



**AN ASSESSMENT OF THE ECONOMIC NEED FOR SMEs PLAYING A
SUPPORTIVE ROLE IN THE MINING SECTOR**

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Abstract

This study shows the economic need for SMEs playing a supportive role in the South African mining industry. The main issues are the business decision of mining companies to outsource function rather than to have it in-house, the differentiation methods mining companies used to distinguish between large companies and SMEs and BBBEE regulation.

The Delphi study method was used. A questionnaire was sent out to the group of experts. The group of experts consists of senior managers at procurement departments of mining companies. All of these companies are members of the South African Chamber of Mines.

The study showed that the need for SMEs to support the mining industry is increasing due to the increase in outsourcing, differentiating between large and small companies as well as the partnering of SMEs with HDSA's to comply with BBBEE regulations.

Keywords

South African Mining Industry, SMEs, Skills, BBBEE.

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination at any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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Date

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1 Definition of Problem and Purpose

The purpose of this study is to determine the economic need for SMEs to participate in the mining industry in a supportive role.

1.1 Introduction

In order to understand whether the economic need exists for SMEs to support the mining industry, the following three key issues will be addressed:

1.2 Business Decision: Outsource vs. In-house

Firstly, the business decision of mining companies to outsource. The demand for private companies to tender on outsourced work will have an influence on the economic need for companies to support the mining companies.

Skills are a key issue when making decisions related to the outsourcing functions of the mining companies. Mining companies do not possess the necessary artisan skills to be independent from other industries in South Africa. Mining companies do outsource a number of functions in order to keep focus on the main functions, which is mining. The quantities being outsourced however are increasing as the skill shortage increases. The additional workload being outsourced will be taken up by other tier companies. These companies will include large corporations as well as SMEs.

The South African Government has realised that SMEs are playing an important role in economic growth. Nasser et al contend that Government is attempting to play an active role in the development of SMME's in South Africa by facilitating a platform for stable macroeconomic environment. To this end Government departments have been established with the specific mandate to support SMMEs (Nasser, Du Preez, & Herrmann, 2003, p. 394). Government initiated various instruments such as Small Enterprise Development Agency (SEDA) to support and develop business skills.

With the additional outsourced work available, the market, due to the skill shortage, will result in an opportunity for an SME to enter the market. This skill set belongs to the entrepreneur.

In conclusion, the scarcity of skills will influence the quantity of work being outsourced, which in turn will increase the need or opportunity for SMEs to support the mining industry. This study will show that this proposition holds true.

1.3 Differentiating between Large Companies and SMEs

In order to establish the need for SMEs to support the mining industry it is imperative to understand how the distinction is made between large companies and SMEs. Furthermore it is important to understand the specific skill set that an entrepreneur in the SME environment should pose in order to take full advantage of new opportunities.

In addition to the supplementary outsourced work available, the entrepreneur should position itself to benefit from the growth in the need for goods or services being outsourced. The entrepreneur should possess the necessary skill set to capitalise on the market condition.

The development of entrepreneurial skills is closely related to the efforts and initiatives put in place by Government to the development of SME skills. The aim of Government is to grow the South African economy and plays an active role in development of the people.

Uzor argues that there is a need for partnership between the state, institutions and the private sector for SME development. This relationship plays an important role in economic development in general, especially in infrastructure and in capacity building (Uzor, 2004, p. 29). The contribution of the SME sector to the economy has attracted the attention of academics and policy makers in both developed and transition economies (Krasniqi, 2007, p. 71).

In the light of the initiatives, policies and strategies being implemented, South Africa is attempting to develop SMEs. Furthermore major companies in the mining sector are trying to comply with SME goals set out by Government. Uzor argues that developing SMEs play an important role in the general economy (Uzor, 2004, p. 29). Should South Africa be encouraging the development of SMEs to support the mining sector, or should the mining companies opt to supply and service their needs in-house?

The development of SMEs as a support function in oligopolistic commodity markets is encountering difficulties with regards to entry into the market. SMEs will fill the need for skills within the mining sector. Economic growth can be stimulated by the development of SMEs.

The success of an SME is not only as a result of the competence of the entrepreneurs skill set. Other factors such as high barriers to entry are directly attributed to lower levels of private sector development (Klinger & Lederman, 2011, p. 77).

1.4 Broad Based Black Economic Empowerment (BBBEE)

Furthermore, Government needs to address previously disadvantaged individuals through various initiatives and cooperation between Government and other major role players in the economy. Government originally implemented Black Economic Empowerment (BEE). This policy had various problems during implementation which led to government revising the policy to the Broad Based Black Economic Empowerment (BBBEE).

Broad Based Black Economic Empowerment consists of seven key elements, namely: ownership, management control, employment equity, skills development, preferential procurement, enterprise development and socio-economic development (The Department of Trade and Industry, 2007, p. 4). BBBEE will be discussed in more detail in Chapter 2 of this research study.

Table 1.1 The Seven Elements that Measure Your BEE Status:
Source: (Financial-Solutions, 2011, p. 1)

1.	Ownership	Who owns your company?
2.	Management Control	Who is the senior management that controls your company?
3.	Employment Equity	Do you have junior/middle and senior managers? What percentages of your employees are black? Do you employ black females at junior/middle or senior management?
4.	Skills Development	Do you spend money on training your staff? Is your training logged and calculated on an annual basis?
5.	Preferential Procurement	Are your suppliers BEE compliant? Who does the business make purchases from?
6.	Enterprise Development	What efforts does the business have in place to develop enterprises external to it?
7.	Residual	What contributions does the business make for social causes?

The mining industry is one of the cornerstones of the South African economy therefore Government works closely with the mining companies through various charters, etc. Preferential procurement which is part of the seven elements of BBBEE, clearly states that preference should be given to previously disadvantaged individuals (PDI). See table 1.2 for the procurement recognition as according to the different levels of BBBEE. Combining this factor with the other element of enterprise development, the result yields more opportunity for SMEs to enter the mining industry in a supportive role.

Table 1.2 BEE Procurement Recognition Level for BEE Status
Source:(The Department of Trade and Industry, 2007, p. 12)

BEE Status	Qualification	BEE procurement recognition level
Level One Contributor	≥100 points on the Generic Scorecard	135%
Level Two Contributor	≥85 but <100 points on the Generic Scorecard	125%
Level Three Contributor	≥75 but <85 on the Generic Scorecard	110%
Level Four Contributor	≥65 but <75 on the Generic Scorecard	100%
Level Five Contributor	≥55 but <65 on the Generic Scorecard	80%
Level Six Contributor	≥45 but <55 on the Generic Scorecard	60%
Level Seven Contributor	≥40 but <45 on the Generic Scorecard	50%
Level Eight Contributor	≥30 but <40 on the Generic Scorecard	10%
Non Compliant Contributor	<30 on the Generic Scorecard	0%

Lonmin Platinum initiated programmes to access and register historically disadvantaged BEE SMEs in 2006, and to increase their procurement from 14% to 24%(Lonmin, 2006, p. 12). The South African Government is applying pressure on the mining companies to implement BBEE, as it is the industry where Government can have the largest impact with the least amount of effort.

Lonmin is attempting to comply with the mining charter and initiated goals and targets. One of the targets for the Lonmin group is to increase procurement from BBEE companies and black owned companies. These black owned or BBEE companies must comply with the BBEE scorecard as stated in table 1.1 (Lonmin, 2006, p. 12). The website for financial solutions summarise the BBEE requirements for a SME as seen in table 1.1 (Financial-Solutions, 2011, p. 1).

1.5 Research Scope

For this research study boundaries will be defined in which the focus of the research will be kept.

Mining companies will be at the core of this study. Only the mining companies that are associated with the South African Mining Chamber of Mines will be selected to participate in the Delphi study. The main reason is that the South African Chamber of Mines is the largest and most recognized chamber for mines in South Africa and therefore the most represented.

1.6 Research Objectives

- *Does the need exist for SMEs to support the mining industry?*
- *Understand the underlying factors that contribute to the need for SMEs to support the mining industry.*
- based on the following three factors:
 - Outsource vs. In House
 - Differentiators between large companies and SMEs
 - BBBEE and HSDA

1.6.1. Economic Need for SMEs to support the Mining Industry

The theme of this study is to determine whether the need exists for SMEs to support the mining industry. This research study will analyze the primary objective with three key underlying factors.

1.6.2. Underlying Factors

In order to understand the need for SMEs to support the mining industry the study will look at three underlying factors: In-house vs. Outsource, differentiating between large companies and SMEs and the influence of BBBEE and HDSA regulation.

Firstly, the decision by mining companies to outsource certain functions to the private sector has direct influences on the demand for these private sector companies. Therefore it is important to understand the reasons why mining companies outsource or why they do not.

Secondly, the assumption that mining companies do outsource. How the mining company differentiates between large companies and SMEs will directly influence the need for SMEs in relationship to large companies.

Thirdly, the influence of BBBEE related regulation on the demand for SMEs with Government pushing BBBEE and HDSA agendas through the mining charter unto the mining companies. SMEs will have a role to play in engaging with HDSA's in partnerships to serve the mining industry in such a way that the mining companies will comply with government regulation.

1.7 Summary

This study seeks to understand whether the economical need exists for SMEs to play a supportive role in the mining industry. The role of SMEs in the mining sector cannot be ignored. The mining industry is undergoing a transition and this study seeks to understand the role that SMEs can play.

The structure of the dissertation will continue in Chapter 2 with the literature review where insight will be gained into existing theories. Chapter 3 will focus on the primary research question with supporting research questions, which will be followed by Chapter 4 where the research methodology of this study will be discussed. Chapter 5 presents the data of the study while Chapter 6 analyzes the data. Chapter 7 concludes the dissertation in a summary of the research study and answers the primary research question.

2 Theory and Literature Review

2.1 Skills

This study will use the theory of the firm as basis. Casson describes the neoclassical theory of the firm as an investment that is typically associated with fixed investment, which is combined with labour in a manufacturing process that generates material output (Casson, 2005, p. 335).

Riveiro, Alvarez, Pereira and Miranda state that in an environment with limitations, the most important constraint is land, labour, production and/or investment resources (Riveiro, Alvarez, Pereira, & Miranda, 2005, p. 477). For the purpose of this research we will refer to the forces of production as being land, capital and labour. This argument supports the statement by Casson.

Von Tunzelmann and Wang argue that the key elements of firms are the existence of a network for the supply of materials, technology and finance (working, intangible and physical capital), and a network for the supply of skilled labour. (von Tunzelmann & Wang, 2007, p. 209). All of these elements reflect the specific skill set of an entrepreneur.

