

**A MODEL FOR THE DEVELOPMENT OF WOMEN IN CONSTRUCTION IN THE
LIMPOPO PROVINCE OF SOUTH AFRICA**

By

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Submitted (Post humous) in accordance with the requirements

For the Degree of

DOCTOR OF PHILOSOPHY

In the subject

RURAL DEVELOPMENT



University of Venda

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November 2015

DECLARATION

I, **Sminny Nozimangaliso Minah Jonas**, hereby declare that this dissertation for Doctor of Philosophy in Rural Development (PhD (RDV) submitted to the Institute for Rural Development at the University of Venda has not been submitted previously for any degree at this or another university. It is original in design and in execution, and all reference material contained therein has been duly acknowledged.

Signature **Date**

Jonas SNM

ACKNOWLEDGEMENTS

I would like to acknowledge the following people for their unwavering support throughout this undertaking:

Professor Vhonani Netshandama my promoter, for her encouragement, unconditional support and professionalism in unleashing my potential towards the completion of my project,

Doctor John Mudau, my co-promoter, for his unwavering support and critical review of my study,

The University of Venda, for granting me permission and the resources to complete my studies,

The financial assistance of the National Research Foundation (NRF) towards this research is hereby acknowledged. Opinions expressed and conclusions arrived at, are those of the author and not necessarily to be attributed to the NRF,

Doctor Catherine Hutchings, for her critical and professional language editing of this manuscript, and

All the participants of this study, for sharing their experiences, expertise and insight into the research matter.

DEDICATION

This manuscript is dedicated to the following people:

My late father, Fatman Jonas. May his soul rest in peace.

My mother Ruth Jonas for her unstinting support and believe in me

ABSTRACT

The overall purpose of this study was to describe a model for the development of women in construction in the Limpopo Province of South Africa. To achieve this purpose two phases were used i.e., the two stage empirical phase that employed a mixed method research process to identify and understand the development needs of women in construction and a theory-generation phase, which consisted of 8 stages that interfaced with phase 1

The population of the study were stakeholders in the construction industry namely, women contractors who are active grade 2 (registered as such on the CIDB register of contractors) and owner-managers in the Limpopo Province of South Africa, representative of the board of the Construction Industry Development Board (CIDB), Construction Education and Training Authority (CETA), the Independent Development Trust (IDT), the Council for the Built Environment (CBE) and the South African Women in Construction (SAWIC). Qualitative data was collected through in-depth one-on-one interviews, whilst quantitative data was gathered through administering questionnaires. Six (6) stakeholders participated in the interviews and out of the targeted 167 in the CIDB register, 120 completed the questionnaires. The results of the empirical phase were subjected to the 8-step method of theory generation according to Chinn and Kramer (2011:152-205). A conceptual framework for the model for development of rural women in construction was organized by applying the proposed elements of a practice theory according to Dickhoff, James & Wiedenbach (1968) and Barnum (1994). The theoretical evaluation of a model was done utilizing Chinn and Kramer (2011:205) criteria for evaluation of a theory. Guidelines to operationalize the theory were also described as well as recommendations and conclusion.

Key words: Captains; Stakeholders, Construction Industry, Development Board (CIDB) Grade 2; Development, Women in construction

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ABBREVIATIONS AND ACRONYMS

ASROC	Association of Road Contractors
BEE	Black Economic Empowerment
BBBEE	Broad-Based Black Economic Empowerment
BUSA	Business Unity South Africa
CA	Capabilities Approach
CBE	Council for the Built Environment
CIDB	Construction Industry Development Board
CIP	Contractor Incubator
DPW	Department of Public Works
IDT	Independent Development Trust
IFC	International Finance Corporation
SAWIC	South African Women in Construction

CHAPTER 1

OVERVIEW AND RATIONALE OF THE STUDY

1.1 INTRODUCTION

This chapter deals with the background and rationale of the study, the statement of the problem, followed by the justification of the study. The research aim and objectives are outlined.

1.2 BACKGROUND AND RATIONALE

Construction work is vital for the development of women in construction as it is the industry that produces the very fabric of development of cities and rural areas. According to Tshivhase & Worku (2012) throughout the world, the construction industry has an important strategic role in promoting economic growth and sustainable infrastructure development of many countries. The dominant perception in construction industry is that construction is for men and that women are not entrepreneurial. However, the construction industry provides a little scope and potential for women contractors to participate in the economic development of the developing countries (Roderick & Edmundo, 2009).

According to Radhlinah & Jingmond (2010), the construction industry in developing countries is characterized by gradual transformation and women still face challenges in surviving in the construction industry. Women-owned contractors remain limited in their access to obtaining government contracts, due to influences beyond their control. Their reliance on government contracts as the main client results in less diversification in terms of work and thereby run a huge risk of failing to progress. Competition for government contracts becomes fierce due to a larger pool of contractors in the same category and it is difficult for one contractor to get all the projects. Consequently, without a doubt it becomes very difficult for women contractors to jump the grading queue or move up to higher CIDB grades.

South African economy requires a wider base of contracting entities. Much of this growth is expected to be delivered by 'emerging' contractors. Yet women-owned companies based face significant obstacles. They are still subjected to discrimination based on gender. A survey of the civil engineering sector by Ludwig & Root (2010) revealed that targeting emerging contractors, showed that the owners of these companies lack training and experience, and that there are gender-related differences. However, both Ludwig & Root (2010) and Haupt & Fester (2012) argue that emerging contractors tend to fail to develop into sustainable enterprises, due to inadequate construction knowledge and lack of experience.

Radhlinah & Jingmond (2010) also report that women progress at a slower rate in the industry while confronting many obstacles and barriers. Development practitioners all over the world have been instrumental in perpetuating and in agreement with the notion that women can and should play an integral role in socio-economic development. In order for women to remain at the core of developmental activities, training of women in construction and business related skills is essential for them to participate with a better informed understanding of the construction industry. Thus, the construction sectors are critical areas of opportunity for transformation in terms of both race and gender (Premchander, 2003). For a variety of reasons, women are venturing into the construction industries; it then becomes essential and crucial that structures are put in place to accommodate the progression of women in the construction sector (Khuthaza, 2011).

1.3 STATEMENT OF THE RESEARCH PROBLEM

Traditionally, the construction industry is male dominated and has major obstacles for equal participation by women. In South Africa and many developing countries like India, women's participation in the construction industry is characterised by lack of growth and development as compared to their male counterparts (Thwala & Mvubu, 2009; Ahuja & Kumari, 2012). Most of the women in construction (particularly from rural areas) seem to be constrained by unpreparedness, under preparedness, lack of technical and entrepreneurial skills, inadequate information, and lack of capital and access to financial assistance. This results in lack of progress to higher grades in the CIDB register. A study by Haupt & Fester (2012) shows that most of the interventions tend to be characterized by lack of adequate understanding of the development needs of women in construction hence the stagnation that is observable amongst women in the construction industry. The study investigated the ways in which a model of growth and development of women in the construction industry can be developed.

1.4 JUSTIFICATION OF THE STUDY

According to Haupt & Fester (2012), existing literature points to the deep impact that empowerment and legislative frameworks generally have on the development of women in construction. There is, however, a scarcity of research on an effective model for the development of women contractors in South Africa. There is also no evidence that suggests that contractor development needs for women in construction are fully understood (Verwey, 2005; Haupt & Fester, 2012). Thus, in the absence of a model to effectively build the capacity of women-owned construction businesses, slow progression of women to higher grades and gender inequality in the South African construction industry will continue to exist.

It is hoped that this study will have a direct impact on how government and all the industry sectors can align approaches to economic development, empowerment and sustainability of women contractors in Limpopo province. Furthermore, it is hoped that the proposed model will improve the growth and development of women in construction and empower them in how to utilize the available resources earmarked to address gender inequality and to maximize their access to relevant training and support by the government.

1.5 RESEARCH AIM AND OBJECTIVES

The aim of this study was to develop a model for the development of women in construction. To achieve this aim, the following objectives were set:

- 1.5.1 To conduct an empirical investigation of the growth, development and support needs and experience of rural women in the construction industry,
- 1.5.2 To utilise the findings of the empirical investigation in developing a model to support growth and development of women in the construction industry.

1.6 THE RESEARCH QUESTIONS

The study will answer the following questions:

- 1.6.1 What are the needs and experience for growth and development amongst rural women (doing business) in the construction industry?
- 1.6.2 How could these women in construction industry be supported?
- 1.6.3 What is the appropriate model to support the growth and development of rural women in the construction industry?

1.7 OPERATIONAL DEFINITIONS OF KEY CONCEPTS

1.7.1 Participants in the

In this study, the Participants in are the professional leaders who have acquired knowledge and technical skills through study and practice over the years, in the construction industry, to a point where their understanding of the industry provides better insight on a model for the development of women in construction.

1.7.2 Contractor

According to JBCC Series 2000, a contractor means the person or persons, partnership, firm or company who's tender for certain building work has been accepted. The definition contractor includes his or their heirs, executors, administrators and/or successors. The definition contractor further includes any representative of the contractor appointed by him in writing or recorded in the minutes or records of the first site meeting for the purpose of receiving on his/her behalf communications from the employer. In South Africa, according to the CIDB Act 38 of 2000 no public-sector client may award contracts to a contractor who is not registered

1.7.3 Development of women

Many fields define development differently however the main thread includes growth of humans throughout the lifespan, from conception to death. It explains how and why people change throughout life. This may include all aspects of human growth, including physical, emotional, intellectual, social, economic, psychological, etc. In this study development is defined as planned capacity building or increase in knowledge, management and technical skills of women contractors in order for them to improve their economic growth and social transformation in the industry.

1.7.4 Woman in construction

For the purpose of this study a woman in construction is defined as an owner-manager (woman contractor) of a construction enterprise that provides any form of sub-contracting, and/or professional consulting services (such as general building, architectural, electrical, civil engineering work, and supply of construction related material and labour supply in any trade) to another entity within the construction industry. For the purpose of this study, women in construction would also include rural women seeking to do business in the construction industry without necessarily being a professional in the built environment.

1.7.5 Construction industry

The construction industry is a sector that employs workers in the two main categories: managers and professionals who plan, organize, and advise on specialist functions or field activities, and direct and coordinate all activities and resources involved in construction operations; and, construction trades, who construct, install, finish, maintain and repair internal and external structures of domestic, commercial and industrial buildings and civil constructions (Employment Service, 1990). For the purposes of this study, the construction industry would be viewed from a multi-disciplinary field, whereby it is not a single body, but a collaboration of many stakeholders from various disciplines so that it gives employment to various professionals and workers at different levels. Thus, it involves multi-tasking activities and multi-disciplinary personnel in the built environment.

1.7.6 Construction Industry Development Board (CIDB) Grade 2

CIDB Grade 2 is a class of construction work where a contractor registered in this grading designation is considered to be capable of undertaking a contract in the limited range of tender values of between R200 000 and R650 000. In terms of the CIDB register of contractors, this CIDB grade 2 classification limits contractors to only tender or compete for contracts based on these lowest financial capacity, experience and history, which in the long run limits their competitiveness and impact.

1.7.7 Rural women

Since there is no classic definition for the phrase “rural women”, in the context of this study, the researcher defined rural women by describing their nature and activities. Therefore, for

this study, rural women mean women who primarily do construction business without necessarily possessing professional technical skills like engineering, artisanship or architectural knowledge.

1.8 RESEARCH DESIGN AND METHODS

The research design is a combination of qualitative and quantitative methods, as well as theory generative or model development. The study was conducted using the following two interdependent phases, namely:

Phase 1 Empirical survey

Stage I: Qualitative (in-depth interviews) interviews and

Stage II: Quantitative (questionnaires).

Phase one served as the basis for phase 2. The themes that emerged from qualitative interviews and the results of the analysis of questionnaire data were processed applying the three basic approaches to theory building; namely analysis, synthesis, and derivation following approaches proposed by Chinn & Kramer (2011:152-205).

Phase 2 Model development

A conceptual model was developed following Chinn and Kramer (2011)'s processes of empiric knowledge development. The process includes creating conceptual meaning, structuring and contextualizing a theory, generating and testing theoretical relationships and deliberately applying the theory.

The model was evaluated by means of critical reflection as postulated by Chinn & Kramer (2011:196-205).

Guidelines to operationalize the model were described to assist the practical application of the model in the rural based construction industry setting.

1.9 ORGANIZATION OF THE CHAPTERS

The study is structured into the following seven (7) chapters. The first chapter chronicled an overview of the study, which entails the rationale, the research objectives and questions, definition of terms, a brief description of the research design and methods, and how the study is organized.

The second (2) chapter conversed the literature reviewed. The 3rd chapter described the two-phased research methodology. This includes the description of the study area, the research design and methods of collecting data and how data was analyzed and interpreted. Ethical considerations made are described and the measures employed to ensure the trustworthiness of the findings were also outlined including the description of how the validity and reliability of the questionnaire used to collect quantitative data was measured.

The 4th and the 5th chapters discuss the empirical findings of qualitative interviews and the questionnaire results respectively. This includes the interpretation of the findings and the description of the interface between the qualitative and the quantitative findings of the research study.

Chapter six (6) outlined the conceptual framework of the model for the development of women in the construction industry, the description of the model and evaluation of the model as well as the description of the guidelines to operationalize the model.

Chapter seven (7) discussed the conclusions, limitations and recommendations to further study, to policy and to the practice of developing women in the construction industry.

CHAPTER 2

RESEARCH METHODOLOGY

2.1 INTRODUCTION

This chapter discusses the research methods and designs that were adopted in carrying out the study. These included description of the study area, research design, the population, sampling instruments and procedures for data collection and analysis.

2.2 DESCRIPTION OF THE STUDY AREA

2.2.1 Situating the rural context

Rural women rely on the informal economy to ameliorate their economic disadvantages. They enter the construction industry with the mindset that their economic independence and livelihoods would change drastically. Yet, when they enter the industry, they only realize how disproportionately the industry is to their growth and development. Worst still, rural women prefer economic opportunities closer to their homes, yet they have fewer options. In fact some have none at all. In many instances, rural women are engaged in spatial balancing, but face additional constraints like literacy, lack of good jobs due to isolation, inadequate infrastructure like high speed internet and roads. Hence many a times, they may choose informal economic activity that permits them to merge the inaccessible space. They are further constrained by the physical distances that separate them from jobs and educational opportunities (Pruitt, 2008).

The biases and assumption that keep rural women out of the construction industry play out particularly in the areas of culture. This culture plays itself out in men's misconceptions about women's ability to do construction work. It really bothers me that people think that women do not have the same capacity as men and underestimate their capability. However, it is undisputed that generally female entrepreneurs from rural areas tend to have less industry, management and prior business start-up experience.

Research by Hicks (2012) and Madikizela & Haupt (2009), revealed that men have more resources and definitional power to enforce discriminatory practices, policies and ideologies. There is also an obvious lack of visible and tangible strategies to empower women in construction.

Another typical challenge as postulated by Du Plessis & Barkhuizen (2012) is that for women to be successful in the male-dominated environment, they have to behave in ways that suit males, for example, they have to be aggressive, which is very unnatural or uncharacteristic to them. Also, a lack of understanding of the challenges that women face and how they cope in this environment adds to the poor integration and development of women in construction industry. Thus, this contributes to their modest growth and expectations (Cliff, 1998: 526).

2.2.2 The study area

The study was carried out in the Limpopo Province of South Africa. Limpopo is the northernmost province of the Republic of South Africa, lying within the great curve of the Limpopo River. The province borders the countries of Botswana to the west, Mozambique to the east, and Zimbabwe to the north. Limpopo is a gateway to the rest of Africa, with its shared borders making it favourably situated for economic cooperation with other parts of Southern Africa. Figure 1 indicates the map of the Limpopo province covering a total of 12 755 square kilometres. The Limpopo province is the fifth largest of the country's nine provinces, comprising of the five district municipalities, namely Capricorn, Greater Sekhukhuni, Mopani, Waterberg, and Vhembe. All these five districts take up 10.3% of South Africa's land area and with a mid-2010 population of 5.4 million people.



Figure 2.1: Map of the Limpopo Province of South Africa Data source- maps.google.co.za

The Limpopo Province was chosen as the site for this study because, as Table 2.1 shows, in all the class of work applicable, the most women contractors (167) are registered as CIDB Grade 2, which was the focus of this study.

Table 2.1: CIDB Grade 2 registered women contractors in Limpopo Province

Grade	Civil engineering	Electrical engineering work-infrastructure	Electronic engineering work-infrastructure	General Building	Mechanical engineering	Specialized work	Total
2	40	13	6	92	11	5	167

Note: Source: CIDB (2012)

2.3 RESEARCH METHODS

Research methods involved in this study is mixed method, a method for conducting research that involves collecting, analysing, and integrating quantitative and qualitative research in a single study or a longitudinal program of inquiry (Creswell & Clarke, 2011). The purpose of this form of research is that both qualitative and quantitative research, in combination, provide a better understanding of a research problem or issue than either research approach alone, in this case an understanding of the complex problems women face in order to grow and develop in the construction industry.

The advantage of using the sequential mixed method enabled the researcher to capitalize on the strengths of both qualitative and quantitative components in a single research study to increase breadth and depth of understanding the phenomenon (Johnson, Onwuegbuzie, & Turner, 2007). Also employing the sequential mixed methods enabled the researcher to determine the timing of the point of interface between the qualitative and the quantitative strands. The timing in this study occurred sequentially whereby I implemented the strands in two phases, with the collection and analysis of one type of data occurring after the collection and analysis of the other type (Creswell & Clarke, 2011). In this regard, I started with collecting and analyzing qualitative data first, and collecting and analyzing quantitative data second. Figure 2.2 depicts a flowchart of how I implemented sequential exploratory method in this study.

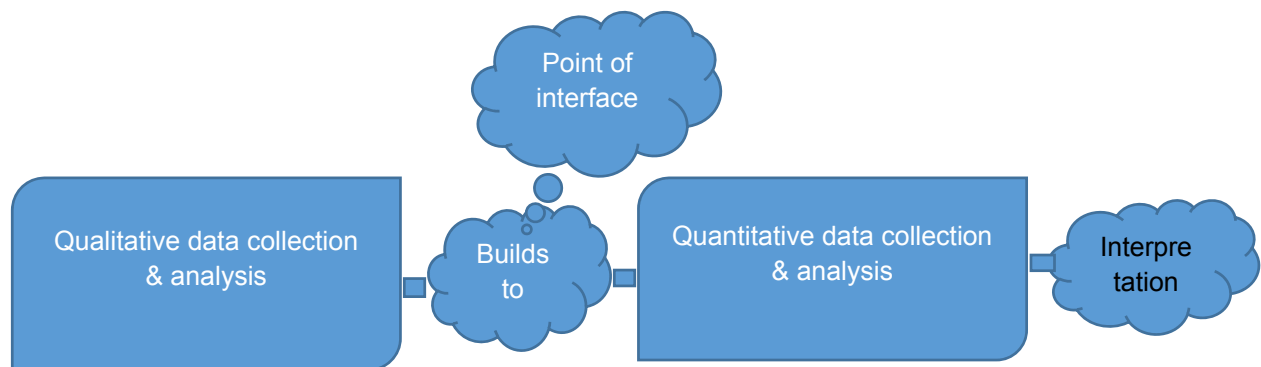
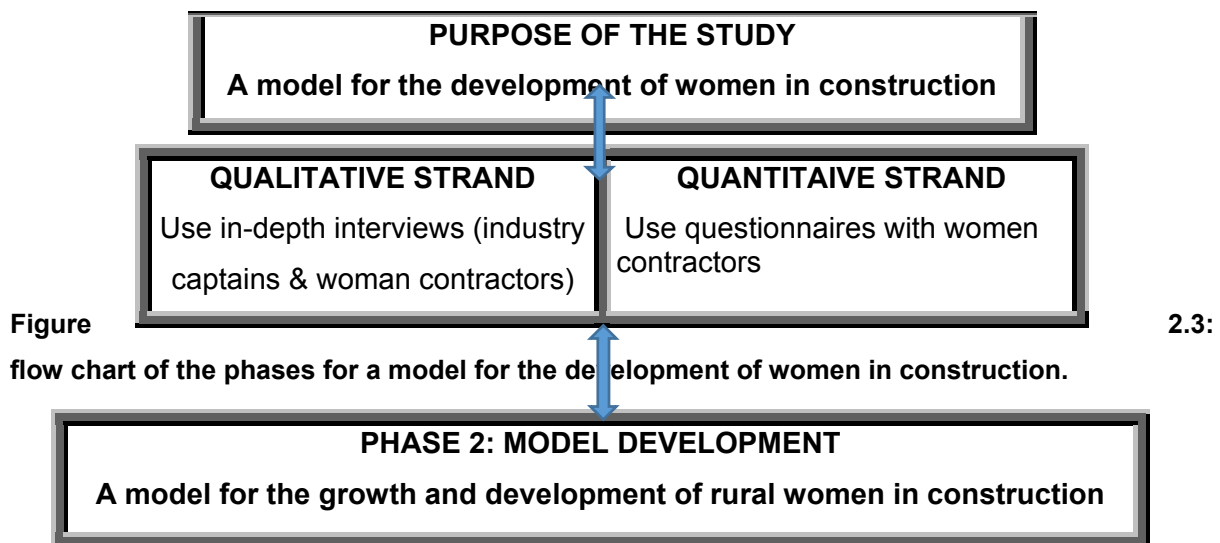


Figure 2.2: Flowchart of implementing sequential exploratory method (Creswell, 2003: 69)

A conceptual framework was developed out of the findings of qualitative and quantitative data streams to form a basis of the development of a model to support the growth and development of women in construction. This section dealt with a brief description of each data stream or phase.

Figure 2.2 show a flow chart of the phases for a model for the development of women in construction.



2.3.1 PHASE ONE: SEQUENTIAL MIXED METHODS

In this study I chose to use a sequential mixed method approach to research. According to (Creswell, 2003:21), sequential exploratory design is a type of mixed method research that starts with prioritizing the collection and analysis of qualitative data in the first phase. Building from the exploratory results, the researcher then conducts a second quantitative phase to generalize the initial phase. The researcher then interprets how the quantitative results build on the initial qualitative results (Creswell, 2003:71). In this study I began with a detailed qualitative open-ended interviews to collect views from the key stakeholders in the construction industry. I then used the results of the qualitative interviews to build on to a broad quantitative survey in the second phase. I then interpreted how the quantitative results build on the initial qualitative results. Using a sequential mixed method in research provided an opportunity for triangulation. Triangulation is the application and combination of more than one research methodologies in the study of the same phenomenon Bogdan & Biklen (2006). Triangulation of data thus enabled cross-referencing of data thereby yielding a more comprehensive evidence for studying a research problem than either quantitative or qualitative research alone.

2.3.1.1 Qualitative strand

To acquire qualitative data such as the support, growth and development needs of women contractors, I used semi-structured interview questioning and probing to give participants the opportunity to respond in their own words.

2.3.1.1.1 Sampling procedure: key stakeholders

A non-probability purposive sampling was used in selecting the participants for the qualitative study. Purposive sampling involves sampling of participants who met certain known criteria (Newman (2011)). These key stakeholders were deliberately chosen on the basis of their wide involvement in the construction industry and were likely to possess useful and rich information for the purpose of the study. The inclusion criteria for key stakeholders in this study included:

- Expert (captain) in the construction industry,
- Experience as board member or Chief Executive Officer of a construction industry
- Be a president of SAWIC and or owning a successful construction enterprise.

2.3.1.1.2 Sampling size

A total of six (6) key stakeholders comprised of the board member and chief executive officers of the construction entities (Construction Education and Training Authority, Independent Development Trust, Council for the Built Environment and Construction Industry Development Board), Council for the Built Environment and a woman contractor owner-manager.

2.3.1.2 Quantitative Strand

A questionnaire was self-administered, which focused on descriptive information about a group of rural women contractors, with the analysis of the following broad elements: biographic information, management capability, financial capability, development needs and technical management capability. These elements were derived from the emerging themes of qualitative interviews and blended with literature control.

2.3.1.2.2 Sampling procedure: women contractors

A non-probability sampling procedure called purposive sampling was used in this study. In this type of sampling, items for the sample are selected deliberately by the researcher on the basis that the particular units of the universe for constituting a sample are already too small (Kothari, 2004:59). As part of the inclusion criteria for participation in the study, women contractors had to:

- Be registered in the CIDB Register of Contractors in 2012
- Be registered in the Limpopo Data Base of CIDB Register of Contractors
- Be a Grade 2 active woman contractor for the period

2.3.1.2.3 Sampling size: women contractors

In this case, the size of the population was already too small for sampling, thus it was prudent to deliberately consider all the 167 CIDB registered women contractors for selection. This assertion is in congruent with the views by Robbins (2008:99) that “when studying populations smaller than 500, it is recommended all the units in the population should be included; the information gathered ends up being easier to analyze, and is more accurate and more authoritative than from a small sample of an already small population”.

2.4 DATA COLLECTION: QUALITATIVE STRAND

Semi-structured interviews were conducted and field notes were taken during the process.

2.4.1 Semi-structured interviews

In order to develop a model that would help support the women in construction to advance to beyond CIDB grade 2, semi-structured interviews with the participants in the was employed. Each semi-structured interview was recorded using a tape-recorder for transcription later. Non-verbal communication such as gestures and facial expressions were observed and noted.

2.5 DATA ANALYSIS FOR QUALITATIVE STUDY

Qualitative data analysis was used

2.5.1 Qualitative analysis techniques

In qualitative research, data analysis occurs concurrently with data collection and interpretation and narrative reporting (Creswell, 1994:153). The aim of data analysis was to describe the experiences of women in construction. This data was generated from the semi-structured interview transcripts. A template for the transcription process was created along the themes generated based on the semi-structured interviews. The template for transcription had space for additional notes and comments so as to prevent any possible loss of data during the transcription process. Then data was analyzed through the application of the Tesch's (1990) 8 steps in (Creswell, 1994:155):

- Get a sense of the whole. Read all of the transcriptions carefully. Note any ideas as they come to mind.
- Pick one document to review. No format is suggested, it may be the shortest one or the most interesting one or the one first or last in the pile. Go through it and ask yourself what it is about. Try to discover the underlying meaning, write notes in the margin.
- Make a list of all the topics and cluster similar topics together. Arrange similar topics together into columns that might be arranged as major topics, unique topics and others.
- Now take the list and go back to your data. Allocate the topics a code, as this will allow for an abbreviated form. Write the code next to the appropriate segment in the text. Using the preliminary organizing scheme will identify whether new categories and codes emerge.
- Find the most descriptive words for your topics and turn them into categories. Determine to reduce your total list of categories by grouping topics and turn them into categories. Determine to reduce to reduce your list of categories by grouping topics that relate to each other. It may be helpful to draw lines between the categories to show interrelationships.
- Make a final decision on abbreviations for each category and put the codes in alphabet.
- Assemble the data belonging to each category in one place and perform preliminary analysis.
- If necessary, recode your existing data.

- Cluster major categories in the most appropriate theory.

The transcripts of the audiotapes of the interviews, the research objectives and a data analysis guide were given to independent coder who then coded them independently. According to Patton (2002) an independent coder is critical in reviewing the data to make judgments and interpretations of the content and the emanating of the material. The protocol for analysis of the data was provided to the coder. An independent coder had a PhD qualification and works as a lecturer at another university. He also had a wealth of experience as a researcher and was familiar with the context of the study. A consensus discussion meeting was held between the supervisors and an independent coder. This was in line with the assertion by Henning, van Rensburg & Smit (2004) that a coder must be independent and familiar with the context of the study.

2.6 ETHICAL CONSIDERATION

Research should be based on mutual trust, acceptance, cooperation, promises and well-accepted conventions and expectations between all parties involved in a research project (De Vos et al. 2011). I adhered to the three ethical considerations, which were actions and competency of the researcher, voluntary, and informed consent and, anonymity and confidentiality.

2.6.1 Voluntary, informed consent

Respect for persons requires that subjects be given the opportunity to choose what shall or not happen to them (Unrau, Gabor & Grinnel, 2008). A memorandum of understanding (MOU) to gain access to the respondents was obtained from the President of the South African Women in Construction (SAWIC). Before distributing questionnaires to the potential respondents, I send an introductory letter to explain the purpose of the study and encourage respondents to complete the questionnaires.

2.6.2 Anonymity and confidentiality

Before the start of any focus group session or interview, I protected the participants' identity, privacy and their dignity. They were also sufficiently informed of their right to self-determination and that the information given by them would neither be made public or lead to the disclosure of their identities without their permission.

2.7 DATA COLLECTION: QUANTITATIVE STRAND

Questionnaires in this study were administered to get a sense of generic data and profile of the women in construction and other factors such as social, political and economic factors that have a bearing in their progression as informed by the literature. Questionnaires were designed with the involvement of a statistician. The questionnaires were then distributed by email to all the 167 Grade 2 active rural women in construction in the Limpopo Province. To maximize the response rate, a researcher picky backed on the workshop of the same group so that they can respond to the questionnaires immediately after the workshop. This allowed opportunity to ask questions.

2.7.1 Pilot study for quantitative data

Brink (2012) defines pilot study a small study of the proposed, which provides a trial run before embarking on the actual study. The purpose of the pilot study is to investigate the feasibility of the proposed study and an assessment of the adequacy of the data-collecting instrument. In this study, 11 women in construction who were not part of the sample were asked to complete a questionnaire. Data generated out of the response was processed and analysed to check the validity and reliability of the questions. Questions were adjusted accordingly before the actual 167 respondents were required to respond to the questionnaire.

