MAINTAINING COMPETITIVE ADVANTAGE THROUGH THE STRATEGIC INTEGRATION OF WOMEN INTO IMPALA PLATINUM MINING

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ABSTRACT

Consider how hard it is to change yourself and you'll understand what little chance you have in trying to change others.

Jacob M. Braude (2008)

Women were not allowed to work underground until the ban was lifted by the Mines Health and Safety Act of 1996 (SA, 1996b). In the years that followed, the numbers of women working on the mines remained low. These low figures triggered the Government through the Department of Minerals and Energy (SA, 1996c) to introduce the Mining Charter to boost the advancement of women. This initiative was not to be without problems and business implications.

The aim of this mini-dissertation was to investigate change management issues regarding the introduction of women to a somewhat gender-insensitive culture and workplace. The literature study examines the problem in general, and the empirical study was performed at Impala Platinum Holdings Limited as a case study. The empirical study was done through a questionnaire administered to respondents of the sample to ascertain the extent of the problems and an in-depth study of company statistics. The aim of studying company statistics was to ascertain whether Impala was showing any signs of losing competitiveness in terms of productivity, profit margins and safety as a result of the phasing-in of women in the Mine.

The results of the empirical study enabled the researcher to introduce recommendations that could be used to avoid mistakes made during the implementation of women working in the mines.

List of key terms: women, mining industry, change management, competitiveness, discrimination

Opsomming

Vroue is nie toegelaat om ondergronds te werk totdat die verbod deur die Mynwerkersgesondheids en -veiligheidswet van 1996 ingestel is nie. In die jare wat hierop gevolg het, het die getalle vroue wat by die myne gewerk het, laag gebly. Hierdie lae syfers het die regering genoop om deur die Departement van Minerale- en Energiesake die Handves van Myne in te stel om vrouegetalle in die mynwese te bevorder. Hierdie skuif was nie sonder probleme nie en het besondere besigheidsimplikasies tot gevolg gehad.

Die doel van hierdie mini-verhandeling was om die bestuursveranderingkwessies ten opsigte van die inlywing van vroue in die mynwese te ondersoek in 'n omgewing wat tradisioneel 'n geslagsensitiewe kultuur in die werkplek gehad het.

Die literatuurstudie ondersoek die probleme in die algemeen, terwyl die empiriese studie as 'n gevallestudie behandel is by Impala Platinum (Edms.) Beperk. Die empiriese studie is gedoen deur 'n vraelys voor te lê aan die respondent in die steekproef om te bepaal wat die aard van die probleme is, en ook deur 'n volledige studie van die maatskappy se statistiek te doen. Die doel van die bestudering van die statistiek was om te bepaal of Impala enige tekens van verslapping van mededingendheid in terme van produktiwiteit, winsmarges en veiligheid ingeboet het sedert die infasering van vroue in die Myn.

Die resultate van die empiriese studie het gelei tot die instelling van aanbevelings wat voorkomend geïmplementeer kan word gedurende die voortgesette doelwitte van Impala.

Lys van sleutelbegrippe: vroue, mynwese, veranderingsbestuur, diskriminasie, mededingendheid

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CHAPTER 1
NATURE AND SCOPE OF THE STUDY

1.1 INTRODUCTION AND BACKGROUND

Women were by law barred from working underground in South Africa until 1997. This was the sole reason why prior to 1997 there were no women underground. Although this ban was lifted in 1997 the underground environment remained somewhat a no-go area to women for various reasons.

In 2004, the South African Government came up with the Mining Charter (SA, 1996c), which recognised that the South African history/legacy resulted in blacks, mining communities and women being excluded in participating in the mainstream of the mining industry. Among other objectives, trying to redress this legacy were the following:

- To ensure high levels of inclusiveness and advancement of women; and
- To aspire to a baseline of 10 percent of women participation in the mining industry within five years.

The Charter's custodians (The Department of Labour and, specifically to the minerals industry, the Department of Minerals and Energy (SA, 1996c) would monitor the industry's compliance. Those companies who failed to comply risked losing their mining licenses.

The Mining Charter required companies to:

- publish an Employment Equity Plan and report on annual progress;
- achieve 40 percent historically disadvantaged South Africans' (HDSAs) participation in management by 2009;

- identify a pool of talent and fast-track them; and
- achieve participation by women of ten percent by 2009.

It is against this background that mining companies were faced not with a problem to be solved, but a polarity that needed to be managed well. The polarity was twofold:

- Mining was generally regarded as a field for men and mining companies for years hired their workforce without any gender quotas; and
- Non compliance to the Charter, which meant less than ten percent of the workforce, as women were to result in mining companies losing their licenses.

The ten percent by 2009 brought with it a significant change that would reshape human resources. Whilst there seems to be no doubt about the need for change and challenges that women in the mining workplace would bring to human resources, a debate on whether there were to be some business implications raged for time to come.

There are some schools of thought that suggest that the integration of women if not managed through proper Change management interventions would have far-reaching business consequences that would affect financial statements. It is against this background that the author, in consultation with Impala Rustenburg Operations Management, decided to research the change sweeping the mining sector and the effects thereof.

1.2 PROBLEM STATEMENT

Impala Platinum Holdings Limited (Impala) mines, refines and markets Platinum Group Metals (PGMs) – primarily platinum, palladium and rhodium – and related base metals. Below, diagram 1.1 represents a simplified flow diagram showing ore flow from mine to refineries.

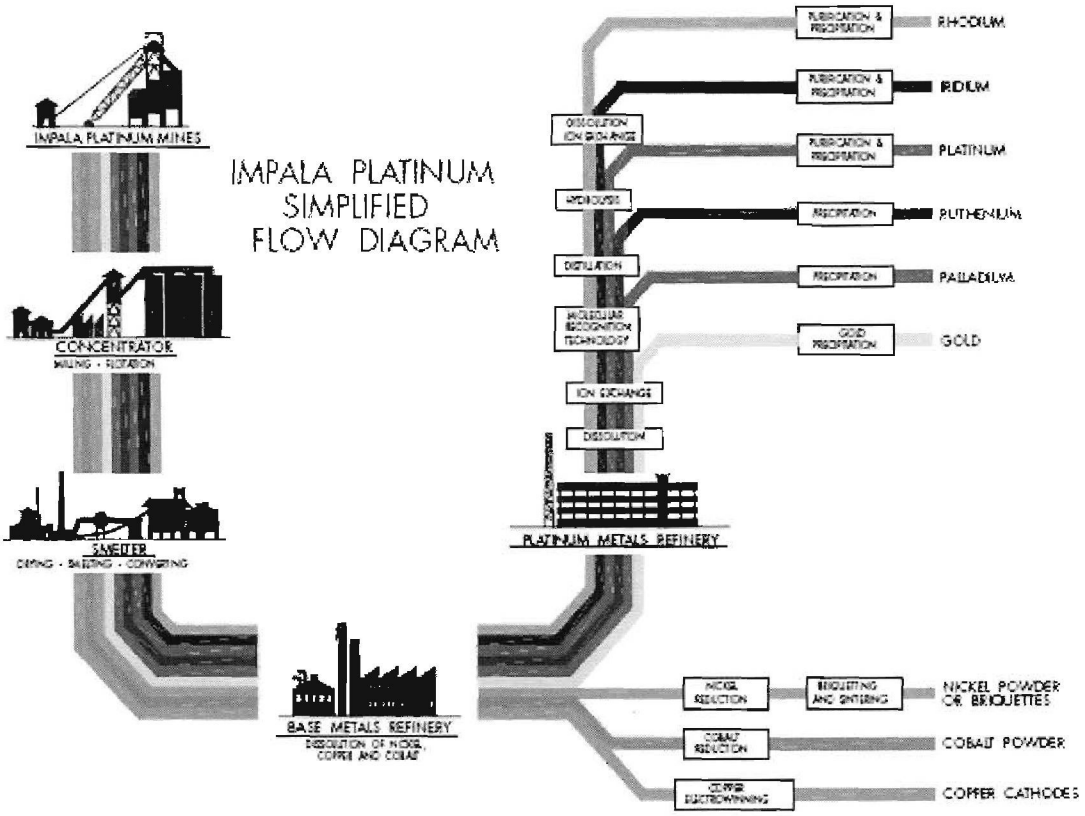


Diagram 1.1: Impala Simplified Flow Diagram
(Source: Impala 2008 Financial results)

The flow diagram shows that from the underground mines the ore goes to the Mineral Processes section comprising the Concentrator and Smelting plants. Processing in the two plants with a capacity of 2.8 million ounces per annum converts the ore into matte prior to refining. Mineral processing takes place on the surface. The Refineries which include both base metal and precious metals is situated in Springs and is currently under expansion to accommodate an annual throughput of 2.3 million ounces of platinum.

The group has extensive operations on the two most significant Platinum Group Minerals (PGMs) deposits in the world, namely the Bushveld Complex in South Africa, and the Great Dyke in Zimbabwe, and has total attributable resources of 187 million ounces of platinum. The location of Impala mines are shown in Diagram 1.2 below.

Diagram 1.2: Map of Impala mine location
(Source: Impala 2008 Financial results)

Impala employs some 47 000 people across its operations and, in the 2007 financial year, produced approximately 2.03 million ounces of platinum (around 3.5 million ounces of PGMs). Plans are in place to achieve production of 2.5 million ounces of platinum by 2012. Impala mineral resources and reserves as at June 30, 2007 are shown in table 1.1 below.

Mineral Resources as at 30 June 2007					
Orebody	Category	Channel Tonnes (millions)	Grade (g/t) 3PGE + Au	Grade (g/t) 5PGE + Au	Pt oz (millions)
Merensky	measured	121.3	6.06	6.94	15.4
	indicated	89.3	6.13	7.02	11.5
	inferred	71.2	6.83	7.83	10.2
UG2	measured	117.8	6.93	9.03	16.3
	indicated	73.8	6.75	8.79	9.9
	inferred	58.5	6.96	9.06	8.1
Total		531.9	6.56	8.03	71.4

Mineral Resource (tailings) as at 30 June 2007				
Orebody	Category	Tonnes (millions)	Pt grade (g/t)	Pt oz (millions)
1 & 2 tailings complex	indicated	48.1	0.42	0.6

Mineral Reserves as at 30 June 2007					
Orebody	Category	Mill Tonnes (millions)	Grade (g/t) 3PGE + Au	Grade (g/t) 5PGE + Au	Pt oz (millions)
Merensky	proved	23.0	4.07	4.66	2.0
	probable	104.7	4.04	4.63	8.9
UG2	proved	23.2	3.89	5.06	1.8
	probable	105.6	3.88	5.06	8.2
Total		256.4	4.0	4.85	20.8

Table 1.1: Mineral resources

(Source: Impala 2008 Financial results)

The mineral resources from both Merensky and UG2 add up to 71.4 million platinum ounces and reserves add up to 20.8 million platinum ounces.

Impala first published its scorecard as required by the Charter in the 2003 Annual Financial report. At that time, only 2.6 percent of the overall workforce were women, with the split as follows:

A mere 2.9 percent worked at the mines, 15 percent at Refineries, 13.4 percent at Mineral Processes and 30.6 percent at the corporate office. The statistics here showed that there was a strong tendency of giving women jobs in offices and shying away from underground.

According to the Charter, Impala were to have 10 percent of their total workforce as women by 2009 which means, at current figures, 3 204 employees. Table 1.2 below shows actual figures for 2007 of FY2008.