Another addition to the forces of production is knowledge. Mokyr argues that knowledge should be added alongside labour, capital, land and entrepreneurship (Mokyr, 2003, p. 59). The forces of production include land, capital and labour. However Garrouste and Saussier positively argue that entrepreneurship should be included.

In this study the researcher will follow an entrepreneurial perspective on the theory of the firm (Garrouste & Saussier, 2005, p. 191).

The firm's positive resource factors are adequately summarised by Arend. A firm's resource profile includes, labour, capital, strategy, tactics, organisation, partnerships, investment, land, equipment, inventory, technology, goodwill, reputation, brand and experience (Arend, 2004, p. 1005). The above mentioned positive factors can be reduced to the following factors of production, labour, capital, land and entrepreneurship.

S.B. Prasad, Pisani and R.M. Prasad argue that markets include factor markets identified in classical economics as land, labour, capital and organisation (or management) for which there are contemporary and expanded equivalents (Prasad, Pisani, & Prasad, 2008, p. 626). Organisation or management in our research into the economic need for SMEs in the mining industry can easily be replaced with entrepreneurship which is a specific skill set unique to any entrepreneur.

Garrouste and Saussier argue with Prasad et al that the critical resource linked to the theory of the firm is entrepreneurship and it lies with the entrepreneur. They state that when the critical resource cannot be protected by property rights, a deep (or vertical) hierarchy is not able to avoid the possibility that the subordinates may attempt to expropriate the entrepreneur (that is the individual who possesses these critical resources) (Garrouste & Saussier, 2005, p. 191).

Casson argues that the inclusion of land as part of the capital investment is redundant. Although an entrepreneurial venture requires offices, shops and warehouses, all of these forms of land and capital can easily be rented or leased. They are not, therefore, specific irreversible investments (Casson, 2005, p. 337). Buckley on the other hand argues that the forces of production are labour and capital, and that land is the limiting factor. He argues that the forces of production, labour and capital, are freely mobile inside a given country, but are lacking the external freedom of mobility (Buckley, 2011, p. 62). Therefore land is a limiting factor, which is in contrast to the statement made by Casson.

Government is continuously attempting to increase the skill level of South Africans, especially in small business development. The National Small Business Act of 1996 of South Africa was enacted by the Parliament of South Africa with the purpose to provide for the establishment of the National Small Business Council and the Ntsika Enterprise Promotion Agency and to provide guidelines for organs of state in order to promote small businesses in the Republic and to provide for matter incidental thereto (South African Government, 1996, p. 1). The Ntsika Enterprise Promotion Agency does not exist anymore as it has evolved into various other programmes and currently into the Small Enterprise Development Agency, SEDA. The role of SEDA is similar to the Ntsika Enterprise Promotion Agency. SEDA is an initiative managed by the Department of Trade and Industry.

SEDA was established in December 2004 by the merging of three organisations: Ntsika Enterprise Promotion Agency, National Manufacturing Advisory Centre (NAMAC) and the Community Public Private Partnership Programme (CPPP). Later in April 2006 the GODISA Trust and the Technology Programmes were integrated into SEDA in April 2006, becoming SEDA Technology Programme (STP). The function of SEDA is to provide business development and support services for small enterprises through its national network in partnership with other role players. SEDA implements other programmes and initiatives targeted to develop business in areas prioritised by the Government (SEDA, 2011, p. 1).

Additional initiatives to increase SMEs in South Africa are planned and executed by the Department of Trade and Industry. Objectives of the DTI initiatives are job creation, stimulation of competitiveness and growth of gross domestic product (GDP). Additional initiatives through policies and strategies include, Micro Economic Reform Strategy, Accelerated and Shared Growth Initiative South Africa (ASGISA), Draft Regional Industrial Development Strategy (RIDS) and Broad National Industry Policy Framework. More practical initiatives include Cooperative Strategy and Youth Enterprise Strategy. Various institutional bodies were formed such as Small Business Development Agency (SEDA) for non-financial support, SEDA Technologies for technology support, South African Micro-Finance Apex Forum Fund for micro enterprise finance and Khula Enterprise Finance for SME finance.

Other initiatives, policies and strategies include the micro-economic reform strategy, black economic empowerment strategy, national strategy for the development and promotion of franchising in SA, strategic framework on gender and women's economic empowerment, co-operatives policy and development draft strategy and draft strategy framework for forestry enterprise development (The Department of Trade and Industry, p. 16). All of these initiatives have the same goal and that is to develop skills.

2.2 Small and Medium Enterprises

A key constraint to the development of skills is finance. To incubate a start-up company is cash draining in the beginning. It is defeating the object if the Government develop skills and the new skill set result in failure as a result of a lack of finance. Therefore the Department of Trade and Industry initiated various incentive schemes to accommodate the finance problem experienced by many start-up companies. Firstly there is a Black Business Supplier Development Program (BBSDP) which is a cost sharing grant offered to assist black-owned SMEs to assist them to improve competitiveness and sustainability to create employment and become part of the main stream suppliers.

Secondly there is a Co-operative Incentive Scheme (CIS) which allows a grant that pay a ratio of 90:10 to registered members to acquire competitive advantage in emerging markets. This is only applicable for 5 members cooperating to gain competitive advantage.

Other initiatives include the SEDA Technology Programme (STP) which is a division of SEDA that focuses on the development of SMEs but also responsible for the provision of both financial and non-financial technology transfer, business incubation and quality support service for small entrepreneurs.

As expected the availability of finance is not infinite. The Small Medium Enterprise Development Program was suspended on 31 August 2006, and therefore no new application will be considered (The Department of Trade and Industry).

In the literature there exists a fallacy with regards to SMEs and entrepreneurs. An entrepreneur is often defined simply as the founder or owner-manager of an SME. The theory of entrepreneurship, however, does not require people to found new firms in order to become entrepreneurs. Anyone who specialises in taking judgemental decisions is qualified for the role. (Casson, 2005, p. 339). The opposite is also true as a non-entrepreneurial individual can also found a new firm.

There are three steps in entrepreneurship: why, when and how the need exist in order to fully understand the existence of the opportunity. Secondly is to understand why, when and how some people are better situated than others to exploit the opportunity. Finally the how of exploiting the opportunity, different actions of exploiting will yield different results in exploiting the opportunity.

Shane and Venkataraman define entrepreneurship as the examination of firstly the why, when and how opportunities for the creation of goods and services come to existence. Secondly, why, when and how some people and not others exploit these opportunities. Thirdly, why, when and how different modes of action are used to exploit entrepreneurial opportunities (Shane & Venkataraman, 2000, p. 218). I would explain it by using the BBEE preferential procurement as an example. Firstly, the why, when and how the opportunity was created by Government to set right the wrongs done in the past. This opportunity is clearly not a once-off opportunity and will be sustainable in future. Secondly, why, when and how some people exploit it better than others. There might be a shortage of skill set for any PDI to endeavour into the opportunity. It might be that the working relationship between potential shareholders or management cannot function as a result of racial motivators, etc. Finally, the reason why some exploitation methods yield better results than others. One such a method is to partner with the best candidates that will position the company better to gain the most from the situation.

Opportunity recognition, stimulated by the prospect of profit, encourages entrepreneurs to seek out the projects which help the economy to adapt to changing conditions. Therefore in economic unstable times, entrepreneurs tend to select projects that are also enabling the economy to adapt to the changing conditions (Casson & Wadeson, 2007, p. 286). The recognition of opportunities in itself is a unique skill set attributed to an entrepreneur.

Entrepreneurial thinking enables a firm to create new markets that does not exist. Dew et al states that markets can be created when the firm acts entrepreneurially through actions and decisions made in an uncertain economic environment (Dew, Read, Sarasvathy, & Wiltbank, 2008, p. 57). Therefore with the right entrepreneurial mindset, the entrepreneur can create new markets to sustain the company.

There are different definitions of SMEs. These not only differ from industry to industry but also from country to country. Definitions used for statistical purposes can vary from those used for political or program purpose (for example, to determine eligibility for special assistance). Definitions vary by industry, with manufacturing usually having a larger cut-off than, say services industry SMEs. The most common criterion is the number employed, but capitalisation, assets, sales or turnover and production capacity are also used by various economies. (Journal Enterprising Culture, 2003, p. 173). See table 2.1 for a comparison between different countries with regards to classification of SMEs according to number of employees.

Table2.1 SME Definition per number of employees per country.
Source (Journal Enterprising Culture, 2003, p. 179)

	Number of Employees			SME
	Micro	Small	Medium	
Australia	<5	5-20	20-200	N/A
Brunei Darussalam	<5	6-50	51-100	N/A
Canada Goods	N/A	<100	101-500	<500
Canada Service	N/A	<50	51-500	<500
Chile	<4	5-49	50-199	N/A
Hong Kong Manufacturing	N/A	N/A	N/A	<100
Hong Kong Non-Manufacturing	N/A	N/A	N/A	<50
Indonesia	<5	5-19	20-99	N/A
Japan Manufacturing	N/A	N/A	N/A	<300
Japan Wholesale	N/A	N/A	N/A	<100
Japan Services	N/A	N/A	N/A	<100
Korea Mining Manufacturing and Transport	N/A	<50	51-300	N/A
Korea Construction	N/A	<30	31-200	N/A
Korea Commerce and other Services	N/A	<10	11-20	N/A
Malaysia	N/A	N/A	N/A	<150
Mexico	<30	31-99	100-500	N/A
Philippines	N/A	<99	100-199	N/A
Russian Federation	<10	10-99	100-500	N/A
Singapore	N/A	N/A	N/A	<200
Chinese Taipei Manufacturing, Construction, mining and Quarrying	N/A	N/A	N/A	<200
Chinese Taipei Commerce, Transport and other Service	N/A	N/A	N/A	<50
Thailand	N/A	<50	50-200	N/A
USA	N/A	N/A	N/A	<500
Vietnam	N/A	<30	31-200	N/A

For the purpose of this study the researcher will utilise standard classification for SME. A very small company will comprise 5 to 19 staff, a small enterprise will comprise of 20 to 49 and a medium enterprise will comprise of 50-199 employees. This is based on the classification as set out by the National Small Business Act of 1996 in South Africa.