2.8 DATA ANALYSIS

In this study, the Statistical Package for the Social Sciences (SPSS) was used in this study. Descriptive statistical analysis methods for quantitative data format (numbers) were used.

2.9 MEASURES FOR ENSURING TRUSTWORTHINESS

To ensure the trustworthiness of qualitative research, Guba's model, which describes general criteria for evaluation of trustworthiness (Wolcott, in Kretting, 1991) was applied. The four criteria outlined for trustworthiness were truth-value, applicability, consistency and neutrality.

2.9.1 Truth value (credibility)

Guba & Lincoln (1985:206) provide that truth-value asks whether the researcher has established confidence in the truth of the findings. Truth-value was obtained from the discovery of human experiences as they are lived and perceived by participants and is termed "credibility" (Kretting, 1991). Prolonged engagement with the participants and clear description of the findings enhanced the credibility of the study. The researcher met with participants at least 3 times; each meeting lasting for about an hour to an hour and half. Credibility was ensured through member checking as participants were asked to comment whether the analysis of findings were a true reflection of their responses. The researcher also presented the findings to participants and to peers through workshops and conferences. Peer engagement and debriefing with the independent coders and supervisors to increase the credibility of the findings were used.

2.9.1.1 Competence of the researcher

According to Walliman (in De Vos et al. 2011), researchers are ethically obliged to ensure that they are competent, honest and adequately skilled to undertake proposed investigation. The supervisor and the joint supervisor are also both astute researchers with supervision experience at PhD level. I completed Master's Degree in Social Sciences (Community Development) and a Master's degree in Social Development (Employee Assistance Programme). Under the supervision of my promoters I also completed additional research methodology course work. I was able to assist my peers in the programme on some aspects of their study, and that sharpened my researcher skills.

2.9.2 Applicability (transferability)

Guba (in Krefting, 1991) states that transferability would be a more appropriate perspective as the criterion against which the applicability of qualitative data is assessed. It can be further achieved through sufficiently describing the research methodology, the location and the participants that differed from one another. Transferability, thus explains the probability that the research findings have meaning to other similar situations (Krefting, 1991), in this case other provinces. I presented a dense description of the methodology and the results to enhance transferability (Krefting, 1991). It is envisaged that the model would be transferrable to other to other provinces and similar settings.

2.9.3 Consistency (dependability)

Consistency assesses whether the findings would be consistent if the inquiry were replicated with the same subjects in a similar context (Krefting, 1991) consistency is described in terms of dependability due to the uniqueness of human nature. Dependability refers to variability that can be ascribed to the identified sources. My role and the participants' roles were described. The consensus discussion with the independent coder and supervisors was done during each step and reached an agreement with the emerging themes.

2.9.4 Neutrality (confirmability)

Neutrality involves freedom from biases, motivation and perspectives in the procedures and results. It is further defined through conformability, which is the criterion for neutrality. I tested conformability through the involvement of my colleague, who as an independent coder, analyzed, reviewed raw data, tape-recorded data, written field notes and confirmed the results independently (Wolcott, 1990). I also afforded the participants the same status for participation in the research. As a researcher, I kept a self-reflective journal to acknowledge prior assumptions and experiences.

2.10 PHASE TWO: MODEL DEVELOPMENT

Dickoff et al. (1968:430) define theory as a “conceptual system invented for some purpose”.

Dickoff, James and Wiedenbach's (1968:430) and Chinn & Kramer (2011:195-205) methods were combined in theory development. The process of theory development requires the reasoning strategies as follows: analysis, synthesis, and derivation. Thus, the results of the analysis of qualitative interviews and that of questionnaire data were processed through the analysis, synthesis, and derivation to determine emerging concepts. Walker & Avant (1995) identified three basic approaches to theory building that should be followed during the organization of the model, namely, (i) analysis, (ii) synthesis, and (iii) derivation. These approaches are interrelated and thus no single approach will meet all the needs for successful theory building (Walker & Avant, 2005). These authors, however, caution against using all these approaches together and suggest using only one strategy until it is no longer of any use. I moved back and forth among these approaches in the process of model development.

The concepts that emerged during data analysis were identified and synthesised through a process referred to as concept synthesis. Walker & Avant (2011) define concept synthesis as a strategy that uses different forms of empirical evidence as a basis for the development of concepts. Thus, synthesis means combining concepts to form a complex whole. Concept synthesis always starts with raw data, which was obtained in this study from the participants during semi-structured interviews. The concept synthesis strategy assisted with the process of combining ideas and insights, which enhanced theory development.

Theory derivation procedures assist with establishing the relationships with concepts. Derivation employs analogy or metaphor in transposing and redefining a concept, statement or theory from one context to another. This approach to theory building can be applied to areas in which no theory exists. Derivation may also be used in fields in which there are existing theories that have become outmoded and new innovative perspectives are needed. Derivation provides a means of theory building through shifting the terminology or the structure from one field or context to another. The purpose of theory derivation is "to acquire a means of explanation and prediction about some phenomenon that is currently poorly understood, or for which there is no present means to study it" (Walker & Avant, 1995:29). In interpreting the inputs of participants of the study, derivation was used to draw from other contexts how development model can be employed. Derivation was employed in the integration of the results of qualitative and quantitative data. In this study, concepts were derived from sociology, social and humanities and applied to the construction industry.

2.10.1.1 Analysis

According to (Walker & Avant, 2011) during the use of analysis, the theorist is able to dissect a whole into its components part for a better understanding. Thus clarification, refinement and sharpening of concepts, statements and theories occurred during analysis.

In this study therefore, the elements of theory used during model development were concept synthesis, statement synthesis, and derivation and theory synthesis. In this study, it must be noted that concept analysis, statement analysis and theory analysis were not used as concepts were not analysed but rather emerged from the data inductively. Emerging concepts were further analyzed in order to identify the elements of the conceptual model suitable for the development of rural women in construction in the Limpopo Province. The framework of Dickoff, James & Wiedenbach (1968) was used to classify concepts for the model and the associated guidelines. Descriptive elements of a model included the “context, the agents, the stakeholders, the process and the dynamics as well as the outcomes”. Dickoff, James & Wiedenbach (1968:426). Table 2.2 shows a summary of the model development processes used in this study.

Table 2.2: Summary of the model development processes (adapted from Walker & Avant, 2011; Chinn & Kramer, 2004)

	Avant & Walker (2011)	Chinn & Kramer (2004)	Model development used in this study
Concept development	Concept analysis, synthesis, derivation	Concept identification, concept analysis, synthesis and derivation	Concept synthesis - identify and describe concepts from empirical evidence. Did inductive reasoning in qualitative strand and deductive reasoning in quantitative strand
Statement development	Statement analysis, synthesis, derivation	Testing relationships	Element synthesis
Theory/model development	Theory analysis, synthesis, derivation	Application of theory	Theory synthesis- express new insights into the phenomenon and present a model

As shown in Table 2.2, the process of model development was conducted according to the four steps of theory generation, as proposed by Walker & Avant (2011); Chinn & Kramer (2011); and Dickoff et al. (1968). These steps are described as follows:

STEP ONE: Concept identification

STEP TWO: Model development

Concept synthesis (classification and definition of concepts)

Statement synthesis (statement development)

STEP THREE: Model description

STEP FOUR: Guidelines to operationalize the model

2.10.2 STEP ONE: CONCEPT IDENTIFICATION

The purpose of concept identification was to formulate conceptual ideas towards theory building or model development.

2.10.2.1 Concept identification

In this study, concept identification took place by identification and description of the experiences of the stakeholders.

2.10.3 STEP TWO: Model development

The process of model development includes concept description and statement development. In this study synthesis was used as an approach to theory or model development because the concepts that emerged from step one were connected theoretically. The researcher used synthesis in order to interpret empiric data and theoretically connect the emerging concepts (Walker & Avant, 2005).

2.10.3.1 Concept description/development

The concepts, which were identified and described during empiric data analysis of qualitative interviews, were derived by means of synthesis. According to (Walker & Avant, 2011) concept synthesis is a strategy for the identification and description of different forms of empirical

evidence. Therefore, concept synthesis begins with raw data, which in this study was obtained through individual interviews. A qualitative concept synthesis and literary approaches were found to be appropriate to concept synthesis in this regard. A literary approach uses literature control involves examining relevant literature for acquiring new insights about the research matter under study.

During stage one, data was clustered into categories. The clustering process involved comparing each classification category with the other. The researcher and the promoter using visual inspection did the clustering. In cases where clusters were identified, they were examined for hierarchical structure. Where two clusters appeared similar, they were combined to form a higher order concept. The six-survey list as proposed by Dickoff et al. (1968) was used to achieve concept description.

2.10.3.2 Statement development and synthesis

The researcher used statement synthesis to specify the relationships between two or more concepts, which were derived from the concept development stage, and their relationship to the six elements of the survey list as proposed by Dickoff et al. (1968). The literary synthesis approach was employed to generalize inferences to more abstract ones using only statements that were supported by empirical evidence.

2.10.4 STEP THREE: Description of the model

The following questions were asked in order to describe the theoretical model that was developed for the development of women in the construction industry:

- What is the purpose of the model? This question is important as it seeks to specify and situate the context to which the theory applies.
- What are the concepts of this model? This question identifies the ideas that are form the building blocks of the model.
- How are the concepts defined? This question seeks for the clarification of the meaning of the concepts within the model. The concepts must be clearly defined, in a consistent and manner. Also the definition should be defined in general language and be acceptable with very simple and intended meanings.
- What is the nature of the relationships? This question clarifies how identified concepts are linked together.

- What is the structure of the model? The structure of the model gives the overall form to the conceptual relationships within it.
- On what assumptions does the model build? This question addresses the basic truths taken to underlie theoretical reasoning. Chinn & Kramer (2011) would posit that to uncover the assumptions, the question of what the researcher is taking as the accepted truths needs to be addressed.

2.10.5 STEP FOUR: Guidelines to operationalize the model

Chinn & Kramer, (2004:145) stated that deliberative and validation using “empiric knowledge to guide practice and practice-oriented approaches that contribute to empiric knowledge development”. First, in this study, the context within which the model should be applied was properly selected and defined. Second, the ultimate goal for describing the model for the development of women in construction was determined, and third, the model was evaluated using the criteria points by Chinn & Kramer (2011:196-205), namely clarity, simplicity, generality, accessibility and importance or significance. The testing and implementation of the model were not done as this was beyond the scope of this study. Finally, the guidelines to operationalize the model were developed.

2.11 SUMMARY

This chapter has given an overview of the research design and the methodology of the study. The emphasis of this chapter has been on the three basic approaches (analysis, synthesis and derivation) to theory building were also described. Theoretical concepts and the different types of theories were clarified. The measures for ensuring trustworthiness were maintained throughout the research process. Chapter three covers the empirical findings of the qualitative study.

CHAPTER 3

FINDINGS OF QUALITATIVE INTERVIEWS

3.1 INTRODUCTION

Chapter two chronicled the research methodology and research design. The aim of this chapter is to present the results of qualitative interviews that were conducted with stakeholders about their experience, growth and development and support needs of rural women in the construction industry. This was done to develop a model to support the growth and development of women in the construction industry

The primary data for phase one was derived from the use of qualitative semi structured interviews consisting of open-ended questions. A total of six (6) participants were purposively recruited to participate in this study. The one-on-one interviews were conducted using the interview guide covering themes and questions, including enquiring about participants' views and experiences regarding women's participation in the construction industry, their perceptions of the needs for growth and development amongst rural women doing construction business, and the support measures to encourage the growth and development of lower ranked women in construction. Probing questions were asked as to follow-up on the responses from the participants. A semi structured interview guide (Annexure D) was used guide the researcher during data collection. The initial findings were subjected to the services of an independent coder who went through the transcripts and identified key themes. A consensus discussion was held to finalize the themes that will be discussed in the following section:

3.2 FINDINGS FROM QUALITATIVE DATA: EXPERIENCES OF WOMEN IN CONSTRUCTION

During analysis various themes and categories emerged. Table 3.1 lists a summary of emerging themes and categories relating to the reasons experiences of women in construction.

Table 3.1: Emerging themes and categories on experiences of women in construction

Themes	Categories
Subsistence construction business management	Rationale for starting business
Rigid systems, policies and procedures	Cumbersome, tedious tendering systems, late payments
Lack of construction-related technical skills	Lack of entrepreneurial and construction skills
Low capital base	Lack of access to finance, poor profits
Lack of women-focused interventions	Slow transformation, lack of synergies
Poor foundation of women contractors	Poor incubation, poor educational training and development, lack of business drive

3.2.1 Subsistence construction business management

The results show that most women-owned construction businesses are fundamentally unsustainable and, as a result, are likely to operate ‘at subsistence levels’ because they do not have access to work opportunities that will enhance their upward mobility.

In response to the question of how they would describe the current situation of women in construction in terms of entry into the sector and their rationale for starting construction businesses, comments by the participants included:

“A large proportion of women contractors enter the industry because of boredom, some are job-seekers and not entrepreneurs”.

“Once they have entered the industry, they lack commitment, confidence, strong individual involvement and willingness to take the risk and passion to compete”.

Most of the participants mentioned that women enter the construction businesses in the hope that their household economic situation will improve. However, as a result of several major constraints, they find themselves running their construction enterprises for subsistence purposes, rather than profit. The findings show that, in general, women entrepreneurs tend to see the establishment of a productive business as a means to improve their quality of life, as

well as to serve their communities by creating employment opportunities. However, their lack of preparedness to face the opportunities and challenges within the construction industry play a big part in whether they experience accelerated growth or not.

According to Ludwig & Roodt (2012:210), construction in particular is believed to be one of the sectors suitable for skills and sustainable enterprise development. However, the official statistics by Statistics South Africa (Stats SA 2008) on liquidation and insolvencies reveal the highest number of liquidated or insolvent entities to be in the construction sector. Moreover, most of these entities were found to be women-owned construction enterprises. According to Kganyago (2004), this casts doubts on development programmes aimed at empowering emerging contractor enterprises, and in particular those that are women-owned.

3.3.2 Rigid systems, policies and procedures

On the question of what participants think the common factors that contribute to a lack of growth beyond CIDB grade 2 are, the following statements were made:

“The ability to put a business proposal together, the ability to put up the right documents, the ability to express yourself, now I am not even talking about verbal expression, but putting the right documents in that part of the tender documents. That is something that is already working against them”.

“Tendering and understanding the procurement processes is the big part of the game in the construction industry”.

“Women contractors are forced to remain in the lowest works capabilities and cannot make any profit, because they do not understand the procurement and tendering system”.

3.2.2 Lack of construction-related technical skills

When asked what requirements are important in developing women in construction, the participants had this to say:

“Without the requisite technical knowledge and skill base, women contractors will continue to face marginalisation within the construction sector”.

The supply and availability of skills underpins the ability of the construction industry to transform. Other comments by the participants included the following:

“Although a lot of attitudes have changed in the industry, it still seems women continue to be striving far below men. If you look at many organisations or companies, women directors are all HR, finance, IT, etc. They are designed never to be commercial, technical, divisional managers. That needs to change”.

“The foundation or preparation phase for women’s entrance in the sector needs to be part of the organic process, right from education and training level to industry level”.

Therefore, it is evident that transformation within the industry cannot proceed at the levels we desire without restoring the skills supply line at all levels and across all sectors of the construction industry. In the end, the gender inequalities in the access to and provision of education need to be addressed urgently, and both the Department of Basic Education and the Department of Higher Education and Training are key government departments in this regard.

3.2.3 Lack of women-focused interventions

With regard to the question of why, despite all the empowerment and support by government, women-owned construction businesses remain in the lower CIDB grades, comments from participants included the following:

“The incubation is so fragmented that the incubation programme has lost its purpose of capacitating the potential and advancement of women in construction”.

“It does not say that we are targeting women that are at this level, that have shown this potential, and who have these needs and we are just going to provide this intervention that addresses needs. It is like they say give those projects to women, they will sort themselves out ... This gives credence that if your identity document (ID) says you are a woman, it is like you get empowered because you are a woman ... and at the end of it we are not going to look tomorrow whether after that project anything new shall have happened with you, it is just you know we can tick our box to say at the end of the year so many women got jobs”.

In South Africa, women contractors enter the market at the lower end and only in the general building contracting category, a sector that is extremely competitive and unsustainable. Given this fact, women have not emerged as significant players in the industry both in terms of size of contracts and volume of contracts (Roodt 2012, Fester & Haupt 2012; and Thwala and Mvubu 2009).

The findings show that currently there is a lack of women-focused intervention programmes. Moreover, the various forms of interventions and programmes by government have not improved the advancement of women-owned construction enterprises. The preliminary study shows that currently the incubation programmes are playing the numbers game. In this regard, women contractors are forced to compete with everybody because all these initiatives are a 'one size fits all type of programme'.

As such, women-owned construction businesses continue to grow slowly as compared to their male counterparts. Consequently, women entrepreneurs are often unable to establish and sustain successful businesses. Eventually, their economic and social transformation within the construction industry remains unimproved.

3.2.4 Low capital base

In response to being asked about the challenges facing women in construction, the participants made the following statements:

“A major challenge for women contractors is the low capital base. Women contractors experience low capital base, which results in lack of access to finance and credit due to the fact that there is lack of continuity of work. Again most women contractors rely mostly on government contracts. Government uses a roster system, which is accessed by a large pool of well-established contractors, which makes it difficult for any contractor to jump the queue. The situation is even worse for some of us who are based in far rural areas communities because banks are not keen to support business ventures based in rural areas”.

In most, if not all instances, women's access to development opportunities and further growth remains compromised. So, in order to enhance the sustainability of women in construction, the participants indicated that there is a need for a finance strategy to enable women to access finance and credit. Currently, women contractors are forced to use up their resources and are unable to invest in their businesses. This finding draws parallels with those of Bates (2002),

who confirmed that most projects that women tender for require a performance guarantee of at least 10%, which in most cases cannot be raised.

3.2.5 Poor foundation for woman contractors

In response to the question of what would make women contractors grow and sustain their construction businesses, participants commented:

“Women contractors should rather be treated as ‘contractors’ or ‘entrepreneurs’, and not as ‘women contractors’. A contractor, not a woman at that level ..., Thandi is not a woman; she is a contractor and not a woman contractor, because the woman thing is that is why I say we need to look at ... what is required to be a contractor, it does not matter whether you are woman or not if you are a contractor, a business owner and not a labourer, you have to comply to same standards that a man comply to. The slight difference is if you were to look at the profession is that within the profession there are small things like site conditions that will impact on women as a sissy girl who will not like the language and therefore they may affect women differently as compared to men”.

Ideas on what would define a well-developed or progressive woman contractor included:

“Women contractors should work as hard as their counterparts, get involved in construction to make profit and not for ‘subsistence purposes’. The issue of being self-driven, passionate, determination, tenacity and the drive to succeed are very important in building up a progressive woman entrepreneur in the construction industry. The women contractors need to start working as entrepreneurs, as real contractors, and must shy away from operating as job-seekers or under the shadow of their husbands”.

One participant’s view in relation to what should be done to support women to advance to the higher grades was:

“The development of women in construction is not properly coordinated. In fact, it is more about playing the numbers game. Currently in South Africa there is no single well-coordinated women-specific programme. As such, as women contractors we are forced to compete with their experienced male counterparts. So, it is time development of women contractors become part of the organic process”.

Clearly all the participants believed that a holistic development approach to women's empowerment in the construction industry is critical. The participants' experiences indicated that currently the foundational context in which women are prepared to enter the male-dominated construction arena is not focused on women.

3.3 TRANSFORMATION IN THE CONSTRUCTION INDUSTRY

In the recent times, debate on the transformation of the construction industry has been topical. Anchored by the Constitution post 1994, the South African government introduced a myriad of transformative policy and legislative measures to redress the imbalances associated with exclusions and discriminatory practices in the construction industry, which left many women unable to progress sustainably to higher CIDB categories.

The Construction Sector Charter Council recently initiated a detailed assessment of the industry's transformation, which will inform future strategies. CIDB statistics suggest that only 4% are women-owned. Now the question that needs attention is whether the mechanisms used in public administration to monitor and evaluate empowerment policies are effective? Taking into account all these issues, some policy solutions have been suggested with the hope that this would elicit a paradigm shift in the construction industry, but unfortunately this statistic paints a bleak picture.

The current literature with regard to transformation in the construction industry is very deficient. The closest research with any relation to the study addresses limited information on the pace of transformation in the industry. Some published researches relate mostly to BBBEE and is not industry specific. The latest study closer to the topic under discussion is positive exploitation of BBBEE by contracting entities suffers implementation problems (Emuze & Adlam, 2013) and the status of BBBEE beneficiaries (Patel & Graham, 2012).

Table 3.2 presents the analysis of the themes and concepts about the need for transformation in the construction industry.

Table 3.2: Themes and categories about transformation challenges in the construction industry

Themes	Categories
Statutory regulations of the construction industry	Policy gaps, council exploit the pace of transformation to the detriment of SMMEs, contractors lack development support
Transformation of the construction industry	Great & sensible start, Competition, playing field not leveled The CIDB grading system does not reflect experience & quality, Uncontrolled entry to construction, the grading system is not monitored scientifically, failure to get contracts leads to downgrading of contractors
The influence of Black Economic empowerment	Biased and unfair narrow-based black economic empowerment (BEE), The sector's inbuilt bias towards urban centers of development, liquidation of SMMEs in their first 3 years, low sustainability levels
Exclusion of small contractors	Lack of funding; Financial constraints and challenges Cash flow, bridging finance, access to finance, late payments, women contractors considered high risks, Sustainability is compromised Demise of small contractors
Lack of a structured financing model	Lack of innovative financing model Unstructured incubation programs, Profitability is compromised, Unstable income, Collapsing of women-owned construction enterprises
Skills development	Skill shortage in small contractors Insufficient costing structure, income is not stable, Contractors lack competitive skills, most of the damages to the profitability of the contractor done in the bidding phase New contracts are not definite
Mentoring and training	Inadequate training, mentoring, coaching & business development support, Professional mentors but are business oriented, mentors are involved after contracts are awarded Some contractors are reluctant to use mentors
Collusion	Big construction cartels already earmarked tenders before tendering process begins, Self-enrichment

	<p>No wealth & resource distribution</p> <p>Roster system for tender awards circumvented income is not stable, Insufficient costing structure,</p> <p>New contracts are not definite</p>
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3.3.1 Statutory regulations of construction sector transformation

In this theme, participants focused on the core characteristics of the industry and the empowerment-oriented legislation that affected it. Participants 2 stated that when “transformation was introduced; contractors had to swim or sink”. Two participants (3 and 6) expressed the view that the construction charter has impacted a little on the sustainability of small black-owned contractors.

Some of the questions underpinning the critique are: Is there any substance to view that the construction charter and other empowerment policies were established merely as window dressing stunts? Does the policy sufficiently enable the success of empowerment of historically disadvantaged individuals? Are the mechanisms used in public administration to monitor and evaluate empowerment policies effective? Taking into account all these issues, some policy solutions have been suggested with the hope that this would elicit a paradigm shift in the construction industry.

Participant 1 noted, *“For too long a divide had existed between the industrial sector and educational systems. It is a silly divide because we both fundamentally lose out. Industry needs to be renewed by constantly [developing] new ideas, while academics need to be able to test ideas around construction that advance inclusion. For too long, our construction has been a product of our politics, resulting in the construction of an urban landscape that is particularly exclusionary. “We have inherited a divide”, participant 1 said.*

The construction industry charter was not doing enough to promote black economic empowerment (BEE). Although the charter was gazetted in 2009, black-owned businesses and professionals in the sector continue to face many problems. These included lack of finance and big private sector and government contracts. Other challenges included fronting, collusion and late payments from big companies and the government. Late payments had caused the demise of many small companies.

Furthermore, professional industry bodies were mainly run by whites. The council was supposed to monitor to monitor the charter, but it could not meet and did not have the resources to execute its work. It takes about 8-10 years for an engineer to gain enough experience to be considered a professional. Research also indicates that there is a shortage of engineering skills in South Africa. Statistics show that there was only one engineer or technical specialist per 700-720 people versus one per 300 in the BRICS countries (West, 2012).

3.3.2 Transformation of the construction industry

In this theme, participants 1 and 5 reported that the introduction of the CIDB gradings was a “great and sensible start” as it ensured that contracts were awarded construction enterprises with the “capability and resources to the work”. The transformation is not only focused on Black people in general, but it is focusing on gender equality. Enterprises will have to increase the involvement of black women in the ownership and management levels to optimize their scores and enterprises.

3.3.3 Exclusion of small contractors

Participant 4 recounted his experiences on how important access to finance is, opportunities, and upgrading of skills is to transformation in the industry. Furthermore participant 4 lamented that of the enormous budgets for emerging contractors and women infrastructure development, none seemed to manifest in the industry.

3.3.4 The influence of Black Economic empowerment compliance

The Government initiated Broad-Based Black Economic Empowerment (BBBEE) in order to improve the then existing biased and unfair narrow-based black economic empowerment (BEE). BEE led to the enrichment of only a minority of the previously disadvantaged in South Africa. Today the goal of BBBEE is to empower a much broader South African society. The problem with narrow-based empowerment was that measures were only taken of equity ownership and management representation.

The CIDB says emerging black and female contractors are still predominantly concentrated in the lower echelons of the entity’s Register of Contractors between Grades 1 and 6, while the

higher Grades 7 to 9 remain largely dominated by the white established contractors. Addressing the summit about transformation in the construction industry, Minister Nxesi said that procurement practices in the public sector must play a significant role to translate increased government spending on infrastructure into meaningful empowerment opportunities for the black emerging sector.

During the interviews participants' discussions revealed that there is "little penetration of black enterprises in those components of the sector that are more capital and knowledge intensive". This situation is exacerbated by the exclusion of small contractors on a large scale. Research by Verwey (2005) showed that the absence of adequate financial and other support mechanisms for Small Medium and Micro Enterprises (SMMEs) and the sector's inbuilt bias towards urban centers of development. Participants 6 and 7, who are small businessmen, said that entering the construction industry is extremely difficult. *"As small contractors, we operate under severe constraints. It requires patience and foresight. We must at all times survive under the shadow of these big companies, if you are lucky though to get a sub-contract from them"*.

"Due to lack of experience sometimes we just take those sub-contractors just to keep ourselves busy, but without really making profit. So it is survival of the fittest". Black participation is principally through micro and small businesses where there are also low levels of sustainability.

3.3.5 Lack of a structured financing model

Financial problems and irrational decision making both contribute to the failures of these small businesses. Available evidence reveals that most of the SMMEs, especially women-owned collapse once funding is exhausted or terminated. The participants members indicated that developmental state *must seek innovative ways and models of incubating enterprises of previously disadvantaged with a view to promoting business maturity and independence*. The participants indicated that the current model of financing business development might not be enough. As such the failure of emerging companies is due to unprofitable quoted prices, technical inabilities and poor management.

3.3.6 Skills development

In this regard the participants had to debate the issues of transformation and related experience. The question was what was their view regarding related construction skills and experience, and the pace of transformation? The participants echoed that the construction industry could not always position itself to be “at the cutting edge of new ideas”, owing to the pressures of sustaining a profitable enterprise. Their view is that the biggest challenge that the sector experiences is that “the interventions do not develop requisite sector expertise, because there is a huge gap between academia and practical intent”. As a result, it will be difficult for the construction charter to realize its objectives. These companies would benefit tremendously from skills transfer if they could enter into a joint venture or partnership with established companies.

Will Hughes, in Engineering News (2014), contends that the inherent disconnect between the industry and the academia lay in the manner in which academics and researchers were “obscure” in the presentation of their research and ideas. He further noted that a huge problem at the face of academia and industry was an issue of communication, as well as the fact that practitioners were [seldom] interested in the construction and engineering problems identified by the academics. According to Hughes (2014), not everything academia does is relevant to industry and practitioners, as construction professionals want answers rather than questions, while academics prefer it the other way round. Therefore, Hughes concluded that it was critically important that universities taught practical problem-solving techniques.

Participant 1 recounted her experiences *that empowerment criteria were not helping women in the industry*. Participant 1 further reported *“that the incubator programme was incomprehensible, tender documents were too complex. With no job experience it was difficult to register, fronting resulted in gardeners and domestic workers becoming so-called directors. Women have passion for construction but they are new in the field and need a lot of training as subcontractors”*.

The responses from the participants showed there is a depleted skills base due to a number of factors including the disconnection of academia from the needs of the sector, the sector’s lack of appeal as a career choice, the low numbers of school leavers with adequate grades in Mathematics and Science, low salaries and poor prospects for career advancement that development projects initiated by state authorities were essentially carried out with little meaningful participation by the affected sector.

This view is supported by Thwala & Mvubu (2009:353-361) when they asserted that South Africa is characterized by a systematic under investment in human capital. In large government projects of the past the likelihood of participation by historically disadvantaged companies was highly unlikely, the authorities being more concerned with efficiency and technocratic considerations than with involving them in the process.

Also according to the report of Europe INNOVA Sectoral Innovation Watch (2011:89), the development of the knowledge base in the construction sector is retarded by the following reasons: first, the construction projects often use short term labor contracts, and, second, there is a high proportion of SMMEs in the construction sector that often find it difficult to finance training cost. Key recommendations to influence skills levels are as follows:

The first issue is the provision of incentives to upgrade and better use skills. The second issue is to bring the worlds of education, training and work closer together. The third issue is to develop the right mix of skills. Educational programmes shall be planned and delivered at all levels, including higher education.

