Obstacles facing BEE mining entrepreneurs during the growth stage

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Abstract

The research aims to determine the obstacles that BEE mining entrepreneurs face at the growth stage of their business. The objective of the study is to gain insights into both internal and external factors, identify common obstacles which have not been identified elsewhere.

The study was a qualitative study where twenty BEE mining entrepreneurs were interviewed. This entailed face to face interviews where themes were recorded and analysed. The interview entailed semi structured questions, where interviewees were asked about obstacles both in the external and internal environment, experienced during the growth stage.

In terms of the results many obstacles were identified. The obstacles that BEE mining entrepreneurs faced at the growth stage, ranged from access to finance, regulatory obstacles, lack of skills, infrastructure, unrealistic expectations, economic factors and political factors.

Key words: Growth Stage, BEE and mining entrepreneurs
Declaration

I declare that this research project is my own, unaided work. It is submitted in partial fulfilment of the requirements of the degree of Master of Business Administration for the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other university.

.........................................                                        Date:....................................

K.P RIBANE
1. My Supervisor Prof Elana Swanepoel for her expert guidance and support

2. My entire family for your support

3. GIBS for proving an exciting learning environment.

4. To all research participants who participated in the study
Table of Contents

CHAPTER 1: INTRODUCTION TO THE RESEARCH PROBLEM ........................................... 1
   1.1 Background ......................................................................................................... 1
   1.2 Importance of the Study ...................................................................................... 3
   1.3 Relevance of the Research .................................................................................. 4
   1.4 Scope of the Research ......................................................................................... 4
   1.5 Purpose of research ............................................................................................ 4
   1.6 Mining industry .................................................................................................. 5
      1.6.1 Pre 1994 ........................................................................................................ 5
      1.6.2 Post 1994 - 2003 .......................................................................................... 6
      1.6.3 Post 2004 - 2011 .......................................................................................... 6
   2.1 Introduction ........................................................................................................... 7
   2.2 Venture lifecycle ................................................................................................... 7
   Figure 1: Mining project lifecycle (adapted from Kuratko and Hodgetts, 2007) ....... 11
   2.3 Growth stage ....................................................................................................... 11
   2.4 Characteristics of growing firms ......................................................................... 13
   2.5 Key factors during the growth stages .................................................................. 14
   2.6 Entrepreneurship Theory .................................................................................... 17
   2.7 Macro and Micro Approaches to Entrepreneurship ............................................ 17
   2.8 A multi-dimensional Approach to Entrepreneurship ......................................... 17
   2.9 Business environmental factors .......................................................................... 18
   2.10 Internal environment ......................................................................................... 19
      2.10.1 Location and networking: ............................................................................. 19
      2.10.2 Investment in information technology and cost of production ................. 20
   2.11 External environment ........................................................................................ 20
      2.11.1 Economic variables and markets: ................................................................. 20
      2.11.2 Corruption and crime ................................................................................ 21
      2.11.3 Labour, infrastructure and regulations ....................................................... 22
   2.12 The Mining Industry .......................................................................................... 23
      2.12.1 The importance of mining industry for South Africa .................................. 23
      2.12.2 Mining Charter ........................................................................................... 25
   2.13 South African context ......................................................................................... 27
   2.14 Obstacles to Growth ......................................................................................... 28
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.14.1 Regulatory obstacles</td>
<td>28</td>
</tr>
<tr>
<td>2.14.2 Lack of Skills</td>
<td>29</td>
</tr>
<tr>
<td>2.14.3 Access to finance</td>
<td>30</td>
</tr>
<tr>
<td>2.14.4 Overtrading</td>
<td>31</td>
</tr>
<tr>
<td>2.15 Conclusion</td>
<td>32</td>
</tr>
<tr>
<td>Chapter 3: Research Questions</td>
<td>34</td>
</tr>
<tr>
<td>3.1 RESEARCH OBJECTIVES:</td>
<td>34</td>
</tr>
<tr>
<td>3.2 Research Questions</td>
<td>34</td>
</tr>
<tr>
<td>Chapter 4: Research Methodology</td>
<td>36</td>
</tr>
<tr>
<td>4.1 Introduction</td>
<td>36</td>
</tr>
<tr>
<td>4.2 The research design</td>
<td>36</td>
</tr>
<tr>
<td>4.3 Qualitative research paradigm</td>
<td>36</td>
</tr>
<tr>
<td>4.4 Inductive approach</td>
<td>38</td>
</tr>
<tr>
<td>4.5 Exploratory study</td>
<td>38</td>
</tr>
<tr>
<td>4.6 Descriptive study</td>
<td>39</td>
</tr>
<tr>
<td>4.7 Contextual study</td>
<td>39</td>
</tr>
<tr>
<td>4.8 Phenomenological research design</td>
<td>39</td>
</tr>
<tr>
<td>4.9 My values</td>
<td>40</td>
</tr>
<tr>
<td>4.10 Identification of participants</td>
<td>43</td>
</tr>
<tr>
<td>4.11 Accessible Population</td>
<td>43</td>
</tr>
<tr>
<td>4.12 Sampling Plan</td>
<td>43</td>
</tr>
<tr>
<td>4.13 Sampling Criteria</td>
<td>44</td>
</tr>
<tr>
<td>4.14 Sampling Procedure</td>
<td>44</td>
</tr>
<tr>
<td>4.15 Method of data collection</td>
<td>44</td>
</tr>
<tr>
<td>4.16 The role of researcher</td>
<td>45</td>
</tr>
<tr>
<td>4.17 The interview</td>
<td>45</td>
</tr>
<tr>
<td>4.18 Data analysis</td>
<td>47</td>
</tr>
<tr>
<td>4.19 Internal Validity</td>
<td>49</td>
</tr>
<tr>
<td>4.20 External Validity</td>
<td>50</td>
</tr>
<tr>
<td>4.21 Reliability</td>
<td>51</td>
</tr>
<tr>
<td>4.22 Summary</td>
<td>51</td>
</tr>
<tr>
<td>Chapter 5: Results</td>
<td>52</td>
</tr>
<tr>
<td>5.1 Introduction</td>
<td>52</td>
</tr>
</tbody>
</table>
5.2 Demographics

5.2.1 Age ................................................................................................................ 53
5.2.2 Qualifications ......................................................................................................... 53
5.3.3 Size of Company ..................................................................................................... 53
5.2.4 Sector within the mining industry ........................................................................... 54
5.2.5 Province ................................................................................................................ 54
5.2.6 Prior Experience ................................................................................................... 55
5.2.7 Race ..................................................................................................................... 55
5.2.8 Gender ................................................................................................................... 55

5.3 Overview of the observed factors ................................................................................. 56

5.4 Financial obstacles ...................................................................................................... 57
5.4.1 Excerpts from respondents ................................................................................... 58

5.5 Regulatory obstacles .................................................................................................. 59
5.5.1 Excerpts from respondents ................................................................................... 60

5.6 Other external obstacles ............................................................................................. 60
5.6.1 Infrastructure ........................................................................................................ 60
5.6.2 Economic Climate .................................................................................................. 61
5.6.3 Political Climate ...................................................................................................... 62
5.6.4 Access to markets .................................................................................................. 63
5.6.5 Excerpts from respondents ................................................................................... 64

5.7 Skills .......................................................................................................................... 65
5.7.1 Excerpts from respondents ................................................................................... 66

5.8 Other factors ............................................................................................................... 66
5.8.1 Excerpts from respondents ................................................................................... 67

Chapter 6: Discussion of Results ......................................................................................... 68

6.1 Introduction ................................................................................................................ 68

6.2 Financial obstacles ...................................................................................................... 68
6.2.1 Research findings ................................................................................................... 68
6.2.2 Discussion ............................................................................................................... 71
6.2.3 Conclusion ............................................................................................................... 71

6.3 Regulatory obstacles .................................................................................................. 71
6.3.1 Research findings ................................................................................................... 71
6.3.1.7 Lack of awareness of Government support programmes .................................... 73
LIST OF TABLES

Table 1: Showing number of employees in the mining industry .................. 2
Table 2: Changes during the venture lifecycle ............................................ 15
Table 3: Showing mineral sales by year ...................................................... 25
Table 4: Respondents by mining sector ....................................................... 54
Table 5: Showing number of observed factors .......................................... 56
Table 6: Showing financial obstacles .......................................................... 57
Table 7: Showing regulatory obstacles ........................................................ 59
Table 8: Showing external obstacles ............................................................ 60
Table 9: Showing infrastructure factors ...................................................... 61
Table 10: Economic climate ....................................................................... 62
Table 11: Political climate .......................................................................... 63
Table 12: Access to markets ....................................................................... 63
Table 13: Skills factors ............................................................................... 65
Table 14: Other obstacles ............................................................................ 67
LIST OF FIGURE

Figure 1 illustrating the mining project lifecycle..................................................11

Figure 2 Showing demographics by gender..........................................................55

Figure 3 showing demographics by race..............................................................56

List of abbreviations

BEE             Black Economic Empowerment

DMR             Department of Mineral Resources

SME             Small Medium Enterprises
CHAPTER 1: INTRODUCTION TO THE RESEARCH PROBLEM

1.1 Background

Government enacted the mining charter in order to address inequalities as a result of apartheid in 2004. According to government the mining charter, entailed assisting historically disadvantaged South African citizens from benefiting from the mining industry. Despite government support for these BEE mining entrepreneurs only a few have succeeded in the mining industry (Department of Mineral Resources, 2009).

The main elements of the charter are ownership, beneficiation, procurement, community development, skills development, housing and management. Six years later, the act had to be amended, due to the slow progress especially in the ownership element of the mining charter (Department of Mineral Resources, 2010). This unequal distribution of mining wealth has created a debate about the progress of the mining industry in driving transformation

Statistics South Africa (2011) paints a grim outlook for the mining sector despite strengthening commodity prices. Growth in the mining output dropped to 9.6 % year on year in May 2011 from a revised 12% in April, with total production down 5.9 % month on month on a seasonally adjusted basis (Statistics South Africa, 2011).

Over the same period gold output fell 5.8% year on year, while non gold output was up by 12.1 % (Statistics South Africa, 2011). There has been a steady decline in the mining output for the past few years (Statistics South Africa, 2011). In order to promote growth and address this decline it is imperative that BEE mining
entrepreneurs become successful, so as to contribute to economic growth, reduce poverty and create employment.

Furthermore, there has been a steady decline in the number of people that the mining industry employs from the year 1988 to 2009 (DMR, 2011). The mining industry has shed almost half of its employees in the past twenty four years (Statistics South Africa, 2011). Table 1 illustrates number of employees from 1988.

Table 1 Showing number of employees in the mining industry

<table>
<thead>
<tr>
<th>Year</th>
<th>Average number of employees in service</th>
<th>Earnings - R1 000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Males</td>
</tr>
<tr>
<td>1988</td>
<td>809 446</td>
<td>792 502</td>
</tr>
<tr>
<td>1989</td>
<td>801 390</td>
<td>784 074</td>
</tr>
<tr>
<td>1990</td>
<td>779 727</td>
<td>762 510</td>
</tr>
<tr>
<td>1991</td>
<td>721 561</td>
<td>705 313</td>
</tr>
<tr>
<td>1993</td>
<td>621 001</td>
<td>608 131</td>
</tr>
<tr>
<td>1994</td>
<td>611 018</td>
<td>597 999</td>
</tr>
<tr>
<td>1995</td>
<td>598 845</td>
<td>585 123</td>
</tr>
<tr>
<td>1996</td>
<td>572 066</td>
<td>558 573</td>
</tr>
<tr>
<td>1997</td>
<td>553 542</td>
<td>540 494</td>
</tr>
<tr>
<td>1998</td>
<td>471 832</td>
<td>459 829</td>
</tr>
<tr>
<td>1999</td>
<td>436 472</td>
<td>425 745</td>
</tr>
<tr>
<td>2000</td>
<td>417 559</td>
<td>407 183</td>
</tr>
<tr>
<td>2001</td>
<td>406 994</td>
<td>396 440</td>
</tr>
<tr>
<td>2002</td>
<td>415 988</td>
<td>404 543</td>
</tr>
<tr>
<td>2003</td>
<td>435 628</td>
<td>422 983</td>
</tr>
<tr>
<td>2004</td>
<td>448 909</td>
<td>435 152</td>
</tr>
<tr>
<td>2005</td>
<td>444 132</td>
<td>428 579</td>
</tr>
<tr>
<td>2006</td>
<td>456 337</td>
<td>437 894</td>
</tr>
<tr>
<td>2007</td>
<td>495 150</td>
<td>470 491</td>
</tr>
<tr>
<td>2008</td>
<td>518 729</td>
<td>487 700</td>
</tr>
<tr>
<td>2009</td>
<td>492 219</td>
<td>457 791</td>
</tr>
</tbody>
</table>
1.2 Importance of the Study

BEE mining entrepreneurs who venture into mining face various obstacles throughout the growth stage of the venture lifecycle. From a South African perspective, the importance of successful enterprises in contributing to national wealth is critical. For South Africa to eradicate poverty, reduce unemployment and reduce unequal distribution of wealth, it is generally accepted by economists that the country has to create successful entrepreneurs.