Women in mining

	FY2008 Total employees/ members	FY2008 Total women	FY2008 % women	Target FY2009 (%)
Board	13	4	31	10
Senior management	97	9	9	10
Middle management	590	115	19	10
Sub-total	700	128	18	10
Skilled	3 929	336	9	10
Non-skilled	27 406	2 032	7	10
Total #	32 035	2 496	8	10

Table 1.2: Women in mining
(Source: Impala 2008 Financial results)

Total women employed shown in table 1.2 are 2 496 which represent 8 percent of total employees. Another 708 women, assuming no resignations, still need to be employed to achieve 2009 figures.

Impala has always argued that they are a "people focused" company and believe their competitive advantage is their people from top to bottom. There are many people within the mining fraternity that saw the Mining Charter as an external threat on company effectiveness or competitiveness.

It is against the background of this external threat that this study was done. It is important to examine whether this change brought with it serious challenges on human resources. The research was also useful to indicate to business that it needed a change management strategy to allow Impala to strategically integrate women without affecting its competitiveness. The focus areas on competitiveness will be productivity, profitability, and safety.

The Mining Charter brought a challenge which was twofold. The requirements needed to be communicated to mining stakeholders and to be complied with by 2009.

Change in any organisation brings with it uncertainty, a climate of mistrust, personal conflict, disruption of traditional groupings and new political dimensions. In light of this, if an organisation needs to maintain stability, proper change management and leadership need to be extra-ordinary, because all these elements would cause resistance to change.

1.3 OBJECTIVES OF THIS STUDY

The main objective of this study was to do an in-depth study of how Impala can integrate women into the workplace in order to comply with the Mining Charter law of ten percent by 2009, without losing their competitive advantage.

The issues to be addressed are as follows:

- The Mine challenges;
- Mine culture;
- Change;
- Organisational change;
- Cultural change;
- Change management;
- Change models;
- Resistance to change;
- Transformational leadership;
- Women-specific challenges;
- Gender equality; and
- Organisational competitive advantage.

1.4 SCOPE OF THIS STUDY

The study focused on Impala Platinum Holdings Limited; however, it draws inferences from the Implats Group and other similar organisations like Impala, and in some cases from the industry in general.

1.5 METHODOLOGY

The methodology followed in this study consists of a literature study, an empirical study, an analysis of safety, production, profitability statistics and recommendations drawn from patterns deduced from the statistics.

1.6 LITERATURE STUDY

An in-depth literature study was done for a sound theoretical understanding of mining related challenges which the "external threat" posed. The literature study also focused on organisational development theories on company culture and its effects on change.

The literature review also paid attention to:

- The Mine challenges;
- Mine culture;
- Change;
- Organisational change;
- Cultural change;
- Change management;
- Change models;
- Resistance to change;
- Transformational leadership;

- Women-specific challenges;
- Gender equality; and
- Organisational competitive advantage.

1.7 EMPIRICAL STUDY

The empirical field investigation studied women working underground at Impala, and their trials and tribulations. A questionnaire was designed in order to examine whether the so-called challenges were real issues or not. The study also analysed Impala statistics to see if trends formed between increasing women numbers and the following:

- Safety in terms of lost time for injuries and fatalities;
- Profit margins; and
- Productivity.

An analysis of company financial statements, safety statistics, and efficiencies for the last five years were scrutinized to see if any relationship existed between variations and the increasing numbers of women. If the numbers of women were increasing whilst safety, profit, and productivity deteriorated, this would be early signs of the company losing competitiveness.

1.9 LAYOUT OF THIS STUDY

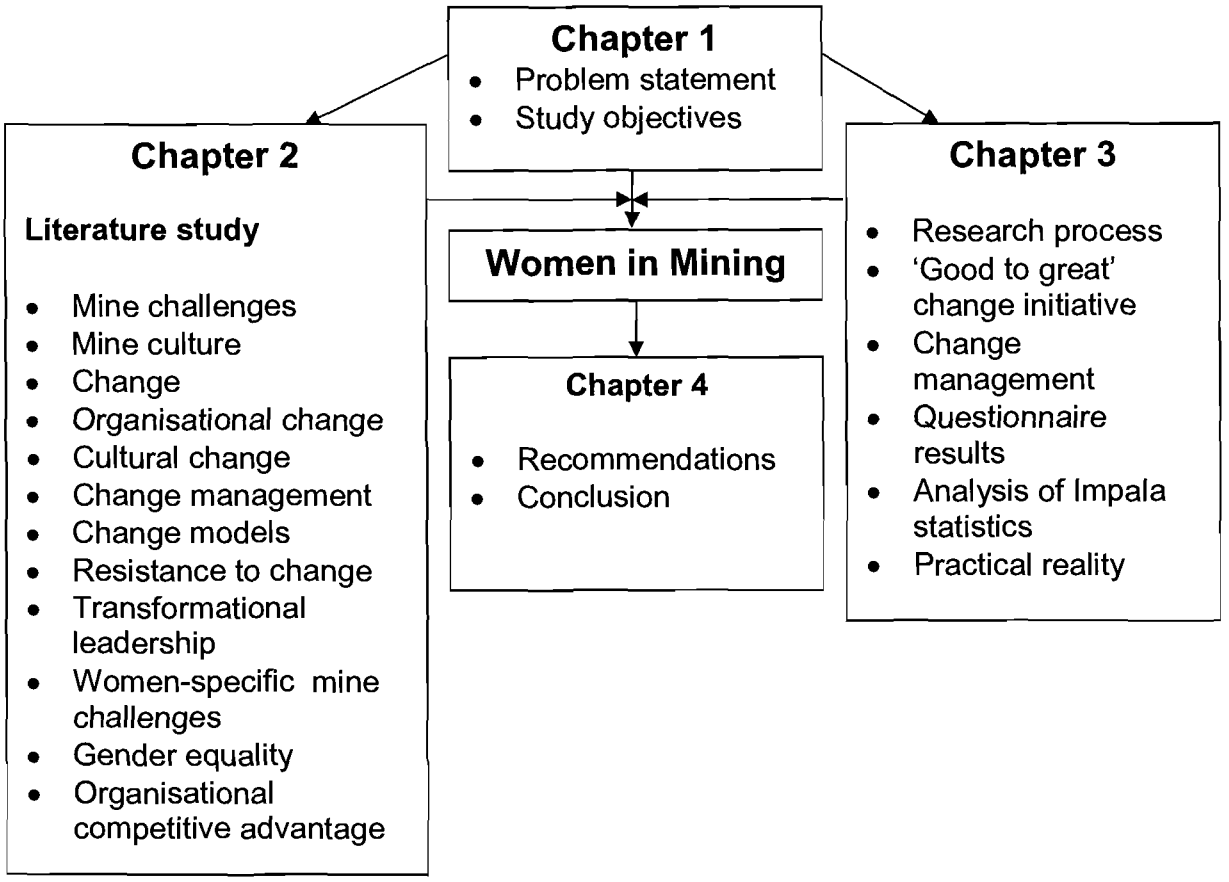


Diagram 1.3: Layout of dissertation

CHAPTER 2
LITERATURE STUDY

2.1 INTRODUCTION

The objective of this literature study was to define and explain several topics that relate to change in the context of Mine culture, mining challenges, gender equality, competitive advantage and organisational development interventions.

2.2 MINE ORGANISATIONAL CULTURE

The Mine culture, due to history and the nature of mining and the characteristics of the industry has over the years been somewhat unique. Wynn (2005:1) stated the mining culture is a function of the composition of the workforce and community as it is defined by the attitudes and beliefs held by these people. Breaking down this definition sheds more light on this unique culture.

Composition of workforce: Composition of workforce in terms of sex and tribes also shapes the culture. A woman-free workforce results in some behaviour that is different from what happens in a sex-balanced environment. Such behaviour includes profanity, urinating in the open, working barely naked and so forth.

Community: Mining communities are sometimes in remote areas far away from their original homes. This leads to communities dominated by males leading to social problems in the culture that develops underground and in after-work activities.

Attitudes: The attitude that develops in mines is generally one of finishing work as soon as possible and returning to surface for other activities. This attitude generally leads to shortcuts in terms of safety and selfish ways in an attempt to return to "normal" activities and environment. Other attitudes that developed include the following:

- The hostels and staying far from home led to a culture of drinking; and
- Sports and cultural activities thrived.

Beliefs: Beliefs generally take some time to form for people from different backgrounds. Unproven is also talk of different tribes having different beliefs. Examples of other beliefs drawn from the author's personal experience include the following:

- A belief that women would bring bad luck into the workplaces;
- A strong belief that women would not make it given the physical nature of mining; and
- Physical demands of the job brought the culture of "machoness" and perceptions that one had to be tough to succeed as an individual and certain tribes being labeled as suitable for certain jobs.

Anderson and Rosene (2008:18, 58) mention two different types of people that came about because of the physical nature of mining and risk-taking:

"Bullet proof folks ... think they know it all, particularly their jobs ... and they don't think they'll ever be hurt."

and the

"Thrill seekers actually enjoy the thrill of taking risks. They get a 'rush' when they take chances or receive praises."

The fact that mining culture evolved over a long period of time involving locals intermingled with migrant labour meant that the result was not only a complex culture but one which is difficult to change.

2.3 CHANGE

The New Oxford Dictionary of English (2005:287) defines change as an act or process through which something becomes different. The world is a dynamic place which is constantly changing, but it is quite ironic that whenever the word change is mentioned, it is met with apprehension. This is mainly because the pace at which the world is changing has generally exceeded human capacity to adapt.

Organisations are entities that exist also in this dynamic world and are not spared from change. In order to understand change in this sense, one needs to look at organisational change and organisational transformation.

2.3.1 Organisational change

Change within organisations can be divided into internal and external change, with the former being change that is initiated within the organisation and the latter being change that emanates from the environment that the organisation lives in.

Coetsee (2002:192) gives examples of external forces of change as the following:

- Political issues of a world, national or regional nature such as new world markets and new labour legislation;
- Competition, such as global competitors, new mergers and acquisitions, and new opposition;
- New technologies (information technologies), new organisational change and re-engineering; and

- Economic factors – a wide range of forces are important; for example, the oil price, the Rand/US $ exchange rate, interest rate fluctuations and more.

Coetsee (2002:193) explains internal forces as:

- The changing nature of the workforce; for example, changing values and lifestyles of employees, dissatisfaction with the status quo, more cultural diversity, many new entrants with inadequate skills;
- New vision and goals; for example, the appointment of a new CEO; and
- Internal pressures to stay viable.

Change can also be divided into small or incremental changes that take the form of fine tuning and transformational change that is large-scale and more radical. Organisational change can involve both fine tuning and radical change with the latter usually more difficult to manage.

2.3.2 Organisational transformation

Organisational transformation implies radical change due to or in response to changes in the environment where the organisation operates in. It follows that transformation in this sense involves change in terms of how people's perceptions, thinking and behavior play out. Within the major features of transformational change, one can observe the following:

- Cultural change;
- Company structures; and
- Organisational learning and knowledge management.

Kotter (1996a:14) maintains that change sticks only when it becomes "the way we do things around here"; when it seeps into the very bloodstream of the work unit or corporate environment. This assertion argues that for change to be sustainable, one needs to impact organisational culture. But what is organisational culture?

2.3.3 Organisational culture

So much has been written and said about organisational culture and the role it plays in the performance of companies around the world. The general definitions mention shared values or assumptions determining how people behave. These definitions include that of Kreitner and Kinicki (2004:81), who define organisation culture as the set of shared, taken-for-granted implicit assumptions that a group holds and that determines how it perceives, thinks about, and reacts to its various environments.

Cummings and Worley (2005:483) argue along the same lines and define culture as the pattern of artifacts, norms, values, and basic assumptions about how organisational problems should be solved. Schein (1992:12) agrees by indicating that it is a pattern of basic assumptions that the group learned as it solved its problems of external adaption and internal integration that has worked well enough to be considered valid and, therefore, to be taught to the new members as the correct way to perceive, think and feel in relation to those problems.

