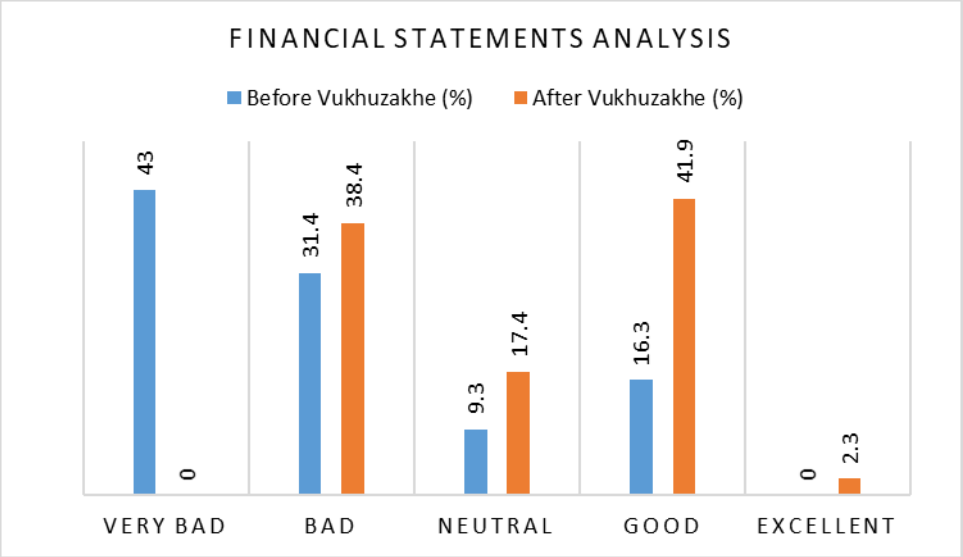

Figure 4-22: Financial Statements Analysis

The results from the Figure 4-22 above shows that about 74% of the respondents were bad with financial statement analysis prior to the programme. After the programme, the result also showed that about 38% were still not good and the proportion that was good improved from 16% to 42%, indicating that emerging contractors do struggle when it comes to financial statement analysis. However, it is an important aspect of the business that the small business owner needs to understand, even if the business owner decides to delegate by hiring an accountant to manage the task.

According to literature, successful entrepreneurs should also be diligent in consistently improving the efficiency of their businesses through proper financial statement analysis (Boitnott, 2015). A good entrepreneur should have a reasonable understanding of financial ratios like current ratio, inventory turnover, gross margin, return on investment and revenue per employees (Boitnott, 2015). A good understanding of these ratios can help the entrepreneur have a better view of the business health and efficiency per time. The results from Figure 4-22 above shows that respondents are still strugging in this aspect as only 26% (16% to 42%) became good on their financial statements analysis

skills. It appears that the the contractors still require more exposure on financial statements analysis skills.

4.7.5 Understanding of Business Planning

Figure 4-23 below presents the respondents feedback in relation to their understanding of business planning.

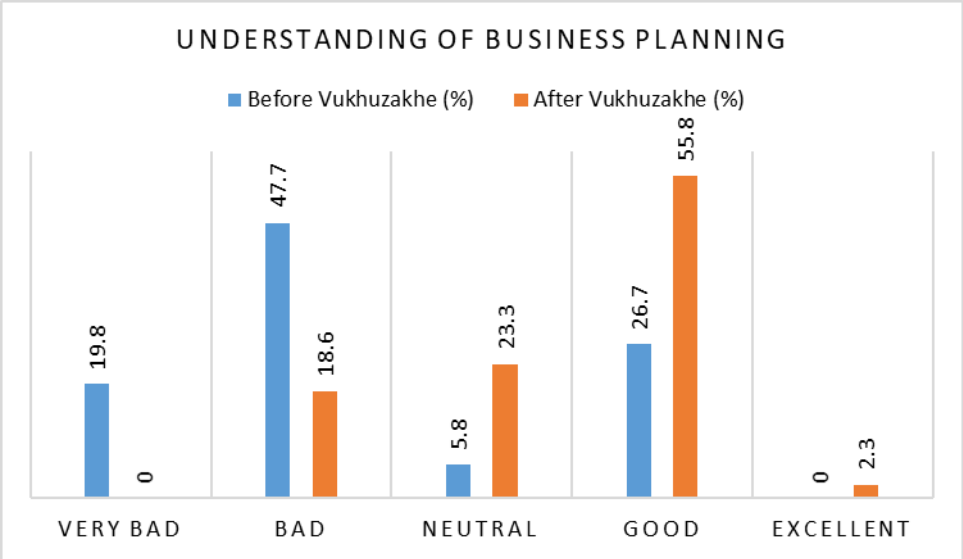

Figure 4-23: Understanding of Business Planning

From the results on Figure 4-23 above, 68% were bad in their understanding of business planning prior to the programme, which later reduced to 19%. In the same manner, 27% were good in business planning prior to the programme but later improved to 58%. This shows that the VECDP was effective in improving the emerging contractors understanding of business planning in running their businesses.

According to literature, a degree of success can be achieved by the the business owner through a proper understanding of business planning (Leonard, 2018). Efficient business owners take business planning more serious as it helps them to project the future of their business, outline potential avenues to receive fundings and also develop their skills as better entrepreneurs (IESE Business School, 2016). The results above has shown the effectiveness of the VECDP in improving emerging contractors' understanding of business planning.