South Africa also classifies SMEs according to total turnover and total gross assets excluding property (South African Government, 1996, p. 12)

Table 2.2 SME Definition as per the National Small Business Act of 1996 of South Africa

Source: (South African Government, 1996, p. 12)

Sector or Sub-Sector in Accordance with the Standard Industrial Classification	Total Full-Time Equivalent of Paid Employees. Less Than			
	Medium	Small	Very Small	Micro
Agriculture	100	50	10	5
Mining and Quarrying	200	50	20	5
Manufacturing	200	50	20	5
Electricity, Gas and Water	200	50	20	5
Construction	200	50	20	5
Retail and Motor Trade and Repair Service	100	50	10	5
Wholesale Trade, Commercial Agents and Allied Services	100	50	10	5
Catering, Accommodation and other Trade	100	50	10	5
Transport, Storage and Communications	100	50	10	5
Finance and Business Service	100	50	10	5
Community, Social and Personal Service	100	50	10	5

When conditions of low or no economic development exist, there may be barriers that are thwarting entrepreneurs in their initiatives to invest, widen and grow their business and to employ more people. When the barriers that prevent the growth of entrepreneurs can be identified and clearly understood, only then can strategies be created and choices considered (Ivanovic, 2003, p. 90).

Empirical literature on entry behaviour, based on theoretical arguments, emphasise structural and strategic barriers to entry as the main determinants of entry rate within an industry (Yang, 2007, p. 1818). Therefore barriers to entry can differ from industry to industry.

2.3 Broad Based Black Economic Empowerment (BBBEE)

Short coming of the narrow-base BEE became apparent towards the end of the nineties. A need emerged for a more inclusive approach for empowerment to accelerate the implementation of economic empowerment. As a result a strategy for Broad Based Black Economic Empowerment was released in 2003(The Department of Trade and Industry, 2007, p. 4). This strategy not only defined Broad Based Black Economic Empowerment but also outlined the first broad based BEE scorecard comprising of the seven elements as shown in table 2.3.

Table 2.3 The Seven Elements and Weightings of the Broad Based Black Economic Empowerment Strategy
Source:(The Department of Trade and Industry, 2007, p. 4)

ELEMENT	POINTS
Ownership	20
Management Control	10
Employment Equity	15
Skills Development	15
Preferential Procurement	20
Enterprise Development	15
Socio-Economic Development	5
TOTAL	100 POINTS

The scorecard rates the level of compliance to BBBEE. These ratings will be taken into consideration when:

- Determining qualification criteria for the granting of licences and concessions
- Developing and implementing a preferential procurement policy
- Determining qualification criteria for the sale of state owned enterprises
- Developing criteria for entering into partnership with the private sector

For the purpose of this study the main focus will be on the first two considerations(The Department of Trade and Industry, 2007, p. 4).

Mining companies is forced to comply with the BBBEE requirements to sustain the future existence of the mine. Should the mine not comply with BBBEE strategy it will negatively affect the future mining rights and licences required to continue mining. Therefore the mining companies must comply with BBBEE strategy. This means that they are forced to implement a preferential procurement policy. The implementation of preferential procurement will have an effect on the economic status of the mining company. For this study we will accept that preferential procurement is a reality and that it increases the opportunity for SMEs that comply with BBBEE regulations to enter the mining industry, playing a supportive role.

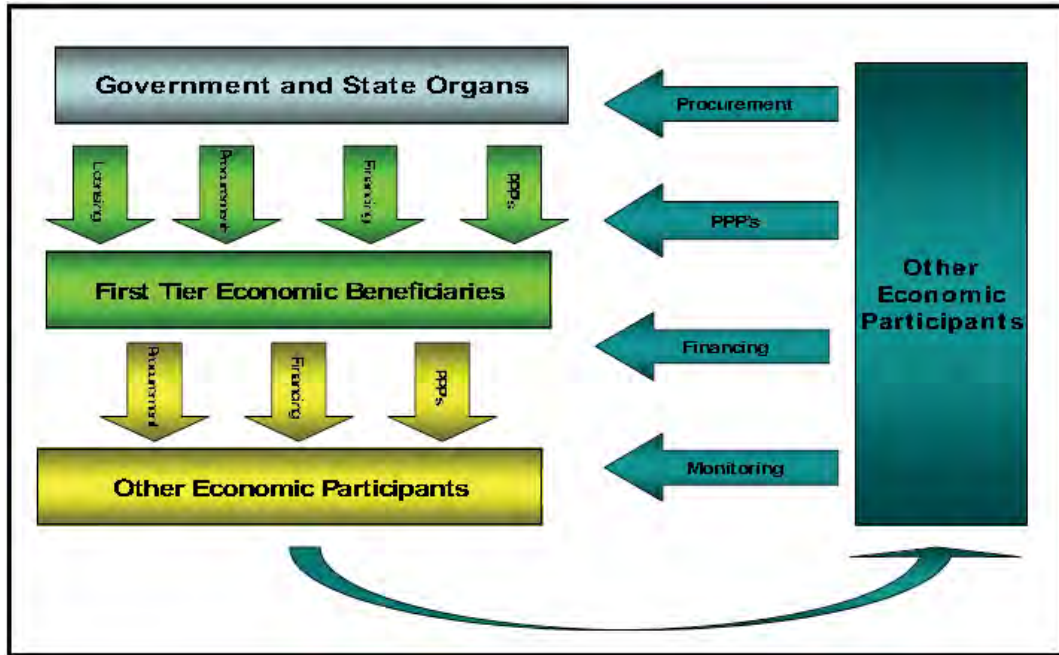
The BBBEE Act also allows for SMEs with an annual turnover of less R 5 million to automatically receive BBBEE status of a minimum of Level 4 (The Department of Trade and Industry, 2007, p. 7). The reason for this is that a SME with turnover of less the R5 million per year cannot deal with the financial burdens and fluctuations. Although to comply with the BBBEE is encourage by a light level of BBBEE that will increase the procurement recognition of the mining industry. Therefore should a SME with a turnover of less than R5 million comply with the BBBEE Act, their procurement recognition is higher and therefore more preference will be awarded to that specific company.

Since 2007 the Code of Good Practise on BBBEE is applicable and binding to all organs of state and public entities. This means that Government must apply these codes to the following areas:

- Procurement
- Licensing and concessions
- Public private partnerships
- The sale of state-owned entities

Again for this research the first two areas are of importance. Diagram 2.1 clearly shows the implementation levels for the application of the codes (The Department of Trade and Industry, 2007, p. 8).

Diagram 2.1 Implementation Levels for the Application of the Codes
 Source:(The Department of Trade and Industry, 2007, p. 8)



Nasser *et al* argues that with rising unemployment, large-scale redundancies and little prospect of dramatic positive growth in the corporate sector, the emphasis soon shifted to facilitating the job creation potential of small, medium and microenterprises. Even though Government interventions such as the Reconstruction and Development Programme (RDP) and the Growth, Equity and Re-distribution (GEAR) policies focused on creating macro-economic stability, they have also been used as a platform for encouraging entrepreneurial activities in the SME sector (Nasser, Du Preez, & Herrmann, 2003, p. 395)

While the South African economy is stagnating, with a new political order and more black economic empowerment emphasis the country has taken the opportunity at this time to inject a new sense of vigour and commitment to supporting the entrepreneurial activities especially among SMME in the country(Nasser, Du Preez, & Herrmann, 2003, p. 396).

On a lower level, the Mining Qualifications Authority released a scarce skills guide whereby they identify and address scarce skills in the Mining and Mineral Sector. In this guide serious skill shortages in key occupations are evident. The Mining Qualifications Authority (MQA) intervenes with industry to align organisations to address the skill shortage(Mining Qualifications Authority, 2010, p. 2).

The MQA states that preference is given to previously disadvantaged individuals in their alignment of industry to address the skills shortage. Therefore the development of skills is reserved for the development of previous disadvantaged individuals.

In effort to speed up transformation in South Africa the Government implemented the mining charter through the Department of Minerals and Energy (DME). The mining charter defined a joint ventures or partnerships as the smaller owner holding a share of 25% plus 1 share(Department of Minerals and Energy, 2009, p. 3). The mining companies further agreed to achieve 26% ownership by historical disadvantaged South Africans (HDSA) of mining industry assets (Department of Minerals and Energy, 2009, p. 6).

Fauconier and Mart-Helm states that the South African government implemented broad based black economic empowerment (BBBEE) as a nation building strategy. The Act intends to empower all blacks which include Africans, Coloureds and Indians. The strategy is based on Broad-Based Black Economic Empowerment Act No.53 of 2003 in conjunction with its Associated Charters, the Codes of Good Practise and various scorecards(Fauconnier & Mathur-Helm, 2008,39(4), p. 1). This leads to most mining companies adopting an employment equity framework.

3 Research Question

The primary research question is:

Does an economic need exist for South African SMEs to play a supportive role in the mining sector?

3.1 Determining Factors

Various factors will influence the primary research question. This study will focus on the following factors to determine whether there is an economical need for SMEs to support the mining industry.

3.1.1. Outsource vs. In House

Mining companies have to make the decision to produce goods or services in-house or outsource it. The fact is that mining companies in South Africa do outsource. The reasons and volumes of work that is outsourced by the mining companies will have an effect on the demand for companies to tender on these projects.

It is important to understand the drivers behind outsourcing. The one argument is that it makes economical sense to outsource to gain economies of scale and to better efficiency. The counter argument would be that better service at lower cost could be incurred when increasing capacity and fulfilling the needs in house.

3.1.2. Differentiators between Large Companies and SMEs

The mining companies also have the choice of type of company to outsource to. They have two options: large companies or SMEs. The study will show the reasons why mining companies prefer one to the other. Therefore it is important to understand on which basis the mining companies distinguish between a large company and an SME.

3.1.3. Effects of BBBEE and HDSA

Government agenda is pushed through to the mines in various forms such as BBBEE legislation and the mining charter. These Government initiatives will have an influence on the volume and magnitude of SME engagement. Therefore in order to answer the primary research question the effects of Government regulation must be clear.

3.2 Research Questions

The following hypothesis and research questions will be analysed in this study:

The null hypothesis ($H1_0$) would be:

The economic need does not exist for SMEs to play a supportive role in the mining sector.

Then again the alternative hypothesis ($H1_1$) would be:

The economic need exist for SMEs to play a supportive role in the mining sector.

Table 3.1 Research Questions

Type	Description
Primary Research Question	Is there an economic need for SMEs?
Research Question 1	Is outsourcing a viable option?
Research Question 2	How mining companies differentiate between large companies and SMEs when outsourcing functions?
Research Question 3	What is the effect of government policies on BBBEE and HDSA on the mining company?