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 (1998:62) adds that organisational culture is the "glue" that holds the organisation together as a source of identity and distinctive competence.

Hough's (2008:296) opinion is that culture can be defined as shared values (meaning what is important) and beliefs (meaning how things work) that interact with an organisation's structures and control systems to produce behavioural norms (meaning the way things are done in an organisation).

The dynamic world we live in means culture also has to be dynamic in response to the immediate and the external environment. When the environment changes, in most cases, organisational culture tends to change.

2.3.4 Organisational culture change

Cummings and Worley (2005:479) indicated that a growing body of research has shown that culture can affect strategy formulation and implementation as well as the firm's ability to achieve high levels of performance. Culture change involves helping senior executives and administrators diagnose existing culture and make necessary alterations in the basic assumptions and values underlying organisational behaviour.

Many organisational development practitioners believe that to change an organisation culture is very difficult. Collis and Montgomery (2005:254) substantiate this view saying that embedded in the broader administrative context this is perhaps the hardest thing of all to change – corporate culture. Because it ultimately requires change in people and their attitudes, addressing this can be the most long-term and difficult aspect of corporate transformation.

Young (2007:31) agrees with the above statement by indicating that culture change is hard work. It takes courage, commitment, patience and wisdom. Just because the CEO wants it, it does not mean the organisation will move toward it. It takes a whole organisation that is energized and purposeful to make it happen.

From the above definitions and comments, it is thus clear that to effectively implement a culture change, one needs to start by diagnosing the existing culture and assess whether it supports the business strategies that the company intends following. The simplest approach to this diagnosis is individual and group interviews by a third party; for example, a consulting firm. Interviews focus firstly, on relationships within organisations, between managers and subordinates, peers and between departments. Then the focus shifts to tasks where innovation, decision-making, communication, recognition and reward can be topics to address.

Several authors and practitioners have put forward and motivated some change management models some of which can be used to change cultures. These will be discussed in the next two sections.

2.4 CHANGE MANAGEMENT

Coetsee (2007:73) states that change management is popularly known as organisational development. This statement shows that Coetsee uses the terms change management and organisational development interchangeably, but Cummings and Worley (2005:vi) think organisational development is more than change management. The author, for purposes of this mini-dissertation, uses the terms as the same concept.

Change management is the planned application of the knowledge, tools, and resources of change that provides organisations with a 'means to an end' in order to achieve their business strategy. Organisational development is aimed at improving the effectiveness (in terms of productivity, financials and continuous improvement) of organisations by means of systematically planned interventions.

The website of Toolpack Consulting (n.d.) points out a very important fact regarding organisational development. They say organisational development is based on research, not case studies. Case studies can be interpreted differently, depending on what people know and what they already believe. Research into human behaviour isolates and tests key assumptions and relationships, and is more reliable as a basis for change.

The following are some of the primary reasons why companies engage in organisational development interventions:

- To become more dynamic and change adept;
- To change their corporate culture;
- To boost employee morale; and
- To increase productivity.

The following section discusses change models used to change corporate cultures.

2.4.1 Culture change models

The author's opinion is that culture change models deserve to be a separate dissertation topic and therefore the models that follow are briefly discussed and deemed sufficient for purposes of this research.

According to Campbell, Stonehouse and Houston (2002:205) Lewin suggested in 1947 that organisational change could be understood in terms of three consecutive processes.

The three-stage model of change is depicted in diagram 2.1 below.

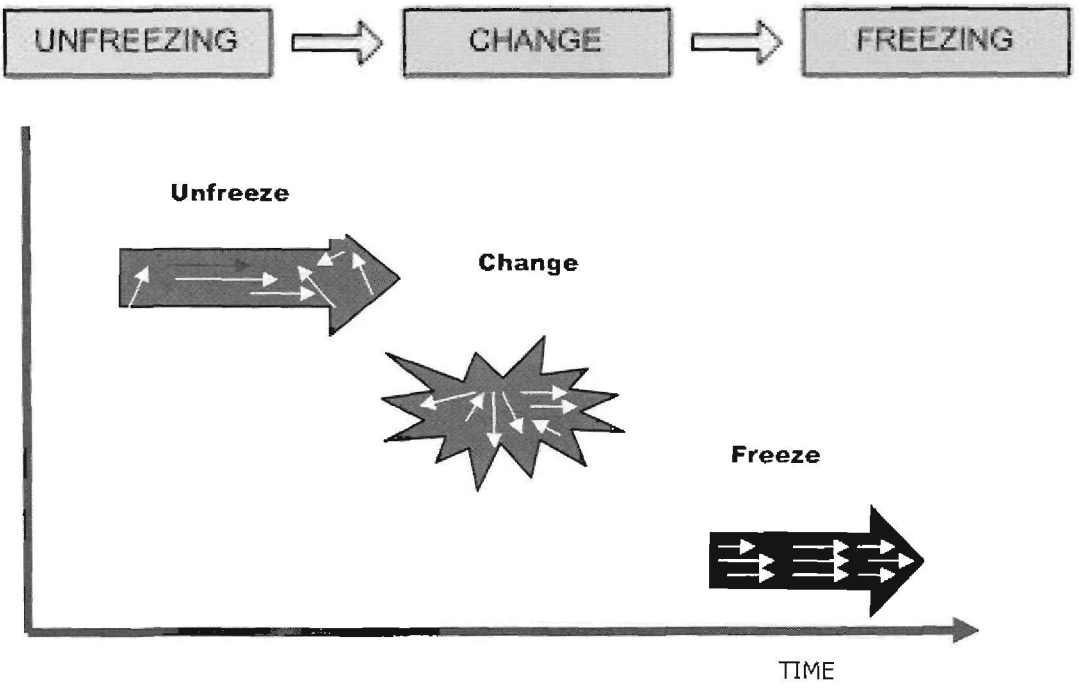


Diagram 2.1: Lewin change model
(Source: Adapted from Campbell et al., 2002:205)

- **Unfreeze**: Deals with preparing the organisation for change. This generally involves explanations to all stakeholders of what needs to change and why it needs to change.
- **Change**: Once there is understanding among the stakeholders, action begins. Action takes place after people buy into the need for change. Success depends on continuing to develop a sense of teamwork and active communication among those people in the organisation engaged directly in the change effort and the other members of the organisation who have a stake in the outcome. It is essential that the change agents, especially managers, project team members, and consultants, provide visionary leadership that enables the process, rather than top-down, command-and-control micromanagement that inhibits it. By so doing, the leaders of the change effort can create and maintain the momentum crucial to the success of this phase.
- **Freeze**: When the transition has achieved some success freezing means consolidation of the organisation in its new mode of operation. Company procedures, remuneration and organisational values are changed to reflect the new status quo.

While Lewin's model does not spell out in detail what change agents need to do to effect change, it provides a good starting point. As such, it is a powerful tool, but it is not the only one.

According to the website www.everychildmatters.com, for a change programme to be successful and sustainable there must be:

- A compelling reason to change;
- A clear vision for the future; and
- A coherent plan for getting there.

This means it is imperative to look at a few more change programmes. Kotter (1996b:33) summarized his eight-step change model as:

1. **Increase urgency** – inspire people to move, and make objectives real and relevant.
2. **Build the guiding team** – get the right people in place with the right emotional commitment, and the right mix of skills and levels.
3. **Get the vision right** – get the team to establish a simple vision and strategy; focus on emotional and creative aspects necessary to drive service and efficiency.
4. **Communicate for buy-in** – involve as many people as possible, communicate the essentials simply, and appeal and respond to people's needs. De-clutter communications – make technology work for the company rather than against it.
5. **Empower action** – remove obstacles, enable constructive feedback and lots of support from leaders. Reward and recognise progress and achievements.
6. **Create short-term wins** – set aims that are easy to achieve, in bite-size chunks. Ensure manageable numbers of initiatives. Finish current stages before starting new ones.
7. **Don't let up** – foster and encourage determination and persistence, ongoing change, encourage ongoing progress reporting. 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.

The website www.everychildmatters.com (Anon(b)., n.d.) adopted the Kotter model (in diagram 2.2 below) and split it into three important stages namely, creating a climate for change, engaging and enabling the organisation, and implementing and sustaining change.

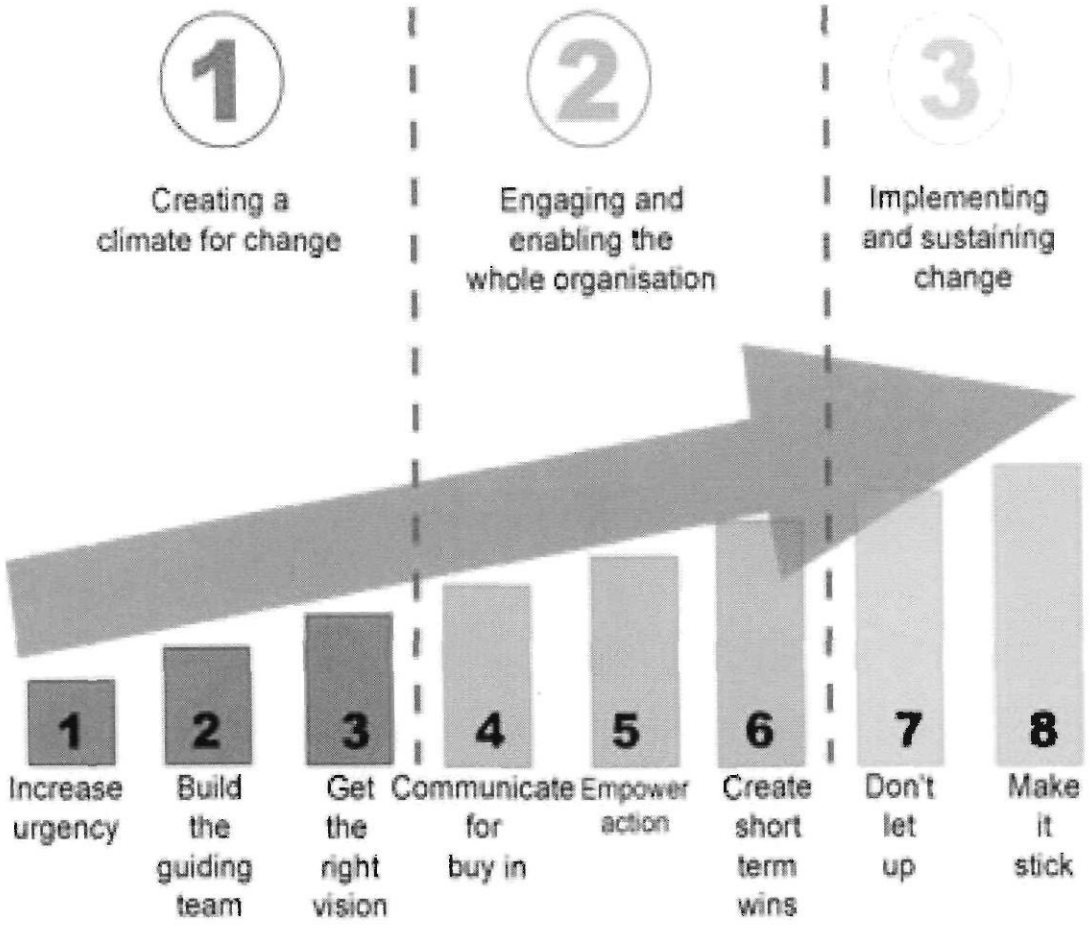


Diagram 2.2: Kotter change model

(Source: Anon(b)., n.d.)