4.7.6 Business Finance: Expansion Capital and Working Capital

Figure 4-24 and 4-25 below presents the respondents feedback in relation to their ability to raise business finance in relation to capital for expansion and the ability to raise business finance in relation to working capital.

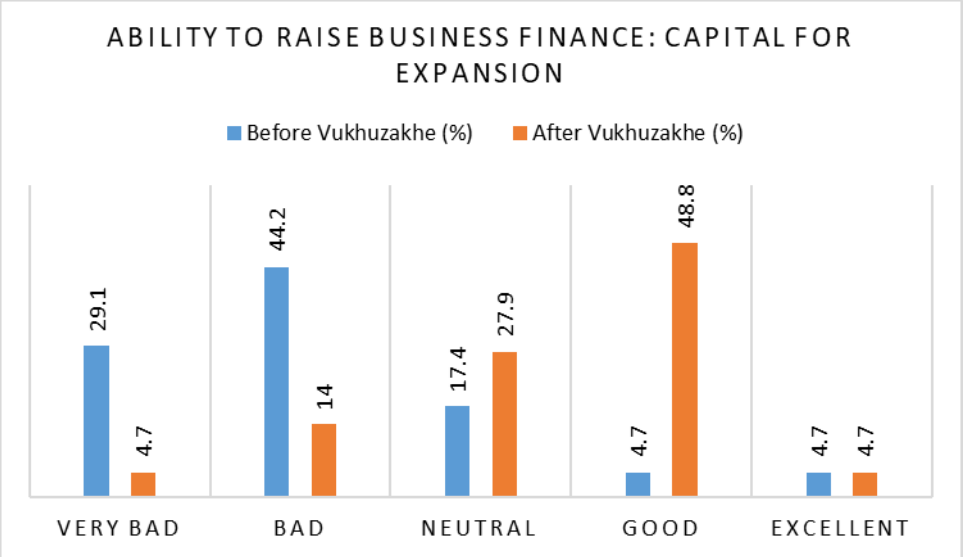

Figure 4-24: Ability to Raise Business Finance: Capital for Expansion

The results from Figure 4-24 above shows that a proportion of 9% was good in their ability to raise capital for expansion prior to the programme, which later improved to 54% after going through the VECDP. However, it is important to note that a good proportion of the participants did not provide their responses on this statement before or after the programme.

According to literature, SMMEs can raise capital for business expansion through government channels (Oyedokun, 2016). Aside from getting credit from the government finance programmes, the entrepreneur can also raise capital for expansion through other sources like community banks that assist incubator based type of programmes (Hendricks, 2014). It is not usually easy for start up emerging contractors based on the background of this study to raise capital. However, business incubation programmes like the VECDP enables these business owners in raising expansion capitals as there is a strong focus by the government to assist construction incubation programmes in

South Africa (Majola, 2018). Since the VECDP is operated through the DoT, the government provides funding opportunities to enable these contractors develop their businesses. In essence, it can be see that the programme is effective in improving the participants ability to raise capital for expansion.

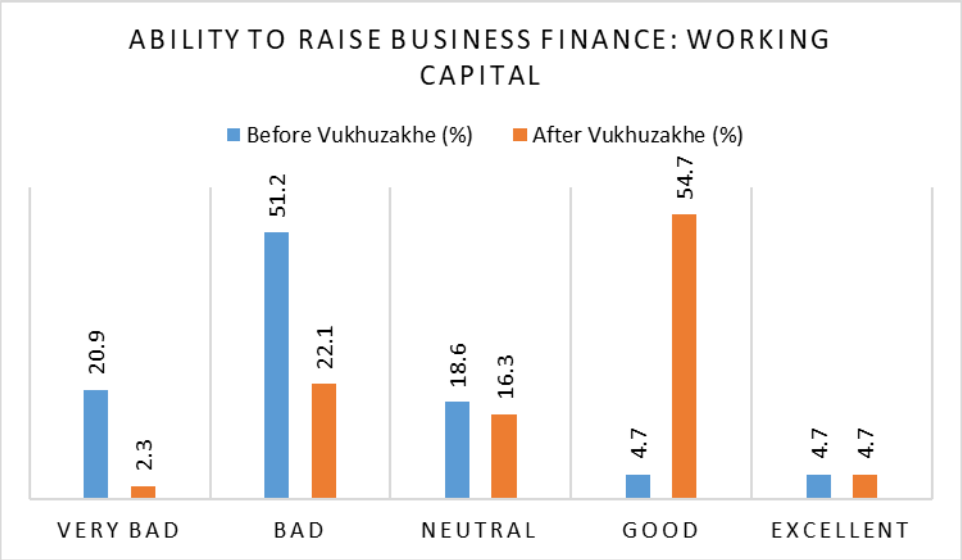

Figure 4-25: Ability to Raise Business Finance: Working Capital

The current study found that majority of the respondents 72% were bad in their ability to raise working capital before the programme, which reduced significantly to 24% after the programme. In the same manner, only 9% of the respondents were good and excellent prior to the programme, which later improved to 60% after their participation in the programme.