South Africa suffers from high unemployment with an official estimate of approximately 25% of the economically active population unemployed (Statistics South Africa, Quarterly Labour Force Survey, 2011). One of the best ways to address unemployment is to leverage the employment creation potential of small businesses and to promote small business development (FinMark Trust, 2006).

For this reason, policy-makers need to seriously look at the growth potential of BEE mining entrepreneurs. With this in mind, there is a need to undertake a detailed examination of obstacles that BEE mining enterprises face at the growth stage. Moreover, examine how policies could be improved to make BEE mining entrepreneurs more efficient and effective in their management techniques, to address their weaknesses and build on their strengths. Such a study would assist in creating wealth and employment opportunities for the country.
1.3 Relevance of the Research

This research is of value because its findings could guide government with better interventions to assist these emerging mining BEE entrepreneurs. It could also assist BEE mining entrepreneurs to anticipate the challenges that lie ahead and be in a better position to deal with them.

Moreover, it could identify obstacles with respect to the growth phase of BEE mining entrepreneurs so that support agencies can address them. This could be as a result that government does not fully comprehend the obstacles that these Black economic empowerment companies face at the growth stage.

1.4 Scope of the Research

- South African emerging mining BEE companies who hold mineral rights
- At least two years participation in the mining industry
- 100% BEE Owned companies.
- In all provinces where mining is active

1.5 Purpose of research

The purpose of this research is to gain insights into obstacles facing BEE mining entrepreneurs, both internal and external factors during the growth stage.

The main goal of the research is to establish the factors that are obstacles to the success of BEE mining entrepreneurs who have reached the growth of the organisations life cycle. In particular, the research will focus on both the internal and external factors.
Understanding the reasons for failure and researching the firms who find themselves in the growth stage will assist in developing a framework to present to BEE mining entrepreneurs and Government. It could also minimise the difficulties they might experience in managing their businesses.

1.6 Mining industry

South Africa is well endowed with world class mineral deposits; mining output contributes 8.8% of the economy (Statistics South Africa, 2011). Mining is a high risk, capital intensive industry with long lead times before projects come into fruition. Although South Africa has the biggest mineral reserves in the world, many of its resources such as gold and platinum are very difficult to access and require expensive, deep-level mining with considerable technical skills.

According to Biyase (2011) the output of the mining sector would remain bleak for the next few years. After that, it depends on whether or not nationalisation becomes government policy Biyase (2011). Apart from the complexity of the industry, the industry faces a number of challenges such as limited transport infrastructure, limited energy supply, threats of strikes, aids, strong rand and uncertainty over government policies such as nationalisation of mines.

1.6.1 Pre 1994

In this era, mineral rights were not held by the state, few companies were dominating the mining industry namely Anglo American, Gencor, Anglo Vaal, Rio Tinto and others. These few companies had a monopoly over the industry. Due to cheap labour available these companies were very profitable.
1.6.2 Post 1994 - 2003

During this period there was a lot of unbundling in the mining industry where bigger companies sold some of their assets to BEE mining entrepreneurs. Notable transactions include mining assets that were sold to businessmen such as Patrice Motsepe and Tokyo Sexwale.

1.6.3 Post 2004 - 2011

The mining charter was introduced where the state was the custodian of the mineral rights. The first five year period 2004 to May 2009 was the more strictly legislated period, when existing mining companies were required to transfer 15% of their equity to historically disadvantaged South Africans. Failure to meet the basic requirement of the mining charter would result in assets of the mining companies reverting to the state.

It is in this phase that empowerment companies had a unique opportunity to gain access into what was previously a tightly controlled industry with significant barriers to entry. Legislation did not specify with whom the existing companies must transact with and existing companies were able to select empowerment partners that best align with their strategic intent.

This was a phase of high growth in the BEE sector, and the biggest constraint facing BEE mining entrepreneurs was access to finance. BEE did not have unencumbered assets, access to sufficient cash or credit track records with larger banks (Department of Mineral Resources, 2009).

The next chapter will now review various theories in the literature review on obstacles facing mining entrepreneurs in the growth stage.
Chapter 2: Literature

2.1 Introduction

This chapter reviews various theories and studies conducted namely venture lifecycle, growth stage, theories on entrepreneurship, mining industry, obstacles to growth and the South African context.

2.2 Venture lifecycle

To understand and manage growth, it is essential to understand the concept of the venture life cycle and its underlying characteristics. It follows the evolution of a new business venture from its pre start stage until its decline or rejuvenation. Knowing what can be expected at the different stages of growth helps the entrepreneur to anticipate what may lie ahead so that he can plan to meet these challenges.

The lifecycle of a business includes various stages or phases through which a business may or will grow during its lifespan. These phases include start up stage, growth, maturity or stabilisation, decline or rejuvenation (Kuratko & Hodgetts, 2007).

According to Storey (2005) there are limitations to this model as not all firms begin at stage 1 and move to stage 5 because some cease to exist. Some firms may achieve a particular stage (Survival) but never advance beyond that stage.

Though many of the models have a number of similarities, there are also areas where they do differ such as the number of stages or phases, the duration of each phase and the terminology used to describe each phase.

The most significant difference is the number of phases or stages of the life cycle. Some authors suggest 4 stages while others suggest 5 stages. For the purposes of this study the following stages have been identified as providing a complete view of the various models.
• Stage 1: Introductory, Idea Conceptualisation, Start-up, Existence/Survival
• Stage 2: Growth
• Stage 3: Maturity/Stability
• Stage 4: Decline

As this study focuses on the growth stage other stages will be discussed briefly.

Stage 1: Introductory
This stage is comprised of the idea conceptualisation, start-up, and the existence or survival stages. This stage is also referred to as the start-up stage or conception stage of the organizational life cycle. Timmons and Spinelli (2007) stress that, this is the most perilous stage and is characterised by the direct and exhaustive drive, energy, and entrepreneurial talent of the owner-manager and a key team member or two. During this stage the critical mass of people, market and financial results, and competitive resilience are established while investor, banker, and customer confidence is earned (Timmons and Spinelli, 2007). The mortality rate of firms during this stage is as high as 60% (Timmons and Spinelli, 2007).

Stage 2: Growth
This stage in the business lifecycle is characterised by high growth rates, rapidly increasing sales, high profits as costs lower and intensifying competition as competition enters the market (Burns, 2007).
This is also referred to as the high growth stage, rapid growth stage or take-off stage of the organizational life cycle. The length of time it takes to go through this stage, as well as the magnitude of change occurring during this period, varies greatly

8
(Timmons and Spinelli, 2007) that this is the most difficult challenge for the founding entrepreneur when they find it necessary to let go of power and control over key decisions that they have always made.

**Stage 3: Maturity/Stability**

This stage is also referred to as resource maturity stage or stability stage of the organizational life cycle. The maturity stage in the business lifecycle is characterised by static but high sales, static but high profits, focus on cost reduction, high competition for market share and an established base of competitors (Burns, 2007). The role of the owner-manager changes during this stage and must re-directed from one that focuses on growth to ensuring that the company consolidates its position in the market place and looks strategically to the future rather than complacently reaping the fruits derived from past successes (Burns, 2007).

**Stage 4: Decline Stage**

The decline stage is characterised by declining sales, declining profits or losses and exit of competitors (Burns, 2007). If the business fails to introduce entrepreneurial innovation, the business will continue to decline and eventually it will die (Kuratko & Hodgetts, 2007). This stage is characterised by the slight decline in sales over time. This stage is not necessarily inevitable but should rather serve as a warning against complacency on the part of the owner-manager (Nieman and Niewenhuizen, 2009). The challenge during this stage for the owner-manager is to either create an environment that is conducive to creativity so that the venture can be rejuvenated (Nieman and Niewenhuizenl, 2009) or allow the venture to continue to slip into decline.
Figure 1, illustrates stages mining projects go through from the initial exploration to end of production. These stages from exploration to production in the mining project lifecycle are often referred to as the growth stages in the mining project lifecycle.

Typically mining projects move through these stages:

1. Exploration, this stage includes surface reconnaissance, surface sampling, test drilling, preliminary results and technical reporting.
2. Evaluation, this stage includes pre-feasibility studies, scoping study, metallurgical studies, resource drilling and infill drilling.
4. Development, this includes site preparation, construction and pre-production.
5. Production, this includes pre-production and full commercial production.
6. Life of mine extension, this is when new projects feed the mining operation.
7. End of production, this is when production stops and the mine is closed.
2.3 Growth stage

In the growth stage, the rate of growth accelerates and resources are under major pressure. Growth is often so fast that the entrepreneur cannot keep up with it, at the same time the competition may become stronger. Problems may begin to surface in the following areas: appointment of personnel, cash flow, delivery and production. As a result of not being able to manage growth, many creative entrepreneurs are often forced to abandon their enterprise (Kuratko and Hodgetts, 2007).

Hunter (2004) found that the major challenges during this period of the entrepreneurial life cycle included the establishment of a new enterprise, difficulties in market acceptance, limited capital expansion through reinvestment of profits and increase in trade networks and industry knowledge. This is relevant as networks and
industry knowledge are extremely important success factors in mining entrepreneurship.

According to Timmons and Spinelli (2007) the faster a business grows, the greater the potential for problems become. This can be attributed to various pressures, confusion, loss of control and chaos (Timmons and Spinelli, 2007).

The greatest need identified during this phase, is the need for the effective delegation of authority (Kuratko and Hodgetts, 2007) and not the mere allocation of duties by the owner-manager. The firm has grown sufficiently in size so as to require ‘professional’ management and should the owner-manager be lacking in the necessary management skills, this could lead to business failure.

McMahon (1998) identified the financial gap as a problem that occurs very often during this phase. The financial gap comprises of the finance related problem such as the raising of capital and initial government grants ceasing as the firm is established while the firm is still regarded as too small and risky by financial institutions.

According to Burns (2007) and McMahon (1998) the main sources of finance at this stage is the owner-manager, suppliers and commercial financial institutions. Owner-managers at this stage of the organisational life cycle find that they are unwilling or unable to make the necessary personal and business changes to grow the business further which results in the demise of the business or the owner-manager leaves to start another venture. McMahon (1998) believes that a major stress factor faced by the owner-manager is the possibility of loss of control resulting from the need for an infusion of equity capital by selling a portion of the business.
In a review of growing firms, a number of strategic characteristics emerged (Crijns and Ooghe, 1997)

- Market domination in certain niche markets whereby successful firms have clearly demarcated market segments.

- Differentiation whereby have become unique from their competitors in their products, geography and distribution.

- Product leadership whereby successful growing firms are product orientated in terms of quality, branding and creating value for their customers.

- Flexibility in that successful growing firms are characterised by their ability to change direction in order to gain advantage from new opportunities.

- Innovation happens faster and is a way of life for successful growing firms.

- Orientation towards the future, growing firms invest in the future in terms of and make investments in marketing, development and the expansion of distribution channels, product development and capacity building.

- Export activity whereby the development of an export market constitutes a considerable part of a growing firm’s turnover and most of these firms are successful exploiters of the global market.

- Related growth where successful firms strive for active cognisant growth as opposed to uncontrollable growth.
2.5 Key factors during growth stages

(Kuratko and Hodgetts, 2007) suggest that entrepreneurs must understand the key factors of the specific managerial actions necessary during growth stages namely:

1. **Control.** There needs to be a blend of control and trust in the firm.

2. **Responsibility.** As the firm grows the distinction between authority and responsibility becomes more apparent. Authority can be delegated with the control. Delegation without control amounts to abdication.

3. **Tolerance of failure.** It is important to remain tolerant of failure such as **moral failure** where violation of internal trust can have negative consequences, **personal failure** due to lack of skills, **uncontrollable failure** which is caused by external forces.

4. **Change.** Planning operations and implementation need to be subjected to continual changes as the venture moves from the growth stages and onwards.

Crijns and Ooghe (1997) summarise all the actions and changes taking place in the different stages of the venture lifecycle. They refer to these as professionalisation of the entrepreneur. They are summarised in the table 2 below.
Table 2: Changes during the venture life cycle

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Start-up</th>
<th>Early growth</th>
<th>Later growth expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic objectives</td>
<td>Survival</td>
<td>Maintenance of profitability and acquiring resources</td>
<td>Growth via expansion</td>
</tr>
<tr>
<td>Structure</td>
<td>Informal</td>
<td>Functional</td>
<td>Decentralised</td>
</tr>
<tr>
<td>Management style</td>
<td>Creative</td>
<td>Leading</td>
<td>Delegating</td>
</tr>
<tr>
<td>Function of the entrepreneur</td>
<td>Direct supervision</td>
<td>Overall supervision</td>
<td>Indirect control</td>
</tr>
<tr>
<td>Role of the entrepreneur</td>
<td>Owner-worker</td>
<td>Owner-manager</td>
<td>General manager</td>
</tr>
<tr>
<td>Focus of the entrepreneur</td>
<td>Make and sell</td>
<td>Efficient operations</td>
<td>Market expansion</td>
</tr>
</tbody>
</table>

Wickham (2005) believes that due to the multifaceted nature of organisations, the entrepreneur must constantly view the growth and development of a venture from four major perspectives: the financial, the strategic, structural and the organisational. One of the obstacles that entrepreneurs face is that failure to attend to one while favouring another could result in failure or managerial crises.