However, according to Kotter (1996c:22), the first four steps in the transformation process help to defrost a hardened status quo. Phases 5 to 7 introduce new practices. The last stage grounds the changes in the corporate culture and helps them stick.

Johnson (2002:163) quotes Marquardt who says significant and effective change need the following eight elements:

1. Establish a strong sense of urgency;
2. Form a coalition;
3. Create a vision;

4. Communicate the vision;
5. Remove obstacles;
6. Find short-term wins;
7. Consolidate progress and continue movement; and
8. Anchor change to the culture.

The above model put forward by Johnson (2002:164) is almost the same as Kotter's (1996c:22), but it differs in words. The website Ceoonline.com (2006) suggests the following model which is in line with Kotter's, but adds starting with analysing the organisation as a first step and ensuring a strong leader role.

Ten steps to executing change:

1. Analyse the organisation and its need for change;
2. Create a shared vision and common direction;
3. Separate from the past;
4. Create a sense of urgency;
5. Support a strong leader role;
6. Line up political sponsorship;
7. Craft an implementation plan;
8. Develop enabling structures;
9. Communicate, involve people and be honest; and
10. Reinforce and institute change.

In implementing these models some organisations have complemented the models with a training technique called immersion. This technique was exposed to would-be change agents who were involved in the change model implemented and is discussed in the next section.

2.4.2 Immersion

In defining immersion, Barber (2005:1) states that immersion training offers the best way to communicate a clear message that will quickly change people's behaviour. The relatively dramatic nature of the training also prepares people for receptivity to new information that can, in turn, transform the corporate culture – no matter what leadership wants it to be.

While conceptual learning is important, the major leaps forward – these so-called 'aha!' moments when mental maps are rearranged – are most likely to happen when students encounter these theories experientially. The widespread use of experiential training in the development of the soft skills of leadership and teamwork can transform individuals and the organisation. Experiential training allows for paradigm shifts: as Steven Covey (2004a:29) puts it ...."what we might call the Aha! experience when someone finally sees the composite picture in another way. The more bound a person by the initial perception, the more powerful the Aha! experience is. It's as though the light were suddenly turned on inside."

It is all well to choose a model to implement change, but for success the model needs someone to put theory into action. A change leader is needed who will have a technical role in as far as knowledge of the industry and desired change and an inspirational role is concerned. Such a leader is a transformational leader.

According to human resource practitioners, *Change Designs* (2008), the technical role involves answering questions such as:

1. What needs to change?
2. What change tools will you use?
3. Who will you involve?

The inspirational role involves answering questions such as:

1. How can we overcome the emotional barriers to change?
2. How can we make the process fun, exciting and rewarding for all?

3. How can we create heroes to sustain the changes?
4. How do we use the change process to bring out the magic within every individual and every team?

Kotter (1996a:25) agrees by saying that leadership defines what the future should look like; it aligns people with that vision, and inspires them to make it happen despite the obstacles.

Given Kotter's assertion, it is important to understand what a transformational leader is.

2.4.3 Transformational leadership

Transformational leadership is leadership in implementing new ideas, helping the company to be adaptable and continuously improving given the dynamic world.

Bass (1996:19) quotes Professor Beverley Alimo-Metcalfe who says organisations with senior managers who are perceived as transformational leaders – characterised as visionary, enthusiastic, encouraging constructive criticism, and showing genuine concern for others – are significantly more effective than those who influence and control performance through the application of structures, rules and rewards.

Cultural change needs to have full senior management commitment and the website culture.com supports this statement completely by saying cultural change must begin at the top, with the leadership team that sets the stage for everything that happens. People below will change when they look up and see that the top team has changed.

According to Bass (1996:20), the leader transforms by:

1. Making them more aware of the importance of task outcomes;
2. Inducing them to transcend their own self-interest for the sake of the organisation or team; and
3. Activating their higher order needs.

Yukl (2002:241) quoted James McGregor Burns saying that transforming leadership appeals to the moral values of followers in an attempt to raise their consciousness about ethical issues and to mobilize their energy and resources to reform institutions.

Bass and Avolio (1994:3, 4) agree and say transformational leaders behave in ways to achieve superior results by employing one or more of the four I's:

1. Idealised Influence. Transformational leaders behave in ways that result in them being role models to their followers.
2. Inspirational motivation. Transformational leaders behave in ways that motivate and inspire those around them by providing meaning and challenge to their followers' work.
3. Intellectual stimulation. Transformational leaders stimulate their followers' effort to be innovative.
4. Individualised consideration. Individual differences in terms of needs and desires are recognized.

Irrespective of the quality or type of leadership there is always a group or groups of people within organisations that resist change. Unless the need for change is properly explained, people within organisations will always resist change due to fear of the unknown.

According to Cummings and Worley (2005:157), organisations tend to be heavily invested in the status quo, and they resist changing in the face of uncertain future benefits. Kreitner and Kinicki (2004:683) also put forward that there is a great need to unfreeze the organisation by creating a compelling reason for why change is needed. They further by listing ways of sensitizing the organisation as follows:

- Sensitise the organisation to internal and external pressure for change. External forces for change originate from without, and by and large, there are four categories which are demographic characteristics, technological advancement, market changes, and social and political factors. Internal forces

for change come from within the organisation; for example, leadership changes.

- Sensitise the organisation on current and desired statistics. A good example here would be what percentage of female employees a mine has versus what the Mining Charter calls for. The organisation needs to have constant feedback on these figures so as to be sensitive to the gap.
- Sensitise the organisation as to the benefits of change. In order for people within the organisation to support change they need to know what is in it for them and the other general organisational benefits for change.

According to Kotter (1996b:4), whenever human communities are forced to adjust to shifting conditions, pain is ever present. It is this assertion that brings the study to the next topic of resistance to change.

2.5 RESISTANCE TO CHANGE

In order to understand resistance to change one must start by analyzing the word resistance which, according to Derby (2006:19), can be defined in the following way: Resistance is when someone is not doing what you want them to do, or expect them to do. With this understanding of the word resistance, one can analyse definitions of resistance to change and why people resist change.

Bolognese (2002:1) quotes Alvin Zander (1950) who defines resistance to change as the behaviour which is intended to protect an individual from the effects of real or imagined change. Kreitner and Kinicki (2004:685) concur and say that resistance to change is an emotional/behavioural response to real or imaginary threats to a work routine. To add a deeper understanding of resistance to change one has analyse the reasons why people resist change in the first place.

The website Ceoonline.com (2006) is of the view that employee resistance can be triggered by many fears. These can include fear of:

- Redundancy;
- Loss of security;
- Disorganisation;
- Loss of status;
- Ability to cope; and
- Loss of existing relationships.

Cummins and Worley (2005:158) go a step further and split reasons for resistance to change into three categories, namely:

- Technical resistance: Technical resistance comes from the habit of following common procedures and the consideration of sunk costs invested in the status quo.
- Political resistance: Political resistance can arise when organisational changes threaten powerful stakeholders.
- Cultural resistance: Cultural resistance takes the form of systems and procedures that reinforce the status quo, promoting conformity to existing values, norms and assumptions about how things should operate.

Wynn (2005:2) also investigated resistance to change and lists the following as the top ten reasons why employees resist change:

1. The individual's personal predisposition to change;
2. Surprise and fear of the unknown;
3. Climate of mistrust;
4. Fear of failure;
5. Loss of status and/or job security;
6. Peer pressure;
7. Disruption of cultural traditions and/or group relationships;
8. Personality conflicts;
9. Lack of tact and/or poor timing; and
10. Not seeing the benefits.

Jaffe and Scott (1999:84) add that resistance to change often arises from elements of culture, such as special interests, narrow focus of attention by specialized functional groups, and the effects of previous attempts at change.

Given the variety of reasons why people within organisations resist change, it follows that they go through different stages of coping with this change. Jaffe and Scott presented a simple model as follows:

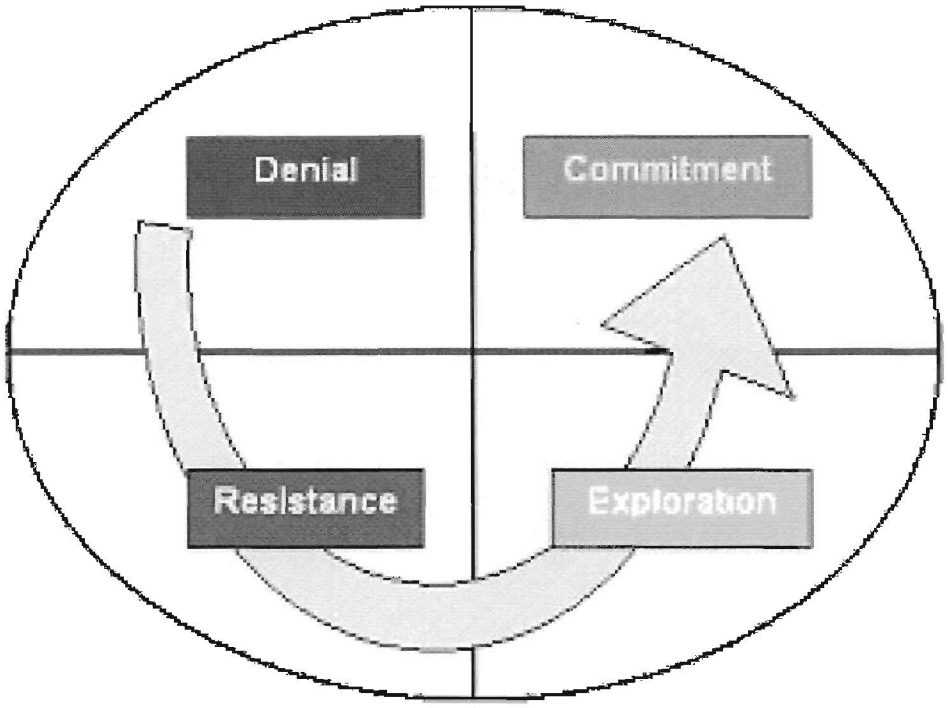


Diagram 2.3: Jaffe and Scott resistance to change model
(Source: Jaffe & Scott, 1990)

McLennan (2007:295) states that Jaffe and Scott describe change as a natural progression through a series of four phases: denial, resistance, exploration, and commitment. To successfully deal with change, employees must pass through all four phases.

People in the denial stage would be saying "this change will not work or is not necessary". Those in the resistance stage are the ones that say, "I do not support this

change and will not be part of it." The people in the exploration stage are the ones who are willing to try it. Finally, the people in the commitment stage are the ones that are committed to the change and are busy trying to implement the change.