According to literature, working capital is the difference between a firms current assets and their liabilities (Kenton, 2019). It is also a measure of how liquid a business is, over a short-term financial health (Kenton, 2019). A poor working capital affects the company's ability to pay their debtors. As much as these avenues of expansion capital are available for construction entrepreneurs, it is important that the business owner manages these funds welin otherl to maintain good working capital (Drake, 2015). This study from the feedback from Figure 4-25 was effective in improving the emerging

contractors' ability to raise business finance through working capital, thus indicating that the VECDP run by the DoT should be continued.

4.7.7 Growth in Overall Financial Health

Figure 4-26 below presents the respondents feedback in relation to the overall financial health of the emerging contractors before and after the programme.

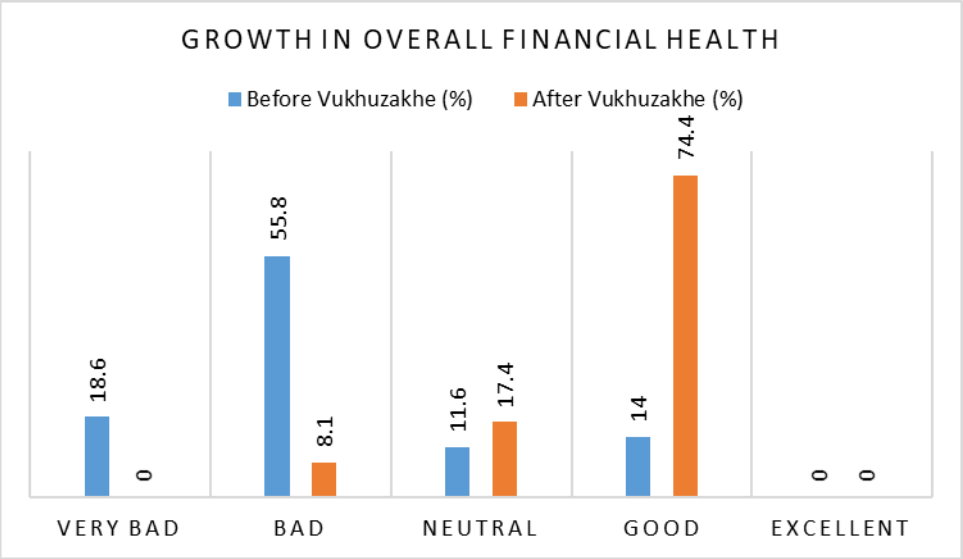

Figure 4-26: Growth in Overall Financial Health

The results from Figure 4-26 above shows that the overall financial health of the respondents before the programme was quite bad at 75%. It was clear that the overall financial health improved after the programme as the result shows that the proportion that was good increased from 14% to 74% indicating a positive performance.

According to literature, the four main aspects of financial health covers liquidity, solvency, operating efficiency and profitability of the business (Maverick, 2016). The assessment of the financial health of the respondents showed that VECDP was successful in improving the overall financial positions of the participants after their participation in the programme.

4.8 Inferential Statistics Assessment

This section provides the summary of the respondents (before and after the Vukuzakhe programme) to statements and comments that are related to operations effeciency, human resources and financial management. Usually, a few of the common statistical approach assumes that variances of the populations from which the samples are drawn are equal (Wegner, 2015). The Paired samples t-test assesses this assumption. Assuming the p-value of Paired samples t-test is less than assumed significance level of 0.05, then the variances of the two groups (in this case before VECDP and after VECDP), are assumed not to be equal (Graham, 2013). Therefore, the null hypothesis of equal variance is rejected, implying that the conclusion is that there is a difference between the variances in the two populations.

From the evaluation, the Table 4-10 below is known as the ***Group Statistics***.

Table 4-10: Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Score Operations Efficiency	1(Before)	86	24.65	8.427	.909
	2 (After)	86	36.63	4.156	.448
Score Human Resource Management	1 (Before)	86	19.36	5.590	.603
	2 (After)	86	29.19	3.891	.420
Score Financial Management	1 (Before)	86	16.34	6.816	.735
	2 (After)	86	27.84	4.435	.478

The Table 4-10 above highlights the mean scores for each section for before the VECDP and after VECDP. The focus of the analysis is on the next table below. The next table presents the ***Paired Samples T-Test***.

Table 4-11: Paired Samples T-Test

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Score Operational Efficiencies	Total Operational - Total_Operational1	-11.977	8.978	.968	-13.902	-10.052	-12.371	85	.000
Score Human Resource Management	Total_HumanRes - Total_HumanRes1	-9.826	6.725	.725	-11.267	-8.384	-13.549	85	.000
Score Financial Management	Total_FinMang - Total_FinMang1	-11.500	7.386	.796	-13.084	-9.916	-14.438	85	.000

4.8.1 Discussion on Paired Samples t-test

From Table 4-11 above, since the **F** value (i.e., significance – Sig) is less than 0.05, this shows that the variance in the groups being compared (responses before and after VECDP) are different, which implies that the criteria of homogeneity of variance has not been met. To establish if the response on each section (operations, human resource and financial management) before and after the VECDP is significant, the columns from Table 4-11 are reviewed. Since the t values (-12.371, -13.549 and -14.438) were less than 0.05 on the three levels, the results show that there is significant difference in the respondents feedback before and after VECDP. In addition, the respondents feedback before the VECDP on each category from Table 4-10 like **Operational Efficiencies** (e.g., M = 24.65, SD = 8.427) was significantly different from that after the VECDP (e.g., M = 36.63, SD = 4.156). The same observation is applicable to **Human Resource** and **Financial Management**. Paired samples t-test is sometimes used in the comparisons of means. The Figure 4-27 below shows the mean comparisn for operational efficiencies.