The construction sector consists of a large low-skilled labour force and limited numbers of highly skilled professionals, which are in short supply. Despite this, enterprises are not adequately investing in skills development. The importance of capacity building is however now widely recognized in the public sector but unfortunately the private sector, which is responsible for the bulk of the construction work in the country, is reluctant to implement change. The state must align its strategies for financing construction sector based enterprise development. It is not enough to place stringent requirements for access to financing but proactively support their development and capacity needs.

3.3.7 Mentoring and training

All the participants raised the important issues of training and mentoring within the industry. The participants raised the need for increased co-operation between established and emerging contractors. The participants indicated that with mentoring and training, the depleted skills base and insufficient market penetration and lack of sustainable growth in black and women owned enterprises would be reduced significantly.

3.3.8 Collusion

The majority of the participants agreed that collusion is one of the increased unethical business practices in the construction industry since the introduction of the BBBEE. Participant 7 indicated that collusion is by “far most visible” impediment for transformation in the construction industry. It further makes SMMEs to virtually collapse. In fact three participants (4, 6 and 7) made a profound statement by *“claiming that it was impossible to survive” due to collusion in the industry*”.

Tirole (2014:151-213) defines collusion as an agreement between two or more parties, sometimes illegal and therefore secretive, to limit open competition by deceiving, misleading or defrauding others of their legal rights. It is an agreement among firms or individuals to divide a market, set prices, limit production or limit opportunities. It can involve “wage fixing, kickbacks, or misrepresenting the independence of the relationship between colluding parties. Former Aveng CEO Roger Jardine said “a lack of transformation made it easy for the construction cartel to go about its business”. He expressed a view that if transformation in the sector had taken place, it would probably have been much harder to run the cartel.

When the participants debated the question of what really delays transformation of the construction industry, most of the participants members responded that collusion by construction companies has been the biggest challenge and impediment to transformation of the construction industry. The participants said that:

“The few large companies that dominate the industry have somehow managed to convince the authorities until recently that they represented the construction industry in the country and were able to secure for themselves not only the bulk of the public and private construction sector work, but also positions of influence in the various statutory bodies and boards”.

Furthermore, they attest that a subtle form of “collusion”, which has run parallel to bid rigging, is keeping them from gaining meaningful work”. *“We also struggle to find subcontract work, because established firms have relationships with suppliers that predate existed. We can’t gain meaningful work because of these construction cartels. Therefore breaking in has been a challenge”.*

Tirole (2014) said that the phenomenon of collusion, and the concomitant concepts of “group”, “power”, “bureaucracy”, and “politics” figure prominently in political science and sociology.

Concurrently, I want to argue that collusion is prominent in the construction industry too. Compounding the problem of collusion is an absence of reliable data to map the changes in transformation. Evidence from the results of the Delphi Participants demonstrate that collusion or bid rigging is a major talking point within the construction industry. In fact the participants emphasized that acts of collusion limit the extent of their progression in the industry.

Roger Jardine, former CEO of Aveng, supports this assertion when he asserted “a lack of transformation made it easy for the construction cartels to go about its collusion business”. With new jobs they said, contractors find themselves working with different suppliers. Despite efforts to transform and empowerment scorecards that suggest transformation, the measurable impact is small. It is clear that large firms do subcontract, and are able to meet enterprise development requirements of the construction charter. In some cases, however, the industry is not to blame. Government requires contractors to use suppliers from immediate local community.

3.4 STRATEGIES FOR SURVIVAL OF WOMEN IN CONSTRUCTION

Over the years, a plethora of interventions were formulated and implemented in an attempt to promote the development of women contractors in South Africa. Yet, most attempts have achieved little success, as a significant proportion of women-owned construction enterprises remain engaged in lower levels. Undoubtedly, the women-owned construction enterprises that succeed still have to thrive a hostile male dominated industry. The question “what strategies do women construction owner-managers use to attain success?” was asked. Table 3.3 revealed that women use the following strategies to survive:

Table 3.3: Themes and categories on survival strategies for women in construction

Themes	Categories
Ability to finance the enterprise	Need for capital, need for collateral, Cash management-do a cash plan to determine cash needs and when, savings, borrowing from family
Industry management experience	Have related qualifications Determine areas of weakness, lack construction skills
Diversification	Multiple business ownership, spot the gaps, procure more work
Mentorship and coaching	Need for a professional mentor, trustworthy counsellor, advisor
Business management acumen	Be a generalist, have sound judgment, “see the whole field”
Risk management	Develop a risk assessment plan, identify growing competitors
Time management	Develop a time management strategy, set out your objectives, implement your plan, record milestones

3.4.1 Ability to finance the enterprise

The ability to finance one’s own construction enterprise was cited as paramount to the survival of any business. The participants indicated that for every successful enterprise, financing of the enterprise was supposed to be put at the forefront of any business, particularly at start-up level. Available evidence reveals that most of the Small, Medium and Micro-sized Enterprises (SMMEs), especially women-owned collapse once funding is exhausted or terminated. As such, owner-managers who manage to thrive this difficult economic downturn must really put a lot of effort in ensuring that they keep their businesses profitable for survival. Some excerpts from the participants’ statements are included below:

“Getting payment and even finance is a major stumbling block, particularly if you are a woman”. So the ability to finance your enterprise becomes difficult from the moment the business is conceptualized”.

“At times just convincing the bank to loan you the capital is a big problem because most of the banks need surety or collaterals”.

“As construction owner-managers we must ensure that enough capital is available in order to continuously sustaining our businesses because lack of capital is often the most critical barrier to success”.

“In my case, I used to save vigorously for rainy days you know. In the process of all this, is that I implemented diligent cash flow management until my business reached maturity and independence”.

“Rigorous savings when the profit in one operating cycle is sufficient is the way to go because, in this business, when projects dry up, cash flow dries up too”.

As revealed in this study, the ability to finance the enterprises starts with a plan to see what the cash needs are and when the cash needs arise. The ability to finance the enterprise can either be through borrowing from close family without interests or loans from the banks. This notion is supported by Mboko & Smith-Hunter (2009) who point out that access to finance is an imperative criterion to survival and sustainability of women entrepreneurs in the construction industry. Then one is in a position to successfully manage one’s own business particularly if one focuses on cash management techniques echoed by the construction enterprise owner-managers. This is in agreement with Brush (1992), who referred to the financial aspects of setting up a business as being without a doubt, the biggest obstacle for women. Studies have shown that women have less access to capital than men (Sabarwal & Terrell, 2008; and Coleman, 2007). Financial problems and irrational decision making contribute a large deal towards the failure of these enterprises.

Despite the difficulties in sustaining enterprises, women-owned construction enterprises have managed to survive beyond expectation. Mboko & Smith-Hunter (2009) found through a study of small business owners in Hawaii that entrepreneurs will find ways to move on in spite of an anti-business environment. An interesting finding in this study is that all the women did not know anything about running their construction enterprises, but with their tenacity, desire and motivation they were able to succeed against all odds. In this study, a similar observation has been made in that women construction owner-managers attained success due to their resilience, motivation, commitment and hard work. Based on the participants’ point of view, the study revealed that the ability to finance one’s enterprise is a critical strategy for the survival of women-owned construction enterprises. It does not matter how the owner gets the money; what is important is the availability of finance to keep the enterprise afloat.

3.4.2 Industry management expertise

Most of the participants in this study highlighted that they went into the construction business without the necessary work experience and knowledge thereof. They felt that women contractor managers generally lacked construction industry related expertise. It was also revealed that lack of related industry management expertise was a serious technical problem facing most women-owned construction enterprises. Often, women who venture into the so-called man's world find their way blocked by discrimination and laws that are stacked against them (Mboko & Smith-Hunter, 2009). Five participants reveal the importance of related industry management experience in the following comments:

“The solution could be to determine what those areas of weakness are and then develop a plan for dealing with those challenges. In my case once I realized that general construction industry expertise was my problem, I appointed a manager with construction management qualifications”.

“When I realized that construction management skills was my weakness, I hired a person on a part-time basis to provide consulting work for me, and continued to ensure that I arm myself with the requisite skills. It was not easy but I had to dedicate time and money on the specialty”.

“In the long run, I reaped off the fruits of my investment in the project manager that I appointed. What was important for me at the time was to ensure that the core area for the project was done to perfection”.

“I was really not prepared for construction business management. I thought that it was an easy business environment to tap into and make money very fast. Investing in myself and having a hands-on experience on my own business proved to be an important ingredient to my success. In order to survive in this industry, you really need to be good at what you are doing”.

“You know I thought that construction business was a way of achieving financial freedom quickly, but as time went by, I realized that the construction industry was a very tough business environment. What made my situation bad was that I did not have any qualification in the industry or even previous work experience. So instead of hiring a consultant, I decided to enroll an engineering course on a part-time basis. And it really worked for me because today I am a qualified Quantity Surveyor!”

Clearly, the above sentiments demonstrated the general lack of preparedness by women when entering the construction industry. On the other hand, this gave credence to the fact that the pace of transformation within the construction industry will remain slow if the skilling of women does not get the priority it deserves. Also patterns of inequality within the broader construction industry remain skewed.

3.4.3 Diversification

The study discovered that diversification might be a good survival strategy for women-owned construction enterprises because currently the construction industry has high barriers to entry and growth. A similar observation was made by Marcucci (2001), in that diversification is firstly, as a strategy for capital accumulation so that the enterprise can expand and specialize at a later stage, secondly, as a way of spreading risks across a number of activities; and thirdly as a way of testing new market opportunities or niche areas.

This is in congruent with the findings of a study by Pavitt, Robson and Townsend (1989) that there is a general trend toward more diversification in the small firms amongst mechanical, instrument and electrical-electronic technologies. Similarly, this corroborates (Richardson, Howarth & Finnegan, 2004) that ownership of multiple enterprises especially ones with seasonal markets and cash flows, open up avenues for the business owner to take advantage of a pool of resources, skills and experiences. This evidence further gave credence to how participants said to have gained growth and survived in the construction industry.

The results revealed that diversification plays an important role in women-owned business: ‘*Spot the gaps; move into new horizons*’, was often stressed:

“Remember in 2008 when the 2010 FIFA World Cup bid was awarded to South Africa, there was a huge construction boom and we all thought that we are going to make a killing... but only to realize that the market was already oversaturated and we could not break the glass ceiling. For us to survive, we had to find new niche market just to ensure that the business survives”.

“At some point I realized that my business was getting weak... you know, there was not enough demand of my material, and that really persuaded me to search for work from other industries... and it worked in the end, though with much difficulty”.

However, it must be said that some of the women-owner managers hold a different view regarding diversification. Four of the participants disagreed with the concept of diversification. They echoed the view that it is important to *“start small and work your way up, as small contracts completed well lead to bigger opportunities”*.

“I did not like the idea of diversification because I was a very small Grade 2 enterprise. I thought diversifying would stretch my little resources and could result in a big loss. So I just held on to my small company at the time and worked very hard to ensure that I survive till this far.”

This view concurs with the assertion by (ILO, 2004) that ownership of multiple enterprises is likely to overstretch the business owner in terms of capability, time and resources across a number of different businesses. As a result, the likelihood is that there could be too many jobs at the same time that may hinder quality as well as impacting on completion of projects on time.

3.4.4 Mentorship and coaching

The findings revealed that mentoring and coaching are important elements for the development, growth and survival of women contractors in the construction industry. All the participants of the study raised the important issue of mentoring and coaching within the industry was. The participants raised the need for increased co-operation between established and emerging contractors. They further indicated that with mentoring and coaching, the depleted skills base, insufficient market penetration and lack of sustainable growth in black and women-owned construction enterprises will be reduced significantly. In relation to mentoring and coaching, participants made the following comments:

“Build relationships. Be persistent, do not give up, you will get there eventually and being persistent in pursuit of contract opportunities”. To grow in this tough industry, you need a professional person who will walk you through the development trajectory”

“The greatest weapon of the growth and survival in the construction industry is to surround yourself with experienced people who made it... although it is difficult to be part of the “boys’ club” as this is a male-dominated industry, you still find men, even successful women who are prepared to walk with you on the growing trajectory of your business”.

“Make friends with people who have travelled the same road... learn as much as you can... and soon you will emulate them and be like them. Therefore, one cannot be successful on one’s own. One needs a trustworthy and respectful mentor who will support throughout your enterprise development”.

Thus, it can be concluded that successful women-owned construction enterprises are a result of the value of good mentorship and coaching. This is so because the participants expressed a strong view that mentorship and coaching give owner-managers of construction enterprises connections, help to steer them towards the right direction and save them from making costly mistakes. Studies have found out that the majority of these mistakes are at start-ups, during their first year of inception. Many of these failures can be prevented if entrepreneurs get a handholding support by an institution having specialized incubation programmes (Dey, 2012).

3.4.5 Business management acumen

Survival in the construction industry requires a person to consistently have sound business judgment. General business acumen involves the ability to effectively communicate with all functional areas in the company. Some excerpts by participants regarding business acumen skills are:

“As an entrepreneur, I had to become a generalist because I had to manage all the functional areas of my business”.

“I must say that acquiring technical knowledge about the construction industry is something that I had to do quickly in order to survive. I had quickly learned more about the challenges and concerns regarding my own business”.

“In order to survive in this difficult construction industry, you really have to up your game by keeping abreast of any new developments, any new niche markets and best practices within the industry. In essence you have to stay ahead of your competitors for you to procure new work opportunities”.

3.5.6 Risk management

The construction industry in South Africa is a hostile and very risky business environment, particularly to women and new comers. Research studies have revealed that most of the women-owned construction enterprises suffer from the liabilities of smallness and newness, but also face risks such as stiff competition from large companies, credit, operational, market and reputational risks. In response to the question of what coping strategy did they use to mitigate hard-core business environment to ensure their growth and advancement in the construction industry, some of the comments by the participants included:

“As a unique business environment, I thought it was going to be easy for me to get more contracts. But it was not the case because when I entered, there were so many of us and having to tender for the same contract was a real set back. One must continuously do what I would call risk assessment, whereby you quickly identify growing competitors within the business environment and outsmart them”.

“I once experienced credit risk due to the fact my client, government to be specific, did not make payments on time. And you know, I did not have a plan to manage this risk. Things got difficult... I nearly got liquidated had it not been for a Good Samaritan.”

Similarly, Thwala and Mvubu (2009) explain that in South Africa the high risk of competition among emerging [women] contractors has contributed to increases in financial failures of the emerging markets, making the markets unsustainable particularly for women in construction. Thwala and Mvubu (2009) state further that small contractors run into problems due to late payments by clients. In their study around problems facing small and medium sized contractors in Swaziland, Thwala & Mvubu (2009) recognized that many construction firms have suffered financial ruin and bankruptcy because of delays in payments, which are common with government contracts.

This means that it is important for every owner-manager of a construction enterprise to be able to conduct a business risk analysis. This risk analysis enables the construction enterprise owner to develop a risk management strategy that deals with credit, competition, volatile market and reputational risks.

3.5.7 Time management

The inordinate time commitment for construction owner-managers and the need for delegating appropriate tasks are important survival strategies. It emerged that the issue of time management was an important element of the survival of the women-owned construction enterprises. Participants indicated that:

“When you are an owner-manager, you can easily fall into the trap of thinking that you have more than 24 hours into a day. You tend to have a never-ending list of things to do and often your work-life balance may suffer a great deal”.

“There will even be a time when your family thinks that you have deserted them because you always believe that you never get on top of things”.

“Making a priority list or a ‘to do list’ is an important time management technique. Sometimes is fine to say no.... to many unending meetings”.

“You know a lot of owner-managers spend a lot of their time attending ‘business meetings’. But really some meetings are just way too long or even unnecessary, because meetings are points of connections and networking, but they do not run the business!!”

So the question of effective time management is cardinal for the survival of construction owner-managers. Some participants highlighted the importance of delegating so that they can free up some time for themselves and their family.

3.6 DEVELOPMENTAL NEEDS OF RURAL WOMEN IN CONSTRUCTION

The question “what do you think are the developmental needs for rural women in construction was asked. Table 3.4 lists emerging themes and categories relating to the developmental needs amongst rural women in construction.

Table 3.4: Themes and categories on developmental needs for rural women in construction

Themes	Categories
Business management capability	Business development services, Be a generalist, have sound judgment, “see the whole field”
Technical management capability	Lack of entrepreneurial and construction skills construction skills base
Management capability	Preparedness, requirements of professional qualifications, Determine areas of weakness,
Financial management capability	Access to finance, improved profits, need for cash flow, need for collateral, capital base

3.6.1 Need for business management capability

The results show that most women-owned construction businesses are fundamentally unsustainable and, as a result, are likely to operate ‘at subsistence levels’ because they do not have access to work opportunities that will enhance their upward mobility.

“As an entrepreneur, I had to become a generalist because I had to manage all the functional areas of my business”.

“I must say that acquiring technical knowledge about the construction industry is something that I had to do quickly in order to survive. I had quickly learned more about the challenges and concerns regarding my own business”.

“In order to survive in this difficult construction industry, you really have to up your game by keeping abreast of any new developments, any new niche markets and best practices within the industry. In essence you have to stay ahead of your competitors for you to procure new work opportunities”.

On the question of what participants think the common factors that contribute to development beyond CIDB grade 2 are, the following statements were made:

“The ability to put a business proposal together, the ability to put up the right documents, the ability to express yourself, now I am not even talking about verbal expression, but putting the right documents in that part of the tender documents. That is something that is already working against them”.

“Tendering and understanding the procurement processes is the big part of the game in the construction industry”.

“Women contractors are forced to remain in the lowest works capabilities and cannot make any profit, because they do not understand the procurement and tendering system”.

The construction industry charter was not doing enough to promote black economic empowerment (BEE). Though the charter was gazetted in 2009, black-owned businesses and professionals in the sector continue to face many problems. These included lack of finance and big private sector and government contracts. Other challenges included fronting, collusion and late payments from big companies and the government. Late payments had caused the demise of many small companies.

Furthermore, professional industry bodies were mainly run by whites. The council was supposed to monitor to monitor the charter, but it could not meet and did not have the resources to execute its work. It takes about 8-10 years for an engineer to gain enough experience to be considered a professional. Research also indicates that there is a shortage of engineering skills in South Africa.

The majority of the participants agreed that (deal with bid-rigging) collusion is one of the increased unethical business practices in the construction industry since the introduction of the BBBEE. Participant 6 indicated that collusion is by “far most visible” impediment for transformation in the construction industry. It further makes SMMEs to virtually collapse. In fact, three participants 4, 5 and 6) made a profound statement by *“claiming that it was impossible to survive” due to collusion in the industry”.*

Tirole (2014:151-213) defines collusion as an agreement between two or more parties, sometimes illegal and therefore secretive, to limit open competition by deceiving, misleading or defrauding others of their legal rights. It is an agreement among firms or individuals to divide a market, set prices, limit production or limit opportunities. It can involve “wage fixing, kickbacks, or misrepresenting the independence of the relationship between colluding parties.

Former Aveng CEO Roger Jardine said, “a lack of transformation made it easy for the construction cartel to go about its business”. He expressed a view that if transformation in the sector had taken place, it would probably have been much harder to run the cartel.

When the participants debated the question of what really delays transformation of the construction industry, most of the participants members responded that collusion by construction companies has been the biggest challenge and impediment to transformation of the construction industry. The participants said that:

“The few large companies that dominate the industry have somehow managed to convince the authorities until recently that they represented the construction industry in the country and were able to secure for themselves not only the bulk of the public and private construction sector work, but also positions of influence in the various statutory bodies and boards”.

Furthermore, they attest that a subtle form of “collusion”, which has run parallel to bid rigging, is keeping them from gaining meaningful work”. *“We also struggle to find subcontract work, because established firms have relationships with suppliers that predate existed. We can’t gain meaningful work because of these construction cartels. Therefore, breaking in has been a challenge”.*

Tirole (2014) said that the phenomenon of collusion, and the concomitant concepts of “group”, “power”, “bureaucracy”, and “politics” figure prominently in political science and sociology. Concurrently, I want to argue that collusion is prominent in the construction industry too. Compounding the problem of collusion is an absence of reliable data to map the changes in transformation. Evidence from the results of the Delphi Participants demonstrate that collusion or bid rigging is a major talking point within the construction industry. In fact the participants emphasized that acts of collusion limit the extent of their progression in the industry.

Roger Jardine, former CEO of Aveng, supports this assertion when he asserted “a lack of transformation made it easy for the construction cartels to go about its collusion business”. With new jobs they said, contractors find themselves working with different suppliers. Despite efforts to transform and empowerment scorecards that suggest transformation, the measurable impact is small. It is clear that large firms do subcontract, and are able to meet enterprise development requirements of the construction charter. In some cases, however, the industry is not to blame. Government requires contractors to use suppliers from immediate local community.

3.6.2 Need for technical management capability

Technical management capability was found to be an important element in the development of women contractors. When asked what requirements are important in developing women in construction, the participants had this to say:

“Without the requisite technical knowledge and skill base, women contractors will continue to face marginalisation within the construction sector”.

The supply and availability of skills underpins the ability of the construction industry to transform. Other comments by the participants included the following:

“Although a lot of attitudes have changed in the industry, it still seems women continue to be striving far below men. If you look at many organisations or companies, women directors are all HR, finance, IT, etc. They are designed never to be commercial, technical, divisional managers. That needs to change”.

Participant 1 noted that, *“For too long a divide had existed between the industrial sector and educational systems. It is a silly divide because we both fundamentally lose out. Industry needs to be renewed by constantly [developing] new ideas, while academics need to be able to test ideas around construction that advance inclusion. For too long, our construction has been a product of our politics, resulting in the construction of an urban landscape that is particularly exclusionary. “We have inherited a divide”, participant 1 said.*

Therefore, it is evident that transformation within the industry cannot proceed at the levels we desire without restoring the skills supply line at all levels and across all sectors of the construction industry. In the end, the gender inequalities in the access to and provision of education need to be addressed urgently, and both the Department of Basic Education and the Department of Higher Education and Training are key government departments in this regard.

Most of the participants in this study highlighted that they went into the construction business without the necessary work experience and knowledge thereof. They felt that women contractor managers generally lacked construction industry related expertise. It was also revealed that lack of related industry management expertise was a serious technical problem facing most women-owned construction enterprises. Often, women who venture into the so-

called man's world find their way blocked by discrimination and laws that are stacked against them (Mboko & Smith-Hunter, 2009). Five participants reveal the importance of related industry management experience in the following comments:

"The solution could be to determine what those areas of weakness are and then develop a plan for dealing with those challenges. In my case once I realized that general construction industry expertise was my problem, I appointed a manager with construction management qualifications".

"When I realized that construction management skills was my weakness, I hired a person on a part-time basis to provide consulting work for me, and continued to ensure that I arm myself with the requisite skills. It was not easy but I had to dedicate time and money on the speciality".

"In the long run, I reaped off the fruits of my investment in the project manager that I appointed. What was important for me at the time was to ensure that the core area for the project was done to perfection".

"I was really not prepared for construction business management. I thought that it was an easy business environment to tap into and make money very fast. Investing in myself and having a hands-on experience on my own business proved to be an important ingredient to my success. In order to survive in this industry, you really need to be good at what you are doing".

"You know I thought that construction business was a way of achieving financial freedom quickly, but as time went by, I realized that the construction industry was a very tough business environment. What made my situation bad was that I did not have any qualification in the industry or even previous work experience. So instead of hiring a consultant, I decided to enroll an engineering course on a part-time basis. And it really worked for me because today I am a qualified Quantity Surveyor!"

Clearly, the above sentiments demonstrated the general lack of preparedness by women when entering the construction industry. On the other hand, this gave credence to the fact that female entrepreneurs tend to have less industry, management and prior business start-up experience and that contributes to their modest growth expectations (Cliff, 1998:526).

3.6.3 Need for management capability

The state of readiness and preparedness amongst rural women contractors are important elements for their ability to survive in the construction industry. According to Thwala & Mvubu (2012:146), experience in any kind of management is very important and it plays a crucial role in ensuring that the business succeeds or fails. Poor management has been posited as one of the main causes of failure of small enterprises. Lack of experience in the construction industry can lead the manager to make bad decisions. As pointed by Thwala and Mvubu (2012), good management implies an awareness of all factors making up a successful business, namely, good strategy, marketing, pricing and financial control.

3.6.4 Need for financial management capability

Through inductive reasoning, the researcher deduced that there is a need for financial management capability amongst rural women contractors. In response to being asked about the challenges facing women in construction, the participants made the following statements:

“A major challenge for women contractors is the low capital base. Women contractors experience low capital base which results in lack of access to finance and credit due to the fact that there is lack of continuity of work”.

“Again most women contractors rely mostly on government contracts. Government uses a roster system which is accessed by a large pool of well-established contractors, which makes it difficult for any contractor to jump the queue”.

“The situation is even worse for some of us who are based in far rural areas communities because banks are not keen to support business ventures based in rural areas because some of us do not have our book keeping in order”.

In most, if not all instances, women’s access to development opportunities and further growth remains compromised. So, in order to enhance the sustainability of women in construction, the participants indicated that there is a need for a finance strategy to enable women to access finance and credit. Participants commented, *“There is a need to have a one stop shop for women contractors to fall back on in times of financial difficulties”.* *“In most cases we do not understand the financing qualifying criteria”.* Currently, women contractors are forced to use up their resources and are unable to invest in their businesses. This finding draws parallels

with those of Bates (2002), who confirmed that most projects that women tender for require a performance guarantee of at least 10%, which in most cases cannot be raised.

3.7 THE NEEDS FOR GROWTH AMONGST RURAL WOMEN IN CONSTRUCTION

The question to establish the needs for growth amongst rural women in construction was asked. Table 3.5 presents the themes and categories that emerged regarding the needs for growth amongst rural women in construction.

Table 3.5 Themes and categories on needs for growth amongst rural women in construction

Themes	Categories
Needs for financial growth	High turnover, investment, savings, high profit margins, assets, construction bank, need for surety, collaterals, Unstructured incubation programmes, Cost containment, access to loans, increased cash flow, inclusion, influence of BBBEE, Cash management-do a cash plan to determine cash needs and when, savings, borrowing from family, Stable income
Needs for strategic growth	Market viability, competitive advantage, diversification Access to market, more work opportunities, Multiple business ownership, spot the gaps, procure more work,
Needs for structural growth	Internal systems controls, communication, managerial roles, Risk management
Needs for organizational growth	Culture, leadership style, attitudes, Reporting lines, time management

3.7.1 Needs for financial growth

The findings show that financial growth is an integral part of the growth needs for rural women in the construction industry. Financial growth relates to the development of business as a commercial entity. It is also more concerned with turnover, the cost and investment needed to achieve turnover and resulting in profits and increases in in what the business owns or assets. In response to the question of what do they require to grow, participants commented that:

“The issue of access to finance plays a big part in the growth of any business. We need financial security in order to experience growth”.

Participants recounted their experiences on how important access to finance is, opportunities, and upgrading of skills is to the growth of women contractors. Furthermore, participants lamented that of out the enormous budgets for emerging contractors and women infrastructure development, none seemed to manifest in the industry.

Financial problems and irrational decision making, contribute to their failure. Available evidence reveals that most of the SMMEs, especially women-owned collapse once funding is exhausted or terminated. The participating members indicated that a developmental state *“must seek innovative ways and models of incubating enterprises of previously disadvantaged with a view to promoting business maturity and independence”*. The also participants indicated that the current model of financing business development may not be enough.

The ability to finance one’s own construction enterprise was cited as paramount to the needs for growth and survival of any business. The participants indicated that for every successful enterprise, financing of the enterprise was supposed to be put at the forefront of any business, particularly at start-up level. Available evidence reveals that most of the Small, Medium and Micro-sized Enterprises (SMMEs), especially women-owned collapse once funding is exhausted or terminated. As such, for women contractors to thrive this difficult economic downturn, they must really put a lot of effort in ensuring that they keep their businesses profitable for survival. Some excerpts from the participants’ statements are included below:

“We need a different financing model to curtail the challenges of accessing loans and credits from banks. It is even worse for us as women to meet the banks minimum surety or even collaterals, because in this country, women in business are considered risk averse”.

“Perhaps government should look into establishing a construction bank, specifically for uplifting the plight of women experiencing difficulty in meeting conditions set out by banks before approving loans”. Can you imagine how difficult it is to have a bank rejecting your loan request? Where do you get the capital in order to continuously sustaining your business because lack of capital is often the most critical barrier to success”.

3.7.2 Needs for strategic growth

The study discovered that market viability is a need for growth and survival for women contractors because currently the construction industry is saturated. Strategic growth is primarily concerned with the way the business grows its capabilities to develop a presence in the market place (Wickham, 2001). Again, as pointed out by Wickham (2001:304), the strategic growth of any business centers around the profile of opportunities which ventures exploits, and the assets, both tangible, which it acquires to create a sustainable competitive advantage. Therefore, from the views and experiences of key stakeholder, there is a greater need to increase the market viability of the business in order to procure more work opportunities to enhance growth and sustenance of such a business.

The results revealed that diversification plays an important role in women-owned business: *‘Spot the gaps in the market, move into new horizons and gain a competitive vantage points’*.

3.7.3 Needs for structural growth

According to Wickham (2001:304), structural growth relates to the changes in the way the business organizes its internal systems, managerial roles, and responsibilities, reporting relationships, communication links and resource control systems.

Research studies have revealed that most of the women contractors suffer from the liabilities of not having structural systems in place. As such, they run the risk of being risk averse. Thwala and Mvubu (2009) would posit, small contractors run into various problems due to lack of sound administrative systems. Some of the comments regarding the need for structural growth included:

“Our personal considerations appear to override our aspirations to grow structurally”.