According to a more elaborate model, stages are listed as:

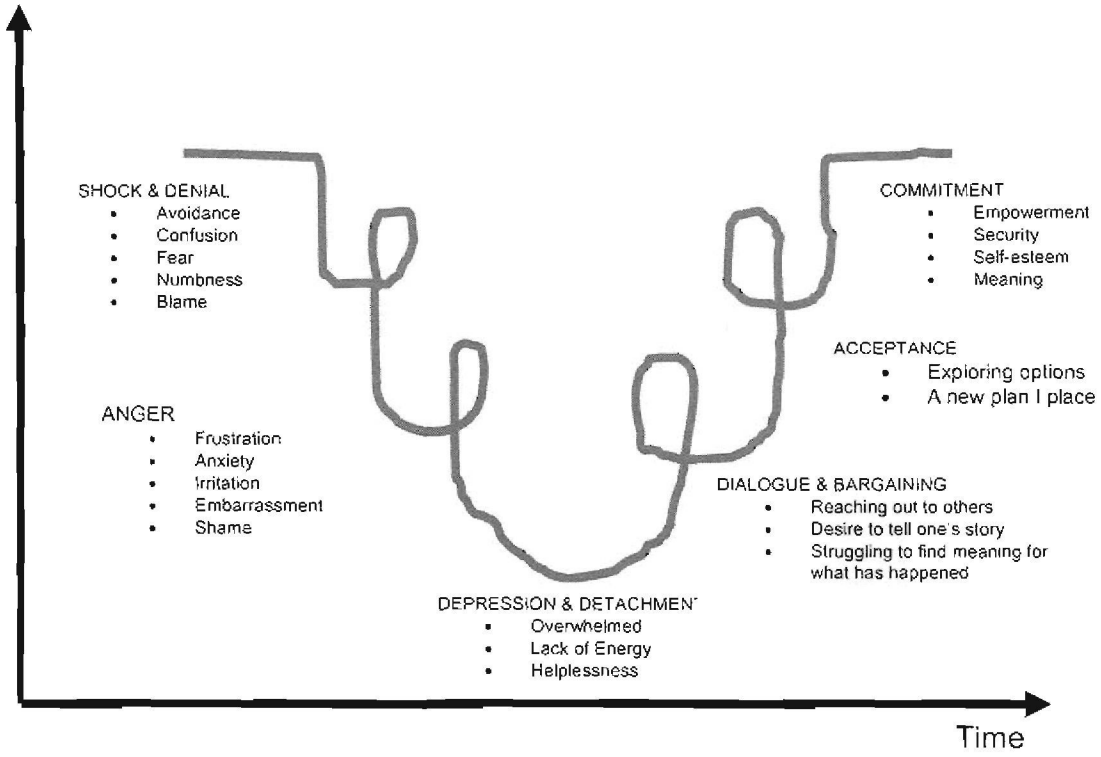


Diagram 2.4: Resistance to change model
(Source: Coetsee, 2007)

- Shock: These individuals feel overwhelmed by the change. The feel as if they were "frozen". They are unable to reason or plan.
- Denial: The individual denies that change actually exists or minimizes its importance.
- Depression and anger: Slowly the individual begins to realize that the change has in fact occurred. He doubts his ability to cope and the result is depression or anger.

- Dialogue and accepting reality: The individual lets go of the current situation. They accept that things have changed and start to break links with the past. Acknowledgement of reality is the turning point for an individual's adaptation and adjustment.
- Commitment: The individual feels he is part of the change. He is not threatened by change and he is so empowered that he acts as a change agent.

It is these stages, as indicated in diagram 2.4 above, which if recognized and properly taken into account, can help managers to manage resistance to change. According to Wynn (2005:3), it is important to note that people in the organisation will proceed through the different phases at different rates of speed. To make things even more complex, the cycle of change is not linear. It is because of this, that resistance to change needs to be managed well for a smooth transition when changes are implemented.

2.5.1 Managing resistance to change

Cummings and Worley (2005:159) list three major strategies of overcoming resistance to change as:

1. Empathy and support. This strategy can identify people who are having trouble accepting the changes, the nature of their resistance, and possible ways of overcoming it, but it requires a great deal of empathy and support.
2. Communication. One strategy is to makes change information more salient by communication through a new or different channel. If most information is delivered through memos and e-mails, change information can be sent through meetings and presentations.
3. Participation and involvement. One of the oldest and most effective strategies for overcoming resistance is to involve organisation members directly in planning and implementing change.

If change and resistance thereof is managed properly, companies that perform well can continue to do so even in the process of change. It goes without saying that if change is managed properly a company with a competitive advantage can maintain it.

2.6 MINING CHALLENGES

Mining is, in general, challenging due to a number of factors:

- Physical conditions presented by the underground environment;
- Physical strength needed to do the job because of its manual nature; and
- Ever-changing physical underground conditions.

Men and women, however, experience other specific challenges which will be discussed below.

2.6.1 Challenges specific to women

In addition to the general challenges mentioned above, there are other challenges that are specific to women. They differ from men both physically and physiologically, and a workplace or work system, including technology designed for men, in some respects, would be unsuitable for women.

2.6.1.1 Male-friendly environment

The mining industry, owing to history, has been male-friendly which meant that there were problems to recruit and fit women in the workplace. In a speech to the Whitehall and Industry Group Women's network group lunch, Cynthia Carroll, CEO of Anglo American plc (2007) said that in order to bring more women into the ranks, the company will need to adapt its working practices and culture.

She also added that present workplaces certainly are not gender neutral; they reflect the fact that, for decades, the workforce has been overwhelmingly male.

The toilets used underground provided no privacy as they were just open toilets. In addition, some machinery ergonomics were made with men's body dimensions in mind. Body dimensions are important with regard to the design of mining equipment, and its efficient operation. Much of the equipment used in South African mines are designed overseas for use by men (and, indeed, women) who tend to be significantly taller than the average South African woman.

2.6.1.2 Physical capability

Campbell (2007:4) quotes Schutte and said that women are not physically identical to men, "Specifically for mining, the differences in physiological make-up must be accommodated – these are not insurmountable, but they must be managed." Campbell (2007:4) adds to this quote by Schutte that women's maximum aerobic capacity is 15 percent to 30 percent less than men's. As a result, women doing the same physical task as men will tire more quickly.

Wynn (2005:1), concurring with Campbell says that in order to achieve independence and credibility in the eyes of employees (and have the ability to complete everyday work), a female employee needs a sound level of overall fitness in the tasks required. This includes the ability to carry heavy objects and work both outside, underground and in confined spaces, often in hot conditions for extended periods of time.

Hermanus (2007:532) supports Carroll, saying that women in mining face greater risks to their safety than men, because they use machinery, tools and equipment that have been designed for men. Furthermore, given that the physical demands of mining are matched to physiology of a select group of men, women face increased risks of injury and ill-health.

However, Wynn (2005:1) asserts that provided manual tasks conform to the occupational health and safety standards of the mine, anyone should be capable of doing the job. One method that the mines use to check physical capability is by doing heat tolerance tests. A thermal stress management programme is in place at most mining operations, given the higher temperatures present in the deeper level underground workings. Every underground employee undergoes heat tolerance screening which is followed by a closely supervised 12-hour self-acclimatisation shift in a hot underground environment.

Impala (2008 Financial Results) acknowledges that in light of the increasing number of women working underground and an observed predisposition by women to heat intolerance, heat stress management is an issue of greater concern and is receiving the necessary attention. Approximately 30 percent of 1 569 women tested failed the heat tolerance screening, while only four percent of the 14 346 men tested failed the test.

2.6.1.3 Menstruation

Menstruation is the process in a woman of discharging blood and other material from the lining of the uterus at intervals of about one lunar month from puberty until menopause, except during pregnancy. Different women handle menstruation differently, some feeling little discomfort whilst others struggle. Most local companies have not done anything specific to address this issue except to offer facilities which are women friendly in terms of privacy.

2.6.1.4 Pregnancy

Underground workers are exposed to radiation. Radiation has serious consequences for pregnant women and the unborn baby. Therefore, they are not allowed underground for the time they are pregnant. Some employers and managers view pregnancy as a woman problem and see it as an adverse effect on production and productivity whilst others view it as a societal challenge that needs to be managed in the workplace. It is,

however, against the law to discriminate against pregnant women. Companies draw up policies and procedures to act as guidelines on how to deal with this issue in the workplace. Central to company policies is maternity leave in terms of when women should go, the duration thereof and remuneration during the pregnancy.

Campbell (2007:5) quotes Reichardt who asserts that there are many challenges in deploying women in deep-level mining, "There are constraints around the child-bearing years, but our strengths outweigh our weaknesses: women are not a problem, women are an opportunity ... I couldn't imagine a better industry to work in than mining: you can do practical problem solving and make a difference, if that's your definition of a successful career, then mining is a great place for you."

The law in South Africa is clear on pregnancy and states the following:

Section 26(1) of the of Employment Act (BCEA) (SA, 1997) prohibits employers from requiring or permitting a pregnant employee or an employee who is breast-feeding to perform work that is hazardous to the health of the employee or the health of her child.

2.6.1.5 Lactation

Lactation describes the production of milk from breasts, the provision of that milk to the infant, and the period of time that a mother breastfeeds her young, commonly referred to as breastfeeding.

After childbirth, the establishment of a good milk supply is very important and supply is stimulated by frequent and effective suckling. It takes from four to six weeks of exclusive breastfeeding for the mother's milk supply to become well established. It is therefore important that employers permit workers to take maternity leave for this period.

According to the Code of Good Practice on the Arrangement of Working Time section 5.6, arrangements should be considered to accommodate the special needs of workers such as pregnant and breastfeeding workers, workers with family responsibilities, older

workers, disabled workers or workers with health problems, and also workers' personal preferences for the scheduling of their own free time.

Different companies have different approaches to helping nursing mothers fulfil their breastfeeding duties. Some companies provide only maternity leave and do not deal with lactation per se. Other companies have provided nurseries near their companies where breastfeeding mums can have access to their children during tea and lunch breaks. It is, however, difficult for mums to have this facility on the mines due to logistical problems of shaft schedules and the environmental dust problems.

The unique challenges that women face do not mean they waiver their rights to gender equality.

2.6.1.6 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. The CCMA lists forms of sexual harassment as follows:

1. Sexual harassment may include unwelcome physical, verbal or non-verbal conduct, but is not limited to the examples listed as follows:

    - Physical conduct of a sexual nature includes all unwanted physical contact, ranging from touching to sexual assault and rape, and includes a strip search by, or in the presence of the opposite sex
    - Verbal forms of sexual harassment include unwelcome innuendoes, suggestions and hints, sexual advances, comments with sexual overtones, sex-related jokes or insults, or unwelcome graphic comments about a person's body made in their presence or directed toward them, unwelcome and inappropriate enquiries about a person's sex life, and unwelcome whistling directed at a person or group of persons.

- Non-verbal forms of sexual harassment include unwelcome gestures, indecent exposure, and the unwelcome display of sexually explicit pictures and objects.
- Quid pro quo harassment occurs where an owner, employer, supervisor, member of management or co-employee, undertakes or attempts to influence the process of employment, promotion, training, discipline, dismissal, salary increment or other benefit of an employee or job applicant, in exchange for sexual favours.

2. Sexual favouritism exists where a person who is in a position of authority rewards only those who respond to his/her sexual advances, whilst other deserving employees who do not submit themselves to any sexual advances are denied promotions, merit rating or salary increases.

2.7 GENDER EQUALITY: POLITICS AND BUSINESS

Gender equality is defined as the on par valuing of contribution of men and women ignoring stereotypes that generally inhibit either to equally contribute or benefit from society development. The Commission of Gender Equality maintains that gender equality entails that the underlying causes of discrimination are systematically identified and removed in order to give women and men equal opportunities in every sphere of life. The Commission, however, recognizes that in some cases an organisation needs to treat men and women differently to achieve sameness in results, because the same treatment of men and women does not necessarily lead to sameness in results.

In South Africa, the Commission of Gender Equality (1996) was set up to advance and make recommendations on issues affecting women. The Commission on Gender Equality co-operates with other institutions set up under the Constitution to promote human rights and democracy, including the South African Human Rights Commission and the Public Protector.

The business case for gender equality, according to the Gender Commission, involves the following:

- Discriminating against gender is illegal and brings with it negative consequences to company image;
- Treating employees the same irrespective of gender creates a good company image which helps in attracting and retaining employees which can ultimately make the organisation an "employer of choice";
- It costs money to train people discriminated against and then lose them;
- Damage control in the aftermath of damning reports of sexual discrimination and harassment costs a lot of money and so does lawsuits that the company defends; and
- Discrimination on sexual grounds divides the workplace into camps which generally affects productivity.

