Determining mutual challenges faced by opencast mines and their women employees

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ABSTRACT

Marna Roos
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Throughout history various discriminatory inequalities have appeared which are based on traditional beliefs and stereotype principles. As with many other social structures, this has brought with it the challenge of overcoming these inequalities in order to empower those afflicted by unfair treatment and to eradicate both the social and economic effects it has had on society at large. Of the many different groups that have been discriminated against, often for reasons of race and belief, one of the most discriminated against is women.

This is clear when one takes into account the numerous struggles over the course of time women faced for the right to take part in the very basic roles of society. The right to vote, the right to freedom of speech and even the simple freedom for women not to have their attire prescribed by what their culture deems socially acceptable. When taking this into account, it comes as no surprise that women have to overcome enormous obstacles when competing for fair employment. Even today the challenges persist in our well-developed and socially advanced labour market. The employment of women in the mining industry serves as the ideal example of current inequalities that need to be overcome if we are to reap both the social and economic rewards of the equal employment of women.

The objective of this study is to identify and discuss these challenges, identify how to overcome them, the benefits of doing so and the disadvantages and repercussions of not addressing them. The findings from the empirical study, based on the sample size of 65 women currently employed in the mining sector (n=65), which have been subdivided into various categories, enabled the researcher to draw conclusions and make recommendations.
The challenges that were mainly identified included health and safety, recruitment and training, retention strategy and change management. Health and safety challenges refer to women’s perceived vulnerability in a physically demanding environment.

The recruitment and training of women and the challenges that organisations face when recruiting from small skills pools require organisations to develop women’s skills for the mutual benefit of both women and the organisation. These challenges may be proliferate due to the additional challenges that organisations face when attempting to retain the skills they have developed and the investment they have made.

The resistance to change that exists within large mining organisations when women are introduced into environments previously reserved for men needs to be strategically managed.

In conclusion, it was found that involving the Human Resource to implement various strategies from the recruitment of women in mining, to the development, retention and the placement of women in senior positions as well as the monitoring and constant evaluation of the progress of these strategies, the current challenges as set out above can be overcome. Furthermore, it has been concluded that it greatly depends on the top and core management of companies in the mining sector to assist in the implementation of various strategies to have these feats succeed.

**Key concepts:** Women, Inequalities, challenges, Opencast Mining.

**SUPERVISOR:** Prof CJ Botha
OPSOMMING

Die geskiedenis heen kan daar verwys word na verskeie diskriminerende ongelykhede wat op die basis van die tradisionele oortuigings en stereotipe -georiënteerde beginsels gebasseer was. Soos met baie ander sosiale strukture is die uitdaging om hierdie ongelykhede te oorkom en ten einde die individue wat beinvloed word deur die onregverdige behandeling te bemagtig. Die oplossing lê ongelukkig nie allennlik in die bemagtiging van hierdie individue nie maar daar is ook ‘n verantwoordelik en rol wat organisasies se bestuursstrukture speel. Orgnaisasies moet aktief hierdie ongelykhede aanspreek en sodoene die kwessie van ongelykhede regstel, hulle moet die impak van beide die sosiale en ekonomiese invloed wat diskriminasie en ongelykhede op ons land gehad het verstaan.

Die bogenoemde stelling is duidelik wanneer daar inaggeneem word vir watter basiese regte vrouens voor moes veg. Die reg om te stem, die reg tot vryheid van spraak en selfs die eenvoudige vryheid vir vroue om nie voorgeskryf te word deur wat hul onmiddellijke kultuur sosiaal aanvaarbaar ag nie. Dit is geen verrassig dat vroue soortgelyke struikel blokke moet oorkom om meededingend in the arbeidsmark te oorkom nie. Vandag in ons ontwikkelde en sosiaal gevorde arbeidsmark duur hierdie uitdagings steeds voort. Die indiensneming van vroue in die mynbedryf dien as die ideale voorbeeld van hierdie moderne ongelykhede wat oorkom moet word. Beide die sosiale en ekonomiese voordele wat die gelyke indiensneming van vroue inhou moet deur organisasies identifiseer en die potensiaal ontwikkel word.

Die doel van hierdie studie is om die uitdaging wat beide organisasies asook die vroue werknemers onvind te identifiseer, te bespreek en vir hierdie uitdagings effektywe oplossings te vind wat sodoende kan bydra tot ‘n regverdige arbeidsomgewing. Die bevindinge van die empiriese studie is baseer op 65 vroue en elk huidiglik werkzaam is in die oopgroef mynbou omgewing (n=65). Die inligting verkry uit die studie stel die navorser in staat om beide gevolgtrekkings en aanbevelings te maak.
Die belangrikste uitdagings wat geïdentifiseer is gedurende die studie is; gesondheid en veiligheid, werwing en opleiding, 'n effektiewe behoud strategie asook die bestuur van die veranderinge in strukture in die organisasie om die impak om die huidige werksmag te minimeer.

Gesondheid en veiligheid uitdagings verwys na vroue se vermeende kwesbaarheid in 'n fisies veeleisende omgewing. Werwing en opleidings programme moet geimplimenteer word. Die doel van die opleidings programme is om vroue te ontwikkels met die vaardighede wat hulle benodig in die mynbou omgewing. Die nagevolge van voorheen benadeelde partye insluitende vroue is dat hierdie groepe nie die regte en of genoegsame vaardighede en ondervinging het om aan die behoefte van die organisasie te voldoen nie.

Ten slotte was dit, onder andere, bevind dat die betrokkenheid van die menslikehulpbron department kan bydra to die suksesvolle implimentasie van strategieë wat die vroue in die mynbedryf se huidige situasie kan verbeter. Dit sal hulle bemagtig om soedoende hulle posisies in die verskei maatskappye te versterk. Laastens moet daar klem gelê word om die belangrike rol wat die bestuursstrukture van die mynbou maatskappye speel. Hulle moet ten volle die implimentering van hierdie programme and strategieë ondersteun vir hierdie inisiatiewe of suksesvol te wees.
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LIST OF ABBREVIATIONS

PWC : PricewaterhouseCoopers
NUM : National Union of Mine workers
AMCU : Association of mineworkers and construction union
MMSD: Mining minerals and sustainability development project
GDP: Gross Domestic Product
CSR : Corporate social responsibility
MPRDA: Mineral and petroleum resources development act
DTI: Department of trade and industry
HDSA: Historically disadvantaged South Africans
DMR: Department of minerals and resources
FFR: Fatalities and fatality frequency rate
WIM: Women in mining
ILO: International Labour organisation
HRDSSA: Human resource development strategy of South Africa
ABET: Adult basic education and training
HR: Human resources
SETA: Sector education and training Authority
WSP: Workplace skills plan
SDL: Skills development levy
CP: Career Path
PDP: Personal development plan
NSDS: National skills development strategy
HIV: Human Immunodeficiency virus
AIDS: Acquired immunodeficiency syndrome
DOL: Department of labour
MQA: Mining qualifications authority
EE: Employment equity
CCMA: Commission of conciliation, mediation and arbitration
CHAPTER 1
PROBLEM STATEMENT AND PURPOSE OF THIS STUDY

1.1 INTRODUCTION

In a 2014 report from PriceWaterhouseCoopers (PWC), Lord Davies of Abersoch said: “Gender diversity is ultimately about good business. It is about getting the right team, the correct balance of views and personalities, and about achieving results.”

The business environment in South Africa today unfortunately still exposes women to discriminatory behaviour and comments from their male counterparts as can be seen in an interview with Kitchen (2014). Ms. Wilhemina Manaso made the following comments:

“There are a lot of barriers caused by my gender; as a woman, if you’re doing well in a male-dominated industry they think you’re having an affair with one of the senior managers. Every time I was promoted, they would say, ‘how come you promoted her? Is she having a relationship with you?’”

Women around the world unfortunately face challenging barriers in the workplace. These challenges include perceptions that women are not able to effectively balance family and work life, skewed salary structures and a lack of promotional opportunities for women mainly because companies are afraid that they will fall pregnant. South Africa still has a long road ahead towards equality and non-discriminatory practices in the workplace, especially when it comes to gender and racial inequalities.
“Life is the continuous adjustment of internal relations to external relations.”

*Herbert Spencer, English Philosopher*

![Figure 1: The relationship diagram](source: Swart, 2012)

The importance of maintaining good relations in all facets of life today is obvious. The relationship between government, society and legislation and how this dynamic has an influence on today’s business environment and the economy as a whole must be acknowledged especially in view of the catastrophic mass strike actions in the mining industry in 2012. Industry leaders said that the lack of maintaining good relations between the stakeholders (indicated in Figure 1) had a tremendous impact on what amounted to one of the biggest mass strike actions the mining industry has seen in eight years. Although significant progress has been made in restructuring and transforming South African society and its systemic inequalities, unfortunately issues such as unfair discrimination remain visible in our social structures, practices and attitudes, undermining the vision of our constitutional democracy.
1.2 BACKGROUND

Murry and Nelson (2013) state that employment in the mining industry has decreased by about 40% in the last 25 years, and add that South Africa’s mining industry has an already high unemployment rate, which contributes to the high unemployment rate currently estimated to be around 25%. Murry and Nelson (2013) say that the industry still employed almost 500 000 workers in 2010, which represents 3% of the country’s economically active population, and estimate that an additional 400 000 people are employed by suppliers of goods and services to the industry. “The sector mining platinum group metals is the largest employer, contributing 36% of total mining employment, followed by gold at 32%” Murry et al. (2013).