1. **Financial growth** relates to the development of the venture as a commercial entity which can be expressed as increase in turnover, total assets, profit, return in investment and other performance measures.

2. **Strategic growth** refers to the changes that take place in a way the venture interacts with its environment. It is concerned with the manner a firm develops its capabilities to exploit a presence in the marketplace.
3. **Organisational growth** relates to changes that take place in the organisation processes, culture and attitudes as it grows. There are, therefore, changes in the entrepreneurs role and leadership style as the organisation moves from being a small to a large firm.

4. **Structural growth** relates to changes taking place in a way the venture organises its internal systems, managerial roles, reporting relationships, communication links and resource control systems.

According to Wickham (2005) the entrepreneurial venture still needs to be managed proficiently and compete efficiently. This implies that it will need to set growth targets which create challenges in terms of the venture strategy, risk and resources.

1. For growth to be achieved there must be a long-term plan and objectives for achieving growth. This may be internal growth or external growth or both. A mining entrepreneur might decide to increase production or buy other mines or do both in order to grow.

2. All the strategies of the venture must have action plans to achieve these goals. Each action plan must clearly set out the resources such as capital, people and assets that will be required to achieve these goals.

3. The entrepreneur must know that growth carries a degree of risk as it will intensify the demands made on the resources. Growth must be treated like any investment decision. It must be judged in the light of the risk it represents, the returns it offers and the opportunity costs it implies.
2.6 Entrepreneurship

In order to understand entrepreneurship, cognisance should be taken of the development of the theory of entrepreneurship which is defined by Kuratko and Hodgetts (2007) as “a verifiable and logically coherent formulation of relationships, or underlying principles that either explain entrepreneurship, predict entrepreneurial activity or provide normative guidance”.

Entrepreneurial ventures are businesses which the principal objectives are profit and growth (Nieman and Niewenhuizen, 2009). Botha (2006) distinguishes between push and pull factors and states that entrepreneurs who take advantage of business opportunities and therefore start a business due to a gap that was spotted in the market are normally pulled towards entrepreneurship. They are known as opportunity entrepreneurs. People who start business because they do not have any other employment options are usually pushed towards entrepreneurship and are referred to as necessity entrepreneurs (Botha, 2006).

2.7 Macro and Micro Approaches to Entrepreneurship

There are two major views on entrepreneurship namely a macro and micro view which can be divided into six schools of thought (Kuratko and Hodgetts, 2007). The macro view represents external processes beyond the control of the entrepreneur that relate to the success or failure in the entrepreneurial ventures. The micro view includes the factors that are specific to entrepreneurship and are controllable by the entrepreneur.

2.8 A multi-dimensional Approach to Entrepreneurship

Kuratko and Hodgetts (2007) depict entrepreneurship as a multidimensional framework. The multi-dimensional approach presented by Kuratko and Hodgetts
(2007), illustrates the entrepreneurship as a dynamic interactive approach rather than a segmented approach.

This model is of great value to this study as it lists the variables present in the individual. It recognises the environment and its impact on the business and can be applied to different types of firms.

Businesses operate in a competitive environment. Rwigema and Venter (2004) state that the entrepreneur must consider the business as a whole and be fully aware of its place within the market it operates in. Rwigema and Venter (2004) also believe that viewing the business in its totality will provide the entrepreneur with a long-term perspective for future growth and sustainability.

2.9 Business environmental factors

According to Delmar and Wiklund (2008), the business environment has a significant impact on the growth of new small enterprises. Smit et al. (2007) define a business environment as all those factors or variables, both inside and outside the organization that may influence the continued and successful existence of the organization.

Beck and Demirguc-Kunt (2006) argued that for new enterprises to grow, it is important to strengthen not only the internal business environment but also the external environment. Changes in the business environment have either a negative or positive effect on the growth or failure of enterprises in much of Africa (World Bank, 2006). The business environment can be divided into the internal and external environment.
2.10 Internal environment

These are factors in a firm's environment that are largely controllable by the firm.

The internal environment includes factors such as finance (especially internal finance such as owner's equity contribution and collateral), managerial competency of the owner, location, investment in information technology, cost of production and networking (Barbosa and Moraes, 2004).

2.10.1 Location and networking:

Location has impacts on the market potential and growth opportunities of new firms. Geographical proximity to either critical buyers or suppliers produces a form of enhanced environmental scanning that enables new firms to more easily identify and exploit growth opportunities in the market. This has an impact on the market prospect of new firms (Dahl and Sorenson, 2007). Networking is very important to firms both new and established and can positively impact on their performance and access to finance.

Okten and Osil (2004) found that the formation of networks helps entrepreneurs to tap resources in external environment successfully. Shane and Cable (2002) agreed that networking can be used to reduce information asymmetry in creditor/debtor relationships. In addition, networks increase a firm's legitimacy, which in turn positively influences the firm's access to external financing. Ngoc et al. (2009) point out that in the absence of effective market institutions; networks play an important role in spreading knowledge about a firm's existence and its practices. Networks also help a firm learn appropriate behaviour and therefore obtain needed support from
key stakeholders and the general public. This suggests that networking can positively impact on the growth of new firms.

2.10.2 Investment in information technology and cost of production

Investment in technology and keeping up with information technology is increasingly important to all firms. Technology plays a crucial role in the development of new SMEs. Technology not only helps in evolving a multi-pronged strategy but also in maximising business opportunities. New SMEs without access to capital may find it difficult to purchase necessary technology (Phillips and Wade, 2008). Smallbone et al. (2003) found that, the cost of production can affect the growth of new SMEs. Rising cost of inputs in South Africa especially the cost of electricity and petroleum can constrain growth. Close monitoring of costs of production is necessary in order to reduce wastage and determine the most efficient means of production.

2.11 External environment

Beck (2007) argued that the performance of new SMEs can be influenced by both firm-specific (internal factors) and systemic factors (external factors). Systemic factors or state variables include factors such as the contractual and informational frameworks, macroeconomic environment, social factors (crime, corruption and ethics) technology and the regulatory environment. These state variables are largely uncontrollable by new firms.

2.11.1 Economic variables and markets:

Economic factors have a direct impact on the potential attractiveness of various strategies and consumption patterns in the economy and have significant and unequal effects on organizations in different industries and in different locations (Olawale and Garwe, 2010).
Economic variables include the fiscal and monetary policies of the government, inflation, interest rates and foreign exchange rates. These variables influence the demand for goods and services and hence the growth of new SMEs (Ehlers and Lazenby, 2007).

Consumption and confidence have fallen with a lot of firms showing reduced sales. Unemployment is high. All these factors can affect sales, revenues and market potential of new SMEs (The Economist, 2009).

The extent of competition and potential competition also impact on the market potential and growth opportunities of new SMEs. Potential entrants are entrants that enter an industry for the first time and offer a substitute product or service to a particular sector (Olawale and Garwe, 2010). The potential competitor is very important in competitive industry analysis. To survive and achieve success, new firms need to understand the dynamics of competition in their industry and develop skills and competencies that give them a competitive advantage (Olawale and Garwe, 2010).

Therefore, managers of new firms have to scan and interpret environmental changes (especially the extent of present or future competition) to maintain their firms’ viability and performance (Zahra et al., 2002).

2.11.2 Corruption and crime

The corruption perception index (CPI) published annually by Transparency International ranks South Africa in the 43rd with a CPI of 5.1. The World Bank (2005) found that about 70% of SMEs perceive corruption as an impediment to their business compared to approximately 60% for large firms.
The United Nations Office in 2007 points out South Africa has the dubious distinction of being amongst the world’s five most-murderous nations. Brown (2001) points out that business is the largest organized group suffering from crime and violence. The effect of crime on business in South Africa is not only alarming but also growing. According to the South African Police Service Crime Statistics (2009) while the incidences of virtually all major categories of crime has fallen during the past year, business related crime is on the increase. Most of these robberies were on small business premises.

A survey sponsored by Standard Bank and Fujistu Siemens Computers (2009) finds that owners of SMEs are not aggressively pursuing avenues to grow their market shares and stay ahead of competitors. Rather they are focusing on operational matters because of the high crime rate. Furthermore, crime increases expenditures or investments in security measures to eliminate or minimize the likelihood of crime. According to Transparency International (2008), corruption both in the public and private establishments is growing in South Africa.

2.11.3 Labour, infrastructure and regulations

New SMEs require access to a pool of suitably-skilled and suitably motivated labour in order to sustain growth. Mahadea (2008) finds that it is difficult and expensive for businesses to hire skilled labour in South Africa. Labour can only be hired at a cost and within the confines of the labour regulations such as the employment and minimum wage regulations.
In addition, the cost of regulation may impact on the growth of firms. New firms have to obtain registration licences and pay taxes (Hashi, 2001). Most firms also perceive that they do not get enough support from the government. According to Maas and Herrington (2006) most new SMEs in South Africa are not aware of government efforts to assist them such as Khula Finance Enterprise (Khula) and Small Business Development Agency (SEDA).

The quality of infrastructure can affect the growth prospects of new SMEs especially in developing countries such as South Africa. Many developing countries suffer from deplorable state of basic infrastructure like transportation, telecommunication and electricity. Electricity supply in South Africa does not meet the demand leading to power cuts which can affect the production and turnover of new businesses (Kalra, 2009).

2.12 The Mining Industry

2.12.1 The importance of mining industry for South Africa

The South African mining industry's contribution to the gross domestic product (GDP) is just below 9% for 2007 and the sector provides employment to a large number of South African families. According to Statistics South Africa (2009), direct employment by the mining industry totalled 506 000 employees in December of 2007.

It was estimated that another 165 000 workers were employed in associated industries that either supplied products to, or used products from the mining industry (bringing into effect the multiplier linkages of the industry) and in 2007 around five
million people were directly dependent on mine employees for their daily subsistence.

The mining industry accounted for 6% of those employed in the non-agricultural formal sector of the economy. The mining sector paid R 49 828 million in wages and benefits to employees, which accounted for about 6% of the total compensation paid to all employed people in the country for 2007/8. This contributed substantially to domestic demand in the South African economy.

Some minerals such as gold and platinum are increasingly difficult to exploit due to the great depths at which they are situated and their fairly low-grade quality. If the resources are depleted or are no longer economically viable to extract, the mines could close down, resulting in job losses with no steady flow of income to the families of those who were previously employed by the mining industry.

The mining industry is not an easy industry, with safety and environmental issues, managing a multitude of workers, high costs, vagaries of the rand and fluctuations in the commodity prices Klein (2011). Furthermore, calls of nationalisation of nationalisation have not helped in attracting foreign investors.

Table 3 illustrates the total value of mineral sales from the period between 1988 and 2009 (Department of Mineral Resources, 2011). From the table, it can be seen that the mining industry derives its revenue mostly from the export market.
Table 3 showing total mining sales by year

<table>
<thead>
<tr>
<th>Year</th>
<th>Local sales (R million)</th>
<th>Export sales (R million)</th>
<th>Total sales (R million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>6 630</td>
<td>29 830</td>
<td>36 460</td>
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<tr>
<td>1989</td>
<td>8 124</td>
<td>32 796</td>
<td>40 920</td>
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<tr>
<td>1990</td>
<td>8 539</td>
<td>32 975</td>
<td>41 514</td>
</tr>
<tr>
<td>1991</td>
<td>9 082</td>
<td>34 169</td>
<td>43 251</td>
</tr>
<tr>
<td>1992</td>
<td>9 133</td>
<td>33 051</td>
<td>42 184</td>
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<tr>
<td>1993</td>
<td>8 797</td>
<td>38 082</td>
<td>46 879</td>
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<tr>
<td>1994</td>
<td>9 817</td>
<td>40 917</td>
<td>50 734</td>
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<tr>
<td>1995</td>
<td>11 787</td>
<td>43 356</td>
<td>55 143</td>
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<tr>
<td>1996</td>
<td>12 520</td>
<td>50 549</td>
<td>63 069</td>
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<tr>
<td>1997</td>
<td>15 061</td>
<td>51 741</td>
<td>66 802</td>
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<tr>
<td>1998</td>
<td>16 115</td>
<td>55 412</td>
<td>71 527</td>
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<tr>
<td>1999</td>
<td>17 989</td>
<td>58 277</td>
<td>76 267</td>
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<tr>
<td>2000</td>
<td>22 051</td>
<td>76 497</td>
<td>98 547</td>
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<tr>
<td>2001</td>
<td>25 021</td>
<td>90 833</td>
<td>115 853</td>
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<tr>
<td>2002</td>
<td>30 089</td>
<td>109 363</td>
<td>139 452</td>
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<tr>
<td>2003</td>
<td>30 849</td>
<td>86 910</td>
<td>117 759</td>
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<tr>
<td>2004</td>
<td>35 634</td>
<td>89 673</td>
<td>125 307</td>
</tr>
<tr>
<td>2005</td>
<td>40 961</td>
<td>102 487</td>
<td>143 448</td>
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<tr>
<td>2006</td>
<td>55 479</td>
<td>138 879</td>
<td>194 357</td>
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<tr>
<td>2007</td>
<td>62 122</td>
<td>162 203</td>
<td>224 325</td>
</tr>
<tr>
<td>2008</td>
<td>80 708</td>
<td>221 926</td>
<td>302 633</td>
</tr>
<tr>
<td>2009</td>
<td>64 956</td>
<td>176 390</td>
<td>241 345</td>
</tr>
</tbody>
</table>

2.12.2 Mining Charter

Recognising that mining was used as a tool to perpetuate the inequalities in favour of a select group in a manner that precluded HDSA’s from participating in a meaningful way within the broader South African economic pie in mineral resources, the South African Mining Charter was developed and adopted as a tool in 2004 to effect broader transformation of the mining sector (Department of Mineral Resources, 2009).