If change management and gender equality are not managed properly, this can sift through to companies' competitive advantage being affected.

2.8 COMPETITIVE ADVANTAGE

A competence is an activity that a company is good at doing and it becomes a core competence if it becomes a competitively important activity that the company performs better than its other activities. The ultimate is developing a distinctive competence which represents an activity that a company performs better than its competitors.

Hough (2008:112) maintains that it is always easier for a company to build a competitive advantage when it has a distinctive competence in performing an activity important to market success, when rival companies do not have offsetting competencies, and when it is costly and time consuming for its rivals to imitate the competence.

The website (Anon(a), n.d.) com defines competitive advantage as a condition which enables a company to operate in a more efficient or otherwise higher-quality manner than the companies it competes with, and which results in benefits accruing to that company.

It is, however, interesting that when one sifts through Impala publications one discovers that the company identifies its people as their competitive advantage. Impala has over the years performed ahead of its peers in terms of safety, productivity, and profitability. The competitive advantage for Impala has been identified by former CEO Keith Rumble as "Impala Employees". A question then arises: Can one regard employees as a competitive advantage? The answer is a big YES, but needs qualification.

Cronje et al. (2003:192), quoting Jeffery Pfeffer, say that what separates top performing companies from their competitors is the way they treat their workforces. He argues that companies that invest in their employees create long-lasting competitive advantages that are difficult for other companies to duplicate.

According to Pfeffer (1994:16), achieving competitive success through people involves fundamentally altering how management thinks about the workforce and the employment relationship. It means achieving success by working with people, not by replacing them or limiting the scope of their activities. It entails seeing the workforce as a source of strategic advantage, not just as a cost to be minimized or avoided. Firms that take this different perspective are often able to successfully outmanoeuvre and outperform their rivals.

It is fundamentally important to note that managing change involves working with people. It is therefore very important that one regards management of people as crucial to the success of the organisation. Pfeffer (1994:6) makes the point that people, and how they are managed are becoming more important, because many other sources of competitive success are less powerful than they were. It therefore goes without saying that one should realise that as organisations change their people should be managed

well and, better still, the change management strategy should shift to regarding people as a source of competitive advantage.

CHAPTER 3
EMPIRICAL STUDY

3.1 INTRODUCTION

Impala has made strides in employment of women since women were allowed into mines and more significantly, after the Mining Charter targets were spelt out in 2004.

The goal of this empirical study is thus to investigate the following issues:

- Impala change management – "Good to Great" initiative;
- Investigate how Impala has progressed in employing and integrating women;
- Challenges that Impala encountered in integrating women;
- The stories women tell in their experiences; and
- How the increasing women numbers has affected Impala's performance.

3.2 RESEARCH PROCESS

For purposes of this research, the approach of interviews and questionnaires was adopted because it suited the qualitative nature of research.

3.2.1 Research planning and design

Research design specifies methods and procedures for data collection, measurement and analysis. The size of the population, which in this case was 2 500 women, was impractical in terms of time available and costs thus forcing the research to be restricted to a sample of 150. The sample was divided into two main sections:

- 100 women were approached to fill in questionnaires from 8 and 12 Shafts: 8 Shaft being a conventional shaft and 12 Shaft having both trackless and conventional;
- 50 women, who were at the training centre in supervisory training including learner miners, learner officials and graduates.

3.2.1.1 Data gathering

Questionnaires were handed out to the ladies during their morning meetings accompanied with envelopes. After completion, there was a ballot-type box made available for collection. This method ensured confidentiality and quick collection of all 150 questionnaires.

3.2.1.2 Preparation and structuring of questionnaire

The questionnaire (see Appendix 1) was logically structured with a sensible flow from one section to the other, shying away from disorientating the respondent. The literature study in Chapter 2 formed a solid base of issues that the research needed to ask questions on. Critical aspects of the questionnaire questions were:

- Gender equality;
- Physical capability;
- Pregnancy;
- Sexual harassment; and
- Career prospects.

The survey questionnaire was constructed consisting of 32 questions divided into five critical areas using a five-point Likert-scale which ranged from strongly disagree to disagree to neither disagree nor agree to agree and strongly agree.

A pilot test in which five ladies were chosen was done to test the content and language of the questionnaire. The pilot test showed that the questions were simple and well understood.

3.3 IMPALA "FROM GOOD TO GREAT" CHANGE INITIATIVE

3.3.1 Introduction

In October 2007, Impala Platinum Holdings Limited introduced an organisational review which many saw as ironic, because the company was not experiencing any serious problems, but were actually on a high with record profit. The diagnostic findings were gathered by means of:

- Interviews;
- Surveys;
- Desk research; and
- Workshops.

The diagnostic findings showed that there was a need to make some changes. The primary reason for change was future aspirations given the dynamic environment of the mining industry. The most important reasons for change were the following:

- The current structure was envisioned as not being able to handle expansions of four million ounces of refined platinum over the next decade;
- Refocus on employees because of turnover rate on key positions;
- Unclear accountabilities; and
- Changing legislation.

3.4 CHANGE MANAGEMENT

Like any other organisation, a change management process was adopted by Impala and it involved the following aspects:

- Communication change;
- Structure for change;
- Choosing change agents;
- Training of change agents;
- Revision and introduction of policies and procedures; and
- Mine managers' forum.

3.4.1 Communication

Communication of change was done first by the Chief Operating Officer (CEO) himself through road-shows were he spoke to all the employees of Impala. The CEO outlined the vision, "To be the world's best platinum producing company, delivering superior returns to shareholders relative to our peers and the motto 'One team one vision' – with pride."

The CEO also outlined the company values which were on the day reinforced by industrial theatre and choirs. The values of Impala were outlined as:

- Safeguarding the health and safety of employees, and caring for the environment in which the mine operates;
- Acting with integrity and openness in all that they do and fostering a workplace in which honest and open communication thrives;
- Promoting and rewarding teamwork, innovation, continuous improvement and the application of best practice by being a responsible employer, developing people to the best of their abilities and fostering a culture of mutual respect among employees;

- Being accountable and responsible for their actions as a company and as individuals; and
- Being a good corporate citizen in the communities in which they live and work.

Campbell (2007) quotes Johanna Tau, the former Transformation Manager saying that, "Key to this process was the total support from the very top of the company, including the CEO." The CEO and company undertook road-shows to communicate the values espoused by the company, including those concerning women, to all employees.

Photograph 1 below shows Impala CEO, David Brown addressing employees in Rustenburg coincidentally on Women's Day August 9, 2008.

Photograph1: CEO David Brown

(Source: Annual report, 2008)

3.4.2 New structure

The key design principles for the new organisational structure were set as follows:

- Structure must follow strategy;
- Retaining present strengths; and
- Remaining lean and nimble in decision-making and execution.

The Impala strategy, which has six legs of Safety, Cost, Growth, Capital delivery, People and Balance sheet management was to be maintained, but focus was on a structure to support this strategy into the next decade.

Building on the above principles, a smaller decision-orientated top team Executive Committee (EXCOM) was instituted and would be supported by four focused performance areas, each led by a member of EXCOM. The four performance areas were OpCo, PeopleCo, GrowCo and FinCo.

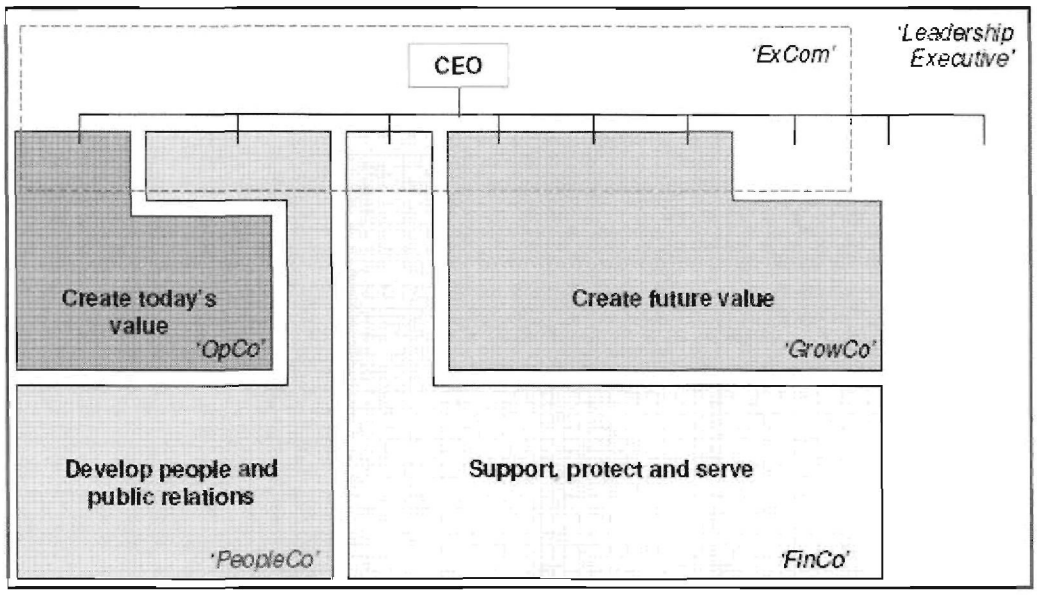


Diagram 3.1: Impala top executive structure
(Source: "Good to Great" initiative)

OpCo is responsible for immediate value creation, day-to-day running of operations and responsible for the safety and cost elements of the strategy. Opco has the role of driving down costs, create bottom-line performance, and to be the guardian of safety in all operations.

Growco is responsible for crafting the value of Impala that is the growth and capital delivery legs of group strategy. Growco has the responsibility of growth aspects of mergers and acquisitions organic and recycling growth. Growco takes accountability for getting a project from conceptual phase to point of delivery whereupon OpCo takes over.

PeopleCo is responsible for delivering people and public relations. This leg is more than just the traditional human relations function, but redefines the way Impala attracts, hires, develops, speaks to and manages people from the underground face to senior Excom members. The core value to be driven by PeopleCo is:

"Looking after our employees and caring for the communities we operate in".