In South Africa, the Minerals Act 50 of 1991 prevented women from working underground. According to the South African Law Reform Commission in a report released in 2011, the Mineral and Petroleum Resources Development Act 28 of 2002 repealed the whole of the Minerals Act, with the exception of two items in the Schedule to the Minerals Act. This did not apply to women who wanted to work above ground in the opencast mining industry as there were no laws prohibiting women from working on mines above ground.

In its final report, the African Institute of Corporate Citizenship and Mining Minerals Sustainable Development (South Africa, 2001:16) found that there were few women working in opencast mine or above ground. In Chapter 2 the current opencast mining environment is examined and evaluated.

1.3 LEGISLATION

Transformation and equality are topics that should be high on every organisation’s priority list. The Skills Development Amendment Act 26 of 2011 and the Employment Equity Act 96 of 1998 as amended in 2014 are just some of the acts implemented to address and improve the development and under-representation of historically disadvantaged South Africans.
An act with similar goals, namely to promote and enforce employment of previously disadvantage groups and bring equality to the workforce is the Broad-Based Black Economic Empowerment Amendment Act 46 of 2013.

The Constitution of South Africa (Act 108 of 1996) actively accommodated and promoted change in legislation that removes all barriers for women in mining operations in the South African mining industry in the late 1990s (Singer, 2002:1). McCulloch (2003:413) refers to imperatives within the apartheid system as a possible explanation with specific reference to the policy of isolation of mine sites by gender, which largely shaped the South African mining industry.

1.4 PROBLEM STATEMENT

It is notable that an industry that employed 518 585 people in 2008 in various mining corporations viewed the issue of gender equality not just as a requirement to comply with regulatory requirement, but took into consideration the social and cultural origins and implications of gender inequalities. The face of the workforce employed in the mining industry has changed tremendously over the past ten years: it has changed into a diverse group of individuals still consisting of predominantly males and few females.

Companies that climbed on board and actively began participation in the transformation process have reached the necessary compliance benchmark, thus securing the next application for their mining rights. Unfortunately the mining industry still needs to undergo significant attitude changes to ensure that women are accommodated and have a rightful place in the mining environment.

Mining companies have difficulty obtaining the prescribed numbers of women on all occupational levels as specified by the Mining Charter; similarly women currently employed in the mining industry face difficulty in breaking down the culture of male dominance in a harsh mining environment as well as creating awareness of unacceptable and in some cases unbearable working conditions.
1.4.1 Selection, recruitment and development

One challenge faced by mine managers is to comply with legislation and maintain a minimum of 10% of women in the workforce. The difficulty is to recruit competent, experienced women from a very small skills pool and retain those specific skills, especially regarding core occupations within the mining industry. The occupations that are classified as core occupations are also in certain cases classified as scarce skills according to the Department of Labour’s National Scarce Skills list (Department of Labour, 2014). The consequence of such challenges, as stated above, is that mining companies are competing for women with the right skills sets and therefore offer higher than market-related salaries for women in mining.

A further challenge for women to find a job in the mining industry are the preconceived ideas some organisations have of women employees. Organisations are therefore hesitant to develop women for managerial positions as they are concerned about the implications this would have on the general discipline and team dynamics of the organisation. Cultural beliefs that women are inferior to men are mainly responsible for creating this challenge.

An article by News 24 in July 2012 stated that South African culture is generally male dominated, with women accorded a lower status than men. The article adds that men are socialised to believe that women are inferior and should be under their control; women are socialised to over-respect men and act submissively towards them.

1.4.2 Health and safety

One of the biggest concerns that managers and employees face in the industry is health and safety requirements. Governing bodies such as the DMR (Department of Minerals and Resources) have the authority to temporarily shut down a mine by issuing a section 54 instruction according to the Mine Health and Safety Act 29 of 1996. With statistics that showed a fatality rate of 0.43 per 1 000 in 2011 according to the Chamber of Mines (2011) report, women may be perceived as vulnerable and are therefore seen as a potential liability in such a high-risk industry as the mining industry.
It is necessary for such governing bodies as the DMR to have enforcing regulations. However, according to figures obtained from an opencast mining contractor, women look after equipment better than men and are more careful operators.

1.4.3 Financial challenges

Organisations have a great financial burden and face daily financial challenges. The main objective of any business is to make a profit, and in order to achieve this goal it is important to create an efficient organisational culture, a productive workforce and a lean supply chain while maintaining a competitive advantage.

The financial challenges that companies face by employing women in mining include building sufficient facilities to accommodate women on the mines and implementing training programmes to ensure that women adhere to the minimum requirements applicable in certain occupations on the mine. Lastly, there are great financial consequences when a woman gets pregnant. Most occupations within the mining industry are not suitable for pregnant women, and if a woman falls pregnant she must be transferred to an administration post for the total length of her pregnancy. According to the Basic Conditions of Employment Act 75 of 1997, women are entitled to four months' maternity leave. This adds up to a total of 13 consecutive months of not being productive, and or not being able to use an employee where an operational requirement exists.

Opencast mining companies do not all provide financial support to their employees while they are on maternity leave, which forces women to abandon their child-rearing responsibilities and return to work sooner than recommended.

1.4.4 Cultural challenges

Cultural challenges still occur today such as men refusing to work under the supervision of women managers as they believe that women are not their equals and therefore they are not entitled to give a man instructions. Here the challenges for women are issues such as unfair discrimination that remain visible in our social structures, practices and attitudes. The direct implication of this is that these men are undermining the vision of our constitutional democracy.
1.4.5 Working conditions

Both companies and women face challenges that relate to unions. Benya (2012:2) explains that for any trade union to succeed and attract active women members, it has to put gender issues before labour struggles. She further adds that unions have to move away from traditional ways of looking at labour as gender neutral and recognise the gendered ways in which organisations and labour movements operate. They need to address these issues with the same rigor as all other issues. According to Benya (2012:3), an employee affiliates with either NUM or AMCU, but women are looking for a union that will meet their demands and represent them fairly to their employers. The implication is that the unions and companies are contributing to the inability to address issues raised by women concerning their working environments.

If women struggle to use a platform such as unions to communicate their problems, that platform needs to be evaluated and companies need to implement other initiatives to ensure that women are given an opportunity to convey their concerns such as accommodation facilities at work and sexual harassment. The industry is in dire need of solutions to and/or proposals about these challenges, and mining organisations need to focus more on training for women and implement a graduate programme specifically for women interested in joining the mining industry.

1.5 RESEARCH OBJECTIVES

1.5.1 Primary objective

The primary objective of this study is to determine the impact of employing women in an opencast mining environment on both the organisation and the women in order to comply with regulatory requirements such as the Mining Charter that demands 10% women employees in the mining industry.

1.5.2 Secondary objectives

The secondary objectives are to investigate

1) Women’s experiences working in the mining industry.
1.6 HYPOTHESIS

Gaps exist between the challenges faced by both companies and women employed in the opencast mining environment. Possible solutions to address these challenges are sought.

1.7 METHODOLOGY

The methods of investigation that were used in this study consisted of a literature review, an empirical study, an analysis of challenges such as selection and recruitment processes, health and safety, and the production, profitability and financial consequences.

1.7.1 Literature review

The following search engines were consulted to determine a theoretical elucidation of this research:

- Google Scholar
- Emerald
- Ebscohost
- Academic Search Premier

1.7.2 Empirical design

1.7.2.1 Research design

In the empirical study a quantitative method of research design was used. Questionnaires were used for a quantitative research method.

1.7.2.2 Sample

The sample consisted only of women employed full time at an opencast mining company, whose ages ranged from 18 years to 60 years. Eighteen is the legal working age, and the limit of 60 years was due to the policy of opencast mining houses of compulsory retirement ages for females that vary from 55 to 65. The sample comprised of South African citizens, with no preference for race or ethnic group.
1.8 STRUCTURE OF THE DISSERTATION

The dissertation is structured as follows:

Chapter 1: The problem statement, purpose of the study and the hypotheses.
Chapter 2: A review of the literature applicable to this study.
Chapter 3: The challenges faced by both the company and women in the opencast mining environment discussed.
Chapter 4: Summary, results, conclusions and recommendations.
2.1 INTRODUCTION

This chapter focuses on the employment of women in the open cast mining industry with specific reference to the different South African pieces of legislation that promote and enforce equal opportunities. The various acts relating to employment of women specifically in the mining industry present managerial challenges as well as challenges that women face when employed in the mining industry.

Factors that produce obstacles to both management teams and women in the industry are the following: talent management, training, recruitment and selection, and the cost for organisations of developing, training and, most importantly, retaining trained women employees within the mining industry. These challenges are mainly due to the fact that women were excluded from the industry for so long and skilled women in the core mining profession are scarce. Finding and recruiting skilled, experienced women fit for occupations classified as core mining activities is a time-consuming and costly exercise. In this chapter the focus is on the challenges faced by organisations and women in an open cast mining environment. The topics discussed are:

1. Women representation in the total workforce of South Africa.
3. Evaluating the current mining industry.
4. Historic regulatory restrictions on women in mining.
5. Legislation: Promoting equality and eliminating barriers to women in the labour market.
6. Effective change management to ensure transformation.
7. Human resources and skills development challenges.
2.2 WOMEN REPRESENTATION IN THE TOTAL WORKPLACE OF SOUTH AFRICA

The South African Government actively promotes equality and strives to ensure that women participate in jobs and industries that were previously reserved for men. This vision is enforced through legislation, which has in actual fact become a necessity. The website Trading Economics states that, according to the World Bank, the female population (% of total) in South Africa was last measured at 50:45 in 2011. Population is based on the de facto definition of population.