Mining companies in South Africa have to apply for rights (and permits) to the State for exploration and exploitation of the mineral resources. As a result, the Mining
Charter attaches cautious thought-out conditions meant to accelerate the transformation of the mining sector, which right holders must comply with in order to continue participating in the country’s mineral and mining sector (Department of Mineral Resources, 2009).

The creation of the Mining Charter in the main is intended to avert the status quo where HDSA’s are generally considered as a repository for cheap labour. On the other hand, management and company ownership was a reserved privilege benchmarked along racial lines in South Africa, and to be precise in favour of the minority white South Africans (Department of Mineral Resources, 2010).

The Mining Charter seeks to achieve the following six objectives (Department of Mineral Resources, 2010):

- Promote equitable access to the nation’s mineral resources to all the people of South Africa;
- Substantially and meaningfully expand opportunities for HDSA’s including women, to enter the mining and minerals industry and to benefit from the exploitation of the nation’s mineral resources;
- Utilize the existing skills base for the empowerment HDSA’s;
- Expand the skills base of HDSAs in order to serve the community;
- Promote employment and advance the social and economic welfare of mining community and the major sending areas;
- Promote beneficiation of South Africa’s mineral commodities;

The Mining Charter introduced nine elements (incorporating relevant legislation) aimed at redressing past racially discriminatory practices that were perpetuated during the apartheid era to exclude the HDSA’s from actively participating in the
ownership and management of the mining sector. Stakeholders agreed to create an enabling environment for the empowerment of the HDSA’s by adhering to the following (Department of Mineral Resources, 2010):

- Human resource development (*Skills Development Act 97 of 1998*)
- Employment equity (*Employment Equity Act 55 of 1998*)
- Migrant labour (*Immigration Act 13 of 2002*)
- Mine Community development
- Housing and living conditions
- Procurement (*Preferential Procurement Policy Framework Act 5 of 2000*)
- Ownership and joint venture (*Competition Act 89 of 1998*)
- Beneficiation
- Reporting

In order to assist BEE mining companies, the law requires that for exploration rights to be granted 51% of the venture must be owned by BEE companies, while mining rights require 26% minimum BEE participation in the venture.

This legislation created opportunities for BEE mining entrepreneurs to venture into the mining industry. Despite this, less than fifteen percent of mines are owned and controlled by BEE mining entrepreneurs.

### 2.13 South African context

Adonisi (2005) is of the view that South Africans are not equipped with sufficient levels of entrepreneurial skills and knowledge. According to Von Broembsen et al.
(2005) the three main inhibitors of entrepreneurship have been identified as government policies, access to finance, and poor education.

Education and training systems should be improved to enable the increase of the supply of people equipped to become entrepreneurs. The regulatory environment should be improved to reduce the cost of compliance to businesses. Small enterprises should receive greater support from government and financial support should become more accessible to entrepreneurs with an aptitude for risks (Orford et al., 2005).

2.14 Obstacles to Growth

2.14.1 Regulatory obstacles

The cultivation of entrepreneurs in developing countries has met numerous obstacles due to lack of support and proper planning from those in power. They suggest that most of the obstacles that emerging entrepreneurs face could be resolved with proper government support. Mutezo (2009) found that excessive regulation created barriers for entrepreneurs. This could be true for BEE mining entrepreneurs where there are excessive regulations which could create barriers.

According to Ladzani and Netswera (2009) they found that simplification of the regulatory process paved the way for BEE entrepreneurs significantly in the Limpopo Province. However, the research has not been specific to mining entrepreneurs. More research is required particular to understand the role of government in assisting BEE mining entrepreneurs.

In addition, the cost of regulation may impact on the growth of new SMEs. New SMEs have to obtain registration licences and pay taxes (Hashi, 2001). Most, new
SMEs also perceive that they do not get enough support from the government. According to Maas and Herrington (2006) most new SMEs in South Africa are not aware of government efforts to assist them such as Khula Finance Enterprise (Khula) and Small Business Development Agency (SEDA).

2.14.2 Lack of Skills

Entrepreneurs often do not possess the skills needed to bring the venture through the growth phase to maturity (Rwiqema and Venter, 2004). Entrepreneurs require numerous skills to run the enterprise such as creativity and innovation, strategic management, planning and others (Nieman and Niewenhuizen, 2009). The research by the above mentioned authors does provide a generic model to all businesses. However, we need to determine the extent to which it can be applied to mining entrepreneurship as to which skills are key obstacles in the growth phase for BEE mining entrepreneurs.

2.14.2.1 Managerial skills

Managerial competencies are sets of knowledge, skills, behaviours and attitudes that contribute to personal effectiveness (Hellriegel et al., 2008). Managerial competencies are very important to the survival and growth of new firms. Martin and Staines (2008) found that lack of managerial experience and skills are the main reasons why new firms fail. In South Africa, Herrington and Wood (2003) point out that lack of education and training has reduced management capacity in new firms in South Africa. This is one of the reasons for the low level of entrepreneurial creation and the high failure rate of new ventures.
2.14.2.2 Entrepreneurship

According to Nieman and Niewenhuizen (2009), entrepreneurial skills such as identifying an opportunity, innovation and creativity, getting resources, creating and growing a venture, taking risk, leadership, positive attitude, perseverance and commitment are important. The lack of an entrepreneurial mindset or the desire to grow is seen as a major obstacle facing entrepreneurs according to Storey (2005).

2.14.3 Access to finance

In South Africa, Schombee (2003) states that lack of access to formal banking credit are one of the important problems faced by entrepreneurs. Entrepreneurs from previously disadvantaged communities or any other group with limited collateral or weak (or limited) credit histories access is more limited.

All businesses require financial resources in order to start trading and to fund growth. Lack of access or availability can be a constraint on business growth (Cassar, 2004). Whether business owners can access adequate and appropriate finance to grow is a particular concern for policymakers.

New firms can be financed from founders’ own wealth and/or by accessing external sources of finance, whether from ‘informal’ sources such as family and friends, or from ‘formal’, market-based sources such as banks, venture capitalists and private equity firms. Once businesses are trading, further development can be financed using retained profits.

According to Herrington et al. (2009) access to finance is a major problem for the South African entrepreneur. Lack of financial support is the second most reported
contributor to low new firm creation and failure, after education and training in South Africa.

FinMark Trust (2006) finds that only 2% of new SMEs in South Africa are able to access bank loans. Foxcroft et al. (2002) find that 75% of applications for bank credit by new firms in South Africa are rejected. This suggests that new firms without finance may not be able to survive and grow.

2.14.4 Overtrading

It is found that overtrading firstly exists in the growth stage of a small and emerging business typical lifecycle (Kuratko & Hodgetts, 2007). The type of growth occurring in this specific growth cycle of a new entrepreneurial business is referred to as organic growth (McKelvie and Wiklund, 2010). This form of growth is internally generated within the business (McKelvie and Wiklund, 2010). According to Van Der Spuy and Nieman (2010) overtrading is a factor all businesses, especially those that are entrepreneurial in nature, must guard against.

Bygrave and Zacharis (2008) identify the following reason for overtrading in the entrepreneurial business in the growth stage

Execution challenges

- Emphasis on sales over profit
- Reactive orientation;
- Rapid growth overwhelms operations;
- Inadequate systems and planning lead to inefficiency, poor control and quality problems
• Lack of organisational building leads to informal communication and processes that, in turn, create confusion and a lack of accountability;

Opportunity challenges

• New businesses lack a clear strategy of how the business competes;
• New businesses have a tendency to over commit and pursue many diverse opportunities;

Organisational resources and capabilities challenge

• In new businesses, financial and human resources are constrained because of the rapidly expanding sales requiring more financing and personnel;
• Because of the lack of organisational structure and order, skills become increasingly generalised and incapable of handling complexity;

Leadership challenges

• The entrepreneurial ability outgrows the entrepreneur's abilities;
• The entrepreneur often lacks managerial skill and is unable to delegate;
• Internally promoted managers often lack necessary skills;

2.15 Conclusion

From the literature review it is evident that there are a number of obstacles that should be considered at the growth phase. The key obstacles identified during the literature review are:
• Access to finance
• Lack of skills
• Regulatory challenges
• Overtrading
• Business environment
However the key obstacles highlighted in the literature apply to almost all businesses. There is a need, therefore, to assess the extent to which BEE mining entrepreneurs consider the key obstacles in the growth phase of their business. No research has yet been conducted in a South African from a BEE Mining Entrepreneur’s perspective to determine the most relevant of these obstacles.

This chapter reviewed the literature available on obstacles facing mining entrepreneurs at the growth stage the next chapter will focus on the research questions that need to be answered.
Chapter 3: Research

3.1 RESEARCH OBJECTIVES:

- Gain new insights into the obstacles facing BEE mining entrepreneurs during the growth stage.
- Identify common obstacles present among mining entrepreneurs that have not been identified elsewhere.
- Evaluate the internal environmental factors that are obstacles to the growth of new SMEs in South Africa (internal factors focused on by this study are access to finance, management skills, networking, investment in information technology and cost of production).
- Evaluate the external environmental factors that are obstacles to the growth of new SMEs in South Africa (external factors focused on are economic environment, markets, infrastructure, crime, corruption, labour and regulations).

3.2 Research Questions

1. What are the financial obstacles facing BEE mining entrepreneurs during the growth phase?

2. What are the regulatory obstacles facing BEE mining entrepreneurs during the growth phase?
3. Which skills are obstacles to BEE mining entrepreneurs during the growth phase?

4. What other factors in the external environment are obstacles facing BEE mining entrepreneurs during the growth phase?

5. What other factors in the internal environment are obstacles facing BEE mining entrepreneurs during the growth phase?
Chapter 4: Research Methodology

4.1 Introduction

In the last chapter the focus was on the research objectives and research questions. This chapter will now focus on the research methodology in order to answer the research objectives and research questions.

4.2 The research design.

The design of the research will be qualitative (Burns and Grove, 1993), inductive (Saunders et al, 2003), exploratory (Mouton and Marais, 1994), descriptive Mouton and Marais, 1994), contextual and phenomenological (Burns and Grove, 1993),

This research will entail mainly qualitative research because we require an in-depth understanding of obstacles faced by BEE mining entrepreneurs during the growth phase. Interviews with these entrepreneurs will be conducted from a sample of BEE mining entrepreneurs who are actively involved in the mining sector.

4.3 Qualitative research paradigm

Description of qualitative research paradigm

Qualitative research is a systematic, subjective approach used to describe life experiences, give them meaning and thereby gain insight and generate knowledge (Burns and Grove (1993). It is a means of exploring depth, richness and complexity inherited in phenomena.
Leedy and Ormord (2001) recommends a qualitative design when a researcher is attempting to interpret a certain phenomena. According to Daft (1993) qualitative research cannot be objective and is concerned with meaning rather than measurement.

Marshall and Rossman (2006) recommend a qualitative research approach when the objectives of the research are to discover new ideas and insights. It is recommended for its richness and the ability of the researcher to focus on the importance of context, setting and the respondents’ frame of reference.

According to Becker (1993) the five differences between a qualitative versus quantitative research are as follows:

1. **Use of positivism**: positivist content that there is a single reality while post positivists argue that reality can never be fully apprehended only approximated.

2. **Acceptance of postmodern sensibilities**: this adds credence to the qualitative research approach while positivist methods are but one way of telling a story about society or the social world.

3. **Capturing the individual’s point of view**: qualitative researchers believe they can get closer to the subjects perspective through detailed interviewing.

4. **Examining the constraints of everyday life**: qualitative researchers are more likely than quantitative researchers to confront the constraints of everyday social world.
5. Securing rich descriptions

Qualitative researchers believe that rich descriptions of the social world are valuable, whereas quantitative researchers are less concerned with such detail.

4.4 Inductive approach

When conducting this research, the researcher embarks upon a project without an explicit conceptual framework (Mouton and Marais, 1994). The researcher collects the data first and thereafter explores the data to reveal themes and issues. In essence, theory would follow data. This research approach differs with deductive research where the researcher has a clear conceptual framework in mind before commencing with the gathering of data.