“Sometimes we tend to think about our families and the difficulty in striking that balance. So when you think of expanding, you become doubtful unlike our male counterparts”

May a time we want to manage and control our businesses with ease and comfort, so you find that even when you seriously need structural growth, you are not sure if you can handle it ...you know”.

For instance, business policies like health, safety and occupational injuries is important element to the structural growth of the business. If this policy is not in place, the business runs the risk of legal suits in the event of injuries of employees on duty.

3.7.4 Needs for organizational growth

Organizational growth relates to changes in the organization's processes, culture and attitudes as the business grows and develops. It is also concerned with changes that must take place in the entrepreneur's role and leadership style as the business moves from being "small" to a "large" firm (Wickham, 2001:304). Some of the comments that participants echoed included:

"What really delays women's organizational growth is the challenge of not having enough resources"

Sometimes it's a question of decision-making, like you look at market volatility and say, is it the right time to expand or not".

3.8 SUPPORT NEEDS FOR RURAL WOMEN IN CONSTRUCTION

The question to establish the support needs for rural women in construction was asked. Table 3.6 details the themes and categories that emerged regarding the support needs for rural women in construction.

Table 3.6: Themes and categories on support needs for rural women in construction

Themes	Categories
Mentoring and coaching	Hand-holding training, Professional mentors to volunteer
Capacity building	Empowerment programmes, incubation programmes, Set-asides, preferential procurement
Women-focused interventions	Cumbersome, tedious tendering systems, late payments Transformation, Synergies, Understanding the tendering processes, Equitable policy, systems and procedures
Proper foundation base for women contractors	Business incubation, educational training and development, business drive, Equitable policy, systems and procedures

3.8.1 Mentoring and coaching support

All the participants raised the important support issues of mentoring and coaching within the industry. The participants raised the need for increased co-operation between established and emerging contractors. The participants indicated that with mentoring and coaching, the depleted skills base and insufficient market penetration and lack of sustainable growth in black and women owned enterprises would be reduced significantly.

All the participants of the study raised the important issue of mentoring and coaching within the industry was. The participants raised the need for increased co-operation between established and emerging contractors. They further indicated that with mentoring and coaching, the depleted skills base, insufficient market penetration and lack of sustainable growth in black and women-owned construction enterprises will be reduced significantly. In relation to mentoring and coaching, participants made the following comments:

“Build relationships. Be persistent, do not give up, you will get there eventually and being persistent in pursuit of contract opportunities”.

“The greatest weapon of survival in the construction industry is to surround yourself with experienced people who made it... although it is difficult to be part of the “boys’ club” as this is a male-dominated industry, you still find men, even successful women who are prepared to walk with you on the growing trajectory of your business”.

“Make friends with people who have travelled the same road... learn as much as you can... and soon you will emulate them and be like them”.

Thus, it can be concluded that successful women-owned construction enterprises are a result of the value of good mentorship and coaching. This is so because the participants expressed a strong view that mentorship and coaching give owner-managers of construction enterprises connections, help to steer them towards the right direction and save them from making costly mistakes.

It became very evident from the participants’ responses that one cannot be successful on one’s own. The mastery of a particular specialization amongst contractors is a very important component of the survival of women contractors in the industry. However, studies have found out that the majority of start-ups fail in their first year of inception. Many of these failures can be prevented if entrepreneurs get a handholding support by an institution having specialized incubation programmes (Dey, 2012). Similarly, Verwey (2005) would posit that the growth of any business enterprise is at least partially determined by the entrepreneur’s motivation and intention gained from being mentored.

Participants recounted her experiences *that empowerment criteria were not helping women in the industry*. Participants further reported *“that the incubator programme was incomprehensible, tender documents were too complex. With no job experience it was difficult to register, fronting resulted in gardeners and domestic workers becoming so-called directors. “Women have passion for construction but they are new in the field and need a lot of training as subcontractors”. “We therefore require a lot of support such as role models who can take us through their experiences in the construction”*

3.8.2 Capacity building

Hambly & Sarapura (2009) define capacity building as a process whereby individuals, organizations and groups enhance their abilities to mobilize and use resources in order to achieve their objectives on a sustainable basis. Capacity building involves people’s knowledge, skills and attitudes as well as institutional mechanisms, tools and procedures.

In essence, capacity building within the construction industry takes place in an environment that provides a legal and policy frameworks on empowering previously marginalized groups

like women in rural areas. Efforts to support and strengthen capabilities of individuals groups and organizations can comprise a culmination of three categories, which are:

Firstly, capacity building support at technical assistance level of individuals, including human skills, knowledge and attitudinal development. These technical assistance support provide for the empowerment and strengthening of individuals (women) with new financial systems, governance, marketing strategies, skills training, tailor-made technical assistance, general training project and contract management skills training,

Secondly, capacity building support at organizational development. These involve changes in organizations, networks and sectors. The organizational development support include coaching support, networking, institutional linkages and policy interventions, and,

Thirdly, capacity building support at organizational support. These provide for systematic changes in institutional governance like project support, limited recurring cost support and projecting. In the construction industry, it is important to provide capacity building, which is planned, systematic and participatory. This will help to facilitate an understanding and change of agents with its stakeholders and operational activities such as procurement practices and bringing them closer to women.

“We have undergone a lot of training and empowerment, but it does not deal with our own problems”.

“There are lots of training workshops that we attended since we came on board, but the problem is that they do not address our challenges”.

“We need their training but also we need work... we are tired of just being trained... trained. We want work.”

Carry out need assessment of business development services needs of women contractor managers. To address the barriers to start-up, growth and the development needs of women, capacity building should be specific to the context of women rather being general or include a “one-size-fits all” approach. Therefore, for it to be women-specific, thorough needs assessment should take into account the specific needs of women entering the construction industry. Need assessment should provide a clear and practical guidance on how women should enter and survive the construction industry. A proper need assessment will help increase opportunities for women-owned construction enterprises to access more work

opportunities. This means that it is important to create conducive conditions in order to integrate women-owned construction enterprises.

3.8.3 Women focused interventions

With regard to the question of why, despite all the empowerment and support by government, women-owned construction businesses remain in the lower CIDB grades, comments from participants included the following:

“We need a structured support base for women entering the construction industry. The interventions should be very targeted towards women and unapologetic.”

The findings show that currently there is a lack of women-focused intervention programmes. Moreover, the various forms of interventions and programmes by government have not improved the advancement of women-owned construction enterprises. The preliminary study shows that currently the incubation programmes are playing the numbers game. In this regard, women contractors are forced to compete with everybody because all these initiatives are a ‘one size fits all type of programme’.

As such, women-owned construction businesses continue to grow slowly as compared to their male counterparts. Consequently, women entrepreneurs are often unable to establish and sustain successful businesses. Eventually, their economic and social transformation within the construction industry remains unimproved.

3.8.4 Proper foundation base for women contractors

Ideas on what would define a well-developed or progressive woman contractor included:

“Women contractors should work as hard as their counterparts, get involved in construction to make profit and not for ‘subsistence purposes’. The issue of being self-driven, passionate, determination, tenacity and the drive to succeed are very important in building up a progressive woman entrepreneur in the construction industry. The women contractors need to start working as entrepreneurs, as real contractors, and must shy away from operating as job-seekers or under the shadow of their husbands”.

One participant's view in relation to what should be done to support women to advance to the higher grades was:

“The development of women in construction is not properly coordinated. In fact, it is more about playing the numbers game. Currently in South Africa there is no single well-coordinated women-specific programme. “As such, as women contractors we are forced to compete with their experienced male counterparts”. We do not want special treatment, but we just need the playing field to be levelled first...then we can compete with anyone. After all, we are all contractors!

“The foundation or preparation phase for women’s entrance in the sector needs to be part of the organic process, right from education and training level to industry level”.

Clearly all the participants believed that a holistic development approach to women's empowerment in the construction industry is critical. The participants' experiences indicated that currently the foundational context in which women are prepared to enter the male-dominated construction arena is not focused on women.

3.9 SUMMARY

In this chapter I introduced you to the discussions of the empirical findings. These empirical findings covered the growth, developmental and support needs of rural women in the construction industry.

CHAPTER 4

LITERATURE REVIEW

4.1 INTRODUCTION

Chapter three described the findings of the qualitative data. Chapter four presents a comprehensive literature review on what scholars are saying about women in construction and models for the development of women contractors in general. A closer look on some of the important legislative frameworks pertaining to the development of women in construction is also made.

4.2 THEORETICAL FRAMEWORK

This study begins from the perspective that capacity is more important than finance or any other resource. The meta-theoretical stance of this study is that capacity building is an integral and essential lubricant of sustainable development, particularly of women construction. The study also departs from the fact that many development interventions have failed due to a failure to appreciate the local circumstances and specific needs for women contractors. These local circumstances include deprivation of women from socio-economic opportunities like doing business in the construction industry, industry experience, networking and access to capital. In addition, there is the fact that traditionally, the construction industry invests less in women's education, training and women-owned business, which diminishes their ability to advance in the industry.

4.2.1 The capability approach

The most prominent and relevant theory to this study is the capability approach by Martha Nussbaum (1995). Evolving from the capability approach is the vectors capabilities of women in construction that relate to their capability to fully participate in a male-dominated construction industry. This theory is relevant because it provides an important insight into the broad normative framework for evaluation and assessment of individual well-being and social arrangements, the design of policies, and proposal about social change as a point of departure for the development of women (Robeyns, 2005:94). In addition, the capability approach to human development is chosen because of its relevance to the well being and mainstreaming of the development of women in a holistic manner.

The holistic view of the capability approach to human development is recognized by Nussbaum's focus on the ten (10) lists of central human capabilities. From this central human capabilities list, Nussbaum distinguished three kinds of capabilities: basic, internal and combined. However, for the purpose of this study, focus is on the core concepts for the capability approach which according to Robeyns (2005:94) are the "functioning's and capabilities". Robeyns (2005:94) further describes functioning's as the "beings and doings" of a person, whereas a person's capability is "various combination of functioning's that a person can achieve". The capability approach suggests that individual assessment should be based on the freedom of what the person can do (Robeyns, 2005). Thus, the capability approach involves "concentration on freedom to achieve in general and the capabilities to function in particular" (Robeyns, 2000:10).

Capability is thus a set of vectors of functioning, reflecting a person's freedom to lead one type of life or another". According to Sen (1987:36) "a functioning is an achievement", whereas 'capability is the ability to achieve'. In Sen's words, actual achievements are called functioning, and they are the components of a worthwhile life if they are considered valuable. Furthermore, the capability set of a person depends on her entitlement and commodities, that is, all goods and services that are available to her, and on her capability to convert them into valuable functioning (Robeyns, 2005). Thus, entitlements and commodities form the material basis of the capability set, even if they are not enough to guarantee the development of capabilities.

According to the capability approach, the ends of well being, justice and development should be conceptualized in terms of people's capabilities to function; that is, their effective opportunities to undertake the actions and activities that they want to engage in, and being who they want to be. Sen in Robeyns (2005) argues that evaluations and policies should focus on what people are able to do and be, on the quality of their life, and removing obstacles in their lives so that they have more freedom to live the kind of life that, upon reflection, they have reason to value. The chart below plots the informational categories demonstrating the core characteristics of the capability approach in relation to the development of women in construction.

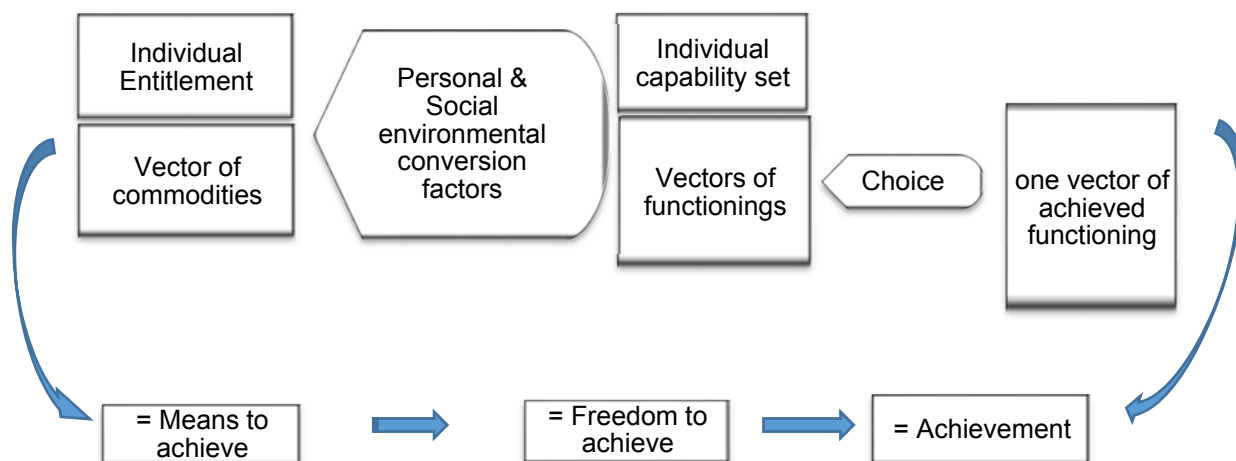


Figure 4.1: Diagrammatic representation of the capability approach chosen to guide the study. Adapted from Robeyns (2005:98)

I envisioned the Capability Approach in the context of this study by assessing gender inequalities in the construction industry. My assumption was that women in construction are confronted with the various constraints that make their functioning in the industry unsustainable. Literature review showed that women in construction still experience gender discrimination. As such, women contractors have worse achievements than males for a number of functioning, including lack of related industry experience, lack of relevant qualifications in the construction industry, lack of access to finance and credit as well as lack of management and business skills to operate their business. Therefore, if women's capabilities in the construction industry were properly assessed and were allowed to convert them into valuable functioning, their achievement in the industry could be realized. In essence, what is valuable is that women be given the valuable opportunities to participate within the construction industry. This can only be achieved if their needs are properly assessed, well resourced, well-nourished with the relevant development programmes, so that they can develop further.

According Robeyns (2000), Davids, Theron, & Maphunye (2005), the Capabilities Approach focuses on the importance of the micro-approach on development by showing the importance of the integrated people-centered approach to development.

It is hoped that this approach will explain how women contractor's development should be conceptualized in a democratic and developing South Africa. In the end, this Capability Approach suggests that the overriding objective of development is the expansion of human capabilities rather than economic growth. While growth may be necessary for development, it is not always sufficient (Dreze & Sen, 1989; Balestrino 1994; Sen, 1999). Thus, there is a need to increase efforts to support women contractors through well-structured supportive programmes and a contractor-development model.

4.3 LEGISLATIVE FRAMEWORKS PERTAINING TO WOMEN IN CONSTRUCTION

In South Africa there is excellent legislation, policy frameworks and incubation programmes initiated by government to empower designated groups, especially. But it is still difficult for black-owned construction businesses to sustain themselves. This is so because the pace of transformation within the construction industry is very slow and the implementation of programmes and initiatives to accelerate women's development in the sector has been found to lack strategic and coherent approaches (Jonas, Netshandama & Mudau 2014:270-279).

The industry is dominated by a small number of large companies that carry out the bulk of construction work. The vast majority of firms in the industry comprise of small, medium and macro enterprises; a group of historically disadvantaged and marginalized construction firms that operate in the shadow of the organized construction industry. These small contractors operate under severe constraints including a lack of technical and managerial expertise, lack of adequate finance, inadequate supervisory capabilities and difficulty in obtaining essential resources (Reddy, 1999:1).

Therefore, it is not only significant to proclaim transformative policies, but it is equally important to enforce compliance with the current protocols and charters. Hence, government introduced the following legislative frameworks in order to deal with the inequality gaps within the construction industry.

4.3.1 Constitution of the Republic of South Africa (Section 9 of the Constitution):

Equality includes the full and equal enjoyment of all rights and freedoms. To promote the achievement of equality, legislative and other measures are designed to protect or advance persons or categories of persons, disadvantaged by unfair discrimination may be taken. The state must ensure the promotion of Black Economic Empowerment. The Emerging Contractor Development Strategy addresses this provision of the constitution.

4.3.2 The Construction Charter

The construction sector transformation charter was promulgated in 2007 under section 27 of the BBBEE Act. It provides the basis for the development of good practice of the construction sector as envisioned in the BBBEE Act. Transformation Charter was published in the Government Gazette in February 2007, together with the DTI's Code of Good Practice and is legally binding from May 2009. The Construction Sector Code presents the industry with the ideal opportunity for the advancement of transformation and Black Economic Empowerment in the procurement of construction programs and services.

The Code also seeks to regulate a target of 30 percent black ownership in the industry over the next 10 years. In the Construction Charter, the construction industry was defined as a priority sector under the Department of Public Works, and facilitates new fixed investments as well as maintenance of existing infrastructure.

In many instances the Construction Sector is responsible for the creation of public goods like roads, airports, harbours and basic services. Most services are based on tendering procedures and are subjected to public sector procurement policies. The Construction Sector is viewed as a strong employment creator and is a first tier supplier to Government in the supply chain. No bonus points or sub-minimums appear in the codes. It is important to the sector that the measured entity reflects its precise score achieved. The Construction Charter deals with a number of transformation issues that are the product of an extensive consultative process between the Department of Trade and Industry and major stakeholders in the Construction Industry.

The charter provides for significant increase in black ownership. The charter also caters for women's empowerment. Over the years, has been little penetration of black enterprises in those components of the sector that are more capital and knowledge intensive. According to this charter, this situation is exacerbated by the absence of adequate financial and other supporting mechanisms for small, medium and micro enterprises (SMMEs) and the sector's inbuilt bias towards urban centres of development.

4.2.2.1 The objectives of the charter

- The transformation and growth, of the construction industry;
- The improvement in the competitiveness and efficiency of the industry
- Enhance entrepreneurial development and sustainable growth of BEE Small, Medium and Micro Enterprise (SMME) construction companies through strategic partnerships.
- To enhance critical skills shortage and skills development with a specific focus on women.
- Achieve a substantial change in the racial and gender composition of ownership, control and management
- To bring to an end the malpractice of fronting in the industry.

The objectives are aimed at promoting a vibrant, competitive and sustainable construction industry in South Africa.

4.3.3 Skills Development Act

In terms of the Skills Development Act (2003) as amended, we are required to address the skills shortage such as artisans and built environment related skills. The skills development focuses on training of the emerging contractors on all areas of construction management and mentorship programme.

4.3.4 Preferential Procurement Policy Framework Act 2000

The Preferential Procurement Policy guidelines were published by the Government to assist the public in the tendering process. According to these guidelines, the five pillars of procurement are: value for money, open and effective competition, ethics and fair dealing,

accountability and reporting, and equity. It is only with the fifth pillar (equity) that the issue of BEE preferential procurement points comes into play. The overall objectives of the PPPFA are the following:

- The promotion of South African owned enterprises
- The promotion of enterprises located in rural areas
- The promotion of SMMEs

Despite all these efforts, the industry is skewed in terms of race and gender. Over the past two decades the sector experienced declining investment and demand volatility. Thus, the prospects of increased investment go hand in hand with increasing capacity and output. There is a depleted skills base partly due to the sector's lack of appeal and factors such as workplace training, mentorship and recognition of prior learning will need urgent attention. There is insufficient penetration of and lack of sustainable growth of black companies. A preferential procurement policy is being applied on a subjective basis leading to legal uncertainty. The industry is still fragmented.

In terms of this Act an organ of state must determine its preferential procurement policy and implement it within the framework. One of the specific goals within the framework includes contracting with persons, or categories of persons historically disadvantaged by unfair discrimination on the basis of race, gender or disability. One of the key principles of the Emerging Contractor Development Strategy is to set specific targets for procurement for emerging contractors.

4.3.5 National Framework for Women Empowerment

The objectives of the policy framework on gender equality and women empowerment are to root out patriarchal practices or tendencies resulting and gender inequalities and gender discrimination in government. It also aims at promoting and facilitating the empowerment and participation of women in construction delivery chain, enhance entrepreneurial development and increase the number of expertise of women owned companies. Thus the approach of the Emerging Contractor Development addresses women empowerment and participation in order to reduce the skills gap and to advance women as well to be fully-fledged contractors.

4.3.6 Broad-Based Black Economic Empowerment Act No 53 of 2003

The Broad- Based Black Economic Empowerment Act No 53 of 2003 aims at promoting the achievement of constitutional rights to equality; increase the broad based participation of black people (particularly women) in the economy. Further, to promote a higher growth rate, the act increases employment and more equitable income distribution.

4.4 KEY GENDER ISSUES IN THE CONSTRUCTION INDUSTRY

According to Sospeter, Rwelamila, Nchimbi & Masoud (2014:78) in South Africa, past policies and laws deliberately favored men, particularly white men. Many women in construction in developing countries face disproportionate difficulties in their quest to participate and compete in the construction industry. Despite gender equality and empowerment, the household has a traditional structure- and still has- that makes the male-dominant gender (Hartmann, 2011). These traditional stereotyped role expectations spill over to organizational policies and practices to maintain women's marginalized work roles (Bobbitt-Zer, 2011; Cha, 2013) and become entrenched in a gender-biased organizational culture (Prescott & Bogg, 2011). Women in rural areas face domestic demands, remaining the primary parent, emotional nurturer and housekeepers despite their entrepreneurial ventures impacting on their ventures' prospect (Lee-Gosselin & Grise, 1990).

Historically, men have dominated policy development (Taylor, 1997). Organizations function in ways that do not always support women's careers patterns and need to integrate work with family responsibilities. Furthermore, more women experience the world of work differently to how men do (Bobbitt-Zeher, 2011; Prescott & Bogg, 2011). Similarly, Du Plessis & Barkhuizen (2012) found that the most significant negative psychological barrier to women's career progression in the construction industry is gender discrimination. Also, Damaske (2011) echoed that negative psychological experience like gender stereotyping and discrimination in male-dominated occupations, caused women's movement from male-dominated to female-dominated occupations.

Despite having a constitution that entrenches equal rights, discrimination practices, structural inequalities, cultural factors, prejudices, patriarchy and sexism are some of the hindrances that are still rife in the South African construction industry (Pappaya, 2007). Nationally, the CIDB register reflects a total of 12 679 construction companies, of which only 5 272 (about

41%) are owned by women. About 51% of women-owned companies occupy Grade 2 of the CIDB, whereas only 1% of the women-owned enterprises fall within Grade 9, (this CIDB grading allows the contractor with huge financial capacity, vast construction experience and history to tender for contracts with maximum value without limits), (CIDB, 2012). In the Limpopo Province alone, a significant number (49.71%) of the women-owned construction enterprises occupy Grade 2. Thus, this scenario gives credence to the evidence by Thwala & Mvubu (2009), that due to this grading structure, in South Africa [women] contractors enter the market at the lower end and in the general building-contracting category, making the sector extremely competitive and unsustainable.

Similarly, Gale (1994) stated that the construction industry displays a macho culture, where relationships are characterized by argument, conflict and crisis. Workplace culture in construction includes male dominance, macho images, sexual harassment, discrimination and isolation. Repeated discriminating behavior is likely to manifest itself in terms of workplace stress and because women are in the minority, they are likely to experience the worst intimidation. This is, by far, the most serious health hazards for women working in construction and needs the considered support to ensure that it is avoided (McCarthy, 2010). Women are “the target of more subtle forms of sexual harassment in masculine occupations such as construction industry” (Coughlin & Thomas, 2002:109). Given this, Coughlin & Thomas (2002) imply that women contractors seem to be subjected to sexual harassment while entering the male-dominated work fields such as the construction.

Argherdien & Smallwood (2008) claim that the construction industry has seen a significant degree of resistance to concepts such as gender equity, affirmative action and resentment at what is seen as the “big brother” approach of the government’s social justice agenda. On the other hand, Nichter & Goldmark (2009) argue that women own and operate the majority of micro and small enterprises in many developing countries, in part because of the ease of entry and their limited access to alternate opportunities. Yet, women often face particularly difficult challenges that suppress the growth of their firms.

As a system of national strategy, empowerment policies had to redress the past imbalances that were created by the apartheid system. However, interventions tend to be characterized by inadequate preparations, poor need assessment and an inadequate understanding of the development needs of women contractors. This is evidenced by discontinuances, unstructured training approaches, ad-hoc mentorship and inadequate monitoring and evaluation that promote lack of growth and unsustainability amongst women contractors.

Therefore, the researcher argues that women have not emerged as significant players in the industry both in terms of size of contracts, as well as volume of contracts. Related to this is the lack of clear policy targets against which to measure the effectiveness of women contractor support programmes (Haupt & Fester, 2012). Furthermore, Thwala & Mvubu (2009) also assert that the emerging contractor policies intended for Black Economic Empowerment (BEE) are not being properly implemented, but rather used for job creation opportunities, which contribute to the overcrowding of the emerging market.

Thus, one can conclude that gender issues often have a negative impact on the participation of women in the construction industry. These gender issues act as barriers on the behaviour of women entering the construction industry and limit their potential advancement and sustainability in the construction industry. All women face some form of cultural gender bias and barriers to participating- especially in male dominated industries like the built environment. Therefore, there is a need to level the playing field for women to equally participate in the construction industry. The industry players also need to create an enabling or conducive environment in order for women to find purpose to fit.

4.4 A CASE FOR A MODEL TO DEVELOP WOMEN IN CONSTRUCTION

As the development and support of the Small Medium and Micro Enterprises (SMMEs) sector in South Africa is seen as a priority for government, government has passed laws to enhance the development of women who, by and large, are SMMEs. During the apartheid era this sector was neglected by the policy makers, and in the case of black-owned enterprises, particularly women, discouraged through legislative measures such as the Group Areas Act and job reservation (Haupt & Fester, 2012).

Certainly, with this kind of operating approach, most women contractors are likely to face an undesirable environment. It would thus seem that without a structured model to assist women-owned construction companies, many women in construction would not be able to grow or sustain beyond CIDB grade 2. Bates (2005) identified the following barriers that hinder women's growth within the construction industry:

4.4.1 Lack of growth

Mjoli-Mncube (2005) stated that most women-owned construction companies remain stagnant despite years of existence. In the South African construction industry, this poses a problem as it limits the jobs that women actually tender for and in turn this limits them to project of a particular size and complexity. Furthermore, the CIDB has come up with a register that regulates the industry and assigns capacity in terms of financial capacity, experience and history. Consequently, women contractors are most likely to be classified at the lowest levels, thus limiting their competitiveness and impact (Mjoli-Mncube, 2005).

4.4.2 Challenges with fronting

Within the context of Broad Based Black Economic Empowerment (BBBEE), Business Unity South Africa (BUSA) defines “fronting as a set of adverse business practices designed to circumvent the implementation of BEE, thereby undermining the effective implementation of the objectives of BBBEE” (BUSA, 2005:8). Similarly, The Codes of Good Practice on BBBEE released in December 2004 for public comment define fronting as “any entity, mechanism or structure established in order to circumvent the BEE requirements as required under various policy instruments. Fronting structures generally claim a higher BEE status than the actual substantive economic benefits flowing to black beneficiaries. The claims can be in the form of direct ownership, human resource development and indirect ownership components as per balanced scorecard” a form of fronting used, which appears rife in the construction industry, involves black contractors selling contracts to white companies.

According to Mjoli-Mncube (2005), fronting manifests itself in the form of fronts on the paper (where only documents are legitimate); company fronts (in this case companies claim to be black-owned or black empowered; fictitious companies (those who are experienced establish fictitious companies that are awarded contracts), and fronts in joint ventures (JVs) (in this case non-BEE contractor forms a joint venture with a BEE contractor for a specific project.

Unfortunately, as the construction industry has always been difficult for women’s participation, women contractors have fallen prey to fronting practices. According to Mjoli-Mncube (2005) in Moodley (2012:76) “women in the South African construction industry are the unfortunate victims of fronting”. Black contractors (in this case women contractors), tender on the basis they will do the work. However, upon being awarded a tender, some of the do sell it to another

company for an amount significantly less than the contract is worth. Various reasons are advanced for this practice. One reason could be that the woman-owned contractor was not able to raise the necessary bank loan and lack of appropriate technical skills to do the work. Faced with the prospect of an inability to complete the work, she sells the contract to a company that can deliver on the contract to her client. In her article, “Fronting, whatever its guises, must stop”, Zilwa (2005) asserts that one of the greatest impediments to the effective implementation of the objectives of Broad-Based Black Economic Empowerment (BBBEE) is fronting. Sadly, in a fronting situation, there are no winners, no skill transfer, no profit is made and government loses its quest to empower women.

4.4.3 Lack of access to work opportunities

There is lack of well-structured training programmes to equip women contractors with technical and managerial skills, as well as a lack of mentorship programmes. Access to high profile development opportunities (such as enquiries and working groups) is often gained through informal networks and mentoring. Research by Verwey (2005) shows that women tend to lack access to informal networks that provide information about such opportunities. In her address during the 2005 South African Women in Construction (SAWIC) Annual Conference, Phumelele Siphayi argued that women contractors experience “blatant sophisticated discrimination and harassment”, and that as such, they cannot easily access jobs within the sector.

Twumasi Mensah, Chairman of the ASROC in Ghana, said that the women have to stand up and come together, for they are faced with many problems in the construction industry. He explained that the women contractors were not into the formation of a rival organization, however, there was the need for the women to share ideas so that they could identify their peculiar problems and seek appropriate solutions. He mentioned funding, training, equipment and vehicles as problems facing the women and which prevented them from competing favorably with their male counterparts.