4 Research Methodology

4.1 Methodology

Insight into the reasons for mining companies deciding to outsource particular functions to external companies, therefore this study will be qualitative. For the purpose of this study, the Delphi technique was used. The Delphi techniques are generally considered to be reliable and valid end products are produced (Engels & Kennedy, 2007, p. 433). Cheng and Cheng define a Delphi study as a method for the systematic collection and aggregation of informed judgements from a group of experts on specific questions or issues (Chen & Cheng, 2010, p. 2163).

The Delphi method is used to tackle real world decision problems in a systematic interactive forecasting methodology, which relies on a panel of independent experts without face to face meetings taking place. The Delphi methodology is a suitable tool in group decision-making to gather expert opinions and using it to iterate with feedback until a consensus is reached or a pre-defined criteria is reached about a specific question or issue (Chen & Cheng, 2010, p. 2163). Therefore the researcher concluded that by using a Delphi study, the best insight into the problem will be gained by extracting information from experts in the field of mining procurement.

In the execution of the Delphi method, carefully selected experts will answer questionnaires in an iterative approach, which involve two or more round of iterations.

The process of a Delphi method can be described as follows:

Firstly, clearly define the problem and develop a questionnaire with a structured process with respect to the problem. Secondly, organise a group of participants (about 10-15) to provide input, which form the panel of experts and who are all anonymous in this study. Each participant is asked to complete a questionnaire, and the results are then gathered together. These aggregated results are given back to each member of the expert panel. If the view from an expert differs from the other views, the expert will be asked to revise their opinion or state why the expert will not change the opinion. This process is repeated iteratively and stopped when consensus is reached among the experts or until pre-defined criteria is reached (Chen & Cheng, 2010, p. 2163).

The questionnaire was sent to the South African Chamber of Mines which in turn sent it out to senior management of the procurement department of all of their member companies. Feedback from the participants was returned via the South African Chamber of Mines. The data was analysed and data that seemed to be unique or vastly different from the other answers was identified. These vastly different data were returned to the original participant, where the participant had the opportunity to either revise the data or explain the relevant data. The data was updated.

4.2 Nature of Study

This study will be cross sectional and exploratory study of SMEs playing a supportive role in the mining industry. The study shows the research problem as well as a proposition. The study is cross sectional because it is carried out at once and represents a snap shot of one point in time(Blumberg, Cooper, & Schindler, 2008, p. 199).

A questionnaire will be used to do a qualitative exploratory study. Causal and exploratory questions will be used to explore the research topic.

4.3 Objective of the Study

The main objective of the study is to determine whether there is an economical need for SMEs to support the mining industry. The following objectives will be researched:

Firstly to determine what percentage of the total annual expenditure of a mining company is spent in-house and how much is spent with suppliers. Secondly to determine the split between the amount spent with SME suppliers versus the amount spent with large company suppliers as well as the drivers for differentiating between the respective companies. The third objective is to determine the drivers behind the decision to outsource some of the functions of a mining company. The study also aims to find out how much procurement expense goes towards BBBEE and some exploratory questions on whether it is in the best interest of the company.

The final objective is to determine whether there is a need for SMEs as a supporting role at the mining companies. The study also explores possible reasons for the need as well as quantifying how much need is there for SMEs.

4.4 Proposition

The proposition that the study makes is that the need for SMEs playing a supportive role in the mining industry will increase as the level of skills available to the mining companies decrease. When BBBEE requirements and the Government's Mining Charter is added to the skills scarcity, the need for SMEs will increase in equal proportions.

4.5 Population & Sampling

The population of the study will be all the mining companies in South Africa, while the sample will only consist of senior procurement managers of mining companies that are members of the South African Chamber of Mines.

The unit of analysis for this study was senior procurement managers of the mining companies that are members of the South African Chambers of Mines.

This sample will serve as the group of experts for this study.

Questionnaires were distributed and collected by the office of the South African Chamber of Mines.

4.6 Questionnaire

The questionnaire was designed to seek insight into the procurement strategies of mining companies it was also designed to access information without personal perspective or feelings. The questions in the questionnaire will as far as possible aim to eliminate any ambiguity in the questions. The questions are design is such a manner that previously asked questions will be reviewed to ensure a bigger picture of the data is always in the participants mind.

The questionnaire covered 5 sections:

4.6.1 **General Mine Detail**

Questions 1 & 2 are designed to establish background onto the size and nature of the respondent.

4.6.2 **Large Companies versus SMEs**

Questions 3is designed to group the total annual expenditure into the first main category, in-house and supplier. Secondly the expenditure spent on suppliers is categorized according to large companies and SMEs. This will supply sufficient information to determine the current activity of work done by suppliers and more specific by SMEs in the mining industry.

Question 4 is exploring the differentiating factors between large companies and SMEs with regard to awarding or considering companies for a specific function.

4.6.3 **In-house versus Outsource**

Question 5 explores whether the mining company engages in outsourcing or whether they keep all the function in-house. Question 6 explores reasons why mining companies prefer to outsource should they opt for outsourcing.

4.6.4 **BBBEE / Mining Charter**

Question 7 explores the mining company's commitment towards BBBEE and other government programmes.

Question 8 explores whether the mining companies are achieving BBBEE targets.

Question 9 follows on Question 10 exploring the reasons why the mining company is not achieving the BBBEE targets should they not achieve the targets in question.

4.6.5 **SMEs**

Question 10 explores the ideal balance between large companies and SMEs.

Question 11 explores the percentage of procurement spent with BBBEE SMEs that did not meet the expectation or requirements.

Question 12 is a direct question as to the economical need for SMEs to play a supportive role in the mining industry.

Question 13 explores the specific role that SMEs can play should there be a need for SMEs.

Please see Appendix 1 for the questionnaire.

4.7 Limitation

This Delphi study was done on a single industry in South Africa. Limitations exist on the application from these results in other industries and countries.

Further limitations are the direct link to current socio-economic and political environment. Political and socio-economic factors of South Africa are unique heavily influencing the decisions made by companies in the mining industry in South Africa. Therefore the results of this study might not be applicable to other scenarios with different environmental factors.

5 Results

5.1 Questionnaire Results

The questionnaire results are displayed by category as described in Chapter 4.

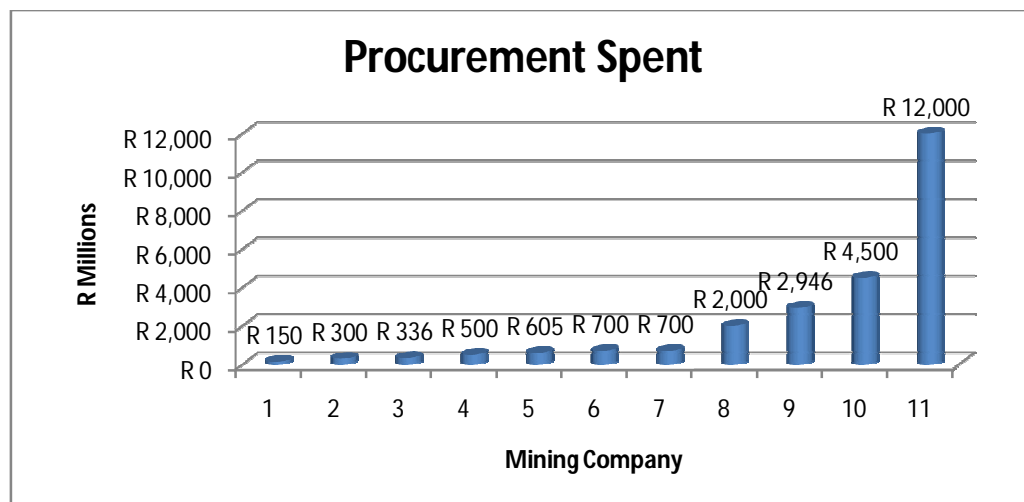
The following results were received:

5.1.1. General Mine Detail

This section of the questionnaire sets the backdrop to the study. The job titles of the candidates vary from experienced procurement managers to senior business process improvement specialists.

The annual procurement spent by each mining company provides a scale to position the different companies by size. The smallest company spent R 150 million in comparison to the largest company that spent R 12 billion. Graph 5.1 represents the value of annual procurement spent by each of the companies.

Graph 5.1 Annual Procurement Spent of Candidate Companies



The candidates were not required divulge the procurement spent accurately to the cent as it is only used to scale the size of the companies.

5.1.2. Large Companies vs. SMEs

The existing annual procurement spent of the candidate companies is categorised into the following categories: large companies, SMEs and SMEs that is BBBEE compliant. The data is represented as a percentage of the annual procurement spent. This allows for comparison between the companies without taking into account the size of the companies and the amount they spent on procurement.

The data clearly show that the majority of all the companies' annual procurement spent is spend with large companies. The percentage of annual procurement spent, spent with large companies range from 40% to a high of 97%. Reasons for this will be discussed in Chapter 6. Table 5.1 shows the combination of types of companies that the candidate companies spent their procurement budget.

Table 5.1 Percentage of Annual Procurement Spent by Types of Companies

Large Companies	SME	SME (BBBEE compliant)
97%	3%	*
40%	5%	55%
51%	23%	26%
64%	10%	26%
50%	20%	30%
50%	5%	45%
20%	60%	20%
60%	10%	30%
60%	10%	30%
65%	9%	26%
50%	10%	40%

* The candidate company does not differentiate SMEs by BBBEE compliance. The company has a 55% BBBEE compliance throughout their supplier base.

The data further shows that candidate companies differentiate between making use of a large company and a SME. The companies differentiate on various different basis. The following differentiators were discovered:

- Mining Charter Agreements

In the mining charter Government and companies agreed to commit to a progression of procurement from HDSA companies. Therefore the candidate mining companies are forced to procure from HDSA companies which are more concentrated in the SME environment.

- Development Programs

As part of the mining charter agreement some candidate mining companies bought into development programs such as the Royal Bafokeng Supply Development Program.

These development programs earmark areas of procurement that is reserved for local SME companies. These areas of procurement typically involve less critical projects.

- Price Structure

SMEs tend to have a lower cost structure. SMEs also have less resources in comparison with large companies that have much more resources but is accompanied with higher cost structures. Therefore smaller and less specialised projects tend to favour SMEs while larger and more specialised projects tend to favour large companies. This will be dealt with in more detail in Chapter 6.

- Tender Requirements

Larger projects that are put on tender require specific guarantees from the company tendering. Therefore on large projects the requirements to be able to tender is out of reach of the SME company.