Induction emphasis (Saunders et al., 2003):

- Gaining an understanding of the meanings humans attach to events
- A close understanding of the research context
- The collection of qualitative data
- A more flexible structure to permit changes of research emphasis as research progresses
- A realisation that the researcher is part of the research process
- Less concern with the need to generalise

4.5 Exploratory study

Mouton and Marais (1994) motivate the exploration of a relatively unknown research area to be approached using an exploratory technique. One method through which
an exploratory research may be conducted is a survey of people who had practical experience of the problem to be studied.

Exploratory studies are a valuable method of finding out what is happening, to seek new insights, to ask questions and to assess phenomena in a new light (Robson, 2002), to date no research has been conducted into the obstacles facing BEE mining entrepreneurs in the growth phase.

4.6 Descriptive study

The goal of descriptive research is to describe that which exists as accurately as possible by collecting accurate information or data on the domain phenomena under investigation (Mouton and Marais, 1994). Robson (2002) posits that the object of descriptive research is to portray an accurate profile of persons, events or situations.

4.7 Contextual study

A contextual design is one where the phenomena of interest are studied in terms of immediate context (Mouton and Marais, 1994) because of the phenomenon’s intrinsic and immediate contextual significance. Thus the primary aim of this research is to provide an extensive and dense description of obstacles facing BEE mining entrepreneurs in the growth phase.

4.8 Phenomenological research design

Burns and Grove (1993) define phenomenology as both a philosophy and research method, the purpose of phenomenological research is to describe experiences as they are lived- in phenomenological terms, to capture lived experiences.
Philosophical orientation

Phenomenologist view the person as integral with the environment, agree that there is not a single reality; each individual has his or her own reality (Burns and Grove, 1993). Reality is considered to be subjective, thus an experience is considered unique to the individual. It involves the study of a small number of subjects through engagement to develop patterns and relationships of meaning.

4.9 My values

Particular in qualitative research, the role of the researcher as the primary data collection instrument necessitates the identification of personal values, assumptions and biases at the outset of the study because the findings from the study are influenced by these values, assumptions and biases (Cresswell, 1994). My perceptions of the obstacles facing BEE mining entrepreneurs in the growth phase have been shaped by my personal experiences as a BEE mining entrepreneur. I graduated with a Bsc (Hons) degree in Geology and worked for the mining industry for seven years and subsequently became a mining entrepreneur who holds mineral rights for the last six years.

According to my perception to succeed as BEE mining entrepreneur requires overcoming regulatory obstacles and financial obstacles. I believe that my understanding of the mining industry would enhance my awareness, knowledge and sensitivity to the many obstacles BEE mining entrepreneurs experience.

I also bring certain biases to this study. Although every effort will be made to ensure objectivity, these biases will shape the way I view and understand the data I collect and the way I interpret the results.
Research should not only have the potential to generate and refine knowledge, but should also be ethical in its development and implementation (Burns and Grove, 1993). Burns and Grove (1993) offer the following measures as a guide to attaining ethical standards:

1. Informed consent

Consent will be obtained in writing and the following information will be conveyed to participants:

- The title of the research
- The objective of the research
- Research methods and procedure
- The type of participation required of the subject
- How the results will be published
- The participants have the right to terminate their participation in the study anytime
- Potential benefits in participating in the study

2. Privacy

Privacy is the freedom an individual has to determine the time, extent and general circumstances under which private information will be shared with or withheld from others. Privacy of the subject will be ensured through:
• Agreement on location and duration of the interview

• Strict control of recording tapes, field notes and transcribed manuscripts

Data which is of a private nature will not be collected and measures will also be taken to ensure and maintain dignity of the participants.

3. Anonymity and confidentiality

Confidentiality within the context of this study refers to the management of private information of BEE mining entrepreneurs in the study. The author will refrain from sharing any information with any persons without first obtaining verbal and written authorisation from that person in writing. Anonymity exists if the participant’s identity cannot be linked with his individual response. Numbers will also be allocated to each respondent, which will also allow the author to review their analyses with them on an individual basis at a later stage. If anonymity is threatened at any stage all research records will be destroyed.

Research method

The study will be conducted in two phases:

• The first phase involves the exploration and description of the obstacles faced by BEE mining entrepreneurs in the growth phase by conducting in-depth, semi structured interviews as the method of data collection. Data analysis and discussion

• Phase two involves deduction and description of broad guidelines for the mining industry and government to address obstacles faced by BEE mining entrepreneurs.
4.10 Identification of Participants

The target population is made up of all subjects that meet a certain criteria for inclusion in a given universe (Burns and Grove, 1993). The population for this study is BEE mining entrepreneurs who are actively involved in exploration and mining activities in South Africa and hold mineral rights.

The participants must have gone through the start up phase. They must have at least two years active participation in the actual exploration and mining and must be holders of mineral rights. These exclude participants who are only involved in the rendering of services or goods to the industry. BEE mining entrepreneurs are those who are planning to start or operate a mine. In order to gain access to these entrepreneurs the database of the Department of Mineral Resources was approached for their database of BEE mining entrepreneurs.

4.11 Accessible Population

The accessible population is the portion of the target population to which we can have reasonable access. From the database of the Department of Mineral Resources we were able to contact the participants and arrange for the interviews.

4.12 Sampling Plan

A non-probability sampling method was used. This was because not every subject of the population had an opportunity for selection (Burns and Grove, 1993).
4.13 Sampling Criteria

For an entrepreneur to meet the sampling criteria, the individual needed to be a South African Black, Coloured or Indian who has been involved in the exploration and mining activities for at least two years.

4.14 Sampling Procedure

Before a sample is taken, Zikumund (2003) states that the following decisions must be taken by the researcher:

1. Define the target population
2. Select a sampling frame
3. Determine whether a probability or non probability sampling method will be chosen
4. Plan the procedure for selecting sampling units
5. Determine sample size
6. Select actual sampling units
7. Conduct fieldwork

4.15 Method of data collection

Face to face interviews were conducted with twenty interviewees. The instrument of data collection was semi-structured open-ended questionnaires. This allowed comparable responses as well as the opportunity to obtain rich information.
Qualitative research is primarily concerned with processes rather than outcomes, with emphasis placed on meaning-how people make sense of their lives, experiences and the structures of their world (Creswell, 1994). A qualitative researcher is the primary instrument of data collection and analysis (Creswell, 1994). The qualitative researcher attempts to gather descriptions of relevant themes (Kvale, 1983), which in this study relate to those extracted from the stories told by participating BEE mining entrepreneurs. Kvale (1983) recommends a curiosity and sensitivity to what is, and what is not being said. This facilitates the discovery of different nuances and depth of themes of interviews Kvale (1983).

Fontana and Frey (1994) have commented that interviewing is one of the most common and powerful ways we use to try to understand our fellow human beings-thus interviewing becomes the tool. Fontana and Frey (1994) describe many forms of interview- In this study; face to face verbal interchange will be used.

Interviewing

Merriam (1998) states that the most common way of deciding which type of interview to use is determined by the amount of structure desired. The degree of structure is a continuum from highly structured questionnaire driven interviews to unstructured, open ended, and conversational formats. Highly structured interviews were not selected because of the rigidity of adhering to predetermined questions might not
Use of communication techniques

Non directive communication techniques were used, such as probing, paraphrasing, summarising, minimal responding and clarification to encourage the BEE mining entrepreneurs to articulate their views and finding.

Probing

Probes are questions or comments that follow up a question already asked (Merriam, 1998). (Merriam, 1998) adds that it is virtually impossible to specify these ahead of time because they are dependent on how the participant answers the lead question. Probes may take numerous forms- silence, sound, a single word and complete sentences (Glesne & Peshkin, 1992). Probing refers to the interviewer’s ability to help the participant identify and explore experiences, behaviours and feelings in order to engage more constructively in the communication (Okun, 1992)

Paraphrasing

Paraphrasing is a method of restating the participant’s message in similar words (Brammer et al, 1989). This technique was used to ensure understanding of the responses.

Summarising

This technique involves the tying together of several views and feelings at the end of an interview or discussion into one single statement. The main purpose is to give the
participant a feeling of movement in exploring ideas and findings, as well as to create an awareness of progress in communication (Brammer et al, 1989).

Minimal responding

Minimal responding means that the interviewer develops a less active role and allows the respondent more time to talk (Okun, 1992).

Clarifying

Clarifying involves bringing vague material into sharper focus (Okun, 1992).

Recording information

Two methods to record the interviews were used:

Tape recording

Tape recording, using a Dictaphone ensures that "everything said is preserved for analysis" (Merriam, 1998). These tape recordings are then transcribed verbatim in the form of a typed manuscript.

Field notes

Field notes are used to retrieve and analyse observations made. They are used to "record reactions to something the informant says" Merriam (1998).

4.18 Data analysis

The data analysis would be conducted as an activity simultaneously with data collection, data interpretation and narrative report writing. In qualitative analysis several simultaneous activities engage the attention of the researcher (Creswell, 1994). The process of analysis will be based on data reduction and interpretation.
(Marshall& Rossman, 2006). The researcher takes a voluminous amount of information and reduces it to certain patterns, categories, or themes and then interprets the information by using a schema (Creswell, 1994). Tesch (1990) termed this process "de-contextualisation and "re-contextualisation".

Coding procedure to be adopted

Flexible rules govern the method of sorting through interview transcriptions (Creswell, 1994). Creswell (1994) does indicate however that it is clear than one forms categories of information and attaches codes to these categories. These categories and codes form the basis for the emerging story told by the qualitative researcher. Tesch (1990) refers to this process as “segmenting” the information and provides eight steps to consider in reduction of transcripts:

1. Get a sense of the whole. Read all the transcripts carefully, noting some ideas as they come to mind.

2. Pick one interview and go through it, asking yourself: "what is this about?" do think about the "substance " of the information, but rather its underlying meaning.

3. When you have completed this task for several informants, make a list of all topics. Cluster together similar topics. Form these topics into columns that may be arrayed as major topics unique topics and leftovers.

4. Now take this list and go back to your data. Abbreviate the topics as codes and write the codes next to the appropriate segments of the text. Try out this preliminary organising scheme to see whether new categories and codes emerge.
5. Find the most descriptive wording for your topics and turn them into categories. Try reducing your total list of categories by grouping topics that relate to each other. Draw lines between your categories to show interrelationships.

6. Make a final decision on the abbreviation for each category and alphabetise these codes.

7. Assemble the data material belonging to each category in one place and perform a preliminary analysis.

8. If necessary, recode your existing data.

### 4.19 Internal Validity

Internal validity deals with the question of how research findings match reality or how congruent the findings are with reality (Merriam, 1998). According to Merriam (1998) one of the assumptions underlying qualitative research is that reality is holistic, multidimensional, and ever changing; it is not a single, fixed objective phenomena waiting to be discovered, observed or measured.

Assessing the isomorphism between data collected and the “reality” from which it is derived is thus an inappropriate determinant of validity. Merriam (1998) lists six basic strategies to enhance validity:

1. Triangulation-using multiple investigators, sources of data and methods to confirm findings

2. Member checks- taking data and tentative interpretations back to the people from whom they were derived and asking them if the results are plausible.
3. Long-term observation

4. Peer examination- asking colleagues to comment on the findings as they emerge

5. Participatory or collaborative modes of research – involving participants in all phases of research

6. Researcher’s biases- clarifying the researcher’s assumptions, worldview and theoretical orientation at the outset of the study.

4.20 External Validity

Merriam (1998) states that external validity is concerned with the extent to which findings of one study can be applied to other situations, how generalisable are the results of the research study. Ability to generalise is ensured through conditions such as assumptions of equivalency between sample and population from which it was drawn, control of sample size and random sampling.

In qualitative research, a small non random sample is selected precisely because the researcher wishes to understand the phenomena in depth. To enhance the possibility of the results of a qualitative study generalising, Merriam (1998) recommends the following strategy:

- Rich, thick description- providing enough descriptions so that readers will be able to determine how closely their situation matches the research situation and whether findings can be transferred.
4.21 Reliability

Reliability refers to the extent to which research findings can be replicated, if the study were to be repeated, would it yield the same results? Reliability is problematic in the social sciences because human behaviour is never static. Reliability in the research design is based on the assumption that there is a single reality that studying it repeatedly will yield the same results.

4.22 Summary

In this chapter the discussion focused on the research methodology. In the next chapter the discussion will focus on the findings from the data analysis will be explained.
Chapter 5: Results

5.1 Introduction

This chapter will go into the details of the research findings and present data in different possible ways so as to maximise the potential value of information extracted.

The sample used in this study was a total of twenty BEE mining entrepreneurs from South Africa who own mineral rights. In terms of the participants, there were nineteen males and one female. From a race point of view, there were eighteen black participants and two Indian participants. Effort was made to locate coloured participants, but the attempts proved unsuccessful. Only one female bee mining entrepreneur was interviewed for the research.