![Total South African Population: Gender](image)

**Figure 2: Gender population**

*Source: Trading Economics*

One of the most difficult challenges South Africa faces is unemployment. Low economic growth versus high population growth and decreased number of production processes that require labour, have an tremendous impact on South Africa’s unemployment rate. Statistics given by Erasmus, Loedolff, Mda and Nel (2013:69) indicate that of the number of people between the ages of 15 and 64, totalling 32.4 million, only 17.6 million were economically active and 13.1 million were employed. Black people and women had the highest unemployment rate.
According to a report by the Mining, Minerals and Sustainable Development project (MMSD) in 2000, women made up only 2.3% of the work force in the South African mining industry. The occupations that women were employed in in mining were associated with women, such as clerical, catering, adult education and human resources. Even today men continue to dominate the core mining positions. The economic growth that would be seen if women were developed and utilised in the mining industry is potentially great as it would address one of the most challenging issues South Africa faces, namely unemployment. Women make up more than 50% of the total South African population and women are underrepresented not in only mining but in the total South African workforce.

A report released by PriceWaterhouseCoopers in 2014 said that “The King III report published in 2009 recommended that every board should consider whether its size, diversity and demographics make it effective. Diversity applies to academic qualifications, technical expertise, relevant industry knowledge, experience, nationality, age, race and sex.” They added that “The Companies Act in South Africa was amended in 2009, making it mandatory for companies to disclose how board diversity is considered and the percentage of female employees in the workforce and senior management.”

The City press release an article in 2013 that quoted the Statistician-General, Pali Lehohla where he said at the release of the Gender Statistics in SA 2011 report that "Women experience far higher unemployment, they experience a far lower participation rate [in the economy]. If we take only the participation rate of men, then we would be having very low unemployment rates in South Africa". The report reflects that in 2011, more than a third (30,8%) of black African women were employed, compared to over 56,1% of white women, 43,2% of coloured women and 40,2% of Indian/Asian women.
2.3 WOMEN EMPLOYMENT: A SUSTAINABLE BUSINESS PRACTICE

It is important to identify the employment of women as a sustainable business practice. According to Deardorff’s Glossary of International Economics (2006:121), sustainable development is a process that meets the needs of the present without compromising the ability of future generations to meet their own needs.

This may be accomplished by economic development and economic growth. Economic development is a continuous increase in the standard of living of a country’s population. It is normally accomplished by doing things to improve the country’s future production potential. The authors add that economic growth is the increase over time in the capacity of an economy to produce goods and services and, ideally, to improve the wellbeing of its citizens.

An example of measures that can be taken to promote and ensure future economic growth is to create a platform for all individuals to participate in the workforce. As the mining industry is responsible for around 5.1% of South Africa’s GDP, it would be a great place to start with the visible transformation of more women in the mining industry.

![Chart Title](chart.png)

Figure 3: Percentage of women employed in the total South African workforce
Langill (2013:2) says that governments are striving to improve gender diversity on boards and in senior management roles of listed companies. And yet while the business case for diversity is clear, the mining sector is widely perceived as lagging behind when it comes to combining the benefits of women in leadership.

Langill (2013:2) emphasises that women also lead companies, boards and entire countries. He states that women are viewed as having a proven positive impact on business across regions and sectors, and that studies across the world have shown that companies flourish when they pull talent from a more diverse talent pool that includes men and women of different ages, cultures, experiences, orientations and abilities.

Pockey and Fipke (2012:1) in their article *Women in mining are improving the bottom line* highlight the challenge that mining companies face in terms of the shortages of skilled workers. They state that because of the recent unprecedented growth in exploration and development, there is an even greater demand for effective leaders and skilled workers. These challenges are causing significant competition among mining companies globally (Pockey and Fipke, 2012: 1). According to these authors, companies are being pushed to find new ways to satisfy the demand, including increasing opportunities for women.

Pockey and Fipke (2013: 2) say that women bring a more value-based and team-building approach to work as well as to their leadership style. They also state that female leaders are often viewed as exhibiting leadership qualities that make them more effective leaders than their male counterparts. These qualities can help organisations to develop a more unified workforce. An organisation built on values reflecting equality for all can translate into increased worker loyalty and retention, a safer workplace and a stronger corporate social responsibility (CSR) platform.
2.4 A LOOK AT THE CURRENT SOUTH AFRICAN MINING INDUSTRY

In the past few years the mining industry has come under enormous pressure due to labour unrest. The Marikana saga changed the face of South Africa’s mining industry as the world sees it today and has had a negative effect on the country’s economy, according to an article by Mathews (2012). As compliance initiatives can be costly, the Marikana incident can lead to challenges with complying with legislation when financial pressure is faced. The Mineral and Petroleum Resources Development Amendment Act 49 of 2008, or MPRDA, became effective in June 2013.

“The Amendment Act introduced a number of significant amendments to South Africa’s mineral regulatory regime” (Wentzel, 2013). “This is likely to impose further compliance and regulatory costs on the industry. Higher expenses will further squeeze profits of mining companies already contending with above-inflation cost increases for wages and energy, while labour disputes and slumping commodity prices have forced some producers to suspend shafts or cut jobs” (Janse van Vuuren, 2013:1).

“The changes stipulate that the mines minister must refuse an application for prospecting rights should those rights concentrate resources under the control of one company, restricting ‘equitable access’, according to the law firm, which said the vague phrasing leaves the rule open to interpretation. The changes also allow the minister to impose stricter conditions on mining rights where the land is occupied, which may go beyond the requirements of the Mining Charter” (Janse van Vuuren, 2013:1).

“In 2012, the financial performance in the mining sector reflected the higher price environment experienced by most commodity producers, excluding platinum, and the positive prospects for growth experienced at the beginning of the period. Unfortunately, the dark clouds of industrial action, cost pressure and shrinking margins are reflected in the market capitalization performance of the industry. A tough year lies ahead in 2013” (PWC, 2012:2).
“The tragic events at Marikana and widespread labour disputes have had a significant impact on the mining industry. Although these events were not the only factors that impacted market capitalisation, they played a key role in the decline of the top 39’s market capitalisation by 5% from June 2012 to September 2012” (PWC 2012:5).

2.5 **WOMEN IN OPENCAST MINING: REGULATORY HISTORY**

South African legislation practices had no exclusions for women to work in the opencast mining industry, which means that women where never prohibited by law from working in opencast or open pit mining as it is also referred to. According to the Mines Act of 1923, section 23 C, no woman were allowed to work in a mine above ground between the hours of 7 p.m. and 6 a.m. Motau (2011:1) states that although there no limitations placed on women working on an opencast mine, they are still underrepresented in this field.

According to Benya (2009:49), the South African Minerals Act 50 of 1991 did, however, prohibit women from working in an underground mining area. Although there were no limitations, women still faced challenges such as the attitudes, perceptions and stereotypes of their peers, which has contributed to the current state of underrepresentation of women in the mining sector.

2.6 **LEGISLATION: A KEY DRIVER IN WOMEN IN MINING**

A society’s laws are seen as the most solemn and formal vocalisation of its core values. The drive by governing bodies to address inequalities must form part of any country’s values; they recognise, reinforce and give permanence to a society’s norms (Anon., 2014:1). The legislation referred to in this chapter serves partly to institutionalise the effective transformation process of women into mining.

2.6.1 **Mining charter**

In 2002 the Mining Charter, also referred to as the broad-based socio-economic charter for the mining industry, came into play. The Mining Charter was the result of collaboration between the mining industry and the South African Government.
The Charter was developed with the objective of ensuring more opportunities for Historically Disadvantaged South Africans (HDSA). Women are one of the groups identified as historically disadvantaged South Africans because of previous regulatory restrictions banning women from participating in the mining industry. The Charter prescribes that mining houses must achieve 10% of women on their total workforce. It also allowed stakeholders to enforce these regulations within five years of the introduction of the Charter. The Charter acts like a scorecard to effectively measure the industry’s successful, or in some cases unsuccessful, progress towards uplifting HDSAs. According to the Department of Trade and Industry (the dti), the scorecard is a measure of upliftment of HDSAs that is applicable to all South African organisations.

The Department of Trade and Industry’s scorecard defines businesses according to their yearly turnover and this factor determines how many of the seven identified elements need to be complied with. The higher the turnover the more elements need to be complied with. The Mining Charter, however, is only applicable to the mining industry and all mining-related organisations. The Mining Charter as amended in 2010 identified the following nine elements to guide employers in their efforts towards compliance:

- **Ownership**
  Ownership aims to ensure that HDSAs are included and integrated in the mainstream economy of the country. If this target is achieved it would largely influence the sustainable growth of the industry in total. According to the Mining Charter, mining organisations need to achieve a 26% ownership of HDSAs by 2014.

- **Procurement and enterprise development**
  The Mining Charter says that supporting local enterprises and ensuring that suppliers are locally sourced would have the following benefits:
  1. It will captures economic value.
  2. It will present opportunities to expand economic growth.
  3. It will create jobs in the surrounding communities.
The charter prescribes that 70% of services, 50% of consumer goods and 40% of capital goods be procured form Black Economic empowered entities.

- **Beneficiation**
  According to the Mining Charter, mining companies specified under beneficiation must undertake to identify their levels of beneficiation and indicate to what extent they can grow the baseline level of beneficiation.

- **Employment equity**
  The Mining Charter prescribes 40% HDSA representation in all the different management levels by 2014. This transformation and integration of HDSA employees are essential to a cohesive workforce.

- **Human resource development**
  The mining industry is knowledge based and therefore centres on human resources as an integral part of the social transformation and sustainable growth of both the industry and the workforce.