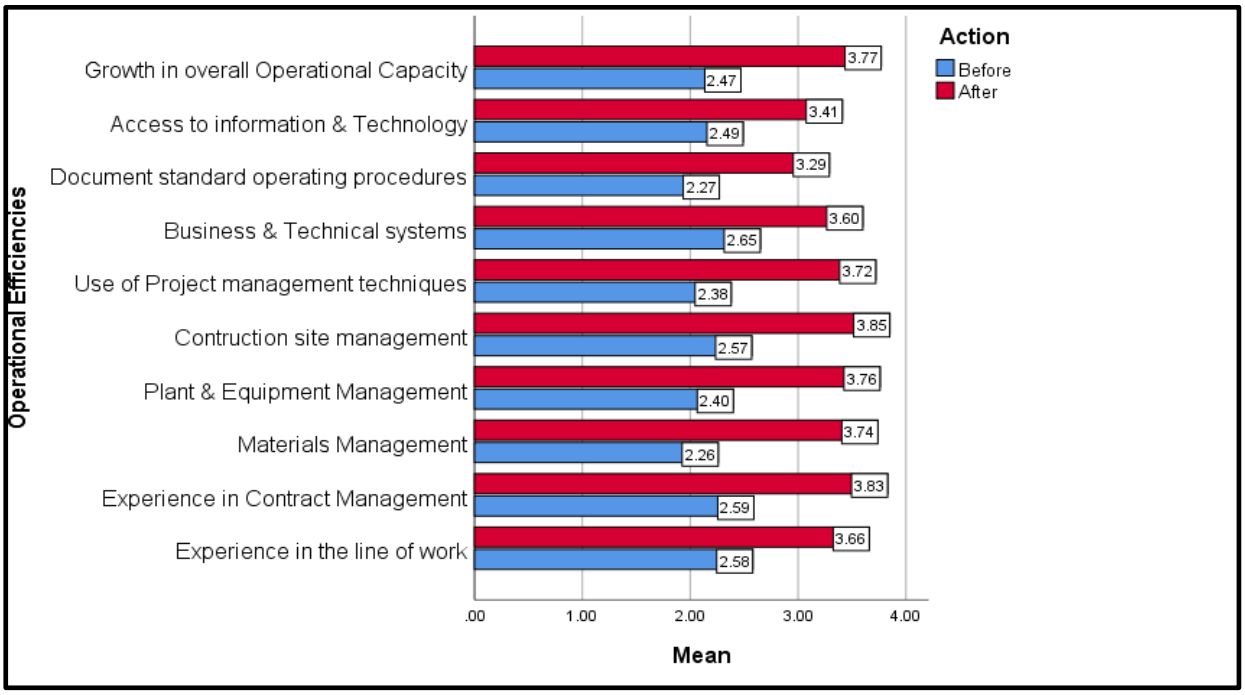

Figure 4-27: Comparison for Operational Efficiencies

The mean comparism from Figure 4-27 is summarised in Table 4-10 above, which showed mean before VECDP as 24.65 and after as 36.63. The figure above further

shows that there was improvement by VECDP in every aspect of operational efficiencies that the participants were assessed.

The next Figure 4-28 below shows the mean comparism for human resource management.