The PeopleCo top structure is as follows:

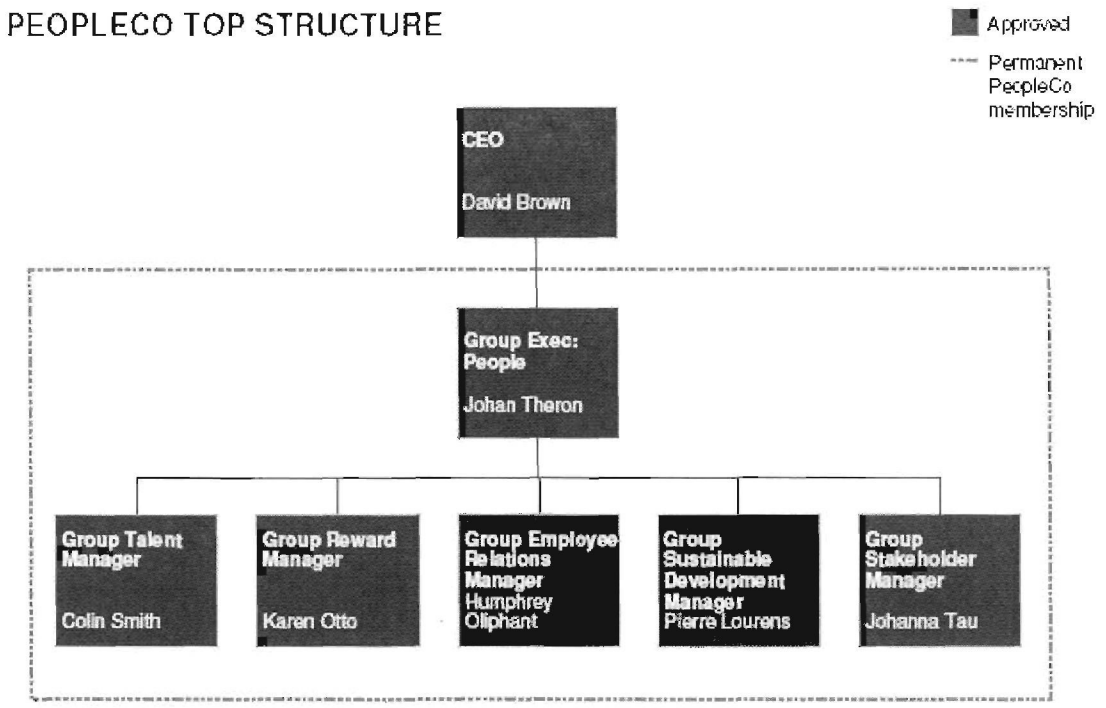


Diagram 3.2: PeopleCo structure

(Source: "Good to Great" initiative)

The Group Talent structure looks like this:

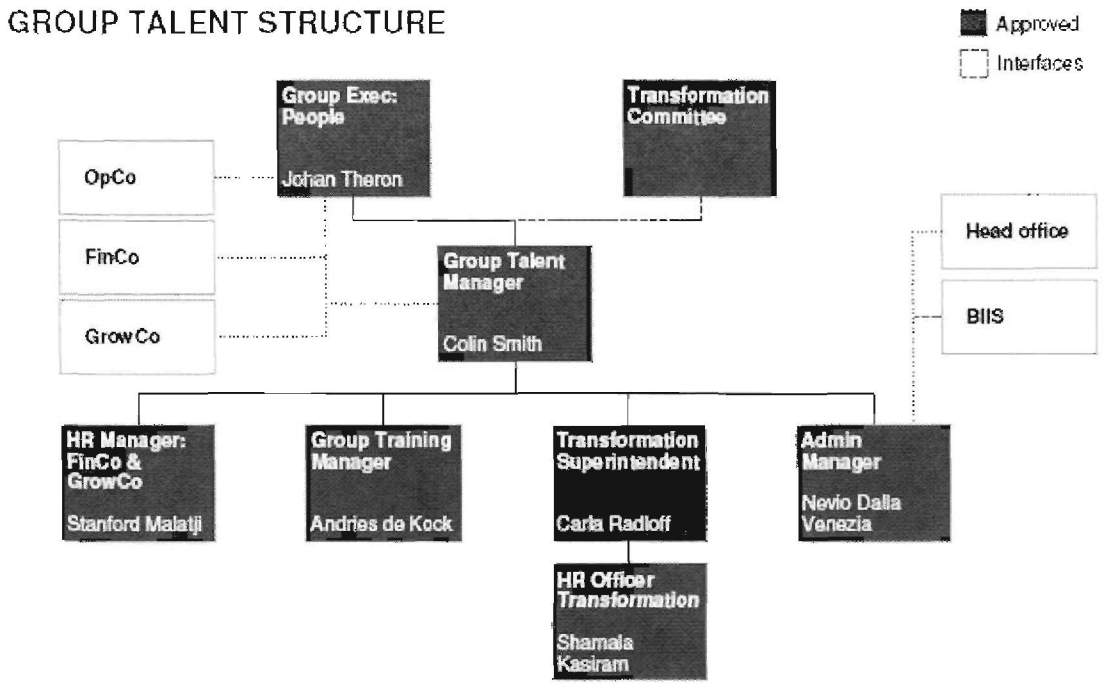


Diagram 3.3: Group talent structure

(Source: "Good to Great" initiative)

The Remuneration committee oversees all matters concerning remuneration.

GROUP REMUNERATION STRUCTURE

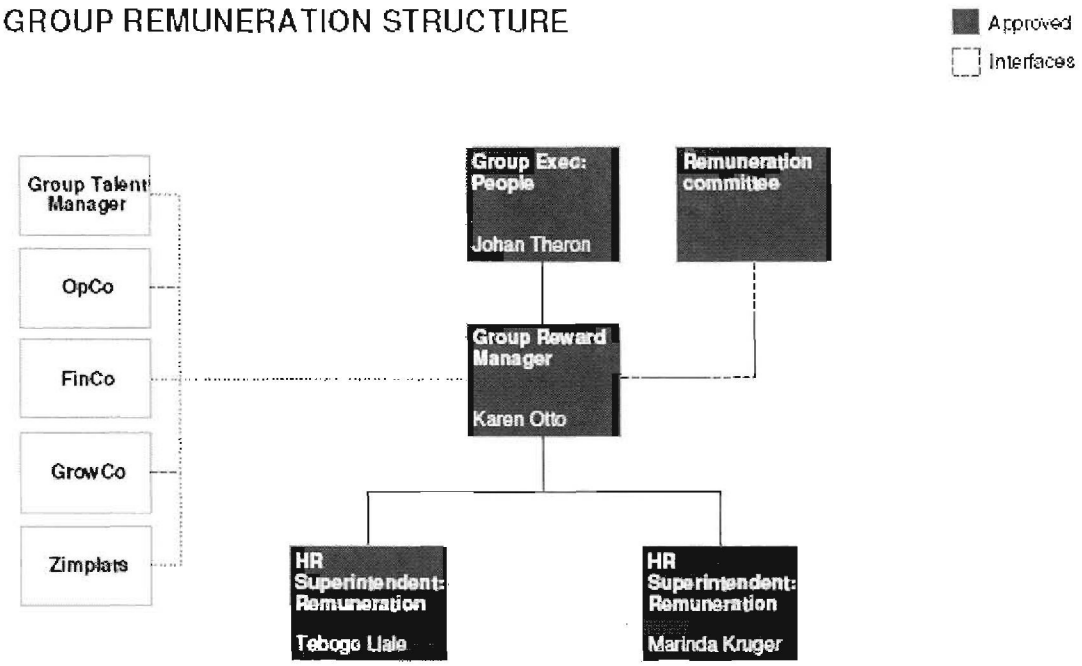


Diagram 3.4: Group Remuneration structure
(Source: "Good to Great" initiative)

FinCo supports, protects and serves the organisation in balance sheet management.

3.4.3 Choosing change agents

Carla Radloff was assigned as the Champion of Women in Mining Integration within the Transformation department. All Mine Managers of the different shafts were given their own targets which amounted to 10 percent of their respective shaft labour. In addition, the Balanced Scorecards of the managers were reviewed to incorporate women targets and formed part of the monthly performance reviews.

3.4.4 Training on diversity management

Since the introduction was done by line management, a course on Diversity Management was implemented and given to line management. In addition, starting with senior management, a VUKA Immersion programme was introduced in which change agents were immersed to understand diversity and the management thereof.

3.4.5 Policies and procedures

Policies and procedures that were neither gender sensitive nor inclusive were put in place or revised. Notable procedures introduced were a pregnancy policy and a sexual harassment procedure. Tau, quoted by Campbell (2007), said, "We introduced a pregnancy policy, which gives four months paid maternity leave, and provides alternative employment in a non-risk area while the employee is pregnant."

These policies were communicated via a brief system in which all employees signed for receipt. Line management also communicated all new and revised policies in their weekly underground and surface meetings. In addition, an induction programme to socialize new values was played on television sets on all banks (waiting place for underground cage) and in the training centre. All workers who were on leave during the period of communication, got the presentation as Ex-leave induction.

3.4.6 Mine managers' forum

The issue of real integration into the underground environment was made the responsibility of the business unit manager, and the Mine managers' forum discussed and debated this issue as an agenda topic every fortnight. Some of the brilliant ideas that came up were adopted into Impala's best practices and implemented on all the shafts.

Through the Kopano Initiative scheme the managers took idea creation back to the shafts where all employees participated and those that came up with brilliant ideas were rewarded up to R50 000 depending on the nature of the idea.

The issues that were debated and adopted included the following:

- **Shallow-end approach**: This means that women are first introduced to peripheral activities that include haulage maintenance, belt cleaning, assistants, and so forth, and when they get accustomed they get moved progressively into core mining. A similar job progression occurs in surface mines where new miners usually begin employment by working in simpler tasks and moving into more difficult assignments as they gain experience.

- **Buddy-buddy system**: This means that when women are given tasks that are physical they are allowed to work as buddies, but they still did the work of two. For example, if one man can do 50 metres of track maintenance, the two women are given 100, but are allowed to work as a pair.

- **Incremental approach**: This means that for underground stoping teams only one woman gets introduced at a time. This would present a good workplace induction and learning experience.

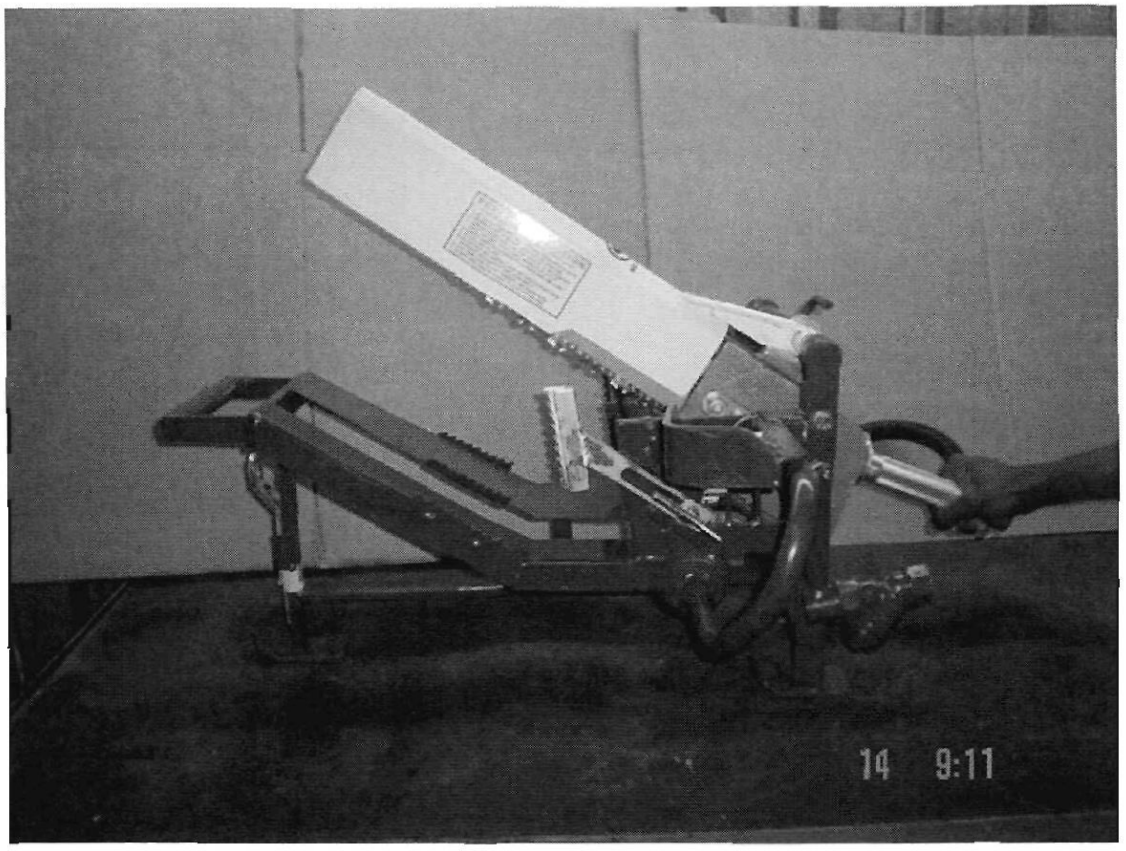
- **Working smarter not harder initiatives**: These are initiatives to do work smarter and more safely and represented alternatives to brute force. Examples of ideas that came through the Kopano Initiative scheme included lighter snatch blocks, snatch block transporters, double prong tip hooks, and stick transporters. Implementable ideas were rewarded monetarily.