- **Mine and community development**
  The Mining Charter focuses here on making a meaningful difference to community development

- **Housing and living conditions**
  Mining companies must ensure better housing and living conditions for the mine workers as improvements in their living conditions would enhance productivity which would be beneficial for both parties.

- **Sustainable development and growth of the mining industry**
  It is important that exploitation must balance economic benefits with social and environmental needs without compromising future generations.
• Reporting (monitoring and evaluation)

According to Section 28 (2)(c) of the MPRDA, mining companies must report on compliance yearly.

2.6.2 Employment Equity Act 55 of 1998

Meyer et al. (2012:332) state that the objective of the Act is to ensure the implementation of employment equity, to redress the effects of discrimination and to achieve a workforce that is broadly representative. The purpose of the Act, which is stated in its first chapter, is to achieve equity in the workplace by promoting equal opportunity and fair treatment in employment through the elimination of unfair discrimination and implementing affirmative action measures to redress the disadvantages in employment experienced by designated groups, in order to ensure their equitable representation in all occupational categories and levels in the workplace.

The main objective of the Employment Equity Act 55 of 1998 as amended in 2014 was to ensure that discrimination of different forms was eliminated from the workplace. The Act contributed to women employment by being an important driving force of gender equality. The Act further aims to eradicate all employment barriers currently existing in the work environment. It specifically highlights the representation of Africans, women and the disabled. Whereas the legislation aims at the abolition of discriminatory practices, industry does not share its enthusiasm.

Section 15 of the Act requires employers to ensure that they retain and develop people from designated groups and to implement appropriate training measures, including measures in terms of an Act of Parliament providing for skills development. Designated groups refer to black people (Africans), coloureds and Indians, women and people with disabilities (Meyer, 2013:334). Ranchod (2001:25) emphasises the underrepresentation of women in mining by comparing the mining industry with various different industries. His results showed that the integration and active involvement of women in the industry have been sluggish. Graham and Hotchkiss (2003:11)
indicated the corresponding occurrences between gender-related occupational exclusion and the current uninviting environment women are exposed to in the mining industry. Furthermore, section 20 of the Act stipulates that "A designated employer must prepare and implement an employment equity plan which will achieve reasonable progress towards employment equity in the employer's workforce."

Illic (1996:1387) states that most mining companies are under severe pressure to comply with legislation and ensure that they achieve set equity targets. This direct effect is more women being employed in the mining industry. Unfortunately, this causes the mining organisations to come under more pressure to find experienced, competent women to utilise in core mining occupations, because women have been excluded from this industry for so long that mining houses have limited skills pools to recruit from. It can undoubtedly be said that legislation has been a successful driving force for creating better opportunity for gender equality. Regrettably, legislation does not address and guide additional challenges that arise when employing women in a male-dominated work environment.

In order for opencast mines to address these challenges, they will have to initiate measures such as training programmes to empower women in mining operations and promote employment equity in all the occupational levels of the organisation.

2.6.3 **Labour Relations Act 66 of 1995 and Labour Relations Amendment Act 2014**

The Labour Relations Act 66 of 1995 (LRA) aims to promote the following: economic development, social justice, labour peace and democracy in the workplace. It sets out to achieve this by providing a framework for regulating the relationship between employees and their unions on the one hand, and employers and their organisations on the other hand. At the same time, it also encourages employers and employees to regulate relations between themselves.
The Act promotes the right to fair labour practices, to form and join trade unions and employers’ organisations, to organise and bargain collectively, and to strike and lock-out. In doing so it reflects the vision of employees’ and employers’ rights contained in the Constitution.

2.6.4 Basic Conditions of Employment Act 75 of 1997 and Basic Conditions of Employment Amendment Act 2013

The Basic Conditions of Employment Act 75 of 1997 section 25 provides that if an employee is pregnant she is entitled to at least four consecutive months’ maternity leave. In section 26(1) it further states that no employer may require or permit a pregnant employee or an employee who is nursing her child to perform hazardous work that may influence her health or the health of her child.

Section 26(2) specifies that during an employee’s pregnancy and for six months after the birth of her child, the employer is required to offer that employee alternative employment. It further states that the alternative occupation that the employer proposes should be under terms and conditions that are no less favourable than the employee’s ordinary terms and conditions of employment. This poses additional challenges for employers. An organisations needs to ensure that replacement personnel are available and competent to temporarily replace that employee. The aim of utilising women in core mining positions thus becomes a costly exercise.

2.6.5 Mine Health and Safety Act 29 of 1996

One of the biggest concerns that face managers and employees in the industry is health and safety requirements. Governing bodies such as the DMR (Department of Minerals and Resources) have the authority to temporarily shut down a mine by issuing a section 54 according to the Mine Health and Safety Act 29 of 1996 in the case of non-compliance. This has tremendous financial consequences for mining companies due to loss of production. With statistics that show a fatality rate of 112 lives lost in 2012 according to the Chamber of Mines’ Annual Report of 2012, the necessity for these governing bodies is clear.
Table 1: Safety, Fatalities and Fatality Frequency Rates (FFR) on SA mines DMR, as at June 2013.

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<td>200</td>
<td>220</td>
<td>171</td>
<td>168</td>
<td>127</td>
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Notes: *2012 data are provisional. **NIIO – Now included in other.

The Mine Health and Safety Act 29 of 1996 (MHSA) as amended provides for the monitoring of conditions that will promote a culture of occupational health and safety in the mining industry and protect mine workers and other persons at mines. The Mine Health and Safety Council of South Africa conducted a survey of a total of 221 miners. The aim of the survey was to determine the functional physical strength of the participants. The data collected in the survey showed that there was a significant difference between the strength of male and female miners. The MHSA stated that these factors should be considered when female miners are employed in occupations with a high physical work component.

According to Zungu (2012:6), compared to their male counterparts, women in mining (WIM) have unique health and safety needs owing to their anatomical and physiological make-up.

He also mentions an important fact, namely that the International Labour Organization (ILO) has classified women workers as “vulnerable workers” with occupational health and safety needs – women in mining are no exception.
There is a lack of published data on occupational health and safety issues concerning women in mining. In general, women workers face different occupational health and safety challenges at work compared to men. Blignaut, Cooms, and Schillick (2011:35) say that because women workers are vulnerable, they have a tendency to suffer the most from work-related diseases, including musculoskeletal and reproductive problems, compared to their male counterparts. They also indicate the need to protect and promote women’s occupational health and safety at work by addressing issues that are distinctive to them.

2.6.6 Skills Development Act 31 of 1998

This Act was promulgated by government in 1998 and amended in 1999, 2003 and 2008 by the Skills Development Amendment Act 9 of 1999, the Skills Development Amendment Act 31 of 2003 and the Skills Development Amendment Act 37 of 2008. According to Brendan and Down (2000:6), the Act was introduced as a result of high levels of unemployment, low levels of investment in the South African labour force, pronounced disparities in income distribution and inequality of the total workforce. Through this Act, government aimed to address two main priorities: the need to improve skills and increase productivity in order to compete successfully in global economy and the need to reverse apartheid imbalances and to create a more inclusive and cohesive society (Erasmus & Van Dyk cited in Wikipedia, 2013).

Meyer and Orpen (2012:58) state that the Skills Development Act regulates the structural framework for skills development and also makes provision for different skills development mechanisms such as learnerships, skills programmes and employment services. Amongst others, one of the purposes identified by the Act is to improve the employment prospects of persons previously disadvantaged by unfair discrimination as well as to redress those disadvantages through training and education.

2.6.7 The Department of Minerals and Resources (DMR)

According to the DMR and its role in the strategic plan of 2010/2011 – 2012/2013, their aim is to ensure transformation, economic growth, health, safety and
sustainability of the minerals and mining sector. In its strategic plan, the DMR unveiled their vision for 2014, which is to ensure a healthier, safer and equitably transformed mineral sector by 2014. The DMR strives to be a leader in the transformation of South Africa through economic growth and sustainable development.

Being one of the most dangerous industries to work in, the mining industry experiences various safety challenges daily. According to Van der Merwe (2009), President Thabo Mbeki instructed the DMR in 2008 to conduct a presidential audit in the mining sector as a whole, including all commodities. The DMR made this information public in January 2009. The auditors determined that there was a 66% compliance rate with safety systems.

2.7 RESISTANCE TO CHANGE

According to an article by Buthelezi (2013) in Mining Weekly, the mining industry has been dominated by males for decades and trends indicate the move towards mechanisation, which presents an opportunity for women in the industry. Even with legislation encouraging and enforcing women employment in the mining industry, there is still resistance to change. McCulloch (2003:420) says that the industry remains predominantly male mainly due to the physically strenuous nature of core occupations. Singer (2002:2) discusses the strength requirements in certain occupations in the harsh mining environment, and refers to the basic exclusion and expectation factors of women in the industry. He maintains that it is unlikely that they can play an active role in the mining environment, although women have been involved during the post-apartheid era in the South African mining industry.

Keegan, Knievel and Shugg (2001:3) emphasise that beliefs and practices have become ingrained in the mining industry, which creates resistance to change and contributes to gender inequalities in the industry.

Discrimination against women, according to Lazcano (cited by De Klerk, 2012:10), is related to beliefs that women contaminate work processes. Whittock (2002:449) states that the stereotype male believes that women do not have the mental and physical endurance to perform the challenging job requirements in most of the
mining industry’s occupations. The mining industry with its deeply rooted beliefs is being greatly challenged when it comes to complying with Women in Mining targets. This male-dominated industry with its preconceived ideas is very reluctant to change. Only when organisations realise the importance and value that gender diversity can bring to an organisation, and put a strategic change model in place, will inequalities be redressed.