4.4.4 Lack of management capacity

Phaladi & Thwala (2009) affirm that South Africa is characterized by a systematic under-investment in human capital. This has resulted in a labour force with a skewed distribution of craft skills, career opportunities and work-place experience. Lack of effective management

during their early stages is a major cause of business failure for small and medium sized contractors. Owners tend to manage their businesses themselves as a measure of reducing operational costs. Poor record keeping is also a cause for startup business failure.

Furthermore, both Tshivhase & Worku (2012), and Phaladi & Thwala (2009) substantiate that in most cases, this is not only due to the low priority attached by new and fresh entrepreneurs, but also a lack of the basic business management skills. During the early stages of some business start-ups, owners were unable to separate their business and family/domestic situations. Business funds were put to personal use and thus used in settling domestic issues. This has a negative impact on profitability and sustainability (Phaladi & Thwala, 2009). In addition, emerging (women) contractors have a tendency to fail to develop into sustainable enterprises due to inadequate construction knowledge and lack of experience (Ludwig & Root, 2010; Haupt & Fester, 2012; Tshivhase & Worku, 2012). Worse still, is that procurement opportunities are saturated to a point where often contracts of lower value are offered.

The findings of a survey conducted by Ludwig & Root (2012), with civil engineers focusing on emerging contractors, paint a bleak picture for the South African construction industry, as the number of inexperienced persons with very limited training and knowledge who own and manage contracting companies is high. Earlier, Coughlin & Thomas (2002) found that women tend to bring less management related experience to their business or industry. While research by (Coughlin & Thomas, 2002) found that men and women contractors are, on average, equally educated, women contractors have fewer financial and marketing management skills.

4.4.5 Limited access to finance and credit

The start of any business begins with availability of finance. Lack of access to finance is one of the major constraints on the development of women contractors in developing countries. Mjoli-Mncube (2005) states that lack of finance is a vicious circle that involves unemployment and low wages. Therefore, unemployment, low wages and no access to credit hinders women from participating in the construction industry. These factors prevent women from developing and growing their companies within the sector. Eyiah (2001) also confirms that difficulties in obtaining bank loans have been recognized as a major constraint in the development of small businesses both in developed and developing countries.

Thwala & Mvubu (2009) also found that, in South Africa the high competition among emerging (women) contractors has contributed to increases in financial failures of the emerging market, making the market unsustainable particularly for women in construction. Thwala & Mvubu (2009), state that small contractors run into problems due to late payments by clients. In their study around problems facing small and medium size contractors in Swaziland, Thwala & Mvubu (2009) recognize that many construction firms have suffered financial ruin and bankruptcy because of delays in payment, which are common with government contracts. Larcher (1999) confirmed this view regarding small contractors and banks, and noted that, in many cases, neither understands the problems and constraints of the other party.

Ofori (1991) found that small and medium-sized contractors in developing countries have very limited access to funds, as they are seldom able to offer the necessary fixed assets as collateral. Advance payments by clients are rare and interim payments are routinely delayed. Thus contractors, particularly women-owned construction companies in developing countries, often face severe financial difficulties. This problem has been so acute in some countries that efforts to improve contractors' access to finance and survival have been introduced in various forms.

Eyiah (2001) also asserts that there are factors that affect small contractors' access to bank finance in developing countries. Eyiah's study found that banks face difficulties in obtaining adequate information about small business owner-managers and their businesses, preventing them from better evaluating their loan proposals. Eyiah (2001) concludes that in such circumstances, banks become concerned about whether a business would perform its obligation under the contractual agreement after receiving the loan.

Thwala & Phaladi (2009:536) maintain that "efforts to promote SMMEs access to finance might have more impact on development and growth but access is limited and the cost of capital is high". In addition to insufficient access, high interest rates also pose a constraint to micro enterprise growth. Nichter & Goldmark (2009) also stress that for various reasons, ranging from a lack of collateral to bias against small firms, micro and small firms, owned by women in particular, tend to experience greater financial constraints than do larger firms. This is due to the fact that most women contractors' entrants come from outside the core built environment fields such as civil engineering, architecture and quantity surveying. As a result, women enter the industry without the necessary and technical and financial skills (Mjoli-Mncube, 2005). They either then sub-contract or do away with it. Those who import the skills lose touch with

the finance of the business and have no control over profitability. Therefore, women contractors experience lack of growth and hence no capacity to take on bigger projects (Mjoli-Mncube, 2005).

Thwala & Mvubu (2009), maintain that small contractors run into problems due to late payments by clients. In their study around problems facing small and medium size contractors in Swaziland, Thwala & Mvubu (2009) recognize that many construction firms have suffered financial ruin and bankruptcy because of delays in payment, which are common with government contracts. Larcher (1999) confirm this view regarding small contractors and banks, by noting that, in many cases, neither understands the problems and constraints of the other party. Many writers recommend the importance of developing a closer working relationship between the banks and small businesses in addressing potential problems affecting the financing of small contractors (Larcher, 1999).

Mahlobo (2006) states that access to finance is clearly one of the major constraints to women's participation in the construction industry. Most projects that women tender for require performance guarantee of at least 10%, most of which they cannot raise. The challenge is that some women-owned companies end up losing their potential contracts because they cannot structure the necessary finance in the necessary time and their contracts end being allocated to other bidders.

4.4.6 Lack of transformation

Despite significant progress since the establishment of a democratic government in 1994, South African society is characterized by racially based income and social service inequalities. Consequently, the vast majority of South Africans remain excluded from ownership, control and management of productive assets and from access to training in strategic skills.

Lack of transformation of the sector, is indicated by lack of women-owned contractors successfully competing in the sector. There is a realization, however, that, while race has historically been the primary driver of economic disparities in South Africa, other forms of discrimination also prevent certain groups from accessing economic freedom and opportunity. Women, who represent 52% of the South African population, still suffer from historical and cultural prejudice in accessing opportunities, for a number of reasons that are outlined in this study. While access to financial services continues to be largely racially defined in South

Africa, the gender gap between men and women does exist, and is likely to grow if special efforts are not undertaken to address the underlying issues now (DTI, 2007).

4.5 THE POSITIVE EXPERIENCES OF WOMEN CONTRACTORS

Apart from the many challenges facing women contractors, there seem to be great opportunities for women within the industry. Mahlobo (2006) state that the two types of opportunities for women in construction are, firstly, opportunities from the charters, which was released in July 2007, has a strong emphasis on women's development and empowerment. The main strategies of the charter included mentoring by larger companies, coaching as well as commitment of time by established companies to help women in construction with cash flow management, systems and processes for shortening time frames, administration skills and financial skills, coaching on tendering and pricing and skills development (Moodley, 2012).

Secondly, opportunities from government, where there is recognition of women's role in the socio-economic development and growth of South Africa. Therefore, government has committed itself to promoting women and women-owned construction businesses through its transformative policies and programmes. These policies and programmes aim to influence active women's participation through women economic empowerment. Apart from policies, government has introduced a number of programmes aimed at promoting the participation of women in the construction industry. Such notable programmes are the National Contractor Development Programme (NCDP) and the Contractor Incubator Programme (CIP). The sole purpose of these programmes is to create an enabling environment within which selected contracting enterprises can develop into sustainable contracting enterprises (National Department of Public Works, 2011).

4.5.1 Set-asides

The concept of set-asides has been used worldwide to benefit particular sectors of the economy. The federal government of the US has used set-aside requirements that a certain percentage of government funds and contracts be reserved for business owned by women and members of the minority groups, to benefit these communities. The European Union has used set-aside schemes in which the proportion of farmland is taken out of production in order to reduce surpluses or maintain or increase prices of a specific crop. In South Africa, the term is used to refer to setting aside certain aspects of government funds and contracts, to be

fulfilled only by small businesses, widely considered to be the solution of South Africa's unemployment and economic problems (Timm, 2012:10).

4.6 TRAINING NEEDS FOR WOMEN CONTRACTORS

The government has devoted efforts to empowering women construction by launching Contractor Incubator Programme (CIP) and other strategies, like the Vukuphile Learnership Development and Expanded Public Works Programme. However, with a lack of synergy and coordination, there has been fragmentation in dealing with emerging contractors at all levels. Not much has been devoted to a structured model for the development of women contractors. Subsequently this has obstructed the economic growth and development of women in construction (Ntuli & Allopi, 2009). According to Tshivhase & Worku (2012) this fragmentation is one reason for women owned enterprise stagnation.

Therefore, quality support services for people, especially women venturing into self-employment, or starting their own businesses or co-operatives, are imperative. Existing services can often be reviewed and adapted or expanded to address the specific needs of women entrepreneurs (Haupt & Fester, 2012). Experience shows that, prior to starting a business, women often prefer to participate in women-only courses and groups. But once their businesses have been established, they want access to support services appropriate to the type and size of enterprise they have created, and to the sector in which it operates (Bhenkele, 2007).

4.7 SUMMARY

The focus of this chapter was on the detailed discussion of a comprehensive literature review and its inter-relation to the study. The chapter began with the exploration of the theoretical foundation and how it underpins the study. In this chapter, I also showed the importance of the legislative frameworks that govern the participation of women in the construction industry. I also discussed the need for development model for women in construction. The next chapter five will describe the findings and interpretation of the quantitative data.

CHAPTER 5

FINDINGS AND INTERPRETATION

5.1 INTRODUCTION

The previous chapter (4) discussed comprehensive literature review and its inter-relation to the study. The objectives of this study, which were to identify the needs for growth and development amongst rural women doing business in the construction industry and the appropriate support for rural women in construction, were achieved in this chapter. In view of these objectives, this chapter discusses the interpretation of the findings of the study.

The primary data for phase two was derived from the use of quantitative structured questionnaires consisting of closed and ended questions. They were distributed to a total of 167 women in construction that included contractors who were on CIDB Grade 2, and women-owned construction businesses. All the respondents were drawn from a database covering 5 districts: Capricorn, Greater Sekhukhuni, Mopani, Waterberg and Vhembe, all from the Limpopo Province.

5.2 RESEARCH METHODS

The primary data for phase two was derived from the use of quantitative structured questionnaires consisting of closed questions. They were distributed to a total of 167 women in construction that included contractors who were on CIDB Grade 2, and women-owned construction businesses. All the respondents were drawn from a database covering 5 districts, namely: Capricorn, Greater Sekhukhuni, Mopani, Waterberg and Vhembe, all from the Limpopo Province.

5.2.1 Stakeholder constituency of respondents

Table 5.1 details the stakeholder constituency of the respondents. General building predominated relative to the class of work; followed by electrical engineering and civil engineering.

Table 5.1: Stakeholder constituency of respondents

Grade 2	Class of work	Respondents	Percentage (%)
	Civil engineering	11	9.2
	General building	61	50.8
	Electrical engineering	21	17.5
	Mechanical engineering	12	10
	Electrical engineering infrastructure	6	5
	Specialized work	9	7.5
	Total	120	100

5.2.2 Data management

5.2.2.1 Development of questionnaire

The empirical findings from the in-depth interviews with the key stakeholders were used as a basis to develop a questionnaire, which involved closed ended questionnaires and a four point Likert-type scale. The adopted scale was as from 1=totally unimportant; 2=unimportant; 3=important and 4=very important. The questionnaire consisted of five (5) elements, namely:

- Biographic information, to address the questions of: ethnicity, age, marital status, educational qualifications and geographical locations of the respondents.
- Management capability, to determine the following issues: legal status, association affiliated to, years of experience in the construction industry, years of existence in the construction industry, start-up business plans, business in other provinces, any financial assistance, reasons for doing business in other provinces and class of work, frequency of work opportunities from government, frequency of work opportunities from the private sector, business sustenance
- Financial management capability, to address the following issues: annual turnover, total employee complement, number of project managed and highest contract awarded.
- Technical management capability, to address the following issues: the important technical management skills, financial constraints, barriers to market viability of the business, impact of loan conditions to growth, treatment during loan application and technical skills development required.
- Growth and development needs, to address the following questions: training needs required by women, business development services, development initiatives, support

measures required for growth, kind of support required from the industry, personal attributes and personal development needs.

5.2.2.2 Data Collection

Out of the 167 questionnaires distributed through emails and faxes to the respondents, a total of 120 were received back, representing 72% response rate. This number was considered adequate for the analysis based on the assertion by Barbie & Mouton (2010), Moses & Kalton (1971), that the results of the questionnaires could be considered as biased and a little value if the return rate was lower than 30-40%. The data collection process was conducted between the months of March and May 2015.

5.2.2.3 Data analysis

The collected data were analyzed using SPSS 15.0 packet program. The analysis of data consisted of the calculation of descriptive statistics to depict the frequency of responses to fixed response questions (Creswell & Clark, 2011). Data was first coded in the Microsoft excel sheet and then packaged numerically so that descriptive statistics could be used to organize and summarize numerical data. Also, the four-point Likert-type scale was used to determine the degree of occurrence relative to a range of statements or factors ranging from management capability, financial capability, technical management and growth and development needs. The findings were displayed in the form of tables and charts, whereby the researcher was able to discuss, analyze and draw conclusions with a view to describing a model for the development of women in construction.

5.3 RESULTS AND DISCUSSION

This section is divided into five parts, biographic information, management capability, financial capability, technical management capability and growth and development needs.

5.3.1 Biographic information

5.3.1.1 Ethnicity

The purpose of this question was to determine the ethnicity of the women contractors involved in the construction industry.

- **Results obtained**

Table 5.2 details the demographic or biographic information of rural women in construction according to their ethnicity. The number of women who participated in this study was 120, of which 85 (71%) were Blacks; 15 (12.5%) were White; 5 (4%) Coloured; and 15 (12.5%) were Indian/Asian.

Table 5.2: Ethnicity of the respondents

Ethnicity	Frequency	% (Percentage)
Blacks	85	71
White	15	12.5
Coloured	5	4
Indian/Asian	15	12.5
Total	120	100

- **Discussion of the results**

Findings from this study revealed that a significant number of African rural women who participated in the study are CIDB Grade 2 registered contractors. This confirms the inequality status quo of previously marginalized rural women when it comes to economic and rural development.

5.3.1.2 Age of the respondents

The purpose of this question was to determine the age of the respondents who participated in this study.

○ **Results obtained**

Regarding the respondents' age, Table 5.3 show that the most represented age categories are between 36-53 years, which was 78 (65)% of the respondents; 18-35 17 (14%); 5(4)% were 72 years and above whereas only 20 (17%) were between 54-71 years old.

Table 5.3 Age ranges of the respondents

Age in years	Frequency	% (Percentage)
18-35 years	17	14
36-53 years	78	65
54-71 years	20	17
Above 72 years	5	4
Total	120	100

○ **Discussion of the results**

The findings of this study revealed that the ages of the majority 78 (65%) women contractors ranged from between 36 and 53 years. The construction industry business is a tough environment that is still marred by male dominance and discrimination. This is a clear sign that because the industry requires physically strong women who are still in their prime years, women in the age range of 36-53 are likely to try or engage in the construction businesses. Therefore, as women get mature and independent, they engage in the construction industry.

5.3.1.3 Marital status of the respondents

The purpose of this question was to determine the marital status of the respondents who participated in the construction industry.

○ **Results obtained**

Regarding the respondents' marital status, Table 5.4 show that the most 83 (69%) represented marital status categories was married or living together; divorced 22 (18%); single 8 (7%) and widow or widower 7 (6%).

Table 5.4 Marital status of the respondents

Marital status	Frequency	% (Percentage)
Single	8	7
Married/living together	83	69
Divorced	22	18
Widow/widower	7	6
Total	120	100

○ **Discussion of the results**

The findings reveal that married or living together make the majority (69%) for those involved in the construction industry. This trend has a bearing on the extent of women's engagement in the built environment activities as evidence has shown that the construction industry is male dominated. This also gives credence to the fact that husband's voices and social obligations of women affect their participation in the built environment.

5.3.1.4 Highest qualifications of the respondents

The purpose of this question was to determine the highest qualifications of the respondents who participated in this study.

○ **Results obtained**

Regarding the respondents' educational background, the results presented in Table 5.5 indicate that secondary education constitutes the highest representation, representing 55 (46%) of the respondents. The study further revealed that 33 (27.5%) of the respondents had primary education as their highest qualification. The study also indicated that another 27 (22.5%) represented respondents that had tertiary qualifications as their highest level of education. The remaining 5 (4%) represent respondents with no formal education.

Table 5.5: Highest qualifications

Highest qualification	Frequency	%(Percentage)
No formal education	5	4
Primary education	33	27.5
Secondary education	55	45.83
Tertiary education	27	22.5
Total	120	100

o **Discussion of the results**

The results of this study indicated that out of the 120 women who participated in this study, 55 (46%) had secondary education and only 33 (27.5%) had primary education. Women make 22.5% of those who have attained tertiary education. This shows that rural women were more illiterate when entering the construction industry or the built environment. This may present challenges to them in understanding procurement procedures and the various technical requirements for project and contract management. Therefore, training is an essential component for the survival of women contractors. According to the Canadian Construction Sector Council (2010), completion of post secondary education is needed for entry into the construction industry. Skills-based training, technical training, technology training and management capacity skills are necessary to strengthen women contractors. Education also serves as a preparatory function in relation to construction business start-ups, whereby the transfer of knowledge and development of relevant skills would help increase their self-efficacy (Gorman, 1997:1). This means that the issue of educational qualifications plays a big part in the growth and development of rural women doing business in the construction industry.

o **Results obtained**

Regarding the respondents' geographical area of placement, Table 5.5 of this study reveal that 84 (70%) of the respondents are based in the Capricorn district; followed by Waterberg district 15 (12.5%); with Mopani and Vhembe districts having 8 (7%) respectively; and Sekhukhune district being the least with 5 (4%).

Table 5.6: Geographic location

District Municipalities	Frequency	% (Percentage)
Capricorn	84	70
Mopani	8	7
Sekhukhune	5	4
Waterberg	15	12.5
Vhembe	8	7
Total	120	100

○ **Discussion of the results**

The results detail that the majority (70%) of the respondents were geographically located at the Capricorn district municipality. They were followed by (12.5%) of the respondents from the Waterberg district municipality. This scenario implies that probably due to a number of reasons which include women in those areas having access to information regarding construction business. The women contractors in other areas with lower numbers could as a result of lack of technological information like emails and internet access.

5.3.2 Management capability

The purpose of this question was to determine the management capability of women owned construction businesses. These question of management capability covered the legal status of women's businesses, affiliations, years of experience in the construction industry, years of existence of the enterprises, start-up business plans, business in other provinces, reasons they were doing business in other provinces, frequency of securing work from government, and frequency of securing work from private sector,.

○ **Results obtained**

The results in Table 5.7 show that 91 (76%) of the legal status or ownership of contractors by women registered as close corporation; sole proprietor had 15 (12.5%); partnership had 6 (5%) and public company had 3 (2.5%) only.

Table 5.7: Legal status of the business

Legal status of the business	Frequency	% (Percentage)
Public company	3	2.5
Sole proprietor	15	12.5
Private company	5	4
Partnership	6	5
Close corporation	91	76
Total	120	100

o **Discussion of the results**

According to the findings a major proportion (76%) of women-owned construction were registered as close corporation and had a relatively small capital base during their establishment. Ofori (1991) found that in Nigeria the problems faced by these close corporations included lack of technical knowhow, poor accessibility, poor marketing strategy and non-availability of funds or capital, poor planning and government policies that are not women friendly.

o **Results obtained**

The results reveal that 105 (87.5%) of the women contractors were affiliated to South African Women in Construction (SAWIC); KHUTHAZA had 10 (8%); the South African Women Engineering Network (SAWEN) had 3 (2.5%) and South African Women in Development had 2 (2%) only.

Table 5.8: Association affiliated to

Association	Frequency	% (Percentage)
SAWID	2	2
SAWEN	3	2.5
KHUTHAZA	10	8
SAWIC	105	87.5
Total	120	100

○ **Discussion of the results**

According to the findings a major proportion (87.5%) of women contractors were members of SAWIC. This could imply that the women contractors have trust and faith in the association in view of its ability to:

- Establish links and relationships with similar organizations, e.g. NAWIC in the USA.
- Assist and support national efforts in economic development of women in construction
- SAWIC has a blue-print in providing technical advisory services and disseminating technical information through conventions, newsletters and meetings.
- SAWIC has also provided information about developmental issues and progress in the construction industry
- It has also acted as the only recognised body empowered to negotiate with government on behalf of the women contractors.

○ **Results obtained**

It was necessary to determine the women contractors' length of experience in the construction industry. The research found that 93 (77%) of the owner of construction business had less than three years of experience in the construction industry; 12 (10%) of the owners had between 4 and 7 years experience; 8 (6%) of the owners had between 8 and 11 years; 5 (4%) have between 12 and 15 years experience and only 4 (3%) of the owners had above 15 years experience in the construction industry.

Table 5.9: Years of experience in the construction industry

Years of experience in the construction industry	Frequency	%(Percentage)
Less than 3 years	93	77
4-7 years	12	10
8-11 years	8	6
12-15 years	5	4
Above 15 years	4	3
Total	120	100

- **Discussion of the results**

It should be noted however that the the majority (77%) rural women contractors have been involved in the construction industry and only around 3% have been involved for over 15 years in the construction industry. This indicates an absence of an enabling environment that support women's transition from subsistence construction business management to a more sustainable business management.

- **Results obtained**

Table 5.10 detail that 73 (61%) of the owner of construction business had between 12 and 15 years of existence; 19 (16%) of the owners had above 15 years of existence; 17 (14%) of the owners have between 8 and 11 years; 6 (5%) had less than three years of existence and only 5 (4%) of the owners had between 4 and 7 years of existence in the construction industry.

Table 5.10: Years of existence of the enterprise

Years of existence of the enterprise	Frequency	% (Percentage)
Less than 3 years	6	5
4-7 years	5	4
8-11 years	17	14
12-15 years	73	61
Above 15 years	19	16
Total	120	100

- **Discussion of the results**

In a positive light, all the respondents indicated that their businesses existed for some time in the construction industry.

- **Results obtained**

The results in Figure 5.1 show that 109 (91%) of the respondents did not have start-up business plans; whilst only 11 (9%) of the respondents had start-up business plans.

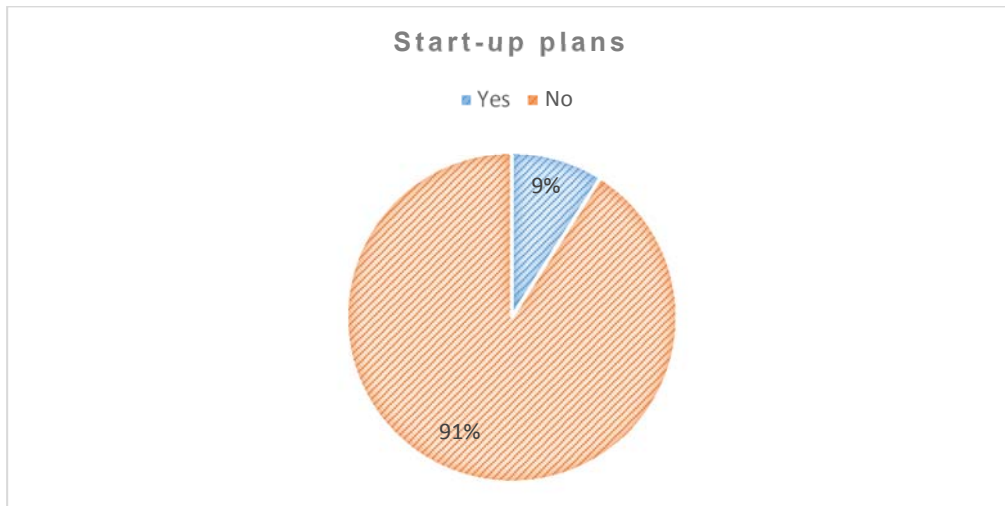


Figure 5.1: Start-up business plans

- **Discussion of the results**

Wickham (2001:44) stated that one of the inhibitors to becoming an entrepreneur is an inability to secure start-up capital and the high cost of start-up capital. Other factors affecting the accessibility of financing for SMEs include business size (with micro-business typically having less access to financing than larger SMEs) and the geographic location. Similarly, Thwala & Phaladi (2009:535) would posit that during the early stages of some business start-ups, owners were not able to separate their business and family/domestic situations. This implies that in start-up companies, the basic management is not in place. Therefore, the need for to retain control by the contractor constrains the growth and development of the construction business. This may also lead to reluctance to raise equity capital to expand and unwillingness to employ persons from outside the family (Thwala & Mofokeng 2012). Also Thwala & Mofokeng (2012) found that during star-ups business funds were put to personal use and thus used in settling domestic issues. This has a negative impact on profitability and sustainability. Urban entrepreneurs are likely to have a larger pool of financing options to draw on than rural entrepreneurs, particularly those dwelling in communities without easy access to financial institutions.

○ **Results obtained**

The results show that women contractors from the Limpopo province also conducted businesses in other provinces. The findings show that the majority, 71 (59%) of women were doing business in Gauteng; Mpumalanga had 29 (24%); North West had 13 (11%); and the Free State had 7 (6%). Other provinces like the Eastern Cape, Kwa-Zulu Natal, the Northern Cape and the Western Cape all had zero.

Table 5.11: Business in other provinces

Business in other provinces	Frequency	% (Percentage)
Eastern Cape	0	0
Free State	7	6
Gauteng	71	59
Kwa-Zulu Natal	0	0
Mpumalanga	29	24
Northern Cape	0	0
North West	13	11
Western Cape	0	0
Total	120	100

○ **Discussion of the results**

It is of interest to note that about 59% and 24% of the women contractors were doing more business in Gauteng and Mpumalanga provinces. Respectively. This can imply that the two provinces may have the most work opportunities due to the general infrastructure boom of roads construction, commercial buildings and general maintenance. The other reason could be the Limpopo province's geographical proximity to both Gauteng and Mpumalanga provinces.

○ **Results obtained**

The results in Figure 5.2 reveal that 113 (94%), of the respondents did not receive any financial assistance, whilst 7 (6%), of the respondents indicated that they received financial support.

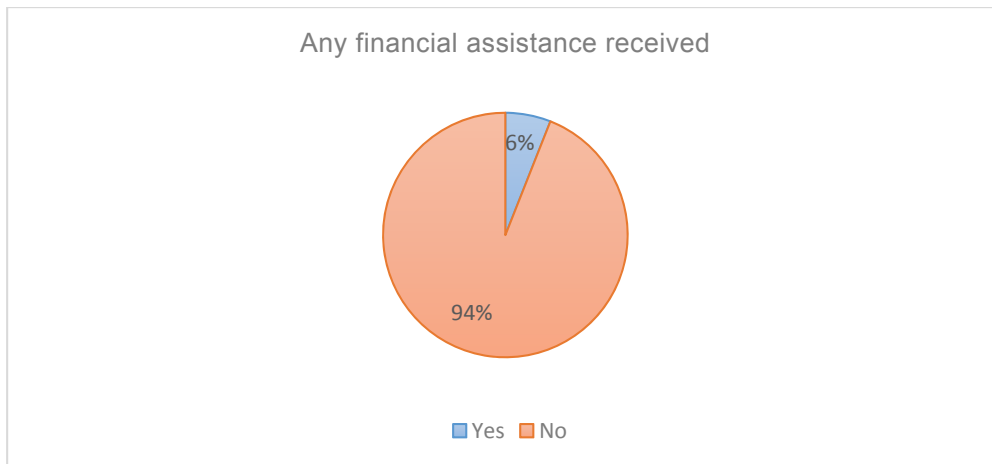


Figure 5.2: Financial assistance received

○ **Analysis of the results**

It is interesting to note this development as posited by the response from the women contractors in Figure 5.2 that only 6% had received any form of financial assistance. It was a shocking revelation that 94% of the respondents have never received any kind of financial assistance and yet there are empowerment policies that seek to promote women's entry into the mainstream construction industry. This is an indication that many women contractors did not benefit from the government assistance. This confirms the findings by Ong (1991) that there are many reasons for this scenario. Some reasons are that generally some contractors wished to rely on their own resources, and others were unaware of such financial assistance. It can only mean a bleak prospect for the progression of women contractors in the built environment. This also confirms poor support from the government, private sector and the construction industry at large.

○ **Results obtained**

When the respondents were asked to list reasons for doing business in other provinces, the results in Table 5.12 revealed that a significant number 77 (64)% of the respondents lacked business opportunities; 30 (25%) due to stiff competition; and only 13 (11%) were the main reasons they were doing business in other provinces.

Table 5.12: Reasons for doing business in other provinces

Reasons for doing business in other provinces	Frequency	% (Percentage)
Diversification	13	11
Lack of business opportunities	77	64
Stiff competition	30	25
Total	120	100

○ **Discussion of the results**

The need for survival was their main reasons for doing business in other provinces. On the other hand, other respondents highlighted the fact they multi-tasked in other provinces with a view to diversifying and not rely in one province. It is also important to indicate that competition in business is inevitable. Meaning that there is no place in business for people being unable to stand up to competition. Thus, the woman contractor who accepts competition as a fact of business life, becomes more prepared and is more likely to succeed. Trying their luck, thinking that other provinces have transformed and have more opportunities for women in construction motivated them to doing business in other provinces. These results confirm the empirical findings of the qualitative study as most participants indicated that lack of business opportunities was a push factor for women to do business in other provinces. Others confirmed that diversifying their businesses helped them to survive.