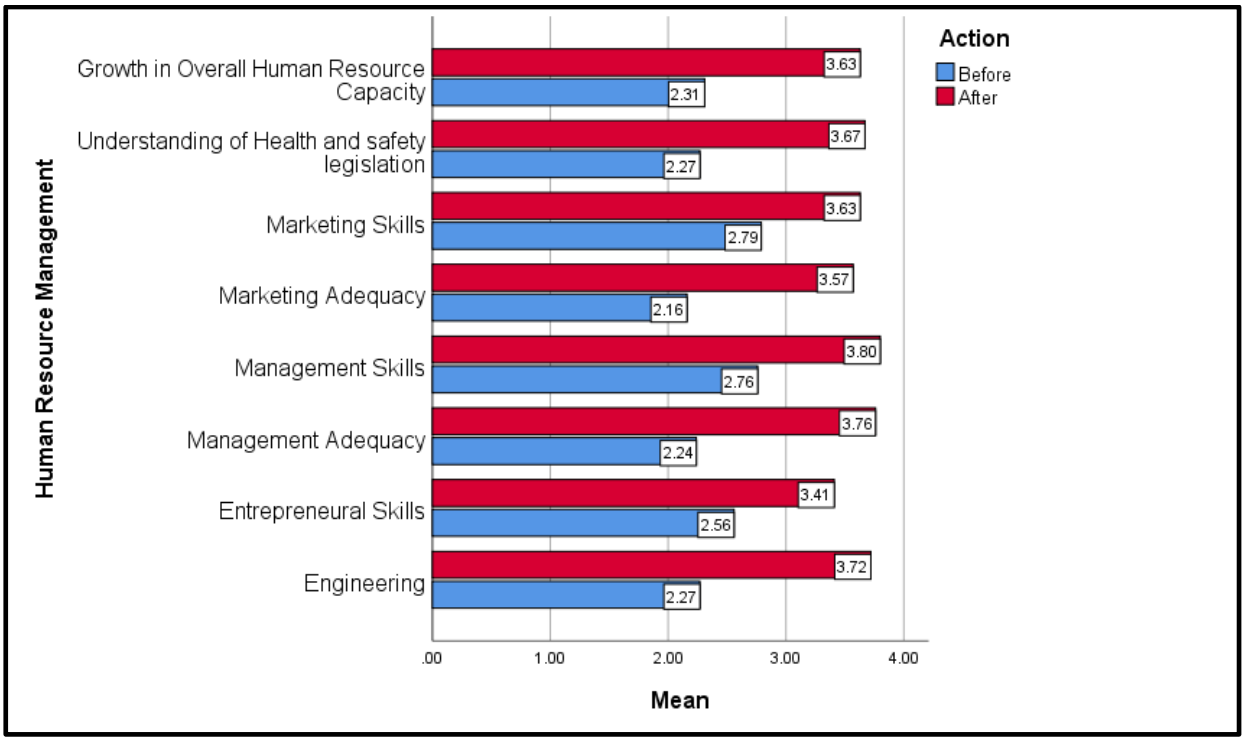

Figure 4- 28: Comparison for Human Resource Management

The mean comparism from Figure 4-28 was also summarised in Table 4-10 above, which showed mean before VECDP as 19.36 and after as 29.19. The figure above further shows that there was improvement by the VECDP in every aspect of human resource management that the respondents were measured.

The next Figure 4-29 below shows the mean comparism for financial management.

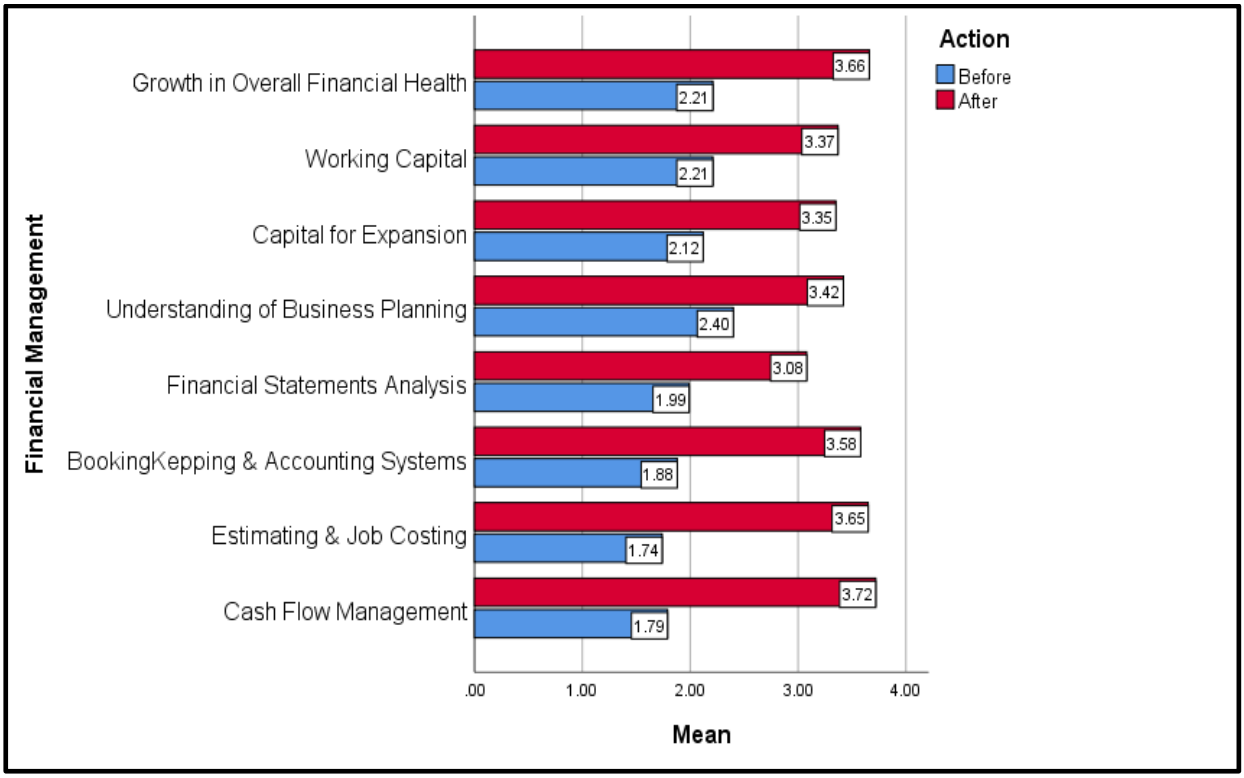

Figure 4-29: Comparison for Financial Management

The mean comparism from Figure 4-29 was also summarised in Table 4-10 above, which showed mean before VECDP as 16.34 and after as 27.84. The figure above further shows that there was improvement by the VECDP in every aspect of financial management that the respondents were measured.