Lazcano (cited by De Klerk, 2012:10) refers to the mining industry and its resistance to change, but states that organisational culture has a big role to play when addressing the resistance to change. He further highlights the fact that organisational culture can assist management with overcoming resistance to change, but at the same time organisational culture is a cause of resistance to change. In a situation where an organisation lacks the leadership that is able to effectively lead change, it may bring about to resistance to change. Lazcano (cited by De Klerk, 2012:10) maintains that a healthy, supportive culture provides the structure to be able to identify the need and to encourage change – management contribute by having the knowledge to enforce and drive change.

2.8 TRANSFORMATION

Langill (2013), in an article published by the Canadian Mining Journal, says that studies the world over have shown that companies excel when they draw from a broad talent pool that includes men and women of different ages, cultures, experiences, orientations and abilities. Transformation aims to ensure that the South African workforce more accurately represents the total South African population. The benefits of such transformation were highlighted previously by Langill (2013:30) in terms of a company’s performance when ensuring the diversity of its workforce.

According to Smit and Cronje (2002:239), diversity management as a result of transformation can lead to an improved company image and the attraction of more business due to the fact that the organisation complies with the required employment equity regulations. He also states that transformation can lead to a more creative and motivated workforce that would be less influenced by discriminatory past perceptions – this will create a platform for creativity and innovation.
Smit and Cronje (2002:245) state that transformation would lead to better problem-solving abilities across a broader range of employees because the employees have diverse backgrounds and upbringing. The mining industry and its workforce is currently very unstable, which has been confirmed by recent strike action. According to Smit and Cronje (2002:245), transformation in terms of employment equity implementation creates a sense of fairness among employees, which in turn will gain an employee’s trust in the organisation. The initial downside of transformation for organisations can initially be the increased cost incurred by training and above-market-related salaries. This is due to the retention strategy of an organisation and the current small skills pool from which to recruit HDSAs. Once mining houses realise the valuable contribution a diverse workforce would make in all aspects of their operations, they will turn effective transformation into competitive advantage.

2.9 THE IMPORTANCE OF MANAGING CHANGE AND ENSURING EFFECTIVE TRANSFORMATION WITHIN THE ORGANISATION

Grant (cited by Steyn, 2011: 226) says that it is an international norm to think of diversity as a difference along various axes (race, ethnicity, gender, language, culture and disability) and to recognise the value of these differences to the workplace. Although race predominates in South Africa because of the country’s apartheid legacy, its workplace has been skewed in all aspects of diversity.

Change and transformation in the workplace is a necessity. Companies, however, need to be open and willing to be able to benefit from the effective transformation that change brings to an organisation, but unfortunately a smooth path cannot be guaranteed.

Hadjivassilou, Junge and Kelleher (2010:4) are of the opinion that the aim of organisational change practice and research is the improvement and development of organisations for the purpose of enhancing effectiveness. Change in the mining industry refers to the implementation of change to ensure compliance, for example by introducing more women into a male-dominated mining environment. Hadjivassilou et al. (2010) also highlight the importance of the organisation’s
responsiveness to external changes through better people management, communications, systems and structures. These authors also maintain that change management is not a discipline that has more practical relevance in one sector than in another: the methods and approaches of the discipline are applied in business and government alike.

Increasingly, dynamic environments are putting organisations in a position where the management teams are constantly being challenged by the need to implement changes in their strategy, structures and organisational culture. Regarding change readiness, “at its core, change readiness involves a transformation of individual cognitions across a set of employees” (Amenakis & Harris, 2002). Smith (2005:408) states that people are the vehicle for change because they will embrace or resist change. To ensure that a change initiative is successful, change should not be attempted before the employees’ change readiness has been determined.

An employee’s attitude and behaviour when facing change are influenced by that employee’s perceptions. According to Eby et al. (2000), individuals have preconceived notions of the extent to which the organisation is ready for change. These perceptions evolve over time (Eby et al., 2000).
Kotter (1996b:33) summarised his eight-step change model as follows:

1. Increase urgency – The climate for change is ideal in the industry because legislation sets the tone for urgency by prescribing targets such as the Mining Charter, which specifies a compliance quota of 10% women in mining.

2. Build the team – A dynamic, diverse team must be put together that consists not only of male participants but should include women. Denend (2007) states that companies with diverse management teams are much more successful with a dynamic direction team than organisations without women on their boards of directors.

3. Right vision – Get the team to establish a simple vision and strategy. Determining a joint vision for the company to ensure senior management structure supports initiatives such as women in mining.

4. Buy-in – Communication and participation are key to ensuring buy-in. Kotter advises in his change model that communication from the top
management structure must be regular, to emphasise their goal of promoting and supporting women in mining.

5. Empower action – Remove obstacles, enable constructive feedback and give support from leaders. Reward and recognise progress and achievements.

6. Create short-term wins – Creative initiatives such as rewarding teams with women leaders when production targets are reached.

7. Don't let up – Highlight achievements and future milestones.

8. Make change stick – Reinforce the value of successful change via recruitment, promotion and new change leaders. Weave change into culture.

2.10 HUMAN RESOURCES AND SKILL DEVELOPMENT

The Human Resource Development Strategy (HRDSSA II) developed three national goals (HRDSSA II, 2009:18) that can be summarised as the need to reduce poverty and unemployment, promote justice and social cohesion and improve economic growth in the country. Eight commitments were designed in the HRDSSA II (2009:20-22) to address the skills priorities in South Africa. Emphasis was placed on artisan development, skills development planning that addresses social and economic demands, Adult Basic Education and Training (ABET) needs, quality basic and tertiary education and the upliftment and training of women in all industries.

2.10.1 Skills development and training

There is a lack of training and development initiatives for women in mining companies. At the rate they are addressing the inequalities, especially in core mining occupations, there will not be enough competent, experienced women who understand the industry to meet compliance regulations.

Skills development is recognised by the South African Government as a critical tool in enabling the South African economy to change and grow in line with global trends (Coetzee et al., 2013:113). The implementation of the Skills Development Act 97 of 1998 requires organisations (with some exceptions) to submit a Workplace Skills Plan (WSP) to the relevant Sector Education and Training Authority (SETA).
The WSP must be approved in order for organisations to be eligible to recover part of the Skills Development Levy (SDL) paid by the organisation. “A proper analysis of the organisation’s training needs and skills requirements in the form of a skills audit are therefore a vital step in the process of developing a WSP (Meyer et al., 2012:15). Meyer et al. (2012:155) explain that a need refers to essential knowledge, skills and attitudes that an individual must possess to perform work competently and thereby accomplish the desired results. Allowing individuals within an organisation to develop and identify their personal development plan, also referred to as a PDP, would not only assist and guide the organisation to draft a career path plan (CPP), but would assist them in their strategic and succession planning.

Organisations would be able to come to mutual agreements with key individuals on long and short-term employment relationship that are mutually beneficial to both parties. Companies that would be willing to negotiate terms and benefits according to an individual’s needs would attract female employees because of their unique need to balance their career and family life more effectively. The National Skills Development Strategy III 2011-2016 (NSDS III) has been developed in support of the HRDSSA II and is seen as a sub-component (Coetzee et al., 2013:57).

The NSDS III (2011:7) identifies seven development and transformation imperatives that will be used to guide skills development in South Africa, namely:

- Race (to assist in racial inequalities)
- Class (especially the workers and the poor)
- Gender (focused be placed on developing women)
- Geography (areas in rural economic development)
- Age (training youth for employment)
- Disability (physical and intellectual disability)
- HIV/AIDS pandemic.
The NSDS III would guide the mining sector to address and focus on specific skills needs that have been identified. The industry SETA is responsible for the implementation of the NSDS III. The SETA responsible for the mining industry is called the Mining Qualifications Authority (MQA).

According to a research article released by the Department of Labour (DOL) (cited by Mukora, 2008:9), a scarce skill refers to those occupations in which there is a demand for qualified and experienced people to fulfil specific roles or occupations in the labour market. Mukora (2008:9) further states that the scarcity can be due to reasons such as geographical locations and employment equity considerations. Such scarcity can be current or anticipated for the future, but it is always associated with a skills shortage which is prohibiting economic activity and growth, and may be because the people available do not meet other employment criteria.

In the Mining Qualifications Authority’s (MQA) Sector Skill Plan (2011:95) it is further highlighted that other reasons may include the unattractiveness of the mining industry and the limited supply of Historically Disadvantaged South Africans (HDSA) related to Employment Equity (EE) requirements. Fourie (2009) says that one of the challenges identified that makes it difficult for HDSAs to enter the mining industry is the scarcity of relevant skills.

In October of 2007, Cynthia Carroll, states that “The mining industry has had a poor record of employing women and this must change. I have met some very impressive women at our operations – driving 240-ton trucks at an open pit mine in Chile or leading teams underground at mines in South Africa and Australia, as well as in technical and professional roles. Carroll (2007)

At a time when the mining sector is facing a major skills shortage, reaching out to the other 50% of the population is not only politically correct, it is pragmatically and morally simply the right thing to do. “Neglecting to employ women and developing them in key occupations within the organisation would lead to non-compliance that would cost a mining licence holder their licence to mine. It would also lead to above-market-related salary packages for the few women within the labour market equipped with the relevant skills set.
The mining industry further runs the risk of putting tremendous pressure on managers to perform optimally and attempting to achieve all production targets with an inexperienced team of women.