The data was collected through face to face interviews using an interview guideline with open ended questions. The data was collected over a four week period and on average, each interview lasted about forty minutes.

The interviews were done either at the interviewees’ business or at our offices and recorded either through field notes or digital voice recorders. If participants were not comfortable with being recorded as most were then field notes were taken. The interviews were then typed out and emerging factors crystallised and aggregated under broad themes as aligned to the interview.

The five broad themes are financial obstacles, regulatory obstacles, skills, internal factors and external factors. The factors, and their frequency distribution were then captured and rank ordered.
This being an exploratory study, content analysis and frequency distribution was the preferred method of analysis. Content analysis is an unobtrusive research technique that allows researchers to analyse relatively unstructured data in view of the meaning and symbolic qualities (Krippendorff, 2004).

5.2 Demographics

5.2.1 Age
The youngest respondent was 32 years of age while the oldest respondent was 54 years of age. 15% of the respondents fell between the 30-35 age group, 5 (25%) of the respondents fell between the 36-40 age group, 7 (5%) of the respondents fell between 41-46 age group, 3 (15%) of the respondents fell between the 47-52 age group while 2 (10%) were over the ages fifty three years of age.

5.2.2 Qualifications
Six (30%) of the respondents had a tertiary university qualification. Seven (35%) of the respondents had a postgraduate qualification. Five (25%) of the respondents had only a matric qualification. Two (10%) of the respondents had no matric qualification.

5.3.3 Size of Company
Seven respondents (35%) were involved in a business with assets worth over 100 million rands. Nine respondents (45%) were involved in business with assets of between one million rands to 10 million rands. Five respondents were involved in a business with assets less than one million rands.
5.2.4 Sector within the mining industry

The respondents came from various sectors of the mining industry. Most of the respondents came from the coal sector. Some of the participants were involved in more than one sector of the mining industry. Table 4 illustrates respondents by sector.

Table 4: Respondents by mining sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>7 (35%)</td>
</tr>
<tr>
<td>Diamonds</td>
<td>2 (10%)</td>
</tr>
<tr>
<td>Platinum</td>
<td>3 (15%)</td>
</tr>
<tr>
<td>Ferrous</td>
<td>6 (30%)</td>
</tr>
<tr>
<td>Industrial minerals</td>
<td>2 (10%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20 (100%)</strong></td>
</tr>
</tbody>
</table>

5.2.5 Province

Eight (40%) respondents were from Limpopo province, four (20%) from Gauteng province, two (10%) from North west province, two (10%) from Kwazulu- Natal province, one (5%) from Northern cape province, one (5%) from Mpumalanga province, one (5%) from Free state province, one (5%) from Eastern cape and none (0%) from Western Cape province.
5.2.6 Prior Experience

In terms of prior experience thirteen (65%) respondents were entrepreneurs who ran their business for more than five years. Four (20%) ran their business for more than ten years and three (15%) had ran their business for three years.

5.2.7 Race

There were eighteen (90%) black respondents and two (10%) were Indian respondents. There were no coloured respondents in the study. Figure 2 illustrates participants by Race group.

![Bar chart illustrating respondents by group](image)

Figure 2 illustrates respondents by group

5.2.8 Gender

There were nineteen (95%) male respondents and one (5%) female respondent.

Figure 3 illustrates respondents by Gender.
Figure 3 illustrates that the sample comprise 18 (95%) males and 1 (5%) female.

5.3 Overview of the observed factors

In this section, in table 6 below, we shall take a look at the total number of different types of factors observed in the whole study. These results were arrived at after applying content analysis to the recorded interviews.

Table 5- Number of observed factors

<table>
<thead>
<tr>
<th>Factors</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial</td>
<td>9</td>
</tr>
<tr>
<td>Regulatory</td>
<td>7</td>
</tr>
<tr>
<td>Skills</td>
<td>5</td>
</tr>
<tr>
<td>Other internal factors</td>
<td>6</td>
</tr>
<tr>
<td>Other external factors</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
</tr>
</tbody>
</table>
5.4 Financial obstacle

Lack of support from Developmental Financial institutes such as the Industrial Developmental Corporation and from Commercial banks was cited by 14 (70%) of the respondents. Lack of seed funding in order to apply for mineral rights and conduct initial exploration was cited by 6 (30%) of the respondents. Lack of track record was cited by 12 (60%) of the respondents.

Lack of collateral was cited by 7 (35%) of the respondents. Finding investors to joint venture with was cited by 10 (50%) of the respondents. High capital expenditure to start a mine was cited by 8 (40%) of the respondents. Stringent requirements for listing projects on the stock exchange was cited by 3 (15%) of the respondents.

Few global stock exchanges where exploration funding can be raised was cited by 2 (10%) of the respondents. Lack of inadequate credit history by BEE mining entrepreneurs was cited by 4 (20%) of the respondents. Table 6 illustrates financial obstacles.

Table 6- Financial obstacles

<table>
<thead>
<tr>
<th>Financial Obstacle</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of Seed funding</td>
<td>6</td>
</tr>
<tr>
<td>Lack of collateral</td>
<td>7</td>
</tr>
<tr>
<td>Finding investors to joint venture with</td>
<td>12</td>
</tr>
<tr>
<td>Lack of support from Developmental Financial Institutions and Banks</td>
<td>14</td>
</tr>
<tr>
<td>Lack of inadequate credit history</td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>Lack of track record</td>
<td>10</td>
</tr>
<tr>
<td>Stringent requirements for listing projects on the stock exchange</td>
<td>3</td>
</tr>
<tr>
<td>High capital expenditure required to start a mine</td>
<td>8</td>
</tr>
<tr>
<td>Few global stock exchanges where exploration funding can be raised</td>
<td>2</td>
</tr>
</tbody>
</table>

### 5.4.1 Excerpts from respondents

“Banks do not like to fund mining projects that are not yet in production”

“We depend on leveraging on our own assets by selling smaller projects in order to fund bigger projects”

“interest rates will take you out of business if you buy existing mines”

“Listing is a better way to raise funds by leveraging your assets”

“You need good assets and good infrastructure to attract investors”

“You have to initially spend on exploration in order to get a competent persons report”

“Getting investors into your mining project is very difficult if you do not have a track record”
5.5 Regulatory obstacles

Lengthy period of time for approval of licenses was cited by 14 (70%) of the respondents. Expensive financial guarantees for environmental rehabilitation was cited by 7 (35%) of the respondents. Lack of technical capacity from DMR officials was cited by 6 (30%) of the respondents. Corruption was cited by 4 (20%) of the respondents.

Access to information was cited by 5 (25%) of the respondents. Excessive regulation was cited by 6 (30%) of the respondents. Lack of awareness of government support programmes was cited by 4 (20%) of the respondents. Table 7 illustrates regulatory obstacles.

Table 7 - Regulatory Obstacles

<table>
<thead>
<tr>
<th>Obstacle</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lengthy period of time for approval of licenses</td>
<td>14</td>
</tr>
<tr>
<td>Corruption</td>
<td>4</td>
</tr>
<tr>
<td>Lack of technical capacity of DMR officials</td>
<td>6</td>
</tr>
<tr>
<td>Access to information</td>
<td>5</td>
</tr>
<tr>
<td>Expensive financial guarantees</td>
<td>7</td>
</tr>
<tr>
<td>Excessive regulations</td>
<td>6</td>
</tr>
<tr>
<td>Lack of awareness of support programmes</td>
<td>4</td>
</tr>
</tbody>
</table>
5.5.1 Excerpts from respondents

“complying with regulation pertaining to environment”

“social and labour plans are challenging”

'The process of getting approval for mineral is simply too long from the Department of Mineral Resources”

5.6 Other external obstacles

Lack of infrastructure was cited as biggest obstacle under external obstacles followed by fluctuations in the commodity prices, economic climate, political climate and access to markets by the research participants. Table 8 illustrates external obstacles.

Table 8- External Obstacles

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure</td>
<td>16</td>
</tr>
<tr>
<td>Economic</td>
<td>5</td>
</tr>
<tr>
<td>Access to markets</td>
<td>7</td>
</tr>
<tr>
<td>Political climate</td>
<td>6</td>
</tr>
</tbody>
</table>

5.6.1 Infrastructure

Lack of rail capacity was cited by 13 (65%) of the respondents. Stable electricity supply was cited by 11 (55%) of the respondents. Water supply was cited by 9 (45%) of the respondents. Access to ports for export markets was cited by 5 (25%) of the respondents.
respondents. Roads were cited by 2(10%) of the respondents. Table 9 illustrated infrastructure obstacles.

Table 9: infrastructure obstacles

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail</td>
<td>13</td>
</tr>
<tr>
<td>Electricity</td>
<td>11</td>
</tr>
<tr>
<td>Water</td>
<td>9</td>
</tr>
<tr>
<td>Access to Ports</td>
<td>5</td>
</tr>
<tr>
<td>Roads</td>
<td>2</td>
</tr>
</tbody>
</table>

5.6.2 Economic Climate

Interest rates where BEE mining entrepreneurs could not afford to repay back their loans was cited by 4(20%) of the respondents. Global financial crises was cited by 8(40%) of the respondents. Commodity price fluctuations were cited by 7(35%) of the respondents. Rand /dollar exchange rate was cited by 4 (20%) of the respondents. Recession was cited by 6(30%) of the respondents.

Interest rates, global financial crises, commodity price fluctuations, recession and exchange rates were the most cited obstacles by respondents. Table10 illustrates economic obstacles.
### Table 10 - Economic Climate

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interests rates</td>
<td>4</td>
</tr>
<tr>
<td>Global financial Crises</td>
<td>8</td>
</tr>
<tr>
<td>Commodity price fluctuations</td>
<td>7</td>
</tr>
<tr>
<td>Recession</td>
<td>6</td>
</tr>
<tr>
<td>Rand /dollar exchange rate</td>
<td>4</td>
</tr>
</tbody>
</table>

#### 5.6.3 Political Climate

Uncertainty over government policies was cited by 7(35%) of the respondents.

 Strikes in the country was cited by 6(30%) of the respondents. Calls for nationalisation mines was by 9(45%) of the respondents. Table 11 illustrates economic obstacles.
<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncertainty over government regulations</td>
<td>10</td>
</tr>
<tr>
<td>Strikes</td>
<td>6</td>
</tr>
<tr>
<td>Calls for nationalisation mines</td>
<td>9</td>
</tr>
</tbody>
</table>

### 5.6.4 Access to markets

Securing long-term contracts with buyers of commodities was cited by 10(50%) of respondents. Finding direct buyers and not middlemen was cited by 5(25%) of respondents. Collusion between buyers of commodities was cited by 4(20%) of respondents. Table 12 illustrates access to markets obstacles.

Table 12- Access to markets

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Securing long-term contracts with buyers</td>
<td>10</td>
</tr>
<tr>
<td>Finding direct buyers and not middlemen</td>
<td>5</td>
</tr>
<tr>
<td>Collusion between buyers</td>
<td>4</td>
</tr>
</tbody>
</table>
5.6.5 Excerpts from respondents

“Not easy to secure long term contract and off-take agreements for your mined products”

“Once your mining project is situated in an area where there is no basic infrastructure such as rail, water and electricity you are doomed to fail”

“you can have a billion ton mining deposit but is useless if there is no mode of transport to move it”

“if there is no water you rely too much on groundwater which is not sufficient for a thirty year project”

“political unrest in the country such as strikes do create a climate of stability”

“calls for nationalisation of mines are definitely scaring away investors”

“we lost a lot of good investors because of the credit crunch”

“broad based bee is not good because you bring different people who do not share the same vision”

“lack of networks is key but the abuse of networks is wrong”

“networks and capacity go hand in hand”
5.7 Skills

Technical skills were cited by 14 (70%) of the respondents. They include skills such as geologist, mining engineers, environmentalists and metallurgist. This was followed by financial expertise which were cited by 10 (50%) of the respondents and include ability to raise funding, tax and structured finance for mining projects.

Lobbying skills were cited by 8 (40%) of the respondents. Legal expertise was cited by 6 (30%) of the respondents. General management skills were cited by 4 (20%) of the respondents. Entrepreneurial skills were cited by 4 (20%) of the respondents.

Table 13 illustrates skills which are obstacles.