4.9 Summary

This chapter presented the results, findings and discussion of findings. The findings from the results were reviewed under each section in other to understand the impact of the VECDP in terms of contractor development operational effectiveness. This chapter also reviewed the results with regards to human resource management and financial management, at the same time comparing the findings in relation to literature review. The pattern uncovered from descriptive statistics was also substantiated by inferential statistics, all pointing to the fact that the VECDP is effective in developing emerging contractors. The next chapter presents the conclusions and recommendations from the study.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The previous chapter reviewed the results, findings and discussion on the findings from the study. This chapter presents the conclusions and recommendations of this study. This chapter will summarise the findings from the research aligning it to the objectives of this study. This chapter also outlines limitations of the study and future recommendations for further study.

The research objectives are as follows:

a) To assess the effectiveness of the Vukuzakhe Programme on the operational efficiencies of emerging contractors.
b) To assess the effectiveness of the Vukuzakhe Programme on the human resources management skills capacity of emerging contractors.
c) To assess the effectiveness of the Vukuzakhe Programme on the financial management skills capacity of emerging contractors.

5.2 Conclusions from the Study

The conclusions from the study are summarised under each of the study objectives as follows;

5.2.1 Objective 1:

To assess The effectiveness of the Vukuzakhe Programme on the operational efficiencies of emerging contractors.

This objective sought to assess the effectiveness of the VECDP in improving the operational efficiencies of the participants. The participation of the respondents in the VECDP improved their construction and site management skills, as well as their experience in their line of work. Through the study, the respondents received better understanding of materials, plant and equipment management which is very essential for the contractor in undertaking construction projects. The contractors ability to better

manage their jobs through efficient project management skills and setting up standard operating procedures were also enhanced. Access to information, technology and business technical systems are essential in the present day business environment which is growing exponentially in the utilisatiion of technology. The participation of the contractors in the programme enhanced their access to information and technology competency. In generall, the VECDP has been effective in improving the general operational capacities of the emerging contractors.

5.2.2 Objective 2:

To assess The effectiveness of the Vukuzakhe Programme on the human resources management skills capacity of emerging contractors.

This objective sought to assess the effectiveness of the VECDP in improving the human resource skills of the emerging contractors. A core aspect of human resource management is to create a platform where the skills and competency levels of employees in any organisation are enhanced. In doing so, they enable the business in staying focused on delivering their key business goals and mission. This study improved the engineering and entrepreneurial skills of the participants, as a higher proportion of the respondents had better skills in this aspect after participating in the VECDP. Exposure to VECDP further enhanced the management adequacy and skills of the participants. It also improved their marketing skills and made improved their awareness of safety and health regulations, which is a core aspect of construction because of the usual associated hazards. The overall human resource capacity of the respondents was improved through the VECDP. This showed the effectiveness of the VECDPs in developing emerging contractors.

5.2.3 Objective 3:

To assess The effectiveness of the Vukuzakhe Programme on the financial management skills capacity of emerging contractors.

This objective sought to assess the effectivennes of the VECDP in improving the financial management capacity of the emerging contractors. Ability to maintain good cash flow in business enables the business to remain sustainable. The VECDP was

successful in improving the cash flow management capability of the entrepreneurs who went throught the progarmme. Estimating and job costing is vital to the contractors' profitability. The programme was successful in increasing the estimating and job costing abilities of the respondents. The effectiveness of the VECDP was also observed in relation to bookkeeping, accounting systems and financial analysis. It was clear that after the programme, a greater percentage of the participants were good in this aspect. The VECDP also improved the contractors' understanding of business planning, as well as their ability to raise business finance for working and expansion capital. The overall financial health of the participants were much better after their participation in the programme, demonstrating the effectiveness of VECDP in improving these emerging contractors.

5.3 Recommendations of the Study

A good proportion of the respondents, ranging from 10% to 20%, (before and after) did not respond to many of the questions. It is not clear whether they understood the questions well enough to respond to the questionnnaires. It is recommended that future studies should make some effort in understanding the reason for the majority of the neutral respondents who completed the questionnaires.

The feedback from the respondents showed that the VECDP improved in many factors under the operational efficiencies, human resource management and financial management. However, it is recommended that the DoT continue in administering routine trainings, as one would have expected ideally for their responses to be about 90% good after the training. The fact that not all the participants improved maximally under each assessment categories shows that there is room for continous training and improvement of the emerging contractors business acumen.

Many black contractors usually struggle in the area of financial management and other aspects associated with it. This was particularly highlighted in the financial statement analysis section. The VECDP need to have a plan in place to review the growth of the programme participants on a quarterly basis, to monitor their progress in this aspect.

VECDP administrators should also focus more on business planning, as this is a core reason why a good number of start up contractors do not last in the business environment not having clear plans for the future.

It is recommended that future studies that are aimed at assessing the effectiveness of the VECDP can also explore other catagories and factors not covered under this study.

5.4 Limitations of the Study

- A major limitation of the study was the unavilability of all the respondents that have gone through the VECDP at the required times. This is because, they were not available to participate in the research surveys.
- The results from this study will not be applicable to other emerging construction contractors in the province of KwaZulu-Natal because it sorely focused on the VECDP.

5.5 Recommendations for Future Study

- It is recommended that future studies should be conducted on other prorgrammes beyond the construction contractor incubator programmes such as the impact of business forums in advancing the interests of emerging contractors.
- Further studies that can assess how the VECDP is contributing to job creation in the province should be recommended.