2.10.2 Mining Qualifications Authority

Scarce skills are defined by the MQA as occupations in which there is a scarcity of qualified and experienced people, currently or anticipated in the future, either because such skilled people are not available or they are available but do not meet employment criteria (MQA Scarce Skills Guide, 2012:4).

The MQA collects data from submitted by WSPs and ATRs on what occupations organisations lists as scarce skills, and an annual scarce skills guide is then drafted (MQA Scarce Skills Guide, 2012:4). One scarce skill identified by the MQA is Artisans – this occupation is seen as a core mining occupation. To address this skill shortage they began to focus on Artisan development through their artisan learnership programmes. According to the MQA website, this is to ensure that artisans in the mining and minerals sector are equipped with the right qualifications to become productive and skilled, and contribute to the transformation of the sector. They further emphasise their commitment to support women in mining.

2.10.3 Selection and recruitment

A challenge faced by mine managers is to comply with legislation such as the Mining Charter and maintain a minimum of 10% of women in the workforce. The difficulty is to source competent, experienced women from a very small skills pool and retain these specific skills in which time and money has been invested.

2.10.4 Retention

According to Grimm and Schultz (cited by Rampfumedzi, 2009), the mining industry is faced with a shortage of qualified talent to meet its production needs globally. They state that there are more people leaving than entering this sector to pursue job and career opportunities. Grimm and Schultz (cited by Rampfumedzi, 2009) identified some of the key reasons for this trend as:
• The general image of the industry
• the declining numbers of graduates from mining-related programmes
• and the draining of talent and knowledge as a result of turn-over and retirement in the mining industry.

In the South African context, external factors such as the high unemployment rate specifically play a role in people’s willingness to enter the mining sector even if they understand and are aware of the potential dangers and very harsh conditions they would be exposed to. This is the case especially in those rural communities that are referred to as doorstep communities surrounding the mines, because this would be one of the few work opportunities or the only work available (Singer, 2002:2). Ranchod (2001:29) explains this by referring to basic survival: to survive and provide for their family, women will enter the mining industry. Ranchod (2001:31) further refers to the importance of sustainable development within areas where mining companies have active operations, and emphasises the increase in women’s participation. He says that this would ensure that local communities would benefit from the local economy and address poverty, especially among women.

Campbell (cited by Fourie, 2009:21) reported that Cathy Reichardt, senior lecturer at the University of the Witwatersrand School of Mining Engineering said at the Women in Mining Conference in June 2007 that the mining industry does employ women, but unfortunately not in core mining activities. However, women are still predominantly found in support functions, such as administration, human resources, public and investor relations, finance and audit.

At the conference she said: “The consensus of opinion at the Women in Mining Conference is that participation refers to women employed in technical positions and in the productive workforce. That seems to be the spirit of the legislation.” She indicated that there had been tremendous progress: “At Wits, women comprised just 7% of mining engineering undergraduates in 2000; this year they make up 26%. In fact, they comprise 25% to 26% for each undergraduate year.” This gives a glimmer of hope for the future of women in technical and core mining positions, but still leaves a gap in recruiting and retaining existing talent.
The importance for having a retention strategy in place could not be emphasised enough, because the few competent experienced women in the field are being competed for. Grimm et al. (cited by Rampfumedzi, 2009) summarised some of the strategies commonly referred to in order to address the problem of retention in the industry:

- Retaining senior employees to minimise the negative impact of attrition.
- Developing a collaborative, cross-industry strategy for training/educational programmes, and employer-provided training to facilitate the availability of a skilled labour force.
- Engaging in benchmarking to work towards best practices as an industry.
- Putting greater emphasis on addressing cultural issues, soft skills and management support.
- Providing access to professional development/on-going educational opportunities.
- Supporting structured professional/trade development.
- Planning technical career paths for employees.
- Training managers to actively manage retention in their areas.

2.11 CHALLENGES FACED

Various challenges will now be discussed. These challenges include only those related to women and/or an organisation, and lastly the mutual challenges faces by both parties.

2.11.1 Health and safety challenge

In 2007, the Mineral Economics Directorate reported that there were 485 900 people employed in the South African mining industry. The 2007 labour figure shows that there has been a 6.25% increase in the number of people employed in the South African mining industry compared to 457 335 workers reported in 2006.
In 2010, according to figures released by the Department of Mineral Resources, 128 people were killed in mines in South Africa. “This was our best safety year since 2003,” said Bheki Sibiya, the new CEO of the Chamber of Mines, which represents 80% of all mining companies in SA. McGwin et al. (2002:1306) indicated that the mining industry had the highest fatality rate per occupation and industry. The latest safety and accident statistics according the Department of Minerals and resources, AnnualReport indicate that safety trends vary per commodity. Addressing these safety challenges is of crucial importance to the mining industry specifically.

The mining industry’s safety statistics can be a leading factor that leads skilled individuals to reject the industry as a healthy, safe work environment, which can negatively influence recruitment and retention strategies. Creating awareness through training programmes to identify hazardous situations may enable or contribute to a safer work environment with fewer fatalities.

2.11.2 Challenge of working conditions

2.11.2.1 Personal protection equipment

Forastieri (2002:6) raised concerns regarding Personal Protective Equipment (PPE), his main concern being that it is designed and supplied specifically for the use of the male population. This results in women not being sufficiently equipped with the right equipment, which makes women more accident prone.

2.11.2.2 Cultural challenges

Achieving and maintaining a figure of 10% women in mining has brought about more than one challenge.

The challenges faced include sexual harassment, infrastructure development, family planning issues and, not least, the real and perceived issue of reduced physical capacity. The mining industry continues to experience inequality in gender distribution between surface and underground jobs, despite significant efforts spent on recruiting physically fit women and placing them in appropriate jobs.
Coetsee (2002:200) supports the earlier opinions and states that an organisational culture includes the 'climate' of an organisation and is based on the shared values, norms, beliefs and traditions that have been established over time in an organisation. It dictates what is acceptable, unacceptable, or the right and wrong in an organisation, and the values and norms people live by in organisations.

Bass (cited by Sithole, 2008:15) adds that organisational culture is the "glue" that holds the organisation together as a source of identity and distinctive competence. Sithole (2008) also states that Hough (2008:296) is of the opinion that culture can be defined as shared values and beliefs that interact with an organisation's structures and control systems to produce behavioural norms.

2.11.2.3 Disregard for legislation: non-compliance

Despite the South African Government’s effort to grow the numbers of women in mining by introducing a 10% quota in legislation such as the Mining Charter, the execution of legal requirements has been marginal. According to Mlambo (2011), women continue to experience structural issues, despite the existence of laws. Moyo (2010:67) maintains that even though an organisation such as Lonmin plc, the world's third-largest platinum producer, has received assistance from the International Financial Corporation since 2007 to increase the number of women, they have not succeeded.

Benya (2009:1) states that in 2009 a year after the Government deadline, women comprised only 6.8% of Lonmin’s total workforce. She pointed out that the renewal of mining licenses in 2009 was to be based on whether the mining company could prove that it had reached the 10% target set. Mining licences were renewed for companies that had not met this requirement, which sent the message to the industry that the enforcement of the legislation is unimportant.
2.11.2.4 **Women’s physical capability**

Women’s physical capacity to do physically demanding work was set out in a Lonmin report (2012). The organisation implemented a physical Work Capacity Assessment programme to test a person’s physical load capacity, which covered both muscular and cardiovascular endurance. The physical challenge which women face is being addressed by matching a person’s physical ability with the appropriate job, which decreases the risk of injury and safety incidents.

2.11.2.5 **Sexual harassment**

According to the Commission of Conciliation, Mediation and Arbitration’s (CCMA, 2008) Code of Good Conduct on Sexual Harassment, sexual harassment is unwanted conduct of a sexual nature. Sexual harassment may include unwelcome physical, verbal or non-verbal conduct. The CCMA further refers to sexual favouritism and says that sexual favouritism exists where a person who is in a position of authority rewards only those who respond to his/her sexual advances, while other deserving employees who do not submit themselves to any sexual advances are denied promotions, merit rating or salary increases.

2.12 **STATISTICAL DATA REVIEW**

A questionnaire was distributed to 65 women working in the opencast mining environment. The questionnaire consists of two sections: Section A, which focuses on the demographical information of the participants, and Section B, which focuses on the women’s perception of their working environment.

2.13 **SUMMARY OF THE LITERATURE REVIEW AND THE FINDINGS**

By determining what the challenges are that both women and management teams face, they can be actively addressed and limited to ensure the participation of women in core occupational categories in the mining industry.
This chapter has discussed the untapped potential that women can bring to any workplace. This is evident when we look at the financial achievements of organisations that are diversifying or have diversified their workforce, the contribution and benefit to sustainable business practices, and the corporate responsibility actions that an organisation takes. It creates hope and allows almost 50% of the country’s population to dream of becoming whatever they want, and encourages them to strive even more.
CHAPTER 3
EMPIRICAL RESEARCH

3.1 INTRODUCTION

In this chapter the quantitative results of the empirical research are reported and discussed. Maree (2013:145) states that objectivity, numerical data and generalisability are the three most important elements in the definition of quantitative research. Therefore objective numerical data from a selected group were used to generalise the findings that were studied. The results presented are based on the proposed research objective as indicated in Chapter 1. Van der Merwe and Champion (2014:8) state that quantitative research relies on measurement to compare and analyse different variables by using different scales. Therefore the quantitative research approach was chosen to establish the challenges faced by women in the opencast mining industry. The method of group administration of questionnaires was used to collect data. Maree (2013:156) describes this method as one where the researcher waits while a group of respondents complete questionnaires.