Table 14 - Skills

<table>
<thead>
<tr>
<th>Skills</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical skills</td>
<td>14</td>
</tr>
<tr>
<td>Financial skills</td>
<td>10</td>
</tr>
<tr>
<td>Legal skills</td>
<td>6</td>
</tr>
<tr>
<td>Lobbying and networking skills</td>
<td>8</td>
</tr>
<tr>
<td>General Management skills</td>
<td>4</td>
</tr>
<tr>
<td>Entrepreneurial skills</td>
<td>4</td>
</tr>
</tbody>
</table>
5.7.1 Excerpts from respondents

"You need to have a basic understanding of geology, mining and engineering in order to at least understand the technical reports from consultants"

"Because of lack of legal and financial knowledge we sometimes sign deals without understanding the implication"

"legal skills to structure these deals"

"legal team to ensure compliance with all these regulations"

"finance team important to look at tax issues"

"entrepreneurial skills are key in order to drive the vision of the company"

"need more of value adders than salary takers"

5.8 Other factors

Lack of industry networks was cited by 9 (45%) of the respondents. Overtrading where Bee mining entrepreneurs pursue many diverse opportunities and lack the capacity to execute them was cited by 8 (40%) of the respondents. Goals between the various stakeholders on the team. Unrealistic expectations were cited by 5 (25%) of the respondents. Conflict within shareholders as a result of not sharing the same vision and strategy was cited by 4 (20%) of the respondents. Lack of long term persistence was cited by 7 (35%) of the respondents Table 14 illustrates other obstacles
### Table 14 - Other obstacles

<table>
<thead>
<tr>
<th>Obstacles</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overtrading</td>
<td>6</td>
</tr>
<tr>
<td>Lack of long term persistence</td>
<td>7</td>
</tr>
<tr>
<td>Conflict within shareholders</td>
<td>4</td>
</tr>
<tr>
<td>Unrealistic Expectations</td>
<td>5</td>
</tr>
<tr>
<td>Lack of industry Networks</td>
<td>9</td>
</tr>
</tbody>
</table>

#### 5.8.1 Excerpts from respondents

“if you do not have political networks and governments networks on your side it becomes difficult to succeed”

This chapter summarised the results from the data analysis. The next chapter will focus on the discussion of results.
Chapter 6: Discussion of Results

6.1 Introduction

This chapter will now attempt to discuss in detail the research findings that were presented in Chapter five. The chapter will discuss in detail the results of all research questions.

6.2 Financial obstacles

Respondents were asked to rank the obstacles experienced, financial obstacles ranked the most important of all the obstacles mentioned by BEE mining entrepreneurs.

6.2.1 Research findings

In terms of the research findings 16 (80%) out of twenty respondents cited financial obstacles as their biggest obstacle.

6.2.1.1 Lack of support from Government Developmental Financial Institutions and Banks

The findings from the research study indicated that Developmental Financial Institutions such as Industrial Development Corporation were not supportive towards assisting BEE mining entrepreneurs. Most of the respondents cited the following obstacles as a hindrance when apply for funding from these institutions:

- They were more interested in funding operational mines with a track record.
• They sometimes required an initial deposit of R100 000 before they could conduct a due diligence.

• For exploration projects they required a bankable feasibility study which costs millions of rands for it to be compiled.

• Turnaround times for approval may take a minimum period of six months.

• Very stringent rules such as collateral, track record and credit history.

Other reasons which were commonly cited were that there was a lack of mining industry specific expertise by some of the Government developmental financial institutions such as National Empowerment Fund and Industrial Development Corporation.

6.2.1.2 Lack of seed funding

Many research respondents cited the lack of initial seed funding as an obstacle. They cited the following as initial expenses which they could sometimes not afford from they own fund such as;

• Company registration costs

• Costs to acquiring mineral rights

• Environmental management plans

• Financial guarantees to be paid to the Department of Mineral Resources

• Yearly license fees to be paid to the Department of Mineral Resources
• Advisory and consulting fees paid to mining professionals such as geologist, mining engineers and metallurgist

• Fees paid for conducting initial due diligence on their projects

These above mentioned costs, were important because financial institutions and investors, are not willing to look at projects where there are no mineral rights or desktop studies conducted.

6.2.1.3 Finding Investors to Joint Venture with

Attracting investors was very challenging for most of the respondents. Private investors were more willing to invest in listed public companies as opposed to private companies. As a result it was challenging to convince investors to invest in their mining projects.

6.2.1.4 High capital expenditure required to operate a mine

Because of the high capital costs required in establishing a mine which can sometimes cost in excess of over a billion rands, there was a limited pool of funders and investors who can be able to afford such amounts.

6.2.1.4 Other financial obstacles

Other factors which were cited were lack of a proven strong track to enable BEE mining entrepreneurs to attract funding and lack of collateral. Two respondents mentioned that there are only three stock exchanges worldwide who are able to access funding for exploration projects namely:

• Australian Stock Exchange
This created a limit for raising this type of funding. There were also few investors who understood mining and as a result this limited funding options. What was also interesting was what is termed “Afro Pessimism” where foreign investors in general are sceptical in investing in African projects.

6.2.2 Discussion
The research findings are similar to findings by Schoombee (2004) who conducted a study on access to credit on the four biggest banks in South Africa. His research found that in small, medium and micro enterprises, lack of access to formal banking credit is an obstacle. While the research was not done in mining, research findings are very similar. This has been demonstrated by 16 (80%) respondents out of twenty participants who cited lack of access from banks as the biggest financial obstacle that they face.

6.2.3 Conclusion
In summary the research has indicated that access to funding remains the biggest obstacle facing BEE mining entrepreneurs in South Africa.

6.3 Regulatory obstacles
6.3.1 Research findings
6.3.1.1 Approval times in the granting of mineral rights
The majority of participants cited the long approval times in the granting of mineral rights as the biggest obstacle from the regulator facing BEE mining entrepreneurs.
An application for a prospecting right which legally must take six months to be approved, sometimes exceeded two years for it to be granted.

6.3.1.2 Excessive Regulation

Most BEE mining entrepreneurs cited that regulations for compliance to granting of mining rights is very difficult and an expensive process. An application for mining rights can easily exceed five hundred thousand rands. They cited the following as difficult to implement:

- Water licenses
- Safety plans
- Environmental management plans
- Marketing plans
- Surveyors plans
- Record of Public Participations
- Operational plans

6.3.1.3 Expensive financial guarantees

Most of the respondents cited financial guarantees required by the Department of Mineral Resources as expensive. In many cases a financial guarantee for a mining right exceeded over a million rands. Few BEE mining entrepreneurs were able to afford such amounts.
6.3.1.4 Access to information

Access to information in relation to who owned the mineral rights was very restricted. This created confusion such as the double granting of mineral rights. This also created fraud where other people claimed to own certain mineral rights while in fact they do not own them.

6.3.1.5 Lack of Technical Capacity from Department of Mineral Resources

Most of the experience staff in the Department of Mineral Resources have resigned and as a result there is a lack of capacity in terms of experienced industry experts within the department. Most of the experienced officials have moved to the private sector or have stated their own businesses within the mining industry.

6.3.1.6 Corruption

There are isolated cases of officials within the department of Mineral Resources who sometimes solicit bribes from BEE mining entrepreneurs in order for their applications to be fast tracked.

6.3.1.7 Lack of awareness of Government support programmes

Some of the research participants cited that they were not aware of government support programmes to assist them such as;

- Council for Geosciences which provides geological services to the mining industry
- Mintek which assists with providing processing equipment
6.3.2 Discussion

The research findings are similar to findings by Mutezo (2009) who conducted a study in Tshwane on obstacles that small medium and micro enterprises face in accessing capital. They also found out that excessive regulation created barriers for entrepreneurs. Most of participants who were interviewed cited excessive regulation such as water licences, environmental management plans, progress report quarterly inspections, public participation as creating barriers for them.

The research findings are also similar to findings by Ladzani and Netswera (2009) who conducted a study in the Limpopo province, on the support of rural small businesses by government. They found that simplification of the regulatory process paved the way for rural small businesses significantly in the Limpopo Province. This is similar to our research findings whereby twelve of the participants said that the mining charter and legislation was not simple to understand and implement. It could be, that the Department of Mineral Resources should provide training and workshops on the mining charter and relevant legislation.

Research findings are also supportive to studies conducted by Maas and Herrington (2006) on the small business sector in South Africa. They found that most new SMEs in South Africa are not aware of government efforts to assist them. Many of the respondents were not aware of government support programmes.
6.3.3 Conclusion

In summary the slow process on the granting of mineral rights has been cited as the biggest obstacle to BEE mining entrepreneurs. Secondly excessive regulation by the Department of Mineral Resources created obstacles for BEE mining entrepreneurs.

6.4 External obstacles

6.4.1 Infrastructure

Infrastructure required by mining operations has been cited as the most common obstacle under external factors. They have been listed as:

- Rail capacity
- Electricity supply
- Water supply
- Access to roads
- Access to Ports

In particular most of the BEE mining entrepreneurs cited that access to Ports such as the Richards Bay Terminal are controlled by established industry leaders, as a result BEE industry players are only allocated less than ten percent of the entire location. This is because they are owned by established industry leaders such as Anglo American and BHP.

This is especially relevant for bulk commodities such as iron ore, coal, manganese and industrial minerals which require access to Ports in order for them to reach their
export markets. Precious metals such as gold, platinum and diamonds were not too dependent on transport infrastructure.

What was interesting was that the importance of infrastructure differed from one sector to another. Those who were mining precious minerals such as gold, diamond and platinum what was important to them were stable water supply and stable electricity supply. This was because these commodities required a lot of water and electricity for processing. Transport infrastructure such as rail and access to ports was not as important to them. All respondents who were in the precious minerals sector mentioned stable water and electricity supply.

Respondents who were in the coal, ferrous minerals sector and industrial minerals sector all cited transport infrastructure such as rail and access to ports. The reason was because these commodities such as coal, manganese and iron ore were high-volume low-value commodities which are sometimes known as bulk commodities.

While commodities such as diamonds and gold are low-volume high-value commodities which are not bulky. In comparison, a kilogram of coal can sell for 10 rands per kilogram while a kilogram of gold can sell for 200 000 rands per kilogram. This also could explain why most of the small scale miners are in the diamond sector as opposed to other sectors of the industry.

**6.4.1.2 Political Environment**

Because foreign investors required a stable political climate for them to invest, calls for the nationalisation of mines scared away potential investors. This creates an obstacle whereby it is difficult to find foreign investors. This factor was mentioned by 14 (70%) of all respondents.
Another factor which was mentioned by 6(30%) of respondents was strikes which caused production targets to drop due to factors like fuel shortage, staff not reporting to work and intimidation to those arriving for work.

6.4.1.3 Economic Environment

External factors in the environment such as interest rates, economic performance, credit crunch and rand/dollar exchange rate were cited as factors which can sometimes affect BEE mining entrepreneurs.

When interest rates are high BEE mining entrepreneurs who had bought mining equipment and assets on credit, sometimes struggle to pay back their loans. High interest rates also have an adverse effect on those who had bought into existing mines. As a result most had to sell portions of their shares in order to be able to repay loans taken from banks.

Those BEE mining entrepreneurs who export their commodities cited strong rand as an obstacle. Credit crunch was also cited because it became difficult to raise finding from banks and the stock exchange. Two of the respondents claimed that some of their investors lost interest in some of their projects as a result of the credit crunch. During the periods of recession during 2009 and 2010 those BEE mining entrepreneurs who were selling their commodities locally saw a drop in their sales revenue.

6.4.1.4 Fluctuations in the Commodity Prices

Because commodity prices are cyclic and are dependent on the forces of demand and supply, sometimes when the commodity prices are low some of the projects are not financially viable to explore and mine. Two of the respondents who were
exploring for uranium, mentioned that they had to stop developing their uranium asset due to the price of uranium suddenly falling by half of its original value.

Two of the respondents from the platinum sector claimed that they had to delay the commissioning of their projects when the platinum prices fell. Those who were mining chrome claimed that there was less demand for their commodities and as a result they often struggled to find buyers for their commodities.

6.4.1.5 Access to Markets

Access to markets and long term off-take agreements were cited as one of the obstacles that BEE mining entrepreneurs face. Those who are mining coal cited the fact that it was difficult to secure long term contracts with Eskom at competitive prices. This was because BEE mining entrepreneurs who were not exporting their coal were relying mostly on Eskom. Those who were mining precious minerals such as diamonds also cited the difficulty in the getting direct buyers for their commodity.

All participants who were in diamonds cited that there was collusion between the buyers of diamonds whereby there was price fixing. Respondents from the industrial minerals sector cited that they were relying too much on few buyers who controlled the prices they could sell their commodities.

6.4.1.6 Recession

All respondents in the industrial minerals sector mentioned that, when the local economy was in recession there was less demand for industrial materials such as cement, bricks, sand and stone aggregates. This in turn created less demand for commodities such as dolomite, clay and sand which are used to manufacture bricks, cement and concrete for the local market.
6.4.2. Discussion

Some of the BEE mining entrepreneurs do not thoroughly research the mining industry before venturing into it. This creates challenges as some of the BEE mining entrepreneurs are not prepared of the challenges that lie ahead.

Research findings are also supportive of the studies by Beck (2009) on the role of infrastructure in developing countries. They found that the quality of infrastructure can affect the growth prospects of new SMEs especially in developing countries such as South Africa. Research findings are also similar to findings by Kalra (2009) who conducted a study of the electricity supply in India. He found that if electricity supply does not meet the demand leading to power cuts which can affect the production, growth and turnover of new businesses.

6.4.3 Conclusion

In summary the research findings were able in some instances to confirm with the literature review but they were not that accurate in determining all the obstacles related to external factors. New findings were discovered such as the important role of infrastructure and access to ports.