This data was sent back to the candidates to either confirm the data or to explain why the candidate did not agree with the statement. A single candidate did not accept these four reasons for differentiating between large companies and SMEs. The company's response is based on the fact that they do not differentiate between large companies and SMEs.

The mining companies differentiate on different basis between large companies and SMEs. The literature review suggests that differentiation between large companies and SMEs should be done on the basis of number of employees.

From the data collected in the questionnaire very different methods of differentiation were gathered. On the second round of questionnaires the different differentiating methods was send for the candidates to either accept the answers or explain why they don't. All the candidates accepted that the different differentiators are possible but none of the candidates were willing to change their data stating the reason that this is the way their company differentiates. From the discussion with the candidates it is easy to distinguish between large companies and SMEs. There are no companies in the grey area as the suppliers are either clearly a large company or a SME.

The following differentiators were collected:

- Price basis

Mining companies differentiate between large and SME based on the order value. This order value differs between mining companies.

- Tender Requirements

Tender requirements mainly for large projects are to resource hungry and therefore SMEs decline to tender or cannot meet the minimum requirement. On this basis some of the mining companies differentiate between large companies and SMEs.

- Development programs

Certain procurement sections are earmarked for HDSA SMEs. All suppliers on this list are identified as SMEs.

- Manufacturing and Services

Mining companies also distinguish between large companies and SMEs based on the product it delivers. This method is only a rule of thumb or a guideline. Companies that manufacture goods normally have large staff compliment and therefore can be classified as a large company while companies that supply a service normally have a smaller staff compliment and therefore can be classified as a SME.

Important to note is the fact that none of the companies used number of employees as a method. This is in contrast with the literature study.

One of the candidate companies did not partake in the second round as the specific mining company does not differentiate between large companies and SMEs.

5.1.3. In-house vs. Outsourced

The data shows that all the candidate companies make use of outsourcing. The first round of questionnaires had multiple reasons for outsourcing. The original data was aggregate into the following reasons:

- Not core to the company

The candidate companies outsource activities that are not core to their focus, which is mining. This allows the mining company to stay focus on the areas of expertise.

The mining companies differentiate between cost that are directly linked to the mining operation and then project cost that are link to the supporting services and equipment that support the mining operation. The candidate companies keep cost associated with operations in house, while the project orientated cost is outsourced.

- Lack of Skills

Not only does South Africa face a scarcity of skills, more so does the mining industry. The lack of skills forced the mining companies to outsource certain functions to other companies that possess the expertise and skills.

- Efficiency

Economy of scale is the main driver behind outsourcing fast moving consumer goods. By pooling resources to a centralised structure, the mining company now have more negotiating power with suppliers. This stands directly in contrast with what government is trying to create with the mining charter. Chapter 6 delves into more detail on the matter.

- Special Requirements

The nature of certain projects makes it extremely specialised and these projects is not only outsourced to other companies, but outsourced to specialised companies. These companies are typically in a niche market.

- Reduce Risk

The mining industry is built on safety critical projects and therefore has inherent risk. By outsourcing these types of projects, the mining company is not only outsourcing the risk but also outsourcing the risk. The strict governance implemented by the Department of Minerals and

Energy increased the burden on the mine to adhere to safety regulations. Not complying to these safety regulations can result in mines closing down. With the risk involve most mines manage these risks by outsourcing to companies that are experts in these fields.

- Decreased Staff Compliment

In the economic down turn it is not unusual for companies to scale down, retrench staff and to do more with less. The mining companies are no different. The result is that the resource that fulfilled a function is removed while the need for the function still exists. Outsourcing is a solution to still have the function without the staff compliment. Efficiency plays a large role in the business decision to reduce staff compliment and opt for outsourcing.

- Mining Charter

Government and the mining companies agreed to the commitment of increasing HDSA spent. Therefore outsourcing allows the mining company to comply to government demands while it can also satisfy business decisions made. The implementation of successful integration between the mining companies and the HDSA companies still has teething problems, this can be seen in the percentage of SME projects that has not met the expectations of the candidate mining company.

The aggregated data was send back to the candidates in the second round. All the candidates accepted the reasons to outsource.

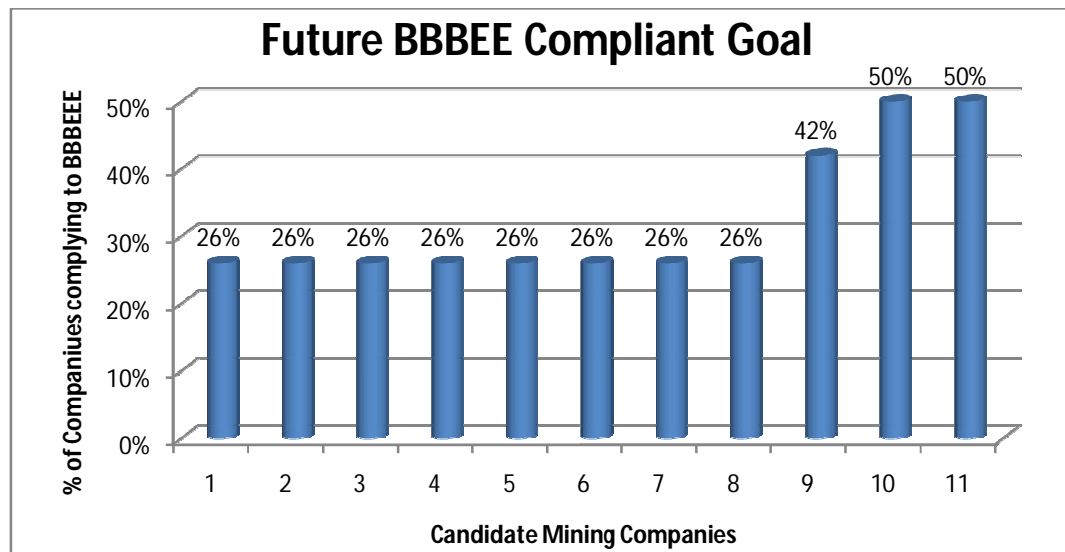
5.1.4. BBBEE / Mining Charter

The mining charter is an agreement between mining companies and Government. One of the goals of the mining charter is to achieve a 26% HDSA ownership of the mining industry assets. The mining charter recommends that partnerships between HDSA and companies are created in order to comply with the mining charter. The partnership route is the least disruptive method of implementing the mining charter. This can be seen by the sheer number of procurement spent by SMEs which are BBBEE compliant versus the minute number of SMEs which is not BBBEE compliant.

The mines forced the mining charter onto its suppliers by implementing vendor rules. Post implementation of the mining charter only BBBEE compliant vendors can be registered. Exceptions are made in extreme situations where scarce skills are the differentiation factor.

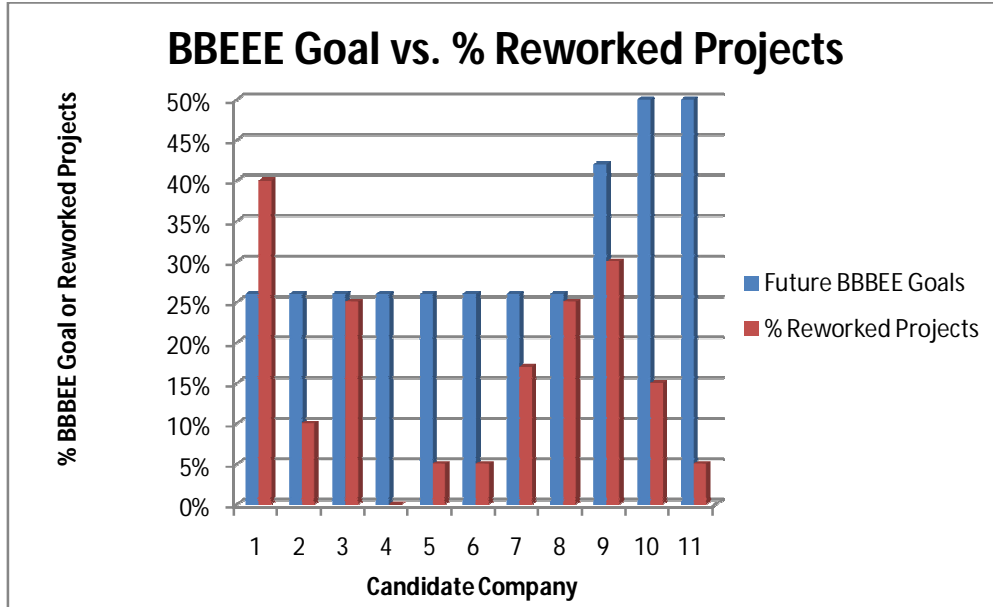
The data clearly shows that all the candidates are compliant to the mining charter in respect to HDSA ownership. There is mixed feelings with regard to the future goal of BBBEE companies for the different candidate mining companies. The majority of the companies just want to satisfy the mining charter.

Chart 5.2 Future Goals for Vendor Companies Complying with BBEE



The reason for some candidates opting to just comply with the mining charter and others exceeding the mining charter seems to be random. Original thoughts were that there is a relationship between percentage of BBEE compliant company projects that needs to be reworked and the future goals for BBEE compliant companies. The reasoning is that companies with a high percentage of unsatisfied projects from BBEE compliant companies will be less inclined to exceed the mining charter expectations. Graph 5.3 shows the relationship between the future BBEE goals and the percentage of unsatisfied project. It is clear that there is no relation.