5.6 Conclusion of the Study

This study chapter provides the conclusion and recommendations to this study. In overall, this study assessed The effectiveness of the Vukuzakhe Programme in developing emerging contractors within the DoT. The findings from this study showed that the Vukuzakhe Programme was successful and very effective in developing emerging construction contracts in terms of operational efficiencies, human resourse management and financial management. The researcher believes that the study was successful, as the research objectives were realised through the structure and methodology set for this study.

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APPENDIX A – QUESTIONNAIRE

	SECTIONA: CONTRATOR GENERAL INFORMATION					
NO.	**Please indicate the following;**					
A1.1	Gender	Male	Female			
A1.2	Age	18-25	>25-30	>30-35	>35-40	>40
A1.3	Highest level of education	Less than Grade 12	Certificate	Diploma	Undergraduate Degree/BTech	Postgraduate Degree (Honours/Masters/PhD)
A1.4	Region where your main business activities located	Pietermaritzburg	Ethekwini	Ladymith	Empangeni	
A1.5	Number of years your business been operating in the construction sector?	0-3 Years	>3 - 5 Years	>5 - 7 Years	>7 - 10 Years	>10 Years
A1.6	Business Ownership	Sole trader	Partnership	Close Corporation	Private company	Coperative
A1.7	The issue that BEST REPRESENTS your business constraint.	Lack of adequate access to finance	Insuffiecient Business Support Services	Cash Flow	Lack of access to the market and procurement	Increased competition
A1.8	What WAS your CIDB (CE) Grading BEFORE the Vukuzakhe Programe?	1	2	3		
A1.9	How many years have you been participating in the programme?	1	2	3	4	>5
A1.10	What IS your current CIDB (CE) Grading?	1	2	3	4	5
A1.11	How would you rate the overall effectiveness of the programme interms of skills development?	Very Bad	Bad	Neutral	Good	Excellent
A1.12	In which Grade (CE) do you see your business in 3 to 5 years time?	4	5	6	7	>8
A1.13	How would you rate the importance of another Contractor Development Programme in reaching your goals in 3 - 5 years time?	Very Low	Low	Neutral	High	Very High
	SECTION B: CONTACTORS' COMPETENCE OR ADEQUACY BEFORE THE VUKUZAKHE PROGRAMME					
	1 . Operational Effeciencies					

B1.1	Experience in the line of work	Very Bad	Bad	Neutral	Good	Excellent
B1.2	Experience in contract management	Very Bad	Bad	Neutral	Good	Excellent
B1.3	Materials Management (Loss control etc)	Very Bad	Bad	Neutral	Good	Excellent
B1.4	Plant & Equipment Management	Very Bad	Bad	Neutral	Good	Excellent
B1.5	Construction Site Management	Very Bad	Bad	Neutral	Good	Excellent
B1.6	Use of Project Management Techniques	Very Bad	Bad	Neutral	Good	Excellent
B1.7	Business & Technical Systems	Very Bad	Bad	Neutral	Good	Excellent
B1.8	Documented Standard Operating Procedures	Very Bad	Bad	Neutral	Good	Excellent
B1.9	Access to Information & Technology	Very Bad	Bad	Neutral	Good	Excellent
B1.10	Growth in Overall Operationanal Capacity	Very Bad	Bad	Neutral	Good	Excellent
	2 . Human Resource Management					
B2.1	Engineering Skills	Very Bad	Bad	Neutral	Good	Excellent
B2.2	Entrepreneural Skills	Very Bad	Bad	Neutral	Good	Excellent
B2.3	Management Adequacy (Numbers)	Very Bad	Bad	Neutral	Good	Excellent
B2.4	Management Skills	Very Bad	Bad	Neutral	Good	Excellent
B2.5	Marketing Adequacy (Numbers)	Very Bad	Bad	Neutral	Good	Excellent
B2.6	Marketing Skills	Very Bad	Bad	Neutral	Good	Excellent
B2.7	Understanding of health and safety Legislation/Regulations	Very Bad	Bad	Neutral	Good	Excellent
B2.8	Growth in Overall Human Resource Capacity	Very Bad	Bad	Neutral	Good	Excellent
	3 . Financial Management					
B3.1	Cash Flow Management	Very Bad	Bad	Neutral	Good	Excellent
B3.2	Estimating & Job Costing	Very Bad	Bad	Neutral	Good	Excellent
B3.3	BookKeeping & Accounting Systems	Very Bad	Bad	Neutral	Good	Excellent
B3.4	Financial Statements Analysis	Very Bad	Bad	Neutral	Good	Excellent
B3.5	Understanding of Business Planning	Very Bad	Bad	Neutral	Good	Excellent
B3.6	Ability to raise business finance: Capital for Expansion	Very Bad	Bad	Neutral	Good	Excellent
B3.7	Ability to raise business finance: Working Capital	Very Bad	Bad	Neutral	Good	Excellent
B3.8	Growth in Overall Financial Health	Very Bad	Bad	Neutral	Good	Excellent
	SECTION C: CONTACTORS' COMPETENCE OR ADEQUACY AFTER THE VUKUZAKHE PROGRAMME					
	1 . Operational Effeciencies					