○ **Results obtained**

The percentage of class of work in general building had 61 (51%), electrical engineering 21 (17.5%); mechanical engineering at 12 (10%), civil engineering at 11 (9%); specialist work at 9 (7.5%), and electrical engineering infrastructure 6 (5%).

Table 5.13: Class of work

Class of work	Frequency	% (Percentage)
Civil engineering	11	9
General building	61	51
Electrical engineering	21	17.5
Mechanical engineering	12	10

Electrical engineering infrastructure	6	5
Specialist Work	9	7.5
Total	120	100

○ **Discussion of the results**

Of interest to note is that around 51% of women contractors were typically concentrated in the general building class of work category. In the main this class of work category caters for tenders that deal with general maintenance in the built environment.

○ **Results obtained**

The results detail that the majority 117 (97.5%) of the women contractors secured most of their work opportunities from government; whereas only 3 (2.5%) secured work from the private sector.

Table 5.14: Where work opportunities were secured

Most work opportunities secured from	Frequency	% (Percentage)
Government	117	97.5
Private sector	3	2.5
Total	120	100

○ **Discussion of the results**

Of interest to note is that around 97.5% of women contractors procured work from the public sector or the government. This means that the majority of women contractors rely on government tenders. The work is not diversified and because of the large number of small contractors, it gets difficult for a single company to get most the projects. This further implies that women contractors at the lower end of the CIDB register are overly reliant and concentrated on many tenders but of lower contract values. This, therefore, lowers their competitive advantage and thereby reduces their opportunity to secure regular work. In the long run, these diminish their chance to grow and develop to the next grade, and the consequence from the CIDB register of contractor would be their automatic de-registration.

○ **Results obtained**

Table 5.15 indicates the extent to which respondents concurred with the various statements in terms of percentage response as regards to the frequency they secured work from government. The results show that 63 (52%) of the respondents indicated that they secured work from government more than thrice; 37 (31%) secured work from government thrice; 13 (11%) only twice and 7(6%) only once.

Table 5.15: Frequency of securing work from government

Frequency of securing work from government	Frequency	% (Percentage)
Once	7	6
Twice	13	11
Thrice	37	31
More than thrice	63	52
Total	120	100

○ **Analysis of the results**

The picture as depicted in Table 5.15, demonstrate the high reliance of emerging contractors on government tenders. This demonstrates a large number of emerging small contractors, particularly women-owned have focused on public sector tendering. This would mean that an oversupply of contractors tendering for contract value of between R200 000 and R650 000 threshold, thus compromising their sustainability.

○ **Results obtained**

Table 5.16 indicates the extent to which respondents concurred with the various statements in terms of percentage response as regards to the frequency they secured work from government. The results show that 80 (67%) of the respondents indicated that they secured work from the private sector once; 19 (16%) secured work from the private sector twice; 12 (10%) thrice and 9(7%) more than thrice.

Table 5.16: Frequency of securing work from private sector

Frequency of securing work from private sector	Frequency	% (Percentage)
Once	80	67
Twice	19	16
Thrice	12	10
More than thrice	9	7
Total	120	100

○ **Analysis of the results**

These results show a stark contrast in relation to the frequency of securing work from the private sector and the public sector in that in reality the private sector should be creating more work opportunities than the public sector. However, Table 5.16 show that only a small percentage (7.5%) of women contractors have secured work opportunities from the private sector more than thrice.

5.3.3 Financial capability

○ **Results obtained**

The results in Table 5.17 show that 110 (92%) of women contractors made turnover of between R200 000 and R650 000; 7 (6%) had a turnover of between R650 000 and R2 million; 2% made turnover of above R2 million.

Table 5.17: Financial capability

Annual turnover	Frequency	% (Percentage)
R200 000-R650 000	110	92
R650 000-R2 million	7	6
Above R2 million	3	2
Total	120	100

○ **Discussion of the results**

The picture painted by Table 5.17 is that the majority ((2%) of women contractors make an annual turn over that is within their grading classification. This means that they will be forever making marginal turn over that would not advance their growth and sustainability. This is a clear sign of a structured transformative and non-responsive construction industry bureaucratically designed to maintain the status quo. It is designed in such a manner that the CIDB grading classification of contractors is predetermined or predefined according to the financial strength, and project management capability strength of registered contractors. So, the very system that CIDB introduced in order to empower the marginalized groups is actually stifling their progress in the long run.

○ **Results obtained**

The results in table 5.18 show that 113 (94%) of women contractors employed less than 5 employees; 5 (4%) employed between 6 and 11 employees; 2 (2%) employed between 12 and 17 employees and no women contractors employed above 18 employees.

Table 5.18: Total employee complement

Number of employees	Frequency	% (Percentage)
Less than 5 employees	113	94
6-11 employees	5	4
12-17 employees	2	2
Above 18 employees	0	0
Total	120	100

○ **Discussion of the results**

The results in Table 5.18 show that the majority of women contractors 113 (94%) only managed to employ less than five employees in their business. This could be as a result of their strategies to off-set operations overheads like salaries. As posited by Thwala and Phaladi (2009), most if not all SMMEs would rather use their relatives to do some operations for their companies in order to avoid running costs. As pointed out by Thwala & Mofokeng (2012), some owners or managers employ family members simply because of kingship relations. In some cases, these have turned out to be undisciplined and ineffectual, a factor that has led to eventual and sometimes rapid failure of businesses (Rwelamila, 2002). But also this means

that the lesser the work opportunities women contractors get, the lesser the number of employees they can hire.

○ **Results obtained**

The results in Table 5.19 show that 111 (92.5%) of women contractors manage between 0 and 3 projects; only 7.5% of women contractors manage between 9 (7.5%), 4 and 7 projects and no women contractors manage projects between 8 and 11 nor above 12 projects at a time.

Table 5.19: Number of projects managed

Number of projects managed	Frequency	% (Percentage)
0- 3 projects	111	92.5
4-7 projects	9	7.5
8-11 projects	0	0
Above 12 projects	0	0
Total	120	100

○ **Discussion of the results**

The results in Table 5.19 mean that most of the women contractors at Grade 2 are staggered in managing fewer projects of between 0 and 3 projects, and this is in consistent with the research by Thwala & Mvubu (2009) that most contractors at the lower grading lack the capacity to manage many projects at the same time. These findings also validate the empirical findings that rural women contractors need management capability to enhance their growth and development in the construction industry. Management capability entails the enterprise's turn over capacity and class of work capacity. The results are significant because the lower enterprise's management capability, the lower the chance of managing contracts of higher values. This further indicates that a large number of contractors would get de-registered by the CIDB due to non-compliance with the minimum registration requirements. Collectively, including other constraints like lack of access to finance and credit, poor management and technical skills and ineffective support, these limits the growth of women contractors despite the empowerment procurement policies provided by government.

○ **Results obtained**

Overall, it is of interest to note that Table 5.20 reveal that 103 (86%) of contracts awarded to women contractors are valued between R200 000 and R650 000 threshold; 14 (12%) of women contractors were awarded contracts valued between R650 000 and R2 million; and only 3 (2%) women contractors received contracts valued above R2 million at a time.

Table 5.20: Highest contract awarded

Highest contract awarded	Frequency	% (Percentage)
R200 000-R650 000	103	86
R650 000-R2 Million	14	12
Above R2 Million	3	2
Total	120	100

○ **Discussion of the results**

The results as depicted in Table 5.20 is not surprising as the majority 103 (85.83%) of women contractors had only amassed contract values of between R200 000 and R650 000 threshold. This confirms the comments made by the participants in the qualitative study that “*the CIDB registration process is a cumbersome regulatory process and stifles growth and development of women contractors*”.

These results demonstrate an oversupply of contractors at the lower levels of the CIDB Register of Contractors, thus compromising their sustainability. This result concurs with the findings by the CIDB Quarterly Monitors 2011 that there is an oversupply of contractors at the lower levels of the CIDB Register of Contractor, thus sustainability is compromised and also the high failure rate of emerging contractors, particularly women is as a result of demand volatility and high levels of competition.

These results draw parallel to the assertion by Thwala & Mofokeng (2012) that high competition among emerging contractors have contributed to increase financial failures of emerging contractors. Therefore, financial management capability is the key that determines growth. Furthermore, the most prominent cause of failure of with construction companies’ results from inadequate cash resources and failure to convince creditors of the availability of

finance. Also, capital is often required to smoothen out strains of the cash flow resulting from the occurrence of cost and uncertainty (Thwala & Mofokeng, 2012).

It is also of interesting to note that a large number of women contractors in grade 2 compete for fewer work opportunities whereas for contractors in higher grades there are more work opportunities as there are fewer companies to compete with (DPW Contractor Incubator Programme Strategy (2015:8). It can also be concluded that the CIDB grading system creates a survival burden for the contractors in lower grades the bundling or packaging of contract values to focus on such levels directly prejudices contractors in lower grades.

5.3.4 Technical management capability

The purpose of this section was to determine how the respondents rated the elements of technical management capability. A four-point type Likert scale consisting of 1=Totally unimportant, 2=unimportant, 3=important, and 4= very important. For the purpose of this study, totally unimportant and unimportant were combined to make not important; and important and very important were combined to make very important.

o Results obtained

All the respondents 120 (100%) indicated that all the listed elements of the technical management skills, namely, construction management, business management, project management and financial management were very important skills.

Table 5.21: Important technical skills

Items	Very important		Not important	
	Frequency	Percentage	Frequency	Percentage
Construction management	120	100	0	0
Business management	120	100	0	0
Project management	120	100	0	0
Financial management	120	100	0	0

o Discussion of the results

Generally, it seems that technical management acumen is indispensable for running a successful construction enterprise. All the elements technical management, namely,

construction management, business management, project management and financial management appear to be very important factors to the sustainability of women owned construction enterprises.

○ **Results obtained**

All the respondents 120 (100%) indicated that all the listed elements of financial constraints to women contractors, namely, reluctance by banks to grant loans, lack of collateral, lack of cash flow and lack of capital were very important elements causing financial constraints to women owned construction enterprises. Delay in payment by government had the frequency of 79 (66%); with only a few 41 (34%) respondents believing that delay in payments by government was not important element to financial constraints experienced by women contractors.

Table 5.22: Financial constraints

Items	Very important		Not important	
	Frequency	Percentage	Frequency	Percentage
Reluctance by banks to grant loans	120	100	0	0
Lack of collateral	120	100	0	0
Lack of cash flow	120	100	0	0
Lack of capital	120	100	0	0
Delay in payments by government	79	66	41	34

○ **Discussion of the results**

Generally, it appears that financial constraints play a big part in the technical management capability of women contractors. All the elements, namely, reluctance by banks to grant loans, lack of collateral, lack of cash flow and lack of capital were very important elements causing financial constraints to women-owned construction enterprises.

○ **Results obtained**

The elements, namely, lack of industry expertise, collusion by construction cartels and high cost of construction material scored the highest frequency, that is, 120 (100%) for being rated as very important constraints impacting on the business environment constraints. Adverse economic down turn had a 114 (95%) frequency of very important constraints, and fierce competition had 94 (78%) frequency of very important constraints.

Table 5.23: Business environment constraints

Items	Very important		Not important	
	Frequency	Percentage	Frequency	Percentage
Lack of industry expertise	120	100	0	0
Collusion by construction cartels	120	100	0	0
Adverse economic down turn	114	95	6	5
High cost of construction material	120	100	0	0
Fierce competition from contractors in higher grades	94	78	26	22

o **Discussion of the results**

The findings detail that a major proportion (100%) of the respondents believed that all the listed elements were very important constraints to business environment. This implies that lack of industry expertise, collusion by construction cartels, adverse economic down turn, high cost of construction material, fierce competition from contractors in higher grades. This implies interpreting the market conditions, macro-economic and other environmental factors should be taken as the basis for enterprise growth and development.

o **Results obtained**

The poor competency in the industry and poor meeting of project time lines by women contractors scored the most frequency 120 (100%) for being the very important barriers to market viability of the women owned-construction business. Lack of joint venturing, had a frequency score of 113 (94%), lack of technical skills had 89 (74%) and economic constraints had 99 (82%) for being not important barriers to market viability of women-owned construction businesses.

Table 5.24: Barriers to market viability of the business

Items	Very important		Not important	
	Frequency	Percentage	Frequency	Percentage
Lack of technical skills	31	26	89	74
Lack of joint venturing	7	6	113	94
Economic constraints	21	17	99	82
Poor competency in the industry	120	100	0	0
Poor meeting of project time lines	120	100	0	0

○ **Discussion of the results**

It was found that market capacity plays a significant role in ensuring financial and sustainability of emerging construction enterprises. In this regard, construction enterprises with low market access should be assisted with accessing formal markets in order to for them to be sustainable.

○ **Results obtained**

The results show that a major proportion (100%) of the respondents believed that surety, collateral and terms of payment; and start up plans (90%) played a very important role in revealing the impact of loan conditions to the growth of women in construction.

Table 5.25: Impact of loan condition to growth

Items	Very important		Not important	
	Frequency	Percentage	Frequency	Percentage
Surety	120	100	0	0
Collateral	120	100	0	0
Terms of payment	120	100	0	0
Start-up business plan	108	90	12	10

○ **Discussion of the results**

The construction business is seen as risk averse, meaning that chances of emerging women contractors providing surety, collateral, and meeting terms of payments are very unlikely. The disparity in surety and collateral provision may be because the banks are less convinced by the level of training and ability to perform by women contractors. A study by Fester & Haupt (2012) found that external financing institutions would discriminate against women-owned construction enterprises for various reasons like: women-owned construction enterprises have little or no collateral. This implies that more often than not, banks would link fiscal incentives systems to the value of incentives to the level of investment, leading to large company, capital incentive bias. Again, the above-mentioned authors have found that lack of adequate database and relevant information on women-owned construction enterprises contributes to discrimination against them by banks and suppliers. At times financial institutions would say that they are applying normal business principles requiring them to justify their credit worthiness before being offered loans. However, adherence to such preconditions makes it difficult for women contractors to acquire vital resource record, which would enable them to

demonstrate their suitability for credits. In this way, this approach has a direct negative consequence on the growth and development of women contractors.

o **Results obtained**

The findings show that a major proportion (100%) of the respondents indicated that the elements of business management, project management, construction management and financial management were very important technical development skills required by women contractors. Contract management skills and technological skills 94% and 88% respectively viewed as very important too.

Table 5.26: Technical development skills required by women in construction

Items	Very important		Not important	
	Frequency	Percentage	Frequency	Percentage
Business management skills	120	100	0	0
Project management skills	120	100	0	0
Construction management skills	120	100	0	0
Contract management skills	113	94	7	6
Financial management skills	120	100	0	0
Information technological skills	105	88	15	12

o **Discussion of the results**

The findings show that all the elements of technical development skills required by were very important. This implies that rural women contractors required all the listed elements. Of interest to note was that elements such as business management, project management, construction management, contract management, financial management and information technological were all very important technical development skills required by women in construction.

5.3.5 Growth and development needs

The purpose of this section was to determine the growth and development needs of rural women contractors.

○ **Results obtained**

The element needs for the development of women, namely, targeted empowerment policies, targeted entrepreneurship, set asides for rural women and women specific training had frequencies of 120 (100%) rating of very important to women's development needs. Only targeted management was rated as not important with a frequency of 103 (85.83%).

Table 5.27: Elements to development needs of women contractors

Items	Very important		Not important	
	Frequency	Percentage	Frequency	Percentage
Targeted empowerment policies	120	100	0	0
Targeted entrepreneurship	120	100	0	0
Targeted management training	17	14	103	86
Set asides for rural women	120	100	0	0
Women specific training	120	100	0	0

○ **Discussion of the results**

The findings show that a major proportion (100%) of the respondents indicated targeted empowerment policies, targeted entrepreneurship, set aside for rural women and women specific training were very important elements to the development of women contractors.

○ **Results obtained**

All the respondents 120 (100%) indicated that all the listed elements, namely, artisan skills training, technical support skills, construction management and business managerial skills are very important training needs for growth and development of women contractors.

Table 5.28: Training needs for the growth and development of rural women contractors

Items	Very important		Not important	
	Frequency	Percentage	Frequency	Percentage
Artisan skills training	120	100	0	0
Technical support skills	120	100	0	0
Construction management training	120	100	0	0
Business managerial skills	120	100	0	0

○ **Discussion of the results**

The findings show that a major proportion (100%) of the respondents indicated that artisan skills training, technical support, construction management and business managerial skills were very important training needs required for the growth and development of women contractors. This kind of foundation or training needs implies that there is a need to provide a conducive environment and technical training support that would help foster the growth and development of women contractors. This means that aspiring women contractors from various backgrounds need to seize such prevailing opportunities and create their own synergies for their own business development and economic growth. This confirms what the industry captains echoed regarding the critical training components that include: *“the need for women to get education and training as a proper foundation to their being competitive in the construction industry”*. They also indicate, *“a possible way of boosting the ranks of successful women contractors is to give them professional and technical level construction related courses”*.

○ **Results obtained**

Several business development services were identified as characterizing the important elements of women contractors’ growth and development. A major proportion 120 (100%) indicated that all the listed elements, namely, business incubation, grants for women in rural areas and mentoring and coaching were rated as very important elements of business development services for women contractors.

Table 5.29: Business development services

Items	Very important		Not important	
	Frequency	Percentage	Frequency	Percentage
Business incubation	120	100	0	0
Grants for women in rural areas	120	100	0	0
Mentoring & coaching	120	100	0	0

○ **Discussion of the results**

Business incubation, grants for rural women, mentoring and coaching were seen as having a direct correlation to the growth and development of every business owners, women included. Business incubation provides the facilities, expertise and support which convert the women contractors’ products or services ideas to full commercialization. This implies that the features

of business incubation should be provided by the government or an association, for example, shared services, infrastructure, shared skilled consultants, skilled workforce, shared financial resources and networks with other business owners. Mentoring and coaching are seen as meaningful and effective style of learning as it shares experiences in a practical manner.

○ **Results obtained**

Table 5.30 details that ring-fencing, incentives for women and improved access to loans has the highest frequency of 120 (100%). Even though the element of improved tendering procedures had a frequency of around 67%, it is very high and thus it is considered a very important support measure required for the sustainability of women in construction.

Table 5.30: Support measures required for sustainability of women in construction

Items	Very important		Not important	
	Frequency	Percentage	Frequency	Percentage
Improved tendering procedures	81	68	39	32
Ring-fencing	120	100	0	0
Incentives for women	120	100	0	0
Improved access to loans	120	100	0	0
Active membership in associations	59	49	61	51

○ **Discussion of the results**

It is of interest to that support measures like ring-fencing incentives for women and improved access to loans had the highest proportion (100%). It is evident from the results that the abovementioned support measures are very important to the sustainability of women in construction.

○ **Results obtained**

The elements of contract management, preferential CIDB grading, mentoring and coaching all had the highest frequency of 120 (100%), with improved industry image scoring about 88%.

Table 5.31: Support required from Industry Captains

Items	Very important		Not important	
	Frequency	Percentage	Frequency	Percentage
Contract management	120	100	0	0
Improved industry image	105	88	15	12
Preferential CIDB grading	120	100	0	0
Mentoring	120	100	0	0
Coaching	120	100	0	0

○ **Discussion of the results**

The need for mentoring and coaching support is evident from the responses of the respondents. A well planned and managed comprehensive mentorship and coaching program during the women contractors' initial and establishment period were very critical. These programs would help them to gain experience and expertise needed to become successful women contractors. In this regard, onsite mentorship and coaching programs may be most effective to build capacity of women contractors on knowledge and skills base needed to enhance their success in the construction. To this end, mentorship and coaching could be structured and delivered on a business basis where mentors could share their success stories.

The issue of contract management and preferential CIDB grading were also regarded as very important support measures that could be offered by the industry captains.

○ **Results obtained**

Table 5.32: Personal attributes required by women in construction

Items	Very important		Not important	
	Frequency	Percentage	Frequency	Percentage
Tenacity	77	64	43	36
Passion	81	68	39	32
Hard work / perseverance	120	100	0	0
Driven/motivation	104	87	16	13
Resilience	69	58	51	42
Diligence	120	100	0	0

○ **Discussion of the results**

Several personal attributes were identified as characterizing the requirements for women contractors to grow and develop in the construction industry. These traits include hard work

or perseverance, passion, motivation tenacity, resilience and diligence. Verwey (2005) found that the key ingredients for women in construction to grow and develop are that they should possess abundant energy, drive and assertiveness. It would appear that certain attributes would be necessary in particular context. For example, entrepreneurial behaviour will be more necessary in a complex task such as construction work than a routine one. Therefore this confirms the assertions made by Verwey (2005) & Wickham (2001), that the growth of any business is at least partially determined by the entrepreneurs' motivation, hard work and intention. In this regard,

○ **Results obtained**

The elements of related industry experience and trade specialization had the highest frequency of 120 (100%) indicating that all the listed elements, were very important personal development needs required by women in construction

Table 5.33: Personal development needs required by women in construction

Items	Very important		Not important	
	Frequency	Percentage	Frequency	Percentage
Related industry qualifications	120	100	0	0
Refreshers' courses	101	84.16	19	15.83
Trade specialization	120	100	0	0

○ **Discussion of the results**

According to the findings a major proportion (100%) of the respondents believed that elements such as related industry and trade specialization; were very important personal development needs required by women in construction. Even though the element of refresher's course was 84.16%, it still showed that it was regarded as a very important personal development need. It appears that a lack thereof of such personal development needs were very important ones that limit women-owned construction enterprises to ignite their potential growth and development. This scenario could also be more applicable because the study found that the majority of women contractors did not necessarily possess tertiary qualifications. Implying that there could be a serious need for women contractors to be empowered in simple refresher's courses like credit management system, simple trade specialization in order to improve their technical knowledge skills levels. This kind of refreshers' courses could be done in their own language so that they can develop a better understanding if industry related requirements like contract and project management.

5.4 SUMMARY

The purpose of this chapter was to discuss chapter 5 which entailed the discussions and interpretation findings of quantitative data. The exercise contributed to phase two of this study. The focus was on the focal areas, which covered biographical data of respondents, management capabilities, technical management capabilities, financial management capabilities and growth and development needs.

CHAPTER 6

MODEL DEVELOPMENT

6.1 INTRODUCTION

Chapter five focused on the results, the interpretation and integrated analysis that emanated from the quantitative results of the study. The empirical findings were discussed. The process of model development or theory generation, and design are deliberated in this chapter. Concept synthesis, concept derivation and theory synthesis were conducted in order to identify the concluding statements from the themes, categories and sub-categories that emerged from the responses of the participants. The focus of this chapter is the context of the model, the purpose of the model, concept identification, defining the main concepts and discussing the structure of the model. Finally, the description of the guidelines for operationalizing the model and the evaluation of the model is done.

6.2 THE CONTEXT OF THE MODEL

The context of this model was the construction industry in the Limpopo province. The status of women in construction in the Limpopo province is such that women remain in the periphery of the CIDB gradings. In the Limpopo province, the researcher found that the majority of women-owned construction enterprises are in grade 2 of the CIDB and had a very low survival rate in their first three years of their entry into construction businesses. The model would therefore emerge as a source of assistance to these women-owned construction enterprises.

6.3 THE PURPOSE OF THE MODEL

The aim of the model is to identify the central problems of the phenomenon under investigation. Ekdawi & Conning (1994:17) assert that the model gives a framework for thinking about specific phenomenon and guides to concerned people's thinking and behaviour when dealing with the phenomenon to be investigated. The researcher based the development model on the assumptions related to the capabilities of the women in construction as the main process that would assist the sustainability of women-owned enterprises. The primary

assumption of the model is therefore to develop women in construction as derived from capabilities and potential to sustain themselves in the construction industry.

The processes of developing and supporting the growth of women in accordance with their specific needs is a big part in the development process to ensuring that they attain independence and self-sustenance.

6.4 CONCEPT IDENTIFICATION

Chinn & Kramer (2011) highlight that concept identification is the first step in the process of creating a conceptual meaning of the concept with which the researcher works with. This concept is characterized by change as meanings develop. It is imperative to identify a technical or professional concept that communicates closely the idea you are advocating as a researcher.

Concept analysis consists of concept identification and definition. In the context of this study, only the process of concept synthesis was used to identify concepts in describing a model for the development for women in construction.

During my interview to reflect on my own experiences and the transcription of pilot interviews conducted with owner-managers of construction businesses, there was an emergence of technical terms like “empowerment, development and support”. However, in order to communicate an image that approximate the idea that I want to communicate, the word “development” will be used as the main concept of this study.

6.5 DEFINING ATTRIBUTES OF THE MAIN CONCEPT(S)

6.5.1 Central concept

The concept “development” is the central concept in this study. Development in this context means “a change or transformation into a better state” (Obasanjo & Mabonguje, 1991: viii). As such development should be seen as process concerned with people’s capacity in a defined

area (construction industry) over a defined period of time to manage and induce positive change.

Therefore, development can only be development (which is a combination of knowledge and understanding, access to information, possession of the right kind of skills and technology) if it can be sustained in the long run. For instance, in the construction industry, women's development must be coupled with their specific developmental needs so that they can release their energy to cope well and grow substantially in the industry.

6.5.2 Definition of the concepts

The researcher defined and contextualized capability development as the core concept and its related concepts.

6.5.2.1 Development

The term development is defined as planned capacity building or increase in knowledge, management and technical skills of women contractors in order for them to improve their economic and social transformation in the industry.

6.5.2.2 Capacity building

Capacity building refers to a planned development or increase in knowledge, management, skills and other capabilities of an individual or organization through acquisition, incentives, technology and or training.

6.5.2.3 Support

The term support refers to the assistance or help that a supporter gives to someone so that they can use their previous knowledge base and experiences as well as new information to develop in order to do things for themselves to attain competence.

6.5.2.4 Coaching and mentoring

Coaching is about helping people achieve change (Preston). It is powerful because it is centered on the individual and acts as a catalyst to encourage action-based on increased self-awareness. On the other hand, mentoring is a term generally used to describe a relationship between a less experienced individual, called a mentee or protégé, and a more experienced individual known as a mentor. The less experienced individual's growth will be accelerated by advice wisdom from the experienced one.

6.5.2.5 Intrinsic motivation

Intrinsic motivation is inspirational motivation (commitment, personal drive

6.5.2.6 Sustainable development

Sustainable development is defined as “development that meets the needs of present without compromising the ability of future generations to meet their own needs” and based on interdependent and mutually reinforcing pillars” of economic development, social development, and environmental protection. Therefore, sustainable development is economic development that is achieved without undermining the incomes, resources, or environment of future generations.

6.5.2.7 Empowerment

The term empowerment as defined by the Business Dictionary means a management practice of sharing information, rewards, and power with people so that they can make initiative and make decisions to solve problems and improve service and their performance.

6.5.2.8 Self sufficiency

Self-sufficiency (Independence/ self-sustaining means being able to provide your own needs without help from others, provision by one's self of all one's needs

6.5.2.9 Technical knowledge

Technical knowledge refers to the knowledge of, and skill in the exercise of, practices required for successful accomplishment of business, job or task

6.5.2.10 Professional development

Professional development refers to the process of improving and increasing capabilities of people through access to education and training opportunities in the construction industry. Key to professional development is knowledge that women have or know about what is required to reach her goal. The question in this regard is what the construction industry does to teach women on how to reach their goals. The women in construction should also learn about the construction industry environment in order to increase their knowledge about what is needed to reach their goals. The women in construction should understand the power dynamics relevant to the construction industry and how they can operate and sustain their enterprises.

6.5.2.11 Competence

The term competence refers to the ability of an individual to do a job properly. In the context of the construction industry, the question of competence is important. Questions relating to whether the person (woman) has the skills to do what is required, her history regarding her attempts to gain such skills, whether she knows what is required to reach her goal, and whether there are obstacles to gaining skills that the industry can help to address, are all important to consider.

6.5.2.12 Capability

Capability refers to the measure of an individual or an entity to achieve its objectives, especially in relation to its overall mission. In the model to develop rural women contractors, financial, management and technical management are important elements for this model.

6.5.3 Generating inter-relational statements

It is important to note that once the main concepts have been identified and defined, attributes listed and synthesized to form a definition of the main concept, in this regard, development, listing the defining attributes is critical. According to Chinn & Kramer (2011) this listing process helps to identify the occurrence of a specific phenomenon in order to differentiate it from similar or related terms. Also, defining attributes may change as the understanding of the concept develops. Therefore, Chinn & Kramer (1995:95) concludes that it is necessary to show clusters of attributes most frequently associated with the concept to gain a broad insight into the concept.

The list of attributes the researcher clustered together for the concept of “development” are shown in Table 6.1 below:

Table 6.1: Attributes of “development”

Themes	Related attributes
Capacity building	Increase in technical knowledge, gain skills
Advancement to higher grade	Improvement in growth, sound business management
Empowerment	Progress, growth
Elevate to another level	Access to information, sustainability

The processes of capacity building to facilitate the development of women in accordance with their specific needs is a big part in their ultimate empowerment to ensuring that they attain independence and self-sustenance.

Table 6.2: Attributes of “growth”

Themes	Related attributes
Financial growth	Financial capability: surety, collateral, construction bank
Strategic growth	Business management capability: business growth in terms of increase in assets, competitive advantage, sustenance, self sufficiency
Structural growth	Technical management capability: internal systems, managerial roles, resources, stability in the industry,
Organizational growth	Culture, attitudes, leadership style, professional development

Sustained funding is crucial to the growth and development of women in construction.

Table 6.3: important and related attributes of “support”

Themes	Related attributes
Support	Advocate for support, Advocate for help or assistance
Capacitate	Encourage

Appropriate support to help reduce barriers to entry. The high level of support is believed to be a factor in the high rates of successful women-owned construction enterprises.