6.5 Skills

6.5.1 Research findings

In terms of the research findings technical skills, financial skills, general management skills, legal skills and lobbying skills were cited by most of the respondents as skills which were obstacles to BEE mining entrepreneurs
6.5.1.1 Technical skills
Most of the research respondents cited the lack and scarcity of competent and experienced technical staff as one of their biggest obstacle. These technical experts were in demand and as a result they were very expensive. The technical skills which were mostly mentioned as obstacles were geologists, mining engineers and metallurgists.

6.5.1.2 General Management skills
Because mining is a multi disciplinary field, there was a scarcity in finding experienced and competent people who had finance, marketing, operation and legal expertise to be able to structure and manage the mining projects.

6.5.1.3 Legal skills
There were also difficulties in finding experienced legal practitioners who have an in depth understanding of the legal framework for the mining industry. Legal skills in mining were important due to these factors:

- Structuring of deals with investors, communities and strategic partners
- Compliance with relevant legislations of the Department of Mineral Resources
- Negotiating with landowners

6.5.1.4 Lobbying Skills
Another skill which was cited was lobbying skills so as to successfully lobby government, employees and unions, communities, mining contractors and various stakeholders. This skill was seen as important because mining entails forming good relations with various stakeholders.
6.5.1.4.1 Lobbying government

In most cases BEE mining entrepreneurs have to lobby government in:

- Introducing business friendly policies
- Building infrastructure where it does not exist
- Establishing business ties with countries of economic interests
- Creating an investor friendly environment

6.5.1.4.2 Lobbying unions

- Wage negotiations
- Improving relationships with employees as part of their labour plan

6.5.1.4.2 Lobbying Communities where they conduct their business

- Local authorities as part of their social plan
- Tribal authorities
- Local communities

6.5.4.1.3 Lobby other stakeholders such as;

- Environmental groups
- Business groups in the area as part of economic development plans
- Shareholders in the company

Failure to attend to any one of the above mentioned factors may lead to crises in the operation. Many mining operation have been stopped by environmental groups. In
other areas such as in due to pressures from local communities.

6.5.4.2 Discussion

The skills which were mostly challenging for BEE mining entrepreneurs were mainly technical skills in geology, mining engineering and metallurgy. Business skills which were cited were financial experts who were competent in raising large funds from private investors, stock exchange, listing of new projects and financial institutes.

Research findings are also similar to findings by (Rigwema and Venter, 2004) who conducted a study on entrepreneurs in South Africa. They found that entrepreneurs often do not possess the skills needed to bring the venture through the growth phase to maturity (Rwiqema and Venter, 2004). This has also been confirmed where respondents cited that they lack the skills needed to bring the venture from growth to maturity.

Research findings are also similar to findings by Nieman and Niewnhuizen (2009) who conducted a study in South Africa on entrepreneurs. They found that entrepreneurs require numerous skills to run enterprise such as creativity and innovation, strategic management, planning and others. Respondents also mentioned numerous skills to run their enterprises.

In summary, the skills which are most important to BEE mining entrepreneurs are technical skills, general management skills, financial skills, legal skills and lobbying skills.
6.6 Other obstacles

6.6.1 Research findings

6.6.1.1 Lack of Networks

The lack of networks was also cited as an obstacle by BEE mining entrepreneurs. They mentioned networks to regulators as important so that they can be able to fast track their application and resolve disputes with the regulator.

Also networks with investors and funders were identified as obstacles for BEE mining entrepreneurs. Lack of access to technical networks was seen as an obstacle due to the fact that they were not able to get independent advice.

6.6.1.2 Overtrading

Some of the BEE mining entrepreneurs pursued many diverse mining opportunities and as a result they ran out of cash to proceed with some of their mining projects due to time constraints or financial constraints. About five respondents (25%) held eight mineral exploration rights. They did not have sufficient financial resources to pay license fees and environmental rehabilitation fees to the Department of Mineral Resources. As a result, they forfeited some of their exploration rights due non-compliance.

6.6.1.3 Conflict within shareholders

According to broad based empowerment of the mining charter, BEE mining entrepreneurs must include local communities and women in their ventures as a condition before mining rights can be issued. They cited that some of partners who were brought into the mining projects did not bring value to the project and were not active. Some of them were only interested on receiving financial gains. As a result,
there is generally a misalignment of goals between those seeking long term gains and those that were seeking short term gains.

This conflict resulted in some of the shareholders wanting to sell the mining projects so as to receive financial gains even if it meant selling the mining right at discounted prices.

6.6.1.4 Long term Persistence in the advent of failure

Some of the BEE mining entrepreneurs cited the fact that due to mining being a long term business, it is very challenging to remain focused and persistence when there is failure due to internal or external factors or when money is not coming through due to a slump in the market.

6.6.1.5 Unrealistic Expectations

Because of the perceptions that mining has created BEE billionaires such as Patrice Motsepe, Tokyo Sexwale, Cyril Ramaphosa, Mzi Khumalo and Saki Macozoma. This creates perceptions that the mining industry is a lucrative industry where it is easy to make billions.

6.6.2 Discussion

Research findings support the view by Kuratko and Hodgets (2007) in that it is important to remain tolerant of failure such as moral failure where violation of internal trust can have negative consequences, personal failure due to lack of skills, uncontrollable failure which is caused by external forces. Most of the participants interviewed indicated that some team members lost interest and gave up, especially when external factors such as a fall in the commodity price occurred.
Research findings are similar to studies conducted by Okten and Osili (2004) on small and medium sized firms in Indonesia on accessing credit who found that the formation of networks helps entrepreneurs to tap resources in the external environment successfully. Research findings also support findings by Ngoc et al. (2009) who conducted a study with entrepreneurs in Vietnam and found out that in the absence of effective market institutions; networks play an important role in spreading knowledge about a firm's existence and its practices.

Research findings confirm with findings by Bygrave and Zacharis (2008) who conducted studies with entrepreneurs and found that overtrading is one of the obstacles that entrepreneurs face. Some of the participants cited the fact that they often pursued many diverse opportunities and could not execute all of them well.

6.6.3 Conclusion

In summary lack of long term persistence by BEE mining entrepreneurs, unrealistic expectations, lack of conducting due diligence before venturing into mining and conflict between shareholder who seek short term gains and those who seek long term gains were some of the obstacles that were identified.

In summary new findings which were discovered were the misalignment between various stakeholders such as community, women and shareholders in mining projects can become obstacles for BEE mining entrepreneurs.

This chapter focused on the discussion of results. The next chapter will focus on conclusion and recommendations.
Chapter 7: Conclusion

7.1 Introduction
This section of the report, being the final chapter, gives the overview of the main findings, presents further areas if research based on these findings and literature, gives recommendations to various stakeholders, identifies future areas of research and finally gives an integrated summary of the entire research project.

The research carried out was exploratory and attempted to identify obstacles that BEE mining entrepreneurs face at the growth stage. The motivation for the research came from the fact that, whereas there might have been some data from other developing countries, there was a gap in the South African context in understanding obstacles facing BEE mining entrepreneurs at the growth stage in South Africa.

7.2 Summary of Results
This section of the chapter will consolidate the key findings against the research objectives and also mention some of other notable findings.

7.2.1 Financial obstacles
The lack of access to funding from Developmental Financial Institutions and banks such as Industrial Development Corporation, Developmental Bank of South Africa and others is the biggest obstacle facing BEE mining entrepreneurs. They were mentioned by 16 (80%) of the 20 participants interviewed in the study.

Other notable mentions under this subheading were, in rank order;

1. Lack of collateral

2. Process for applying for funding is too long
3. Credit crunch due to financial crises of 2009 and 2010

4. Lack of seed funding

5. Lack of track record

6. Credit history

7. Finding investors to partner with

7.2.2 Regulatory obstacles

The overwhelmingly mentioned factor was that the process of acquiring licenses for mineral rights was too long, in some instances more than three years. This factor was mentioned by 13 (65%) of the twenty participants.

Other notable mentions under this subheading were, in rank order;

1. Financial guarantees from DMR were very expensive

2. Lack of suitably qualified and experienced technical staff

3. Corruption

7.2.3 External obstacles

Infrastructure such as rail, access to ports, electricity, roads and adequate water supply were the most mentioned factors under this subheading.

Other notable mentions under this subheading were, in rank order;

1. Commodity prices

2. Exchange rates

3. Uncertainty of policies from Government such as nationalisation of mines
4. Interest rates

7.2.4 Skills

In terms of skills the biggest obstacles mentioned was finding competent and qualified technical professionals such as geologists, mining engineers and metallurgists.

Other notable mentions under this subheading were, in rank order;

1. Financial experts with experience in the mining industry, in order to assist in raising funds for projects

2. Legal experts with experience in the mining industry, in order to assist in structuring mining deals.

3. General Managers who have experience in managing complex operations.

7.2.5 Other obstacles

Because mining is a long term business where payback periods are sometimes in excess of over ten years, the biggest obstacle was that most of these BEE mining entrepreneurs tended to give up, lose interest and pursue other businesses. As a result there is misalignment of goals within the team from those looking for short term benefits and those looking for long term benefits.

Other notable mentions under this subheading were, in rank order;

1. Overtrading where BEE mining entrepreneurs acquire many mineral licenses.

2. Team dynamics where there is conflict between the partners in the project from those who seek short term gains and those who seek long term gains.
3. Unrealistic expectations from BEE mining entrepreneurs where there is a short term focus of earning quick money.

4. Lack of long term persistence.

7.3 Recommendations

7.3.1 Government

- Improve awareness of government support programmes to BEE mining entrepreneurs
- Simplify regulatory process
- Shorten application process for mineral rights
- Ensure economic policies are pro BEE mining entrepreneurs
- Eradicate corruption

7.3.2 BEE mining entrepreneurs

- Establish industry networks
- Do not have unrealistic expectations, the mining industry is complex, labour intensive, capital intensive and high risk
- Join bodies such as South African Mineral Development Association in order to have a collective voice to lobby Government
- Join clubs as geological society in order to improve technical know how
- Form syndicates in order to raise funding
• Develop a long term view of the mining industry instead of a short focus

• Consolidate your assets with other mining entrepreneurs in order, to have economies of scale and economies of scope.

• Share common costs such as metallurgist, geologists and environmentalists

• In terms of infrastructure buy equipment together to lower capital costs

7.3.3 Multi National companies and NGO’s

• Partner with BEE mining entrepreneurs in projects

• Assist with seed funding

7.4 Future Research Areas

Based on the findings of this research, and by its exploratory nature, below are a couple of potential spin-off research areas that can be investigated in the near future;

• Quantify the weighting of the above mentioned obstacles in order to understand the most important and the least important for Bee mining entrepreneurs.

• What is the optimum communication programs needed to effectively deliver government programmes to assist BEE mining entrepreneurs?

• How effective are the government initiatives at assisting BEE mining entrepreneurs?

• What are the specific roles Government, NGO’S and Civic society in assisting BEE mining entrepreneurs?
References


Department of Mineral Resources, (2010). Amendment of the broad based socio-economic empowerment charter for the South African Mining and Minerals industry


QUESTIONARRE

Question 1

What were the financial obstacles that were experienced during the growth stage?

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Question 2

Which skills were obstacles during the growth stage?

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Question 3
What were the regulatory obstacles that were experienced during the growth stage?

Question 4

Which other internal environmental factors (Micro Environment) were obstacles during the growth phase?

Question 5

Which other external environmental factors (Macro Environment) were obstacles during the growth phase?
Question 6
How would you rank the above mentioned obstacles?

Question 7
What could be done to alleviate these obstacles?
Obstacles facing BEE mining entrepreneurs during the growth stage

Dear participant

You have been selected to participate in this study due to your position and involvement in mining entrepreneurship.

The purpose of the study is to determine obstacles facing BEE mining entrepreneurs. The research is due for submission by end of July 2011.

This project research is being carried out by way of structured interviews aimed at gathering more relevant information to enhance key stakeholders decision making basis.
This study forms part of a Master in Business Administration (MBA) research project conducted by KP Ribane under the guidance of Prof Elana Swanepoel at the Gordon Institute of Business Science. You are advised that your participation is voluntary and may be withdrawn at any time without negative consequences.

You are kindly requested to complete the following questionnaire, which should not take longer than 30 minutes. Your responses and other details will be considered highly confidential and treated as such by myself and the Gordon Institute of Business Science. Responses will be analyzed, and only consolidated results will be made available.

GORDON INSTITUTE OF BUSINESS SCIENCE

MASTER IN BUSINESS ADMINISTRATION

Form for research subject’s permission

1 Title of research project:

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2 I ........................................................................................................................................ hereby
voluntarily grant my permission for participation in the project as explained to me by

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3 The nature, objective, possible safety and health implications have been explained to me and I understand them.

4 I understand my right to choose whether to participate in the project and that the information furnished will be handled confidentially. I am aware that the results of the investigation may be used for the purposes of publication.

5 Upon signature of this form, you will be provided with a copy.

Signed: ........................................ Date: ........................................

Research Subject

Witness: ........................................ Date: ........................................

Researcher: ........................................ Date: ........................................