C1.1	Experience in the line of work	Very Bad	Bad	Neutral	Good	Excellent
C1.2	Experience in contract management	Very Bad	Bad	Neutral	Good	Excellent
C1.3	Materials Management (Loss control etc)	Very Bad	Bad	Neutral	Good	Excellent
C1.4	Plant & Equipment Management	Very Bad	Bad	Neutral	Good	Excellent
C1.5	Construction Site Management	Very Bad	Bad	Neutral	Good	Excellent
C1.6	Use of Project Management Techniques	Very Bad	Bad	Neutral	Good	Excellent
C1.7	Business & Technical Systems	Very Bad	Bad	Neutral	Good	Excellent
C1.8	Documented Standard Operating Procedures	Very Bad	Bad	Neutral	Good	Excellent
C1.9	Access to Information & Technology	Very Bad	Bad	Neutral	Good	Excellent
C1.10	Growth in Overall Operationanal Capacity	Very Bad	Bad	Neutral	Good	Excellent
	2 . Human Resource Management					
C2.1	Engineering Skills	Very Bad	Bad	Neutral	Good	Excellent
C2.2	Entrepreneural Skills	Very Bad	Bad	Neutral	Good	Excellent
C2.3	Management Adequacy (Numbers)	Very Bad	Bad	Neutral	Good	Excellent
C2.4	Management Skills	Very Bad	Bad	Neutral	Good	Excellent
C2.5	Marketing Adequacy (Numbers)	Very Bad	Bad	Neutral	Good	Excellent
C2.6	Marketing Skills	Very Bad	Bad	Neutral	Good	Excellent
C2.7	Understanding of health and safety Legislation/Regulations	Very Bad	Bad	Neutral	Good	Excellent
C2.8	Growth in Overall Human Resource Capacity	Very Bad	Bad	Neutral	Good	Excellent
	3 . Financial Management					
C3.1	Cash Flow Management	Very Bad	Bad	Neutral	Good	Excellent
C3.2	Estimating & Job Costing	Very Bad	Bad	Neutral	Good	Excellent
C3.3	BookKeeping & Accounting Systems	Very Bad	Bad	Neutral	Good	Excellent
C3.4	Financial Statements Analysis	Very Bad	Bad	Neutral	Good	Excellent
C3.5	Understanding of Business Planning	Very Bad	Bad	Neutral	Good	Excellent
C3.6	Ability to raise business finance: Capital for Expansion	Very Bad	Bad	Neutral	Good	Excellent
C3.7	Ability to raise business finance: Working Capital	Very Bad	Bad	Neutral	Good	Excellent
C3.8	Growth in Overall Financial Health	Very Bad	Bad	Neutral	Good	Excellent

APPENDIX B – GATE KEEPER'S LETTER

APPENDIX C – ETHICAL CLEARANCE APPROVAL

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

24 April 2019

Mr Raymond Phila Dittrich (982205020)
Graduate School of Business & Leadership
Westville Campus

Dear Mr Dittrich,

Protocol reference number: HSS/0045/019M
Project title: The effectiveness of the Vukuzakhe Programme in developing emerging contractors: A case of KZN Department of Transport

Approval Notification – Expedited Application

In response to your application received on 10 December 2018, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol has been granted **FULL APPROVAL.**

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 1 year from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take th[redacted]unity of wishing you everything of the best with your study.

Yours fa[redacted]

.....

Dr Rosemary Sibanda (Chair)

APPENDIX D – TURNITIN REPORT

Turnitin Originality Report

MBA Dissertation by Raymond Phila Dittrich

From Research Thesis (Dr Mtembu Research Students)

- Processed on 15-Jul-2019 1:48 PM CAT
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paper text:

UNIVERSITY OF KWAZULU-NATAL (UKZN) The Effectiveness of the Vukuzakhe Programme in Developing Emerging Contractors – A Case of KZN Department of Transport By Raymond Phila Dittrich 982205020 A dissertation submitted in partial fulfilment of the requirements for the degree of Master of Business Administration Graduate School of Business & Leadership College of Law and Management Studies Supervisor: Dr. Vuyokazi Mtembu-Hlophe Year of submission 2019 DECLARATION I Raymond Phila Dittrich declare that I. The research reported in this dissertation, except where otherwise indicated, is my original work. II. This dissertation has not been submitted for any degree or examination at any other university. III. This dissertation does not contain the other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons. Iv. This dissertation does not contain other persons' writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then: a) Their words have been re-written but the general information attributed to them has been referenced. b) Where their exact words have been used, their writing has been placed inside quotation marks, and referenced. c) Where I have reproduced a publication of which I am an author, co-author or editor, I have indicated in detail which part of the publication was actually written by myself alone and have fully referenced such publications. d) This dissertation does not contain text, graphics or tables copied and pasted from internet, unless specifically acknowledged, and the source being detailed in the dissertation and in the References section. _____ _____ Raymond Phila Dittrich Date 982205020 ACKNOWLEDMENTS I would like to express my sincere appreciation and gratitude to the following persons and institutions, without which this study would not have been possible: • To my supervisor Dr Vuyokazi Mtembu-Hlophe for being a great motivator. • To my late Mom Dorothy Ndimande, thank you for planting the seed of education, perseverance and entrepreneurial spirit in us. • To my late Dad: Gcwensa your teachings and that of your Fathers and Forefathers will forever remain engraved in our genes. This qualification is just proof zey'fundiso zikaMantiyane, uMaQili owadla amarisidi kukubi zokuthi: "Angly'cabangele: Inggondo yami lk'mina" • To my late Sisters Busie and Mayo, these are the fruits of your love for education. • To my lovely