6.6 STRUCTURE OF THE CONCEPTUAL FRAMEWORK

According to Chinn & Kramer (1995) the model refers to the overall organization of the model, how ideas and concepts of the model are represented and the linking between different

concepts. Chinn and Kramer (1995:112-117) further point out that “the structure of the theory gives the overall form to the conceptual relationship”. It also refers to the structural presentation and the process of the model.

In order for me to achieve the process relating to the main concept of capacity building and other elements of the model, I used the survey list as proposed by Dickoff, James & Wiedenbach's (1968). This survey list of classification of concepts of the model includes the agent, the recipient, the context, the procedure (process), the dynamics and the goal (outcome).

The aim of the model is to describe a model for the development of women in the construction industry. Ekdawi & Conning (1994:17) assert that the model gives a framework for thinking about specific phenomenon and guides to concerned people's thinking and behaviour when dealing with the phenomenon to be investigated. The researcher based the development model on the assumptions related to the capabilities of the women in construction as the main process that would assist the sustainability of women-owned enterprises. The primary assumption of the model is therefore to develop and empower women in construction as derived from capabilities and potential to sustain themselves in the construction industry.

6.6.1 The context

The construction industry is the context within which capacity building of women takes place. The construction industry is located within the Built environment, which has transformative (legal) and the construction business or enterprise contexts. The context of the proposed model for the development of rural based women in the construction industry is still predominantly male-dominated and difficult to maneuver. There is a lot of gate keeping however as in other sectors, the regulatory framework highlight the need for policies and laws that caters for advancement of marginalized women in constructions as in other sectors. The introduction of the Construction Sector Charter (2006) is one example of such regulatory framework. The charter aims to achieve a substantial change in the racial and gender composition of ownership, control and management, promote effective advancement of employment equity; address the skills development in the manner that accelerates the advancement of black women, with a particular emphasis on learnerships, technical and management training in the sector.

6.6.1.1 The transformation (legal) context

The regulatory policies and laws relevant to the built environment context (construction industry) are:

- Preferential Procurement Policy Framework Act, No 5 of 2000. This Act is a constitutional statute issued in terms of section 217(2) of the Constitution. The Act seeks to provide a framework for preferential treatment of women of all races, black people and persons with disabilities in procurement transactions, as a means of addressing historical imbalances, to accelerate in reality equality.
- The Employment Equity Act, No 55 of 1998 which seeks to promote equal opportunity and fair treatment in employment through the elimination of (unfair) discrimination; and implementing affirmative action measures to redress the disadvantages experienced by women and other disadvantaged groups, in order to ensure their equitable representation at all levels.
- Promotion of Equality and Prevention of Unfair Discrimination Act, No 4 of 2000 comprehensively deals with issues of discrimination and address residual factors of the promotion of equality in the workplace. The Act prohibits harassment on the grounds of sex and other grounds or a combination of grounds.
- The Skills Development Act, no 75 of 1997 set out a framework for managing skills development. The implementation of the Employment Equity Act, No 55 of 1998 requires synergy with that of Skills Development Framework.
- The Broad-Based Black Economic Empowerment Act No 53 of 2003 (BBBEEA) is set out to cover a broad spectrum of economic issues, including business development and access to credit. It also touches on employment equity and skills developing relating to the empowerment of black women.

As such, the construction industry has placed a lot of emphasis on the skills development element. Also the use of the charter as a measurement of the BEE component in procurement but harmonization is still required between the Broad-Based Black Economic Empowerment Act, the Construction Industry Charter and the Preferential Procurement Act. As such, the interplay between the agent and the recipient are the critical stakeholders (components) in the harmonization dynamic in this regard.

6.6.1.2 The construction business/enterprise context

The context within which any business conducts its business is very important. In the built or construction context the business environment in which women procure work opportunities or compete for tenders comprises of the private and government sectors. The findings of both the qualitative and quantitative data analysis revealed that (97.5%) of women source work opportunities from government and only (2.5%) comes from the private sector. However, it must be noted that even though the majority of procurement opportunities come from government, this practice seems not sustainable. This is due to the fact that many respondents indicated that payment from government is often delayed and as a result most of their enterprises collapse or get liquidated. Figure 6.1 show the built environment context within which capacity development of women contractors take place.

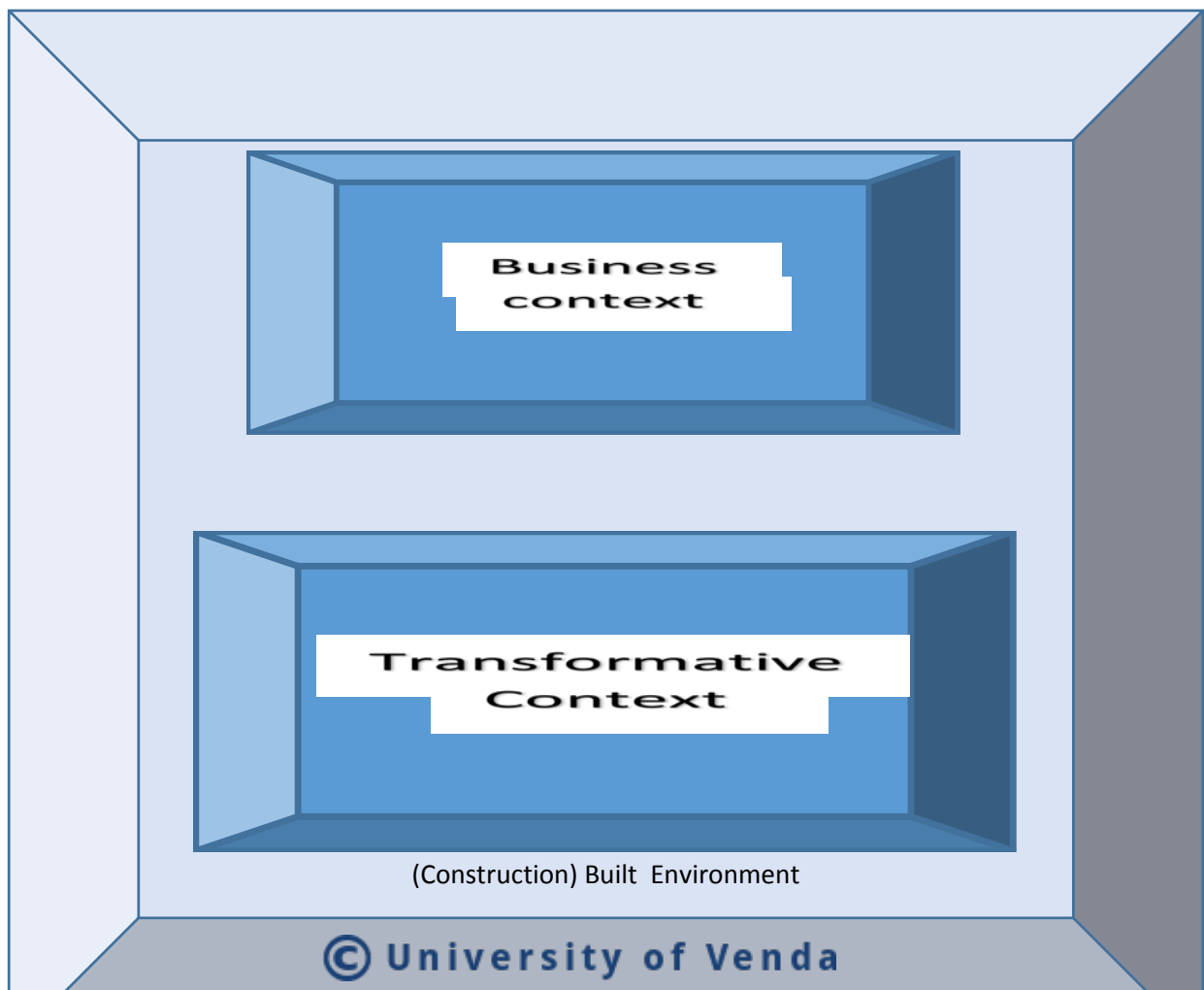


Figure 6.1 the context within which capacity building of women takes place

6.6.2 The Agents

Agents in this framework are stakeholders in the Built industry. The Free Online Dictionary defines the agent as a person who acts on behalf of another person, group, business and government agents are the empowers (who are the captains or experts of the construction industry), the government, the big construction industry. They are the empowers in the sense that the participants in the study possess technical expertise and the knowledge of the construction industry, the government facilitates the policy environment and the big construction industry players have the resources to offer financial support, training and development of emerging women contractors.

For the purposes of this study, the Participants in the namely, Council for the Built Environment (CBE), Construction Industry Development Board (CIDB), Agrément South Africa (ASA) and the Independent Development Trust (IDT) are the important stakeholders within the construction industry. The role or mandate of each entity or stakeholder is outlined here below.

6.6.2.1 Council for the Built Environment (CBE)

The role of the CBE is to transform the built environment professions and protect the public in South Africa from unsafe practices by built environment practices and ensure good governance in the provision of professional services related to the built environment by practitioners in both the public and private sector.

6.6.2.2 Construction Industry Development Board (CIDB)

The Construction Industry Development Board (CIDB) was established by Act of Parliament (Act 38 of 200) to promote a regulatory and developmental framework that builds:

- The construction delivery capability for South Africa's social and economic growth.
- A proudly South African Construction Industry that delivers according to globally competitive standards.

The CIDB is required by the Construction Industry Development Board Act to establish a Register of Contractors. The Register grades and categorizes contractors according to their work and financial capability. The contractors must register with CIDB in order to be awarded contracts the public sector.

The role of the CIDB is to provide direction for sustainable growth, reform and improvement of the construction sector and its improved role in the economy. The CIDB also promotes an enabling regulatory and development framework for effective infrastructure delivery, improved industry performance, sustainable growth and transformation.

6.6.2.3 Agrément South Africa (ASA)

The role of the ASA is to facilitate the introduction, application and utilization of satisfactory innovation and technology development within the construction industry by providing assurance of fitness-of-purpose for such technologies to optimize resource utilization and realize cost savings in industry.

6.6.2.4 The Independent Development Trust (IDT)

The primary role of the IDT is to use its resources, together with strategic partners, in ways in which, in the opinion of the Trustees, will best serve to enable poor communities in the Republic of South Africa to access resources and recognize and unlock potential so as to continuously improve their quality of life.

6.6.2.5 Construction Education and Training Authority (CETA)

In a nutshell, CETA's primary strategic objective is to influence and facilitate the course of training and skills development by ensuring that all training reflects current needs and requirements in the construction sector. Its various skills development projects aim to develop a highly motivated construction work-force pool, equipped with skills that are recognized and valued in terms of the National Qualifications Framework (NQF).

Consequently, these Participants in the study are the entities that report to the Minister of Public Works. These Participants in the study are intended to assist the department to deliver its objectives and achieve the broader government goals, especially in the construction industry. Key to attaining these objectives is a long-term drive towards transformation. Therefore, in this study it is crucial for the Participants in the study to establish a working rapport with women contractors and owner-managers.

6.6.2.6 Association of women in construction

The South African Women in Construction (SAWIC) initiative was founded in 1997 with the purpose to empower women to gain access to procurement or contracts, training, finance and networks in the construction industry. The vision of SAWIC is to be an association of excellence with global affiliation networks enhancing the role of women in the construction industry through members running profitable business enterprises.

6.6.3 The Recipients

The Free Online Dictionary defines the recipients as a person or thing that receives or is awarded something. In the context of this study, the recipients are the women in construction (women contractors and owner-managers of construction businesses). The empirical findings in this study confirm that women in construction remain caged in lower CIDB grades, and continue to face a myriad of barriers that hinder their advancement and growth. The researcher discovered that women, particularly from rural areas enter the construction industry ill-prepared but with greater expectations that they will succeed. Thus, the researcher experienced that women in construction need appropriate support mechanisms in order to advance in the construction industry. Figure 6.2 detail the capacity building relations of the

agents and the recipients.

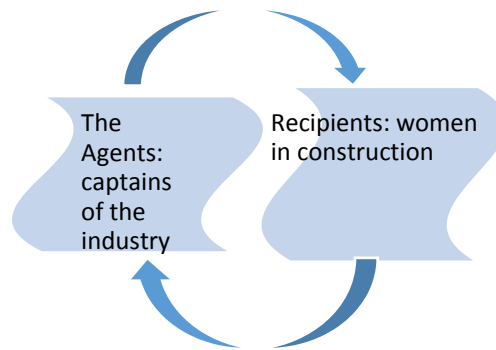


Figure 6.2: The capacity building relations of agents and recipients

6.6.4 The process- the guiding procedure

According to Barnum (1994), procedure is the action part of the model. On the other hand, Chinn & Kramer (1995) refer to the procedure as steps that need to be taken to bring about the desired goal or outcome. Also, Kgole (2009:78) defines “procedure as a technique of the activity and forms of the guidelines for the theory”. Therefore, for the purpose of this study, I conclude that procedure indicates the protocol of the activities to be followed in the theory. Some of the processes that seem to emanate during the interviews with women-owner managers is:

6.6.4.1 Capacity building process

Capacity building has been identified as a key process in facilitating the development of women in construction. Capacity building process include mentoring and coaching, education and training, and support. All these elements are critical ingredients to capacitating women in construction to be competent, to grow substantially and independently be able to manage own enterprises.

Capacity building also referred to capacity development, is a conceptual approach to development that focuses on understanding the obstacles that inhibit people, organizations and governments from realizing their developmental goal while enhancing the abilities that will

follow them to achieve measurable and sustainable results. The capacity building process includes a list of activities that helps in identifying the stakeholders as well as the need and strategies for capacity based on the program objectives.

6.6.4.1.1 Mentoring

To start and manage a construction business is not an easy task. For the purpose of this study, MentorSET (2008) defines mentoring as a way to support and encourage people to manage their own learning in order that they may maximize their potential, develop their skills, improve their performance and become the person they want to be. In this present study, the mentoring process by Wong & Premkumar (2007) will be viewed in three models – the apprentice, competency and reflective models.

- In the Apprentice model, the mentee observes the mentor and learns.
- In the Competency model, the mentor gives the mentee systematic feedback about performance and progress, and,
- In the Reflective Model, the mentor helps the mentee to become reflective practitioner. To this end, this subscribes to a reflective model in which mentoring is seen as an intentional, nurturing and insightful process that provides growth experience for both the mentor and the mentee.

For the increased inclusion and participation of women in this difficult and still male-dominated industry, transformation of the culture needs to be changed in order to enhance inclusion of more women in the sector. This means that for proper growth and development of women in construction, their development needs should be taken into consideration. Thus, the capability approach provides that if women's capabilities are to be well assessed and are allowed to convert them into valuable functioning, goal (achievement), which is to be professionally sound, technically knowledgeable and sustainable contractors is achievable.

6.6.4.1.2 Coaching

The aim of coaching women in construction is to enhance women's competencies in a specific area by providing a process of observation, reflection and action. To attain this coaching process of developing women in construction, the Achieve Coaching Model by Preston is

adapted for the purpose of the present study. I used the seven (7) steps of the Achieve Coaching Process.

Step 1: assess the current situation

The coach establishes rapport and begins dialogue, using open questions. Women become aware of their current situation and quite often start to recognize behavioural patterns that hinder success.

Step 2: Creative brain-storming

This relates to how often they have experienced that feeling of being stuck in the situation, with no apparent options to escape it. Brainstorming should be as free as possible, with no limits on what is suggested.

Step 3: Hone the goal

For a goal to be realistic, it needs to be meaningful to the individual, in this case, to women in construction. The best coaches devote significant time to working with women in construction and refine the goal they really wish to achieve.

Step 4: Initiate option generation

Great coaches take time, ask questions and let the women generate new options for action and behaviour. It is only when the options come from the women that real commitment can be generated for action and change.

Step 5: Evaluate options

In this step the coach works with the women in construction to develop a set criteria to evaluate different options. For example, as to what investment (money, time, energy) and resources are needed to put a specific option into practice.

Step 6: Valid action program design

This step is like building a bridge. The best coaches work together with the women contractors to bridge the gap where they are at present and where they want to be. This step requires rigour from the coach in order to gain the women contractor's commitment to action. It is all very well planning, but nothing will happen unless the woman contractor actually takes the first step. It is also important to enhance the women contractors to recognize when they have achieved their goals.

Step 7: Encourage momentum

Finally, the good coach is also a professional nagger. Women contractors continue to require motivation.

6.6.4.1.3 Development (in this case growth from lower grade CIBD to higher)

Development is an act of bringing to a more advanced state, growth or progress. In this present study, for the increased inclusion and participation of women in this difficult and still male-dominated industry, transformation of the culture needs to be changed in order to enhance inclusion of more women in the sector. This means that for proper growth and development of women in construction, their development needs should be taken into consideration. Here, the development of women in construction is based on the theoretical assumptions of the capability approach by Nussbaum (1995). According to Nussbaum's (1995) capability approach, the development of women should take a holistic approach in order to hone women's capabilities towards their growth and development. The capability approach further provides that if women's capabilities are to be well assessed and are allowed to convert them into valuable functioning, their (goal) achievement, which is to be professionally sound, technically knowledgeable and sustainable contractors is achievable.

In this study, the development of women in construction should take a 3-part cycle:

- Planning cycle which involves prioritizing which area to develop and planning how to do this

- The Doing cycle, this involves practice. It is important for women contractors to practice their personal and professional knowledge, skills and attributes in everyday life as contractors.
- Reviewing cycle, which involves thinking about how good they were in practice and what they think they could improve. It is also important to record their progress, as this helps them to become more articulate about their knowledge, skills and attributes and to accurately assess their development needs.

6.6.4.1.4 Business incubation

Business incubation is an integral part of capacity building process for women in construction. Enabling more women to pursue businesses in the construction industry can only be achieved through proper business incubation. This is the kind of support that empowers women through the creation of an enabling policy environment by government and other role players. Even though government continues to lead efforts in empowering more women in construction, we should be mindful of the fact that it is a task for all the stakeholders including the society. Any business incubation should be structured in a manner that would take into consideration the challenges experienced by women in construction. It must be acknowledged that the South African government has introduced the National Contractor Development Program (NCDP) and the Contractor Incubator Programme (CIP). However, even though these two programs have good intentions, they are not necessarily women-specific. Figure 6.3 details the dynamics of capacity building process.



Figure 6.3: The procedure for capacity building process

6.6.5 The dynamics as the energy source of the activity

According to Kgole (2009:79), “dynamics is the energy source for the activity”. In essence, the dynamic interplay during the support, empowerment and development process is imperative. The dynamics look into the imperative ingredients of ensuring that the process goes smoothly. Again, Kgole (2009) asserts that the dynamics involve aspects that facilitate the social process of the relationship of the supporter/empower/developer and the recipient of the capacity building process.

In this study, the women in construction (rural women contractors and contractor owner-managers) need deliberate capacity building programs that seek to enhance their growth beyond lower CIDB grades, they need access to capital and nurturing for their continued financial, professional growth and development.

During interviews with the key stakeholders of construction industry, it emerged that for all woman contractors to succeed in this tough industry, they must possess traits that will set them aside from the rest. These traits include intuition, commitment, resilience, preparedness, personal drive or intrinsic motivation to succeed, which are critical dynamic interplay in ensuring that the capacity building process of women in construction succeeds.

6.6.5.1 Intuition

Intuition is about knowing by instincts what is likely to be successful in an important insight a woman contractor can have.

6.6.5.2 Commitment

With commitment, a woman contractor usually makes a huge commitment to the growth of her enterprise. Apart from the financial investment that she makes, the time spent dedicated to the enterprise will exceed the commitment of others. A passion and self-belief in the woman contractor as an entrepreneur to expand the construction enterprise profitably is aligned with an I-will mentality of the individual.

Since the context (construction industry) is still regarded as difficult to transformation, women need to find ways to align and acclimatize to the workplace culture in which women are regarded as weak and cannot survive. The women in construction (recipients) also need to ensure that at personal level they also acquire related educational and technical skills for them to be able to be competent in their vectors of functioning (as contained in the capability approach) in the industry.

6.6.5.3 Resilience

Resilience is defined as the ability to cope and withstand difficult and challenging situations. Literature review showed that the built (construction industry) is a rigid male dominated environment. Traditionally women are not expected to participate in the construction industry; hence women experience various forms of discrimination. Women should have a high tolerance of risk and optimism to succeed in the construction industry.

6.6.5.4 Preparedness

The state of women contractors' preparedness is an important dynamic to the readiness of women to thrive in this hostile and male dominated environment.

6.6.5.5 Motivation/drive

Motivation or drive is a fundamental driving trait to the need for achievement by women in construction. Motivation among women contractors is driven by the desire to for personal autonomy and personal achievement (Verwey, 2005). Wickham (2001) further elaborated that motivation is very high in individuals who start their own businesses. This means that companies with highly motivated owners tend to be job centered and that increases their success rate. So considering the difficult construction industry context in which women thrive, it is important that they spent considerable time figuring out how to be progressive in their businesses. They must be opportunity driven in spite of the challenges that they experience as women contractors. Figure.6.4 details the dynamics of the capacity building process for women in the construction industry.



Figure 6.4: The dynamics of the capacity building process

6.6.6 Outcome- what is the end point of the activity

Kgole (2009) refers to the goal as synonymous to the word “terminus”. Consequently, Kgole (2009:79) defines terminus “as the outcome, achieved goals for empowering”. In this study, the goal or terminus will be the ultimate capacitation of women in construction to a point where there is increased participation of women in the construction industry and ultimately, they become self-sufficient, financially, professionally and technically sound to survive in the industry. Sustenance is the experience of growth, efficiency and stability in the industry. This sustenance equates to growth beyond lower grades and sustainable women-owned construction enterprises. Figure.6.5 displayed progressive women contractors as being the terminus of the capacity building process for women in the construction industry.



Figure 6.5: The outcome of the development process

The schematic representation in Figure 6.6 details a full schematic representation of all the elements of a model to develop women in construction.

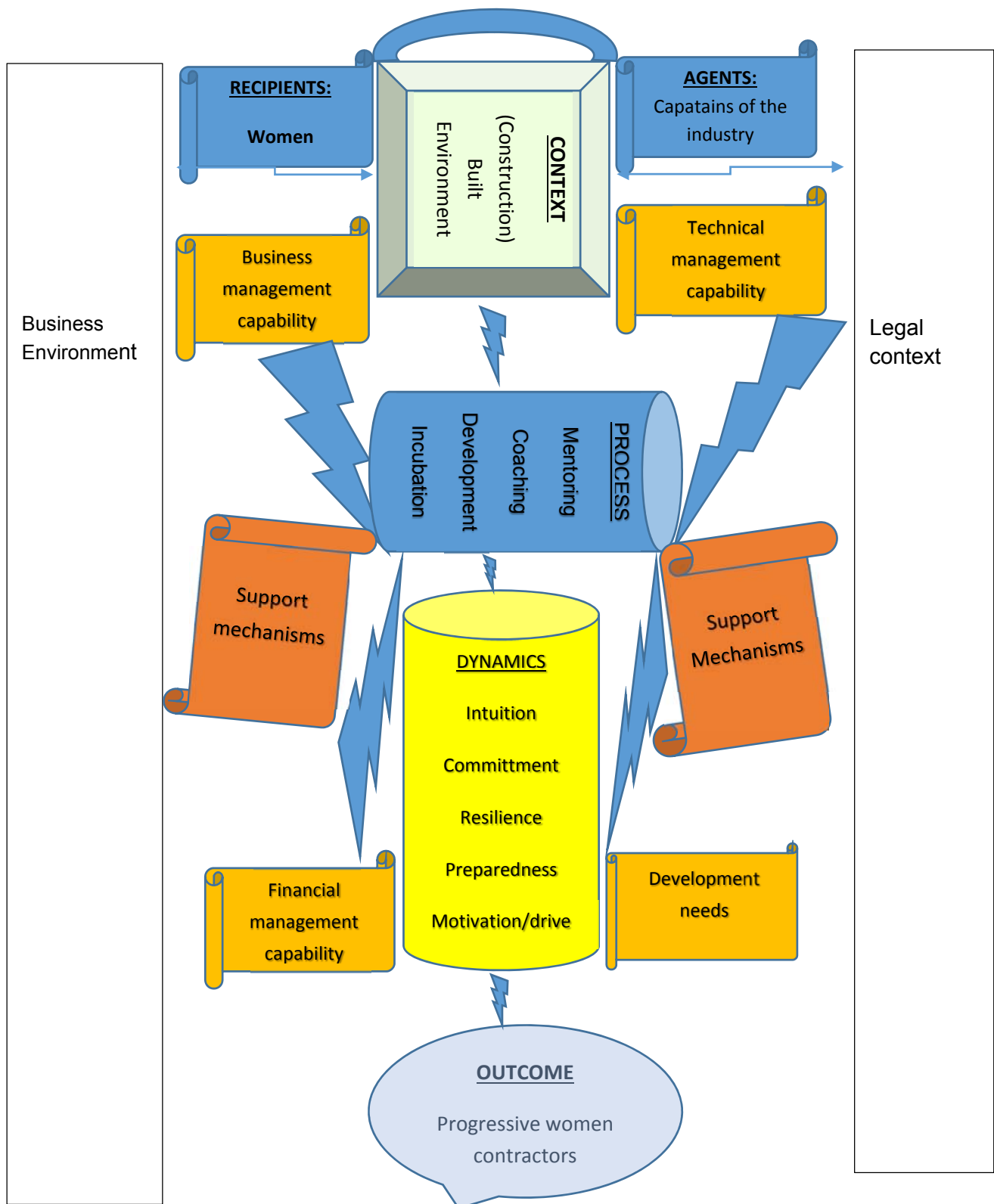


Figure 6.6: Schematic representation of a model to develop women in construction

6.7 Description of guidelines to operationalize the model

Chinn & Kramer (1995:101-104) would postulate that the final step in theory development is the deliberate application of theory.

6.7.1 Guidelines for the construction industry

The role construction industries are expected to play in the socio-economic development is very crucial. It is also necessary for the government to monitor how the construction industry is playing this role.

6.7.1.1 The business context

The difficulties presented by the business environment include problems in procurement of work, poor access to investment and working capital, scarcity of skilled workers, expensive material and material shortages and ineffectively controlled market prices due to collusion by major construction cartels, and transportation costs because of the sparse geographical locations of rural women contractors. These components have been found to have the greatest effect on sustainability of women contractors.

The construction industry also experiences periodic fluctuations in the total workload at a particular period of time, and this affects individual women contractors. It must be conceded that all businesses face periodic changes and fluctuations in the overall levels of activity overtime, but women contractors have come out the worst in many instances. Thus, it is important that efforts are made to reduce these frustrations, risks, uncertainties and problems, which these operating environments pose adverse impact on women contractors. Therefore, there is a need to:

- Streamline administrative procedures relating to construction projects and develop appropriate construction regulations, codes and standards.
- Seek to maintain a fair and uniform volume of construction projects
- Attempt to improve the image of the construction industry
- Split large project into smaller packages to facilitate participation by women contractors
- Implement a training program specific for women contractors

- Create a “one stop shop” or a databank on women contractors to indicate their capacity and capability to undertake construction works.
- Establish a construction bank to offer financial assistance to women contractors

6.7.1.2 The legal context

There are many barriers to sound development of women in construction. Some relate to the inadequacies of women contractors, while others pertain to unsound policies, inefficient systems, weak institutions and the untransformed and underdeveloped construction industry environment. The government should first formulate laws to regulate the construction industry. There is therefore a need to:

- Simplify and improve forms of contract to incorporate fair and equitable contract conditions for women

6.7.2 Guidelines to operationalize the stakeholders

6.7.2.1 Recipients: Rural women contractors

Women contractors should begin to understand the negative culture of the construction industry as soon as possible. These strategies may include organizing image campaigns where rural women contractors can be educated about both the negative and positive image of the construction industry. Merely implementing a positive image campaign without revealing the real status quo may help attract women in construction but may unlikely help with their retention.

- The use of successful women contractors as role models to share their experiences with rural women contractors can provide a platform for success of other women contractors.
- Women contractors should also do their best to benefit from any kind of support or assistance offered
- Women contractors benefiting from development support and assistance programs should show commitment to it, and endeavor to demonstrate its usefulness to potential entrants and the society as a whole.

- Women contractors should also prepare their own strategy for benefiting progressively from the support measures to improve their expertise during start-ups.
- Women contractors should also realize the importance of integrity and portray themselves as capable and trustworthy contractors. When given tenders, they should complete them on schedule with high quality. In this way this will help them their image and that of the industry as a whole. An important resultant element or benefit will be an improvement in women contractors' access to capital.

6.7.2.2 Agents: Stakeholders in the construction industry

Leadership for change needs to come from the construction industry itself. The Participants in the construction industry should work together in order to develop organizational strategies, share learning, create broader initiatives and measure the success of these initiatives.

- The construction industry associations should actually advance the empowerment work by advocating and lobbying for more work opportunities for women and also fight for the rights of women's participation in the industry.
- Programs for women should not simply be included in the broad diversity initiative, but the focus should be women-specific. A loss of focus may occur when women are grouped together like in a diversity program. This kind of an approach ends up being a "one size fits all" which tends to subdue the intention of empowering women to fully participate in the construction industry.
- Government should play a facilitator role in discussing and finding solutions to improve women's involvement and participation in the construction industry. Government should also fund research and shape policies on the education system to attract women to construction-related science and engineering programs. Educational institutions should also play a role by providing valuable insights on how to channel women students' interest to the construction industry.
- The construction industry captains should look at transferability of skills to attract women in the construction industry. The industry should also develop and implement multi-faceted strategies that seek to address cultural change, as well as women-specific initiatives that are incorporated into their operational priorities. These multi-

faceted strategies should include the development of special programs and training for rural women contractors.