The main objective was to determine the challenges faced by women in the opencast mining industry.

3.2 LITERATURE REVIEW

The following databases were used to collect data:

- Google Scholar
- Emerald
- Ebscohost
- Academic Search Premier

The keywords that were used in Internet searches were: women in mining, women employed in South Africa, mining-related legislation, importance of transformation.
3.3 THE QUESTIONNAIRE

The questionnaire focused mainly on two sections: Section A to determine demographic information such as age, race, marital status and highest qualification obtained. The data were gathered by using closed-ended questions in the questionnaire. Section B of the questionnaire aimed to gather the women’s viewpoint of their working environment concerning safety, facilities and a balance of family and work life. Instructions were clear and easy to understand and the participants took between 30 and 40 minutes to complete the questionnaire. All the selected participants were women employed in opencast mining companies and had the knowledge and experience to answer the questions put to them.

3.4 EMPIRICAL STUDY

The questionnaire was distributed to 65 women working on opencast mines in North West and Limpopo provinces of South Africa. The target population of the empirical study (women) worked in various different occupational categories in the mining industry, which ranged from cleaners to tele clerks, machine operators, supervisors and human resources officers. These occupational categories covered women at all equity levels of a mining company, from elementary to skilled to professionals. The data were collected to determine the challenges faced by women working in the mining industry as well as the challenges faced by organisations in complying with the regulatory quota of 10% women in mining.

3.5 DATA ANALYSES

The statistical consultation service of the North-West University (Potchefstroom Campus) analysed the data obtained from the questionnaires. The results from the 65 questionnaires that were analysed are discussed in this section with regard to descriptive data, frequencies and correlations.
3.6 DATA RESULTS

3.6.1 Section A: Demographic information

In this section the demographic information of 65 women (n=65) working in an opencast mining environment is discussed.

Figure 5 shows that the minimum age of the sample group was 19 years and the maximum age was 56 years. The average age of the 65 women was 31 years, which is relatively young age due to the hard labour associated with mining. The average age can be linked to the generation of millennials born between 1980 and 2000. This generation is characterised as caring about manners, believing in civil action, seeking attention and structure and preferring personal challenges and team work (Coetzee et al., 2013:378).

![Age](image)

**Figure 5: Minimum and maximum ages of the sample group**
Figure 6: Races of the participants (question 6 of the questionnaire)

The majority of the population group consisted of black females (69%), while only 31% of the participants were white females. Figure 6 shows the average number of black females versus white females in the platinum belt in which the participants were employed.

Figure 7: Type of mining experience
Of the total of 65 participants, 59 participants indicated that they worked in an opencast mining environment, with the largest number (46) working in surface mining or opencast and the fewest working underground. The study, as mentioned above, focused on opencast mining. One employee indicated that she had underground mining experience but was now working in the opencast mining environment. However, 12 women from the sample group indicated that they had no opencast or underground experience and were working in occupational categories not directly related to core mining activities, but rather service departments. From the literature cited in Chapter 2, it was found that mining houses had barriers to employing women in core mining occupations.

The mining companies claim that women lack the experience or physical ability to carry out mining-related activities. However, 71% of the sample group worked in core mining occupations.

![Marital status](image)

**Figure 8: Marital status of participants**

Figure 8 shows the marital status of the women. The results indicated that of the 63 participants, 23 (36%) were married, 37 (59%) were single and 3 (5%) were divorced.
The high percentage of single women correlates with the young average age of the women who participated in the study. According to Statistics South Africa, women marry for the first time at younger ages than men. According to the reports on marriages and divorces released in 2012 and 2011, the median marrying age for men was 34 years compared to 29 years for women.

![Figure 9: Participants with children](image)

Regarding the question of whether the women had children, only 63 responded. It was found that 45 of the women had children and 18 were childless. The children of the participants were aged between 1 and 5 years. The ages of the children indicate that they were still very small and needed to be supervised and looked after. These women, who were working full time, had to ensure that they had a care-giver to assist with their child-rearing responsibilities. In some of the cases the participants had to appoint a carer or pay for day care. Divorced women with children as well as women who have children out of wedlock, struggle in some instances to get financial support from the father of their children and are therefore solely responsible for supporting the children financially. Women who are actively involved in core mining operations are required to work shifts – one week working day shift and the next week working night shift.

Single mothers find it challenging to adhere to this arrangement especially when they do not have a support network to assist them to look after their children at night.
Figure 10: Participants’ occupational categories

Figure 10 shows the occupational categories of women in opencast mining. The sample indicates that most women (61%) are employed in a skilled category. The number of women in senior and top management positions is less than 2% of the total sample group (n=65). This correlates with the findings of the literature that women are underrepresented at senior levels of organisations (PWC report). The women indicated that the main occupations they were employed in were tele clerks, cleaning, machine operating, accounting and human resources. The majority of the women working in jobs that required hard labour were 31 years of age on average, the age at which they are still fit to be operational.
Figure 11: Length of service of the participants

Figure 11 shows that the majority of women (47%) work in the mining industry for 2 to 3 years. The data also indicate that 10% of the target population had worked on the mines for 3 – 5 years and 31% of the participants (n=65) had more than 5 years’ service with the mining industry. This indicates that 88% of the women questioned worked in the mining industry for more than 2 years, which may reflect on the mining company’s positive retention strategy becoming operational. The importance of effective retention strategies is evident regarding the following benefits:

- Medical aid
- Shift allowance
- Area scarce skills allowance
- Living-out allowance

These are just some of the benefits appreciated especially by single mothers and women responsible for providing for others.

Experienced operators are better able to identify hazardous situations which can in some cases prevent incidents from occurring. This creates a safe work environment for employees.
The financial benefits of effectively training employees can be substantial. Preventive measures such as training can lead to indirect savings. It has also come to light by evaluating the accident statistics of an opencast mining company that women are more careful drivers and involved in fewer incidents than their male counterparts. Senior management in the mining field state that female operators take better care of machinery and ensure proper housekeeping in the areas where they work.

### 3.6.2 Section B: Occupational experience

In Section B of the questionnaire the aim of the questions was to determine the perceived working conditions in the mining industry by this sample group (women working in opencast mining). The questions that were put to them included:

- What is your reason (motivation) for working on the mine?
- How did your household change after you were employed on the mine?

Lastly, questions were put that related to safe working conditions and facilities such as ablution blocks and their availability and state.

![Reason for working on the mine](image-url)

**Figure 12: Reasons for working on the mine**
The largest part of the sample group indicated, when asked to give reasons why they worked on the mine, said that it was because of poverty. 54 women clearly indicated their reason as poverty (36% – 23 individuals). 20% (13 individuals) said that it was close to their home, and lastly 28% (18 individuals) stated that it was difficult to find a job. In total 11 women or 17% of the participants did not complete this question. One may argue that they had not considered why they should be employed in a mining-related field. Considering the literature on regulatory requirements (quota) of 10% women in mining and the challenges to organisations such as Lonmin and Impala Platinum in recruiting from a broadly experienced skill pool, not only the perceptions of their counterparts need to improve but the perceptions and motives of women in the industry need to change.

Figure 13: How the mining industry affects households

Figure 13 shows that the majority of the women’s lives had improved since their employment in the mining industry. 52 of the 62 women who answered the question (80% of the participants) indicated that their lives had changed for the better.
Only 1 individual (1%) indicated that her life had changed for the worse. 14% of the participants said that working in the mining industry had not brought about any changes to their households. The indication by 80% of the participants regarding improvements in their lives is a victory for the opencast mining industry. It truly reflects the positive impact of giving women an opportunity to work in an industry previously reserved for men.

Figure 14: Participants’ perception of current working environment

The question was put to the participants of how they viewed their current working environment: permanent, only an entry to an office job, or still undecided. 57% of the women responded positively by saying that they viewed their current working arrangement as permanent where they saw themselves in the future. This may refer to the current job satisfaction the women experienced. 23% of the women had not decided where they saw themselves in the mining industry in the future. In this respect the literature study highlighted the lack of proper career guidance as part of an organisation’s task of identifying and retaining talent.
This indicates the lack of proper career progression planning and communication with female employees.

![Figure 15: Safe working conditions](chart.png)

Figure 15 shows what the women felt about safety of working on mines, the difficulty of working on mines and whether the women felt accepted by their male counterparts. The results of determining whether the women felt safe when working night shift were controversial, with 18 women answering yes and 13 no. Of the 65 participants, 31 were in occupations where they worked night shift.

The sample group were asked if they felt safe at work in general as the mining environment exposes employees to high-risk areas. 63 participants answered that they felt safe working in the mining industry, and only one participant said that she did not feel safe. This may refer to working conditions at the mine and its compliance with the Mine Health and Safety Act. Considering the safety statistics discussed in Chapter 2 (DMR), the mines in the study had accomplished a high standard of safety. Women are viewed as more careful and aware of safety regulations and compliances according to Kwayiba (2009:8). The safety of the working environment can also be the effect women have on the mining environment.
The participants were also asked if they viewed the mining industry as a difficult working environment. 50 women responded that they did view the mining industry as a difficult working environment, and only 12 said that they did not. After evaluating the questionnaires it was evident that the majority of women who felt that the industry was not a difficult working environment were not in core mining occupations but worked in offices and therefore did not always deal directly with aspects such as working in the sun all day or operating heavy earth-moving equipment and experiencing a direct impact on their health.

Lastly, Figure 15 shows the perceptions of women regarding their acceptance by their male counterparts. The majority of the women indicated that they did feel accepted by their male counterparts. 48 women stated that they did feel accepted, 4 said that they did not feel accepted and 6 felt the question was not applicable to them. This result shows that the tide is turning and that real progress has been made by the opencast mining industry in terms of equality.