Graph 5.3 Comparison between Future BBEE Goals and % Unsatisfied Projects



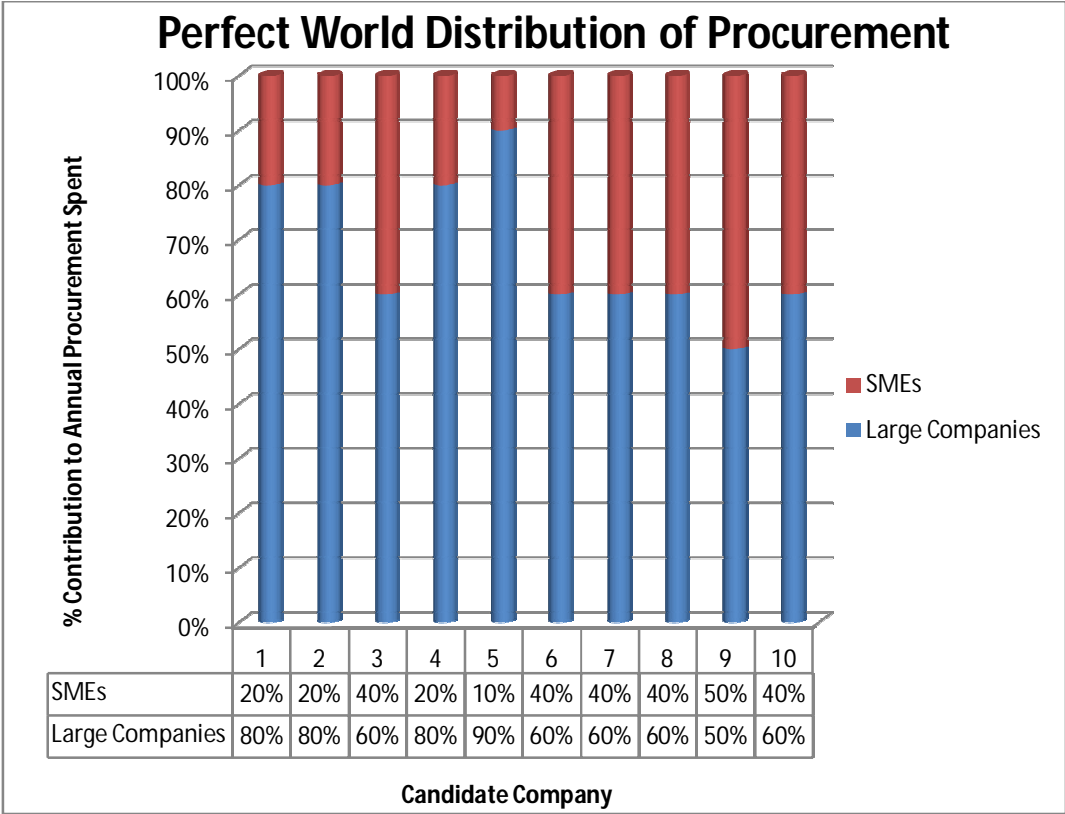
One of the candidates indicated that they have a zero percentage of projects started by SMEs that are not satisfactory. The reason for this is that they screen potential vendors very carefully. By spending resources in vendor application process the failure of vendors and the failure of subsequent projects are reduced.

5.1.5. SMEs

From the questionnaires it is clear that there is a definite need for SMEs to play a supportive role in the mining industry. All candidates indicated that SMEs play a key role in the success of the mining companies.

In a perfect world the data from the candidates point to the largest percentage of procurement spent should be allocated by large companies. The compelling reason is that most of the large projects that are outsourced require a large amount of resources in order to complete the project. SMEs are not geared to complete such large projects. Graph 5.4 shows the ideal world distribution of annual procurement spent.

Graph 5.4 Perfect World Distribution of Annual Procurement Spent



Various roles for SMEs were identified. The following roles were identified from the first round of questionnaires:

- Localised Advantage

SMEs service a smaller market, therefore a SME can geographically be located close to a mining area. This inevitably means that the SME can only service a limited number of mining companies. This localised advantage increases the service level as well as reduces the cost significantly.

- Price

SMEs have a lower cost structure as opposed to large companies. The down side of having a smaller and less expensive operation is limited resources. Therefore the pricing structure for SMEs can be cheaper than large companies. However this only holds true for certain projects, which mainly consist of fast moving consumables, less specialised products and or services. Therefore the SME located close to the mine will have a price advantage over large companies on certain projects.

- Service

SMEs are mainly managed by the owners, therefore the service level and enthusiasm is higher than most large companies. The entrepreneurial skill set and attributes is the main reason. Combined with locality as an advantage, the SME company is better suited to serve the mining company better at certain projects.

- Mining Charter Requirements

One of the goals of the mining charter is to enter historically disadvantage South Africans into the economy. To achieve this goal agreements between government and the mining companies are trying to increase the HDSA ownership of vendors of the mines to a higher level. SMEs and more specifically SME/HDSA partnerships serves this purpose well. This adds to the social development of communities around the mines.

- Social Development

SMEs play a great role in the development of communities. By increasing the SMEs within the community, more local HDSA's are employed and trained. A mutual beneficial relationship is established. The local community benefits while the mine benefits from the skills development and government benefits from lower unemployment rates.

5.2 Skills

It is clear from the data that the lack of skills is one of the drivers behind outsourcing. The lack of skills is further enhanced by downsizing and retrenchments.

The lack of skills is substituted by outsourcing the specific function. This will increase the demand for SMEs and large companies. Although there is a perception that in a perfect world, SMEs should be responsible for a smaller contribution of the total annual spent than it is currently enjoying. The difference is small.

Due to economies of scale, special expertise necessary on projects such as safety critical projects is not available in house. This is not a new happening, it is rather the first move to outsourcing. The amount of work to be outsourced from these types of projects will continue.

The lack of training of new skills is a further concern. There is no steady inflow of a young qualified workforce to replace the old qualified workforce that is nearing retirement. This results in the skilled workforce consisting of older people. The end result in the long term would be a gap in skilled and qualified workforce. This lack of skills will need to be filled. Outsourcing is the obvious solution to this problem for mining companies.

Therefore the downsizing of staff compliment, the lack of special skills and expertise and the lack of training of the youth will be drivers of outsourcing. The result is that the demand for companies to support the mining industry will increase.

5.3 SMEs

Due to the increase in demand for companies to support the mining industry, new opportunities arise for SMEs to take advantage of the opportunities. SMEs will have certain advantages over large companies in certain projects while vice versa is also true for other projects.

Advantageous that SME should lever over large companies include the cost structure. SMEs have less overheads than large companies. Therefore the pricing structure can be an advantage.

Certain projects are better suited for certain types of companies. Large resource hungry projects are better suited for large companies, while smaller less resource reliant projects are better suited for SMEs. SMEs and large companies are not in competition, they are more complimentary services to each other.

Furthermore the SME is commonly located close to the specific mining area. This will result in a better relationship with the mines, better service that can be provided. Due to the geographic location of the SME the SME cannot serve all the mining companies in South Africa, therefore it can focus more on the intended market area. This will result in better service within a specific target area.

In addition, within the mining charter the mining companies and the Government agree to increase the HDSA ownership in the mining industry asset to 26%. Which in effect mean that in order to be a vendor for the mine, the company have to be owned by HDSA to the magnitude of 26%. Large companies and especially large multinational companies are slower and more rigid to adjust to the new rules of business. Whereas the SMEs are more agile and therefore quicker to partner with a HDSA in order to make the best of the opportunity.

Therefore with the higher demand for outsourcing the SMEs will be more ready to take advantage than large companies. Thus in the short term we will find that the procurement spent with SMEs will increase above the perfect world expectation. In the longer run the large companies will catch up and a new equilibrium will be established.

Lastly the mining company has various responsibilities towards the local communities, whether it is part of the land purchase agreement, mining charter or a local development program. The locality of the SME is important to lever on this opportunity. These agreements require the mine to spend a portion of its procurement with the local community. SMEs can make use of this opportunity to grow into a position where it needs to employ additional people and train them accordingly. If managed correctly the SME can have the advantage of an even higher skilled workforce. This will result in a mutual beneficial relationship for all stakeholders.

To summarise the opportunity for SMEs:

With the growing demand for companies to support the mining industry through outsourcing, the opportunity for SMEs increases. SMEs have certain attributes that ensure an advantage over larger companies. Agility, pricing, service and BBBEE comply is some of the advantages to be levered. First mover advantage will be at the hand of the SME entrepreneur.

5.4 BBEE

Government is the biggest initiator of transformational change in the mining sector. One of the objectives of the mining charter is to substantially and meaningfully expand opportunities for HDSA including women, to enter the mining and mineral industry and to benefit from the exploitation of the nation's mineral resources (Department of Minerals and Energy, 2009, p. 3). In order for the mines to achieve this objective, the mining companies agreed to commit to a program of procurement HDSA companies within a time frame.

Furthermore the mining companies agreed to encourage existing suppliers to partner with HDSA companies. The encouragement came in the form of vendor requirements. The mining companies cannot remove an existing vendor, but requires new vendors to partner with an HDSA to the magnitude of 26% ownership.

SMEs are more agile and able to adapt to a changing environment. The environment in the mining industry changed due to the mining charter. SMEs adapt quickly and partnered with HDSA in order to be considered to supply the mining industry. The data supports this theory as the percentage of SMEs that are BBEE compliant changed from zero in the past to 70%.

As part of the mining charter, mining companies ear marked certain projects to be outsourced to local HDSA companies. The companies are typically SMEs. Therefore the mining companies reserved certain procurement sections for local SMEs and entrepreneurs.

Local communities such as the Royal Bafokeng negotiated with the mining companies to establish the Royal Bafokeng Supply Development Program. The program resulted from a common goal and mutual benefits between the two stakeholders, the mining company and the local community.

There are also conflicts with the implementation of the mining charter. Mining companies made a business decision to centralise procurement in order to gain economies of scale and gaining negotiation power in order to get better prices and better service. In contrast with this business decision the mining charter expects the mining company to procure from different HDSA companies at a premium. Adding to their frustration is the administration cost of managing multiple HDSA companies. HDSA companies delivery unsatisfactory projects is a major concern for the mining companies the data however suggest that diligent screening of SMEs reduce the risk of poor delivery.

6 Discussion of Results

6.1 Research Question: Is outsourcing a viable option.

From the questionnaire data it is clear that outsourcing is a viable option and that it is in the best interest of the mine.

The following reasons for outsourcing were discovered:

Mining companies outsource certain functions in an attempt to keep focus on their core business which is mining.

Secondly, similar to the rest of the South African industries the mining industry is feeling the effect of the lack of skills. Therefore certain function in around the mining process is outsourced to companies with the necessary skills.

Thirdly, with lower skill levels the efficiency of a function is decreasing. In an effort to increase efficiency, outsourcing to expert companies increases the efficiency of the specific function and therefore decrease the cost of the function and thereby resulting in a cost benefit for the mining company.

Fourthly, mining activities has certain specialised operations with severe consequence if failure occurs. These specialised functions require specific knowledge and expertise. Due to economies of scale it is not feasible for each mine to have the necessary expertise and therefore a small number of companies were founded to serve all the mining companies in South Africa.

Following on the special expertise, these special functions or projects have inherent risk associated. Should there be a failure the outcome will have catastrophic results. Therefore the mining companies opt to outsource not only the expert functions but also the risk associated.