- The construction industry role players should also create and promote a positive image of the construction industry through community development initiatives.
- The construction industry should also create case studies of best practices that can be shared across the industry. Sharing best practices can help increase the likelihood of success across the construction industry in promoting the participation of women in the built environment.

6.7.3 Guidelines to operationalize the capacity building process

The key steps in the capacity building process are the following.

- **Step 1:** Capacity needs assessment, which helps in identifying the exact requirement for capacity building. Capacity needs assessment is a useful tool in identifying key stakeholders, assessing the current levels of capacity among them, additional capacities required and developing suitable strategies.
- **Step 2:** Engaging Partners and building consensus: it is important to discuss and reach an agreement on what are the key development challenges and how those can be addressed through capacity building.
- **Step 3:** Define capacity building strategies: this step includes defining capacity building strategies, methodologies adopted and also the cost requirement for such capacity building identified
- **Step 4:** Implementing the capacity building strategies: the primary activity at this stage includes grounding the capacity building strategies identified. Creating and establishing a cadre of trainers and advisory teams would help in efficient implementation and facilitate capacity building activity of women.
- **Step 5:** Monitoring and Evaluating capacity building strategies: monitoring the progress of capacity building programs, conducting impact evaluations and also obtaining regular feedback on capacity building activity can help in redesigning and redrafting strategies and adopt newer approaches for capacity development.

6.7.3.1 Mentoring

A study by Verwey (2005) highlighted the valuable role that motivation plays in the development of women business owners and its direct correlation to their business' growth. Therefore, it is incumbent of women contractors to ensure that they benefit from mentoring programs offered by the industry and government in particular. Such mentoring programs should provide women contractors with expanded networks, reduction of isolation feelings, supportive peer group and increased knowledge gained to the areas of expertise of role models and other protégés in the program (Verwey, 2005).

6.7.3.2 Coaching

Sharing information with women in construction about all aspects of construction industry is the first step to fostering empowerment. Such sharing of information ensures that women contractors clearly understand the parameters within which they have to operate in order to be successful in their construction businesses.

6.7.3.3 Development

In the context of the construction industry, women contractors should be considered developed or empowered when they reach the levels of independency. This development process should enable to them to sustain their construction businesses. Any kind of development intervention should take into consideration the growth and development needs of women contractors. This implies that development of women contractors should have specificity with regards to their special needs.

6.7.3.4 Business incubation

Women contractors should take advantage of the incubation programs provided by government.

6.7.4 Guidelines to operationalize the dynamics

6.7.4.1 Intuition

Women contractors should have intuitive instincts towards running their own construction businesses. They need to have sound business management acumen in order to “a sense of a whole” and take advantage of the niche areas within the construction industry. Women contractors’ convictions and confidence to wanting to succeed is important to achieving their goal of growth in the industry.

6.7.4.2 Commitment

Women need to find ways to align and acclimatize to the workplace culture in which women are regarded as weak and cannot survive. The women contractors also need to ensure that at personal level they also acquire related educational and technical skills for them to be able to be competent in their vectors of functioning (as contained in the capability approach) in the industry. Therefore women in construction need to show desire to participate and support the change. It is important for women in construction to realize the need for change. Willingness and determination to participate and support change is crucial for the successful empowerment of women in construction.

6.7.4.3 Resilience

Women contractors should develop a “thick skin” in order to withstand the pressures and challenges of doing business in a rigid, untransformed and male dominated construction industry.

6.7.4.4 Preparedness

Women contractors should actually create their own odds of success by taking incremental steps that move them closer to their goals (Sarasvathy, 2006). Women contractors should be willing to get out of the comfort zone and take the risk that comes with doing business in the construction industry. A big part of development is recognizing potential and access to information. Well informed women in construction are better equipped to take advantage of

opportunities, exercise their rights and negotiate effectively. It is important for women contractors to notice their hidden capability and then extrapolate that to the construction industry context.

6.7.4.5 Motivation

Women contractors should be motivated and have the desire to be successful contractors.

6.7.5 Guidelines to operationalize the outcomes

6.7.5.1 Progressive rural woman contractor

The envisaged outcome of this model was to achieve a progressive woman contractor, who would run sustainable construction enterprises without any level of dependence. Therefore, this progressive woman contractor should:

- Ensure that they take advantage of the preparatory programs like contractor incubator programs. These will ensure that they acquire business knowledge, contract management and construction management skills.
- Ensure that they are exposed to technical skills training so that these skills are embedded in their early development
- Ensure that they fully participate in mentoring and coaching programs

6.8 EVALUATION OF THE MODEL

The model was evaluated using Chinn & Kramer's (2011:196-205) criteria, namely clarity, simplicity, generality, accessibility and importance (significance).

6.8.1 Clarity of the model

Clarity of the model pertains to how well the model can be understood and how the ideas in the model were conceptualized. Clarity of the models also seeks to ascertain whether structural consistency and clarity were maintained. Clarity and structure are reviewed in terms of semantic clarity and consistency and structural clarity and consistency. Alligood (2011)

stated that clarity speaks to the meaning in terms used, and definitional consistency and structure speaks to the consistent structural form of terms in the theory. Therefore, a clear and consistent model becomes meaningful to all researchers, particularly experts in model building or development. A simple question in this context is “can the model to develop women in construction be clear and meaningful to other researchers and in practice”?

In this study therefore, clarity and consistency were facilitated with diagrams and examples. This is in line with the assertion that the logical development and type of structure used should be clear, and assumptions should be stated clearly and consistent with the goal of the theory (Chinn & Kramer, 2011; Walker & Avant, 2011). On the other hand, Ellis (1968:221) used the “criterion of terminology” to evaluate theory and warns about “the danger of lost meaning when terms are borrowed from other disciplines and used in different context”.

6.8.2 Simplicity of the model

Simplicity means that the theory is simple to follow and not complicated. In an easy theory, the number of elements particularly the concepts, and how they are related is easy to understand. Chinn & Kramer (2011) called for simple forms of theory, such as middle range, to guide practice. In support of the simplicity of the theory, Walker & Avant (2011) would posit that the theory must be brief but complete. Thus, in a simple model to develop women in construction, can the concepts be combined without losing any meaning?

6.8.3 The generality of the model

According to Chinn & Kramer (2011) the generality of a theory speaks to the scope of the application and the purpose within the theory. Furthermore, Ellis (1968:219) stated that, “the broader the scope.... the greater the significance of the theory”. This simply refers to how general is the theory in terms of its size. At the same time, this implies that the generality of the model covers the breadth and scope which is dependent on the scope of the concept of the model and its main purpose in the specific theory or model (Madelá-Mntla, 1999:73). In this study the question is “can the model for developing women in construction be implemented in other settings?

6.8.4 The accessibility of the model

Accessibility addresses the extent to which empiric indicators for the concepts can be identified and to what extent the purposes of the theory can be attained (Chinn & Kramer, 2011:203). Accessibility also looks at whether the concepts are practical and in the case of this study, reflect the real construction industry setting. In this regard, the question is “are the concepts practical and real in the context of developing women in construction?”

6.8.5 The importance of the model

The importance of the model basically refers to the significance of the model. This means that it looks at the extent to which it can be used to achieve the goals of rural women in construction both theoretically and practically. In this context, this implies the extent to which the model can be applied to achieve the goal of developing and advancing women’s growth in the construction industry.

6.9 SUMMARY

This chapter postulated the overview of the model, the context of the model, the purpose, the conceptual framework and its processes. Furthermore, the structure of the model was discussed as well as the criteria to evaluate the model to facilitate the development of women in construction. Chapter seven (7) describes the conclusions, limitations, contribution to the study and recommendations.

CHAPTER 7

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

Chapter six (6) discussed model development for women in construction using literature control to validate the study. The overview and structure of the envisaged model were discussed based on the themes and categories that emerged. The study findings combined the results from the both the qualitative and the quantitative data in order to determine the components of the envisaged model.

Chapter seven (7) chronicles the conclusions reached from the findings, the limitations of the study and recommendations for future research are made.

7.2 CONCLUSIONS

The study was a culmination of qualitative-quantitative study conducted by the researcher, which revealed that despite empowerment legislative framework, women-owned construction enterprises continue to remain in the lower grades of the CIDB. A theory-generative, qualitative and descriptive design was used to achieve the objective of the study. Then the researcher combined the results of explorative and descriptive phases to develop and describe the model to develop women in construction. The researcher used Chinn and Kramer's (1995:20) design in developing the theory, beginning with the identification of the main concept of the model, which is "development/capacity building". The concept of development/capacity building was analyzed to identify its connotations or attributes.

The defining connotations were then synthesized to form the definition of capacity building used in the model developed for this study. As a result, the concept of development became core to facilitating the development of women in construction in the context of a rural Limpopo province of South Africa. For the researcher, it was profound to capacitate women entrepreneurs in the construction industry, as they appear to lack technical management capabilities, financial management capabilities, and management capabilities in order to thrive in the construction industry.

The theory-generative research design was critical in helping the researcher to construct a model for the development of women in construction. The theory-generative design also assisted the researcher to follow a step-by step process in the development of the theory. The researcher relied mostly on the guidance of the Capability approach by Nausbaum (1995).

7.3 CONTRIBUTION OF THE STUDY

The undertaking of this study enabled the researcher to contribute through:

- A practical contribution through establishing the views and experiences of the participants in the study, and women in construction. This enabled the researcher to deduce through their lens their lived experiences and how they were affected and how best their challenges could be addressed.
- A model to describe development of women in construction was a significant contribution made through this study. Through this model development, a literature gap that existed was closed.

Furthermore, through this study, a contribution in addressing practical policies and implementation gaps that hindered advancement of women in the built environment was addressed.

7.4 LIMITATIONS

The study was restricted to women in the construction industry within the Limpopo province of South Africa. Only the captains of the construction industry and the active women-owned construction enterprises with CIDB Grade 2, who lived in the Limpopo province, were considered for this study. This excluded the views and experiences of the industry experts, and the responses from the broader spectrum of women-owned construction enterprises from other provinces. Moreover, men were not interviewed as part of this study primarily because when this study was initiated, the focus was more on the views and experiences of women within the construction context.

Thus, the conclusions drawn do not necessarily represent any definitive insight based on the number of participants interviewed, nor the number of respondents who answered the questionnaire. Furthermore, this study cannot be generalized to the other provinces of the Republic of South Africa. Nonetheless, it can be concluded that the model to facilitate the development of women in construction could be used anywhere else in the country. The model to facilitate the development of women in construction also still needs to be practically implemented.

7.5 RECOMMENDATIONS

Recommendations that are made in view of this study include the need for practical implementation of the model and future research.

7.5.1 Practical implementation of the model

In order to determine the usefulness of the model to facilitate the development of women in construction, it is important that the model be practically implemented. It is recommended that this model should be implemented with women in construction in another province in order to properly evaluate its envisaged impact.

7.5.2 Future research

The continued interest in the construction industry necessitates debates by policy makers, intellectuals, academics, the construction industry and development experts on the challenges, success, development and growth and sustainability of women-owned construction businesses. The following areas for further research and development are recommended:

- The use of retired professionals as mentors and coaches to capacity building for women contractors.
- The linkages with training institutions are crucial for technical and knowledge skills transfer.
- The linkages should be well defined in order to enable women contractors to be sustainable in the construction industry.

7.6 CONCLUSION

The study was conducted in order to develop a model to facilitate the development of women in the construction industry. The aim of the model was to enhance the growth and advancement of women-owned construction enterprises to reach sustainability. This chapter concluded the study, described the researcher's conclusions, contribution of the study, discussed the limitations, and made profound recommendations for the development of women in construction and for future research.

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kalyani.premkumar@usask.ca

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APPENDICES

APPENDIX A

CONSENT FORM

STRICTLY CONFIDENTIAL

GOOD (MORNING/DAY/AFTERNOON)

I am Minah Jonas, a PHD candidate at the University of Venda conducting research on A Model for the Development of Women in Construction in the Limpopo Province of South Africa. Your permission to participate in this study is requested and I thank you for offering your consent

NAME OF INSTITUTION: UNIVERSITY OF VENDA

SCHOOL: AGRICULTURE, INSTITUTE FOR RURAL DEVELOPMENT

TITLE OF RESEARCH: A Model for the Development of Women in Construction in the Limpopo Province of South Africa

CONFIDENTIALITY

As researcher, I undertake to maintain the confidentiality of informants

DISCLAIMER/WITHDRAWAL

Participation in this study is by voluntary consent and all participants are free to withdraw at any time without prejudicing their standing with the University of Venda.

By signing below, you are indicating that you have read and understood the consent form and that you voluntarily agree to participate in this study.

Participant's signature

Interviewer's signature:

Date:

Date:

APPENDIX B
MEMORANDUM OF UNDERSTANDING

Between

SMINNY NOZIMANGALISO MINAH JONAS
PHD CANDIDATE AT THE UNIVERSITY OF VENDA
STUDENT MUNBER 9315122

And

South African Women In Construction (SAWIC)

PARTIES TO THE MEMORANDUM

- 1.1. The parties to this Memorandum of Understanding are Sminny Nozimangaliso Minah Jonas (hereinafter referred to as the student) and the South African Women In Construction (hereinafter referred to as the Association).
- 1.2. This document is an agreement in respect of data to be collected by the student in partial fulfillment of a PhD qualification at the University of Venda;
- 1.3. The data will be collected on members of the association outlined herein.

2. DURATION

This agreement shall commence on signature by both parties; for an initial period of 8 consecutive weeks.

3. PURPOSE OF THE MEMORANDUM

The purpose of this memorandum is to:

- 3.1. Establish a relationship to enable the conduct of a PHD research with the members of SAWIC;

- 3.2. To clarify the conditions under which such a research will be conducted; and
- 3.3. Mutually identify and agree on mechanisms to protect the human rights of the SAWIC members in the course of this research.
- 3.4. This memorandum provides exclusive mutual partnership status in the conduct of the afore-mentioned research.

4. PRINCIPLES OF CO-OPERATION

In order to achieve the purpose of this Memorandum, the parties have adopted and will comply with the principles of co-operation set out below.

- 4.1. The parties agree that, for the duration of the research project, the researcher will:
 - 4.1.1 promote the right of members to privacy, anonymity, voluntary participation and to voluntary withdraw at any stage of the research process should they feel uncomfortable;
 - 4.1.2 provide detailed information regarding the objectives of the research project, uses and disposal of data collected;
 - 4.1.3 obtain written and informed consent to any disclosure of information that may be required by a competent person, i.e. the research promoter, research auditor or the University of Venda's Ethics Committee, for the purposes of verifying the results;
 - 4.1.4 carry the costs of transporting participants to and from the venues, and of supplying refreshments during breaks, where applicable;
 - 4.1.5 provide a copy of the findings upon completion and approval of the research report; and
 - 4.1.6 the Association will encourage members to participate and assist in the process of identifying accessible and noise-free venues for the conduct of intended workshops

5 DATA COLLECTION, RECORD KEEPING, DOCUMENTS AND REPORTING

The parties undertake:

- 5.1 To ensure the confidentiality of the records, that all records generated during data collection, interpretation and reporting shall be destroyed upon acceptance of the final research report by the University of Venda; and
- 5.2 That the information shall be used solely for purposes of the intended qualification by the student.

6 CONFIDENTIALITY

- 6.1 The parties acknowledge that any information supplied in accordance with this agreement, transferred to or come into the possession or knowledge of the research promoter, research auditor or the university (“the receiving party”), may consist of confidential or proprietary data, which is not available in the public domain;
- 6.2 The receiving party therefore agrees to hold such material and information in the strictest confidence and not to make use thereof other than for the purposes of this agreement and to release it only to such properly authorized persons or disclose or disclose it to any other party who has not signed an agreement expressly binding himself not to use or disclose it other than for the purposes of this agreement. The undertaking and obligations contained in this clause do not apply to information that is publicly available at the date of disclosure or thereafter becomes publicly available from sources other than the parties;
- 6.3 The parties shall take such precautions as may be necessary to maintain the secrecy and confidentiality of such material and will maintain the confidentiality of all personal information lodged by the association’s members and any other person to whom any such confidential proprietary data may have been or will be disclosed;
- 6.4 Should this agreement be cancelled for whatsoever reason, each party shall return to the other forthwith and upon demand all documents, written instructions, notes, memoranda, discs or records and other documentation of whatsoever nature or description relating to the confidential information which it acquired or may acquire or came into possession and any such confidential information stored by electronic means shall forthwith be destroyed.

7 ADDITIONAL/OTHER CO-OPERATION AGREEMENTS BETWEEN PARTIES

The parties may conclude agreements as required in order to clarify their responsibilities and to establish further mechanisms and procedures for partnership to pursue the objectives of this agreement.

8 AMENDMENTS TO THIS MEMORANDUM

This agreement and the annexures hereto constitute the sole record of the agreement between the parties in relation to the subject matter thereof. Neither party shall be bound by

any express, tacit or implied term, representation, warranty, promise or the like not recorded herein. This agreement supersedes and replaces all prior commitments, undertakings or representations, whether oral or written, between the parties in respect of the subject matter hereof.

9 NEW PARTIES TO THE MEMORANDUM

The parties may agree to introduce a new party to this memorandum. Following agreement in writing to this effect, the Memorandum shall become binding on the new party on signature.

10 DISPUTE RESOLUTION

Should any dispute or difference arise between the parties with regard to interpretation and/or implementation of any or more of the provisions of this agreement, either party shall be entitled to submit such dispute or difference to the attention of Professor V.O. Netshandama (vhonani.netshandama@univen.ac.za), Community Engagement of the University of Venda, for resolution.

11 TERMINATION OR SUSPENSION OF AGREEMENT

The agreement is terminable by either party giving the other fourteen days notice. Neither party shall have any claim against the other for cancellation of the Agreement in terms of this clause.

12 ADDRESSES OF PARTIES FOR CORRESPONDENCE

Sminny Nozimangaliso Minah Jonas

Telephone: 072 633 9444

E-mail: minah.jonas@hotmail.com

Postal: P.O Box 59878

Karenpark

0118

South African Women In Construction

SIGNATORIES OF THIS AGREEMENT

Signed on this day of..... 2015 at

Sminny Nozimangaliso Minah Jonas

PhD Candidate

Signed as witness to this agreement agreement

Name:-----

Address:-----

Signed as witness to this

Name:-----

Address:-----

APPENDIX C

INTERVIEW GUIDE: KEY STAKEHOLDERS

A MODEL FOR THE DEVELOPMENT OF WOMEN IN CONSTRUCTION IN THE LIMPOPO PROVINCE OF SOUTH AFRICA

This research is conducted by Ms. SNM Jonas for the fulfillment of the requirements a Doctor of Philosophy in Rural Development

SECTION A: BACKGROUND

Entity's name	
Physical Address	
Position in company	
Educational qualification	
Date of Interview	

Main question: what are your views and experiences regarding women's participation in the construction industry?

What are the support measures to encourage the growth and development of lower ranked women in construction?

What are the needs for growth and development amongst rural women (doing business) in the construction industry?

Thank you for your participation in this study.

APPENDIX D

QUESTIONNAIRE FOR WOMEN CONTRACTORS

SNM Jonas
P.O Box 59878
Karenpark, Akasia, 0118
Mobile: 0828878051 or 072 6339444
Minah.jonas45@gmail.com or minah.jonas@hotmail.com

10 February 2015

Dear respondent

I, **S.N.M. Jonas**, am undertaking a research project for the fulfillment of the requirements of a Doctor of Philosophy in Rural Development. The research study seeks to develop a model for the development of women in construction in the Limpopo Province of South Africa. To this end I kindly request that you complete the following short questions about your experiences and views as an owner-manager of your construction enterprise.

The questionnaire is made up of the following broad themes: Biographic information, Management Capability, Development Needs, Financial Capability, and Technical Management Experience. The questionnaire should take no longer than 20 minutes of your time. Your name is not required; it remains anonymous. Your response is of the utmost importance to me.

Kindly return the completed questionnaire to the email address above on or before 30 April 2015.

You are welcome to contact me telephonically at 082 8878051 or 072 6339444 or email me at Minah.jonas45@gmail.com or minah.jonas@hotmail.com

Yours sincerely,

SNM Jonas

PhD Candidate: Institute for Rural Development, University of Venda

PLEASE ANSWER THE FOLOWING QUESTIONS BY CROSSING (X) ON THE RELEVANT BLOCK

This section of the questionnaire refers to biographical information. Although I am aware of the sensitivity of the questions in this section, the information will allow me to compare groups of respondents. Once again, I assure you that your response will remain anonymous. Your co-operation is appreciated.

A: BIOGRAPHICAL INFORMATION

1 Please indicate your ethnicity

Ethnicity	Options
Black	1
White	2
Coloured	3
Indian or Asian	4

2 Determining Age (in complete years)

Age	Options
18-35 years	1
36-53 years	2
54-70 years	3

3 Please indicate your marital status

Marital status	Options

Single	1
Married or living together	2
Divorced	3
Widowed or widower	4

4 Your highest educational qualifications?

Qualifications	Options
No formal education	1
Primary education	2
Secondary education	3
Tertiary education	4

5 In which District Municipality are you based?

District Municipality	Options
Capricorn District Municipality	1
Mopani District Municipality	2
Sekhukhune District Municipality	3
Waterberg District Municipality	4
Vhembe District Municipality	5

B: MANAGEMENT CAPABILITY

6 Name the legal status of business:

Status of business	Options

Public Company	1
Sole Proprietor	2
Private company	3
Partnership	4
Close corporation	5
Section 21 company	6

7 Which Women in Construction Association do you affiliate with?

Association	Options
SAWIC	1
KHUTHAZA	2
SAWEN	3
SAWID	4

8 State the number of years (age of business) of the existence of your construction enterprise

Age of business	Options
0-3 years	1
4-7 years	2
8-11 years	3
12-15 years	4
Above 15 years	5

9 State the number of employees in your company

Number of employees in your company	Options
Less than 5 employees	1
6-11 employees	2

12-17 employees	3
Above 18 employees	4

10 Determining the number of projects managed by women owned business

Number of projects managed	Frequency	% (Percentage)
0- 3 projects	111	92.5
4-7 projects	9	7.5
8-11 projects	0	0
Above 12 projects	0	0
Total	120	100

11 Did you have a start-up business plan?

Any start-up business plan	Options
Yes	1
No	2

12 In which other provinces are you operating?

Province	Options
Eastern Cape	1
Free State	2
Gauteng	3
Kwa-Zulu Natal	4
Mpumalanga	5
Northern Cape	6
North West	7

Western Cape	8
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13 Tick one reason for doing business in other provinces

Reasons for doing business in other provinces	Options
Diversification	1
Lack of business opportunities in the area	2
Stiff competition in the province	3

14 Any financial assistance received?

Any financial assistance received	Options
Yes	1
No	2

15 Indicate the class of work applicable to your construction company

Class of work	Options
Civil engineering (CE)	1
General Building (GB)	2
Mechanical Engineering (ME)	3
Electrical Engineering (EB)	4
Electrical Engineering Infrastructure (EP)	5
Specialist Work (SW)	6

C: FINANCIAL CAPABILITY

16 Determining the annual turn over of women owned-construction business

Annual turnover	Frequency	% (Percentage)
R200 000- R650 0000	110	91.66

R6500 000-R2, million	7	5.83
Above R2 million	3	2.5
Total	120	100

17 Determining financial capacity i.e. what is the highest contract you have ever been awarded in Rands?

Highest contract awarded	Options
R200 000-R650 000	1
R650 000 – R2 million	2
Above R2 million	3

18 Where do you mostly get work opportunities?

Work opportunity with	Options
Government	1
Private Sector	2

19 How many times in the past year have you got work opportunities from government?

Work frequency with government	Options
Once	1
Twice	2
Three times	3
More than three times	4

20 How many times in the past year have you got work opportunities from the private sector?

Work frequency with private sector	Options
Once	1

Twice	2
Three times	3
More than three times	4

D: TECHNICAL MANAGEMENT EXPERIENCE

This section of the questionnaire explores your relevant industry experience. You are required to rank the importance of each of the following skills using a 4-point likert scale where:

Totally unimportant=1

Unimportant=2

Important=3

Very important=4

21 Rank how important is each of the following technical skills to the growth of your enterprise as a woman

	Technical skills	Totally unimportant=1	Unimportant=2	Important=3	Very important=4	TOTAL	RANK
A	Construction management						
B	Business management						
C	Project management						
D	Financial management						

22 Rank the impact of financial constraints to business

	Financial constraints	Totally unimportant=1	Unimportant=2	Important=3	Very important=4	TOTAL	RANK
A	Reluctance by banks to grant loans						
B	Lack of collateral						

C	Lack of cash flow						
D	Lack of capital						
E	Delay in payments						

23 Rank how important are the following constraints emanating from the business environment to the growth of your enterprise as a woman?

	Impact of Constraints from Business Environment	Totally unimportant=1	unimportant=2	important=3	Very important=4	TOTAL	RANK
A	Lack of industry expertise						
B	Collusion by industry cartels						
C	Lack of entrepreneurial skill						
D	Lack of access to procuring work (not enough work opportunities)						
E	Too many jobs at the same time						
F	Adverse socio-economic down-turn						
G	High cost of construction material						
H	Fierce competition from contractors in higher grades						

24 Rank the impact of barriers to market viability of the business

	Barriers to market viability	Totally unimportant=1	Unimportant=2	Important=3	Very important=4	TOTAL	RANK
A	Lack of technical skills						
B	Lack of joint venturing						
C	Economic constraints						
D	Poor competency in the industry						
E	Poor meeting of project time lines						

25 Rank the importance of loan conditions to the establishment of your construction enterprise?

	Impact of loan conditions to enterprise growth	Totally unimportant=1	Unimportant=2	Important=3	Very important=4	TOTAL	RANK
A	Surety						
B	Collateral						
C	Terms of payment						
D	Start-up business plan						

26 Rank the importance of technical development skills required by women in construction

	Technical development skills required by women in construction	Totally unimportant=1	Unimportant=2	Important=3	Very important=4	TOTAL	RANK

A	Business management skills						
B	Project management skills						
C	Construction management skills						
D	Contract management skills						
E	Financial management skills						
F	Information technological skills						

E: GROWTH AND DEVELOPMENT NEEDS

27 Rank the importance of the type of training required

Type of Training required	Totally unimportant=1	Unimportant=2	Important=3	Very important=4	TOTAL	RANK
A Artisan skills training						
B Technical support						
C Training on construction management skills						
D Business Managerial skills						

28 Rank the important support measures required for sustainability of women in construction

	Support measures required for sustainability of women in construction	Totally unimportant=1	Unimportant=2	Important=3	Very important=4	TOTAL	RANK
A	Improved tendering procedures						
B	Ring-fencing						
C	Improved access to loans						
D	Active membership in associations						

29 Rank the kind of industry support you require from the Participants in the ?

	Kind of support required from the industry captains	Totally unimportant=1	Unimportant=2	Important=3	Very important=4	TOTAL	RANK
A	Contract management training						
B	Women friendly facilities						
C	Preferential CIDB grading system						

D	Mentorship						
E	Coaching						

30 Rank the importance of what personal attributes are needed to ensure success of women-owned construction enterprises?

	Personal Attributes	Totally unimportant=1	Unimportant=2	Important=3	Very important=4	TOTAL	RANK
A	Tenacity						
B	Passion						
C	Hard work						
D	Driven/motivation						
E	Resilience						
F	Time management						

31 Rank the importance of personal development needs required in order to improve sustainability of your own construction business?

	Personal development needs required for sustainability	Totally unimportant=1	Unimportant=2	Important=3	Very important=4	TOTAL	RANK
A	Related industry educational qualifications						
B	Refresher courses training						
C	Specialization in the type of trades						

Thank you for your co-operation in completing this questionnaire. Kindly return the questionnaire as specified in the cover letter.

APPENDIX E
ETHICAL CLEARANCE

RESEARCH AND INNOVATION
OFFICE OF THE DIRECTOR

NAME OF RESEARCHER/INVESTIGATOR:

Ms SNM Jonas

Student No: 9315122

**PROJECT TITLE: A MODEL FOR THE DEVELOPMENT
OF WOMEN IN CONSTRUCTION IN LIMPOPO
PROVINCE OF SOUTH AFRICA.**

PROJECT NO: SARDF/13/IRD/06/0625

SUPERVISORS/ CO-RESEARCHERS/ CO-INVESTIGATORS

NAME	INSTITUTION & DEPARTMENT	ROLE
Prof VO Netshandama	University of Venda	Supervisor
Dr MJ Mudau	University of Venda	Co-supervisor
Ms SNM Jonas	University of Venda	Investigator - Student

ISSUED BY:

UNIVERSITY OF VENDA, RESEARCH ETHICS COMMITTEE

Date Considered: July 2013

Decision by Ethical Clearance Committee Granted

Signature of Chairperson of the Committee: 

Name of the Chairperson of the Committee: Prof. X.G Mbhenyane



University of Venda

PRIVATE BAG X5050, TSHOHAYANDOU, 09501, LIMPOPO PROVINCE, SOUTH AFRICA
TELEPHONE (015) 962 8504/8484 /8313 FAX (015) 962 8439

"A quality driven financially sustainable, rural-based Comprehensive University"