![Figure 16: Influence on care-giving, marital and community responsibilities](image-url)
Figure 16 shows to what extent working on the mine has on different factors for the target group, namely:

- Care-giving responsibilities
- Marital conflict
- Children’s development problems
- Community involvement

With regard to their care-giving responsibilities, 25 women indicated that working in the mining industry had no influence on their care-giving responsibilities, 17 said that there it had a moderate influence on their care-giving responsibilities and 12 said that working on the mine had a negative influence on their care-giving responsibilities. Figure 12 showed that only 13 women gave living close to the mine as their reason for working on the mine. The participants living further away from the mine may also be struggling to adhere to their care-giving responsibilities because of the distance they live from their work.

They may have additional challenges such as working shifts and are not able to come home on weekends because they work on Saturdays, or they may have difficulty affording transport home more than once a month. This information may also be related to the number of participants feeling that the transport provided by the company did not satisfactorily meet their needs as indicated in Figure 17.

Figure 17 shows the women’s satisfaction level of working conditions when it came to ablution facilities, change houses and transport. The majority of the women were satisfied with the conditions of the facilities mentioned above.
Figure 17: State of working conditions
CHAPTER 4
CONCLUSIONS AND RECOMMENDATIONS

4.1 INTRODUCTION
The purpose of the study is to identify the mutual challenges faced by women working in the opencast mining sector and the management teams of the mines. It is discussed how a profile of the women’s challenges with regard to health and safety could be established and how human resources can play a strategic role in the transformation process with regard to training, recruitment and retention strategies. The change management process of introducing women into different occupational categories is discussed.

In this chapter conclusions are drawn from the analysis of the results discussed in Chapter 3. Recommendations are made based on the conclusions drawn from the literature search and the empirical study.

4.2 CONCLUSIONS
The findings from the empirical study enabled the researcher to draw conclusions and make recommendations that are subdivided as follows:

- Health and safety: women’s perceived vulnerability
- Recruitment and training programmes benefiting both women and organisations
- Retention strategy of organisations
- Change management challenges

4.2.1 Health and safety: women’s perceived vulnerability
As the mining industry is viewed as a robust and physically demanding environment, women are often viewed as a risk to employers. This inevitably leads to men being preferred over women in more senior positions and women being left with less prestigious low-risk positions.
This points to the traditional view that men should not allow women to be placed in harm’s way, but it ignores the possible success of a far more meticulous and cautious approach of a female counterpart. The influence women might have in these core roles could potentially lead to greater profitability and safety in the mining sector.

Women working in the opencast mining environment do not face the same challenges relating to health and safety as underground workers as is evident from the empirical study. Figure 15 indicates that the majority women do not view their working conditions as unsafe. Opencast mining employees are not required to wear safety equipment such as cap lamps. Some safety equipment is not specifically designed for women and is too heavy to wear during the normal course of a working day.

![Portable toilets on an opencast mine in Limpopo, 2014](image)

In terms of facilities, portable bathrooms are also much more accessible and manageable than those in underground facilities, hence women have the same facilities available as their male counterparts. Women have the potential to make a more positive contribution towards health and safety issues on the mines.
Singer (2002:2) refers to women’s behaviour as being more careful in unsafe conditions. The stereotype view that women are more vulnerable needs to be addressed by using women as safety representatives. Safety representatives are a legal requirement of the Mine Health and Safety Act 29 of 1996 section 98, which empowers an employee to contribute by monitoring the health and safety standards of the mine.

The need does, however, exist to make women more aware of occupational health and safety issues and their impact on women’s health. Illnesses related to the mining environment such as reproductive health and skin conditions must be communicated to these women. The mines can address unawareness by ensuring that women are educated about the health risks associated with mining by implementing awareness programmes. Clearly seen in Figure 18, the women’s latrines do not have SHE-bins for sanitary towel disposal.

4.2.2 Recruitment and training initiatives that benefit both the organisation and employee

Unequal treatment of women naturally leads to a smaller pool of qualified women to draw from when employers are looking to increase their representation of disadvantaged groups in their organisations. The correction of inequality required by empowering legislation often has various rewards for employers.

This subdivision looks at the advantage that developing women’s skills can have not only for the individual but for the organisation as well. It is important for the focus to be placed on how the individual woman can uplift those in her immediate contact groups as it becomes clear that the training and recruitment of women is mutually beneficial. Recruitment plays a vital role in any organisation to ensure that the right employee with the right qualifications and experience is appointed in the right occupation.
This contributes to the competitive advantage of an organisation, as underutilised, demotivated employees can cause damage to the company if they are not strategically placed. It is critical for mining houses to monitor all employment occupations carefully, not only to ensure that they comply with the required 10% women in all categories to ensure equal representation, but also to ensure that women play a bigger strategic role within an organisation.

According to a PWC report (2014:3), organisations with a top management structure that includes women are 17–26% more successful than companies with no women on their boards. The top management structures of the mining houses need to strategically involve their human resource departments to keep track of women employees’ progress within the organisational structure. HR needs to ensure that each woman is provided with a career progression plan on her appointment setting out her career progress options in the organisation.

For companies to properly administer this, they need to identify employees with the necessary skills set during the recruitment process. This would address not only the training and retention strategy, but could be incorporated in the succession planning of the company. Mining companies need to identify women candidates who can be advanced quicker, especially in senior positions to ensure greater women representation at the top levels of the company. This can be done by identifying current talent within the company or by recruiting talent from outside.

This process needs to be managed and administered at a senior level with specialised human resource recruitment personnel. Where organisations decide to develop and train currently employed female staff, they will have to appoint mentors to assist them to ensure that they are guided and developed by employees who are specialists in disciplines such as mining and engineering. Training and development is one of the most valuable tools organisations have to ensure that employees are equipped with the necessary skills sets that will allow them to make a valuable contribution towards the organisation.
In mining operations it is possible to predetermine the skill set needed in each occupational category. Once the need has been determined, the organisation must identify and develop the talent within that is to participate in short and long-term development programmes.

The National Skills Policy focuses more on allowing grants for women training, which enables employers to apply for grants for training women. This requires a minimal financial investment from employers, but has the potential of big returns. In-house training would focus on developing talent within the organisation, which would include training initiatives for women within the organisation; among others this would include learnerships.

The second training initiative that needs to be better managed is bursary programmes as well as the lack thereof. Companies need to ensure 10% compliance in all occupational categories. Bursaries can be a source of long-term talent management initiative to ensure that companies reach the set targets. Part of the problem is that many opencast mining companies such as Benhaus Mining have been failing to properly involve bursary students from the early stages in the core mining activities, which would allow them to experience what their jobs would entail on a daily basis. In most cases the students graduate and after a short period of employment find that they cannot cope with the harsh mining environment.

4.2.3 Retention

The literature discussed in Chapter 2 highlighted the fact that companies struggle to recruit women from small skills pools partly because women lack experience. It goes without saying that with an already small pool of skilled women in the mining sector to choose from, those who are skilled and qualified are in high demand by those companies who recognise their importance or their value in the workplace.

Companies then need to develop strategies to retain this talent as well as to make use of their expertise to ensure even further development of the representation of all structures within the core occupations of organisations. The ultimate goal is to create an environment where women are not only required, but want to work in.
After a large initial financial investment during the recruitment process, mining companies fail to effectively retain the women in core mining occupations. In my view this is one of the biggest challenges that organisations face. This emphasises the importance of an effective retention strategy to ensure that organisations get a return on their initial investment, build and retain organisational knowledge and comply with regulatory requirements (quotas).

The different retention strategies that companies may adopt and identifying a strategy that works effectively must be evaluated. Opencast mining organisations needs to focus on initiatives such as career progression plans and flexi working hours.

4.2.4 Change management

“Research shows that there is a strong correlation between financial performance and the participation of women on boards,” says Seegers (2014), PWC Director for Human Resources Services, Southern Africa.

The empowerment and placement of women in mining alone does not solve the dynamic of unfair treatment. Often the treatment is not based on the structure and development, but on those people around the structure who need to adapt to the change of employing women in core positions within the mining sector. This requires a change in the mind-set of the traditional views and stereotypes to allow a free and healthy transition to the acceptance of the newly empowered women. Key to the success thereof is support from top management as well as the placement of women on the organisations' boards of direction.
From these subdivisions it becomes clear that precepts hinder placement and development, and that the lack of the basic requirements for successful empowerment leads to a massive gap in the corrective action being taken to assist discriminated groups. It is a concern that the benefits to all parties are so easily overlooked when certain models can be used as a reference framework of how successful organisations and societies can be when women are integrated into their core structures.

RECOMMENDATIONS FOR FURTHER STUDIES

Recommendations are listed for further studies. They can be used to improve or enhance effective management of women in the opencast mining environment:

- Research can be conducted to evaluate team performance and team dynamics when organisations introduce more diverse teams as well as the acceptance of women relating to specific cultural groupings.

- Research can be conducted to evaluate the safety performance of teams utilising women.

- Research can be conducted to determine the effect of more flexible work schedules on mothers with children, not only regarding their productivity in, and contribution to, the company, but as a retention strategy for women.
REFERENCES

African Institute of Corporate Citizenship and Mining Minerals Sustainable Development see Southern African. August 2001


Campbell, K. 2007. Woman miners “No better industry”, but retaining women after recruiting them seen as challenge. Mining weekly, 8 August.


Singer, R. 2002. South African women gain ground below surface. USA Today, 1–2