Due to economic pressure and the economical down turn, downsizing and retrenchments are necessary evils. By downsizing the mine cannot fulfil certain functions in house any more. There outsourcing is solve the problem. Outsourcing is now a business decision. The outsourced company is better positioned to fulfil the function more efficiently and therefore cheaper.

Finally, the mining charter forces mining companies to increase ownership of HDSA's in the industry. Certain functions are earmarked for outsourcing as it is not core to the mining operations. By outsourcing these functions the mining company comply with the mining charter. Should the mine not comply with the mining charter it runs the risk of having its mining license suspended, therefore it is crucial for the mining company to outsource some of its functions to SME/HDSA partnerships.

Therefore it is not only viable to the mining company to outsource, it is in their best interest.

6.2 Research Question: How mining companies differentiate between large companies and SMEs when outsourcing functions?

Vastly different data was collected and the candidates could not agree on a homogenous differentiator. Therefore the conclusion is that multiple differentiators exist.

The undertone of discussion with the candidates was that differentiating between large companies and SMEs is not of high importance to the mine. The second undertone is that the differentiation between large companies and SMEs is based on a quick glance of the company and that there are no companies in the grey area between large companies and SMEs. The company is either a SME or clearly a large company.

Different candidates use different methods of differentiation. One of the differentiators is based on price. This means that orders placed on a company of more than a specified value makes the company a large company. This threshold order value differs from mining company to mining company. The underlying factors for this method would be that large value order would consist of more scope of work or even more specialised scope of work. This will result in a higher level of resources needed to complete the order. With higher resources more employees would be a reasonable assumption. Therefore the underlying basis could be seen as number of employees.

Secondly, companies differentiate between large companies and SMEs on the basis of tender requirements. Larger order or projects typically have more minimum requirements to enable companies to tender. SMEs normally don't have the resources to meet the minimum requirements. The resources needed can be traced back to number of employees. Therefore the underlying differentiator is the number of employees.

Thirdly, mining companies differentiate between large companies and SMEs based on the section of procurement. As a result of the mining charter agreements and local community development agreements mining companies earmark certain sectors of procurement for local SMEs. Therefore all the companies that are asked to tender on these tenders are considered s SMEs. The criteria for companies to be invited to tender is that they are local companies and that they are HDSA. These companies asked to tender is normally SMEs, which can be described as a company with less than 200 employees. Therefore the underlying factor can be traced back to number of employees.

The last identified differentiator was identified as the type of product delivered. This is only a guideline. The argument is that manufacturing companies are more reliant on resources. These resources in the South African environment mean labour intensive. This relates to a higher number of employees. As opposed to the service industry which is not labour intensive but relies more on knowledge workers.

Therefore a smaller staff compliment is required, which makes the service company usually an SME as it employs a smaller number of employees.

In conclusion the methods of differentiating between large companies and SMEs differ for all the candidates but the underlying metric can be traced back to the number of employees.

6.3 Research question: What is the effect of Government policies on BBBEE and HDSA on the mining company?

From the data collected it is clear that the mining companies are reaching the BBBEE targets. Therefore the mining companies do embrace the transformation process.

The data shows that the future BBBEE ownership targets are the minimum requirement by government regulation. Only three of the eleven candidates have future BBBEE ownership targets of more than the minimum requirement.

This can point to three possible sources. Firstly, that the mining companies had bad experiences with HDSA companies as far as the satisfactory delivery of orders. Secondly, that the supply of HDSA or BBBEE compliant companies are limited. The last default position is that the transformation process is a slow and time consuming process that South Africa needs to grow into.

From the data in Graph 5.3 it is clear that there is no correlation between poor delivery of order and future targets for BBBEE compliant procurement. Therefore the future targets of BBBEE compliant procurement spent are limited to regulations that are not a result of unsatisfactory completion of order by BBBEE companies. Although the percentage of unsatisfactory delivered orders is remarkably high for some mining companies. This is in contrast with the mining charter which states that procurement from HDSA provider must reflect value adding to the mining company.

Consider that historically the SMEs was not BBBEE compliant as it was not required. These SMEs evolved into 70% BBBEE compliant. Therefore SME companies are easily encouraged to partner with HDSA companies to comply with BBBEE regulations in order for the SME companies to be able to tender on mining tenders. Therefore the evidence exists to conclude that the limited future target for BBBEE compliance is not as a result of a low supply of BBBEE compliant SMEs.

This leaves the last default position that the process of transformation is a slow and time consuming one. For more SMEs to enter the mining industry the demand must increase. The demand will increase over time and not overnight. The transformation process will be determined by market forces and Government regulation will only steer it into the direction of change. Therefore the notion of the transformation process being a slow and time consuming process certainly has merit.

There also exist a conflict between the mining charters drive to implement transformation and the business principles that mining companies were founded on. Mining companies centralised procurement operations in an effort to be more efficient and more competitive. In contrast with this business decision the mining charter and local development programs requires that a portion of procurement be spent with local HDSA SMEs. There is good reason to support local industries and corporate social investment projects, but it stands in direct conflict with sound business principles.

The mining companies will always conform to Government regulation as the Government is the custodian of mineral rights. Therefore it is in the mining companies' best interest to conform to the goals set out by Government and interact with Government as equal stakeholders in the South African Mining industry.

6.4 Is there an economic need for SMEs?

The data suggests that there is an economical need for SMEs to support the mining industry. All of the candidates reinforce this statement.

The need for SMEs will grow in future and can be attributed to the following factors:

6.4.1. Lack of Skills

The first factor is the lack of skills in the mining sector. The mining sector loses skills as a result of various factors. There are more skilled people leaving the mining industry than the inflow of new skilled individuals.

The training of a young labour force is not substantial enough to replace the retirement of the older skilled labour force. This amplifies the problem of a lack in skills. Therefore even more outsourcing will happen to a more efficient company with the required skill set.

6.4.2. Core Focus of the Mining Company

Mining companies made a business decision to outsource supporting function in order for the mining company to stay focused on its core business which is mining. Mining expenditures can be categorised into two different groups. Firstly are costs that are directly linked to the mining operations. Secondly are costs that are directly linked to the support of the mining operations. The business decision that mine made is to keep the mining operation in house and

keep its focus on the core of business. The second cost linked to the supporting functions was decided to outsource to gain advantage of efficiency of the supplier.

Therefore demand to outsource supporting functions increased and this trend will continue in future.

6.4.3. Special Requirements

In the mining operation safety is a key issue. Therefore the Department of Minerals and Energy regulates mine safety very strictly. With the strict regulation comes responsibility and risk.

Therefore in the best interest of the mining company they outsource these safety critical projects to companies that specialise in these projects. On account of economies of scale there are only a limited number of these companies.

Therefore the number of outsourced projects increases and simultaneously there might be an opportunity for a new SME to enter the market as the number of existing companies is limited.

6.4.4. Efficiency

The decision to downsize some of the in-house mining functions was done because of low efficiency as a result of a lack of economies of scale. The mining companies now outsource the function to other companies that have economies of scale and higher efficiency levels which result in a better product or service at lower costs.

Lower cost for a better service or product is an advantage to the mine therefore this will lead to the mine outsourcing more of its struggling in-house function.

6.4.5. Reduce Risk

Because of the risk involved in the nature of mining, the managing of risk is of utmost importance. The fact that every mining operation has certain safety risk, and the fact that the mine staff compliment is better applied in the mining operation, it is common to outsource these safety critical projects as it not only frees up mining staff it also reduce the risk and liabilities of the mine.

The DME very carefully monitor and regulate safety on mines. Any safety related incident is handled with great care and utmost importance to such an extreme that the DME can stop all mining activities as a result of a safety critical failure. Therefore the risk to the mine is too great and they outsource the project to experts in the field as they are then responsible for the safety critical project and the risk burden transfers to the outsourced company.

Mine personnel are risk adverse and therefore the outsourcing of safety critical projects will increase and therefore the demand for companies to outsource to will increase.

6.4.6. Decreased Staff Compliment

In the economic downturn downsizing of companies including mining companies resulted in the resource to fulfil a function is no longer in house available therefore the skills is not in house available.

The need for the function within the mining operations still exists and therefore needs to be outsourced. The business decision to downsize revolves around efficiencies and economies of scale.

In the current economic environment companies will focus on their specialities and what they do best. The remaining functions will be outsourced to companies that are better and more efficient in those functions. This will result in mining companies increasing the amount of outsource functions which is not core to the strengths.

6.4.7. Government Regulation

Government regulates the mining industry through the mining charter. The relevant goals of the mining charter for this study are the commitment to increase procurement spent on HDSA entrepreneurs.

The mining regulation encourages SMEs to partner with HDSA in order to comply with the mining charter. Because of the nature of SMEs they are more agile to partner with HDSA to grow the business.

Therefore the two positive factors work together, the mine needs to reserve procurement spent to HDSA SME partners while the SMEs are more than willing to partner with the HDSAs. This results in a mutual beneficial relationship. The mine complies with the mining charter, the HDSA now owns business shares while he/she is trained in business and the SME is growing.

This working relationship sets the course for more SMEs to partner with HDSAs and therefore the mining companies will continue to support these partnerships through the mining charter. Therefore more functions will be outsourced to HDSA/SME partnerships.

6.4.8. SMEs Agility

While the demand to outsource some of the mining function increases, it increases to the advantage of both the large companies and SMEs. SMEs and large companies have their own roles to play within the mining companies procurement spent. Large companies serve a different segment of the mining company procurement spent.

Because of the entrepreneurial nature spirit of SMEs they are more likely to jump to the opportunity to partner with HDSA individuals in order to meet the mining requirements to tender for projects and extract the BBBEE benefit. Therefore the additional demand to increase procurement spent on HDSA will be swept up by SME with BBBEE compliance, which will increase the demand for SMEs.

In conclusion three main factors will drive the need for SMEs to support the mining industry: lack of skills, SME inherent attributes and BBBEE or government regulation.

Therefore the demand for SMEs will increase.

6.5 Hypothesis

Null hypothesis ($H1_0$):

The economic need does not exist for SMEs to play a supportive role in the mining sector.

From the data analysed in chapter six the null hypothesis ($H1_0$) can be rejected on the following basis as described in chapter 6. The economic need for SMEs will increase due to the following contributing factors.

Firstly mining companies tend to outsource more function owing to various valid reasons such as; their main focus in on mining which is their core business; the lack of skills; efficiency; specialised operations; risk involved in safety critical projects; downsizing and issues around the mining charter pushing BBBEE regulation. Therefore the amount and value of outsourced function are increasing and creates opportunities for private companies to enter into the mining sector in a supportive role.

Secondly mining companies differentiate between large companies and SMEs. Various metrics such as price; tender requirements; procurement spent earmarked for certain sections of procurement; Type of service and product supplied. This means that certain projects are inherently more suitable for certain size of company. Therefore large companies and SMEs are not competing on similar projects. Therefore the growth in outsourcing will benefit both large companies as well as SMEs.

Lastly the effect of BBBEE regulation in the form of the mining charter aggressively pushes governments transformation agenda. For the mining company to comply to these regulation the mining company promote partnership between companies and HDSA's. The entrepreneurial nature of SMEs positions themselves better to take advantage of partnering with HDSA's. Therefore as a result of BBBEE regulation the economic need for SMEs to support the mining sector is increasing.

Therefore the null hypothesis ($H1_0$) is rejected.

Based on the this information the alternative hypothesis ($H1_1$) will be true.

The economic need exist for SMEs to play a supportive role in the mining sector.

7 Conclusion

7.1 Introduction

The aim of the research study was to determine whether the economical need exist for SMEs to support the mining industry. Three underlying factors influence the economic need for SMEs to support the mining industry.

Firstly, the business decision to outsource certain functions of a mining company. An increase in the volume of outsourced function will directly increase the demand for private companies.

Secondly, the differentiation method between large companies and SMEs will directly make the distinction of the demand for SMEs within the volume of work outsourced by mining companies.

Thirdly, the role SMEs have to play in complying with BBBEE and HDSA regulations. Partnerships between HDSA's and SMEs made enhanced the effectiveness and implementation time of the government regulation.

7.2 Research Contributors

From the data collected with the questionnaires it is clear to see that mining companies prefer to outsource certain functions. The main reasons for outsourcing are: Not core to the company; Lack of Skills; Efficiency; Special Requirements; Reduce Risk; Decreased Staff Compliment and Mining Charter.

The data from the mining companies further showed that the mining companies differentiate between large companies and SMEs based on the following criteria: Mining Charter Agreements; Development Programs; Price Structure, and Tender Requirements. These requirements play a significant role in allocating procurement based on the size of the company.

Further data shows that the mining companies do meet the required BBBEE targets and that partnerships between HDSA's and SMEs plays a significant role in achieving the targets.

7.3 Limitation

Limitations to this research study are as follow:

- The Delphi study was done on a single industry in South Africa and can therefore the application of these results in other industries are limited
- The socio-economic and political environment of South Africa are unique to other countries and therefore the application of these results in other countries are limited
- The results are based on experts from mining companies associated with the South African Chamber of Mines and therefore the application of these results in companies outside the membership of the Chamber of Mines are limited
- The number of candidates was limited to 11, therefore suitable for a Delphi study. Therefore the application of the results is limited when used for quantitative study.

7.4 Future Research

Future areas for research were identified in two main areas: Firstly, the BBBEE transformation issue is an area where the potential for further study exist. Further research into BBBEE transformation includes the effect that BBBEE transformation has on the South African economy. Secondly, the difference in the theory of BBBEE transformation and the actual result on ground level, is a minority of people being unjustly enrich as opposed to uplifting of HDSAs.

The second area for research is in the area of training and skills development. How should skills development be done? The study may include various models with the advantageous and disadvantageous as well as the results associated with the different methods.

7.5 Summary

The aim of this study was to determine whether the economic need exist for SMEs to support the mining industry. The answer to the main research question was based on three underlying factors. Firstly, the business decision to outsource vs. in-house. Secondly, the differentiation between large companies and SMEs and thirdly, the influence that BBBEE regulation has on the need for SMEs to play a supporting role in the mining industry.

Mining companies tend to increase the volume of functions outsourced. This increased demand for outsourcing directly increases the demand for private sector companies to tender, therefore increasing the economical need for both large companies and SMEs to support the mining industry.

Mining companies differentiate between large and small companies based on various criteria, all of which can be linked to the number of employees. Therefore within the mining industry exist opportunities for both large companies and SMEs. Based on the increased outsourcing and the fact that SMEs and large companies don't always compete for the same project the economical need exist for SMEs support the mining industry.

Finally, the implementation of BBBEE transformation opened new opportunities for SMEs to partner with HDSA's to fulfill the need of mining companies to comply with BBBEE regulation. The skill set associated with entrepreneurs and SMEs allow for the advantage to make the best of the opportunity. Therefore the economic need exist further due to BBBEE transformation.

In conclusion the economic need for SMEs to support the mining industry does not only exist but is increasing as a result of the mining companies business decision to outsource more of its associated functions, the differentiation that mining companies make between large companies and SMEs and lastly the partnering of SMEs with HDSA's to comply to government's BBBEE regulation.

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9 Appendix 1

I am doing research on the economical need for SMEs in the mining industry, in a supportive role. To that end you are asked to complete the following questionnaire. This will help us understand the supportive role that SMEs play in the mining industry and should take no more of 15 minutes of your time. Your participation is voluntary and you can withdraw at any time without penalty. Of course all the data will be kept confidential. By completing the questionnaire, you indicate that you voluntarily participate in this research. Please find the attached confirmation letter from the Gordon Institute of Business Science confirming this research. If you have any concerns, please contact me or my supervisor. Our detail is provided below:

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Section 1 - General Mine Detail

Question 1:

Please supply your job title.

Question 2:

What is the total annual procurement of your mine in South African Rand?

Question 3:

Of the annual procurement expenditure, what percentage is spent with?

Large suppliers	SME suppliers	BBBEE suppliers with scorecards Level 1 to 4

Question 4:

Why and how does your company differentiate between large companies and SMEs when procuring?

Question 5:

Does your company make use of external suppliers to supply goods or services?

Yes	No

Question 6:

If your company has outsourced any functions, please explain why?

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Question 7:

What is your company's goal for procurement spending on BBBEE companies Level 1 to 4 as a percentage of total procurement?

--

Question 8:

Is the mine achieving it's BBBEE spending goals?

Yes	No

Question 9:

If No, what are the main reasons for not doing so?

--

Question 10:

What in your opinion would the ideal purchasing ratio between large and SME suppliers be, and if you are not achieving this ideal, explain why not?

Large suppliers (%)	SME suppliers (%)

Question 11

What percentage of contracts awarded to SME are not completed or poorly done to the extent of having to be re-done by another supplier/provider?

Question 12

Do you believe SMEs have a role to play in the mining sector supply chain?

Question 13

If so, what role do you think they should be playing in the supply chain and why?

10 Appendix 2

Candidate Number	Question 1	Question 2 (R mil)	Question 3	Question 4
1	Snr Purchasing Officer	R 2,946.00	97% Large Companies 3% SME BE Compliant 55% Level 1-4	Mining Charter Local Procurement Plans Regional Development Plans
2	Procurement Manager	R 336.00	40% Large Companies 5% SME 55% SME BEE	"Set asides" (example-cleaning services) were identified and listed. When such goods & services are needed SME's are sourced
3	Senior Business Process Improvement Specialist	R 12,000.00	51% Large Companies 23% SMEs 26% BEE	Don't handle them differently
4	Senior Supply Chain Officer	R 150.00	64% Large Companies 10% SMEs 26% BEE	Price Basis Tender Process
5	Procurement Supervisor	R 605.00	50% Large Companies 20% SMEs 30% BEE	LARGE COMPANIES ARE THE MANUFACTURERS AND SMALL COMPANIES ARE FOR SERVICES
6	Procurement Manager	R 700.00	50% Large Companies 5% SMEs 45% BEE	Mining Charter Price Basis
7	Procurement Coordinator	R 4,500.00	20% Large Companies 60% SMEs 20% BEE	Price Basis Tender Requirements
8	Snr Procurement Manager	R 2,000.00	60% Large Companies 10% SMEs 30% BEE	Mining Charter Bafokeng Program Earmarked Projects
9	Procurement Manager	R 300.00	60% Large Companies 10% SMEs 30% BEE	Mining Charter Tender Requirements
10	Snr Buyer	R 500.00	65% Large Companies 9% SMEs 26% BEE	Mining Charter Price Basis
11	Procurement Manager	R 700.00	50% Large Companies 10% SMEs 40% BEE	Mining Charter Price Basis

Candidate Number	Question 5	Question 6	Question 7	Question 8	Question 9	Question 10
1	Yes	In house not available Special Requirements Not core to company Efficiency	26%	Yes	N/A	80% L 20% SME
2	Yes	We focus on our core business which is mining chrome.	50%	Yes	N/A	80% L 20% SME
3	Yes	Business benefit and reduce risk	42%	Yes	N/A	Don't Differentiate
4	Yes	Service Based Functions Decreased Staff SME not competitive on large projects due to base	26%	Yes	N/A	60% L 40% SME
5	Yes	Not The necessary Resources or Qualified candidates	26%	Yes	N/A	80% L 20% SME
6	Yes	Specialized services combined with consignment stock like the supply, control and issue of PPE. SPPE buys straight from Factories at large scale. It is Mutual beneficiary	26%	Yes	See capital service and goods	90% L 10% SME
7	Yes	Focus on mining critical skills Not part of operations	50%	Yes	N/A	60% L 40% SME
8	Yes	Company Focus Scarce Skills	26%	Yes	N/A	60% L 40% SME
9	Yes	Resource Shortage Not part of normal operations	26%	Yes	N/A	60% L 40% SME
10	Yes	Decreased Staff More Efficient	26%	Yes	N/A	50% L 50% SME
11	Yes	Focus on primary objective Skill Shortage	26%	Yes	N/A	60% L 40% SME

Candidate Number	Question 11	Question 12	Question 13
1	40%	Yes	SUPPLY AND SERVICES TO ENHANCE THEIR ECONOMICAL DEVELOPMENT AND TO CREATE SUSTAINABLE EMPLOYMENT
2	10%	Yes	Start small businesses to supply goods & services and then grow with the correct guidance.
3	25%	Yes	Where the SME can supply the demand
4	0%	Yes	To supply localized products Difficult to be competitive on large cap projects
5	<5%	Yes	They can be used as hands on supplier and services in the local area
6	<5%	Yes	Localized supply of FMCG and services
7	17%	Yes	Long History with SMEs Supply localized goods and expertise Struggle on Large Cap Projects
8	25%	Yes	Local Suppliers More Agile on smaller projects More personal service
9	30%	Yes	Local Suppliers are important to supply mainstream products and service
10	15%	Yes	More geared for smaller contracts with better service and pricing
11	<5%	Yes	Localized supply of goods and services