Photograph 2: Stick transportation underground 1 (Source: Own u/g photo)

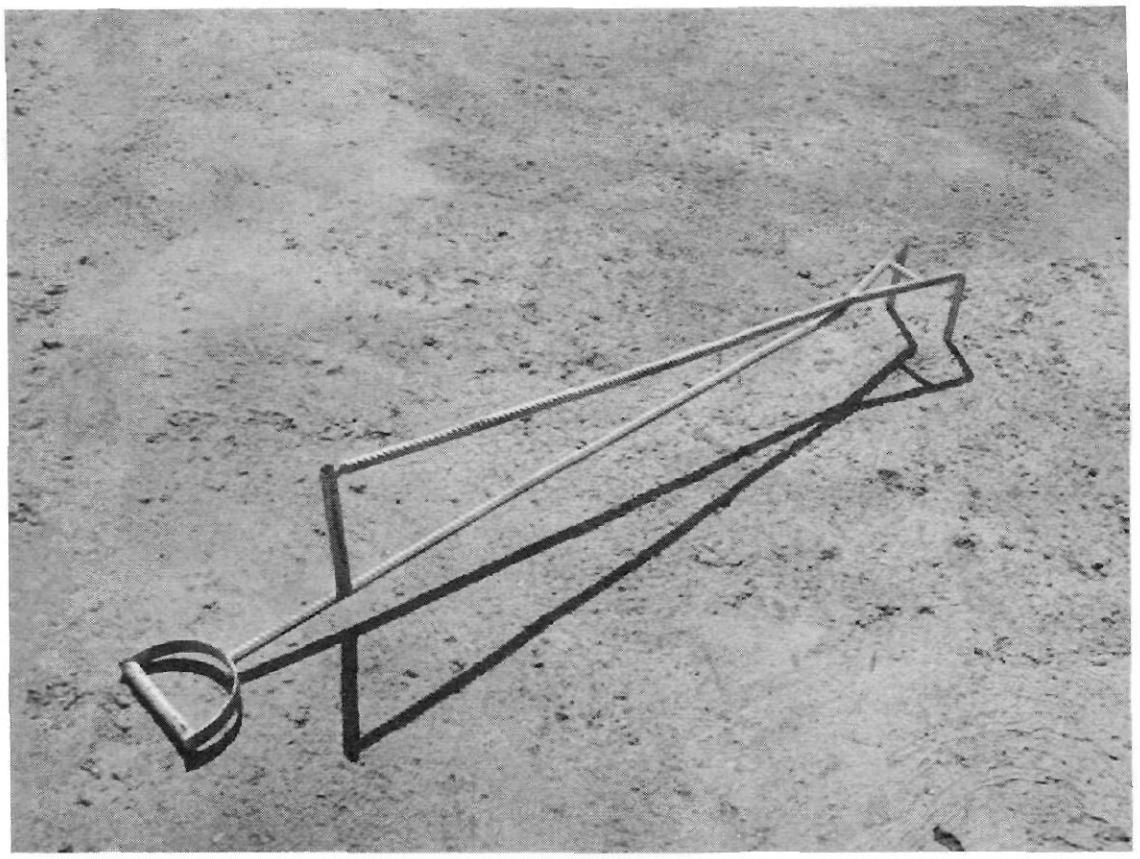
Photograph 3: Stick transportation underground 2 (source: own ug photo)

Use of quality and maintained equipment: It goes without saying that cutting a tree with a blunt axe is more difficult than with a sharp axe. For easier integration, Impala insisted that only the right quality of tools, and properly maintained equipment were allowed for the smooth integration of women.

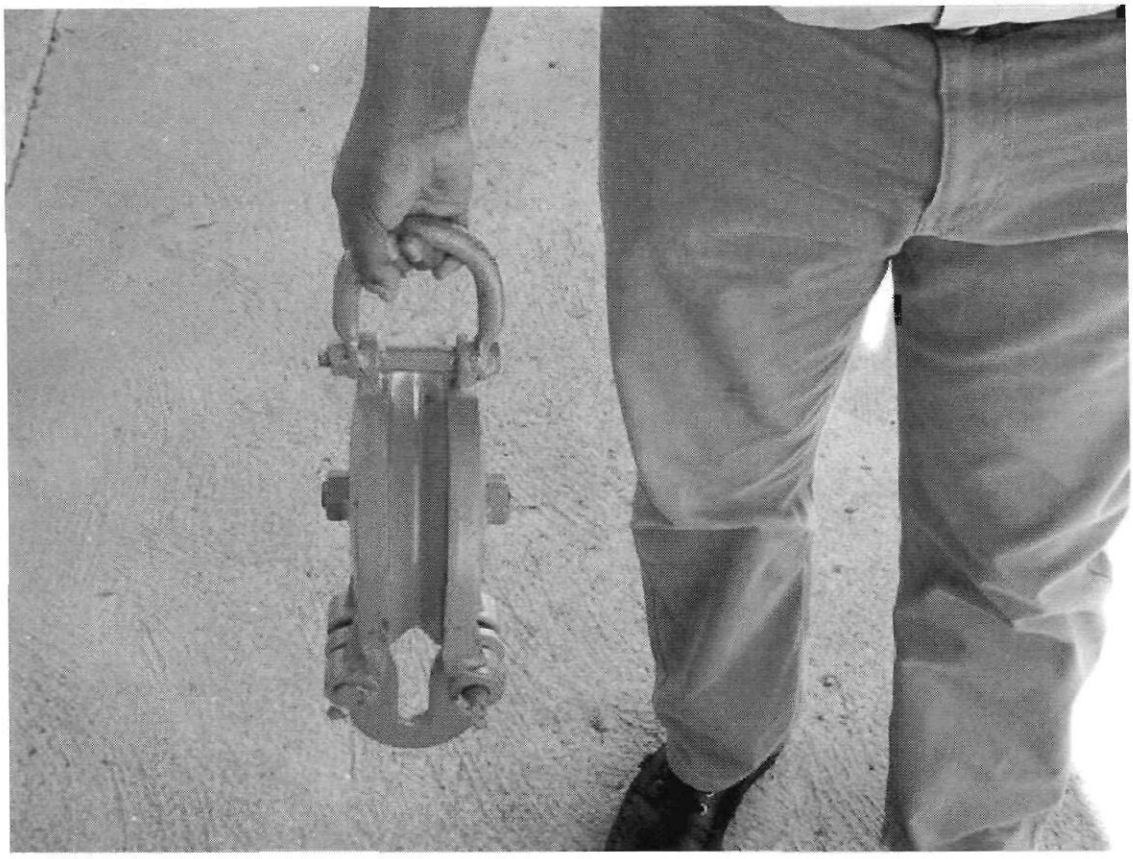
Cheeter-saw for cutting support sticks underground



Photograph 4: Cheeter-saw (source: own photo)



Photograph 5:Tip Hook (source: own photo)



Photograph 6:Lightweight snatch block
(source:own photo)

3.4.7 Gender friendly infrastructure and equipment

Impala made available in capital for the construction of change houses for ladies and underground private toilets. The cost of the new infrastructure was R17 million spread over a three-year period (from FY2005 to FY2007). Ladies were also provided with two-piece overalls for their comfort.

3.4.8 Women structures

A women structure within the National Union of Mine Workers was established to challenge the cause for women.

3.4.9 Talent retention

Talent retention strategies, with the diversity that the mines now have, have become even more important. It is a fact that, if a mine does not retain its women, they lose the 10 percent Impala has introduced. Impala has beefed up their retention strategy by the following:

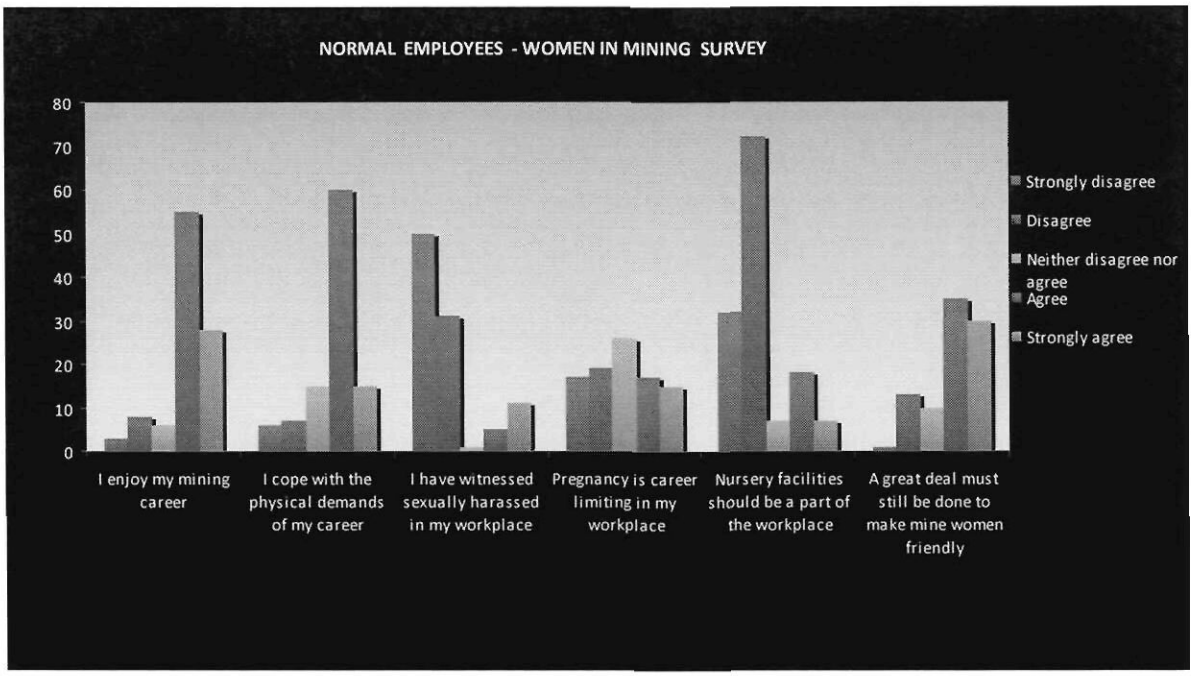
- ESOPS: In 2006, Impala introduced an employee ownership scheme which gave 28 000 employees a material stake in the growth of the company.
- AMACHING CHING BONUS: At the end of 2007, a new bonus scheme, "Ama-ching-ching," a name given by employees, was implemented in a bid to improve productivity whilst offering huge incentives.
- HOUSING: Impala has added housing as an attractive recruitment and retention strategy given the view that socially stable employees are likely to stay within the company.

3.4.10 Accelerated development

Impala formed a partnership with the Department of Minerals and Energy (DME) (SA, 1996c) and the Da Vinci Institute for Technology Management to accelerate the training of HDSA women in the mining industry. With input from Impala, the institute designed an 18-month programme which culminates in the awarding of a Master of Science degree in Technology and Innovation. The objective of the programme, which started in October 2004, is to develop HDSA women to take on technical and managerial leadership positions at Impala. Seven candidates (six from within the company and one from outside) completed the programme at a cost of R1.8 million to the company. Of these, five are currently in managerial positions at Impala.

3.5 QUESTIONNAIRE RESULTS ON KEY QUESTIONS

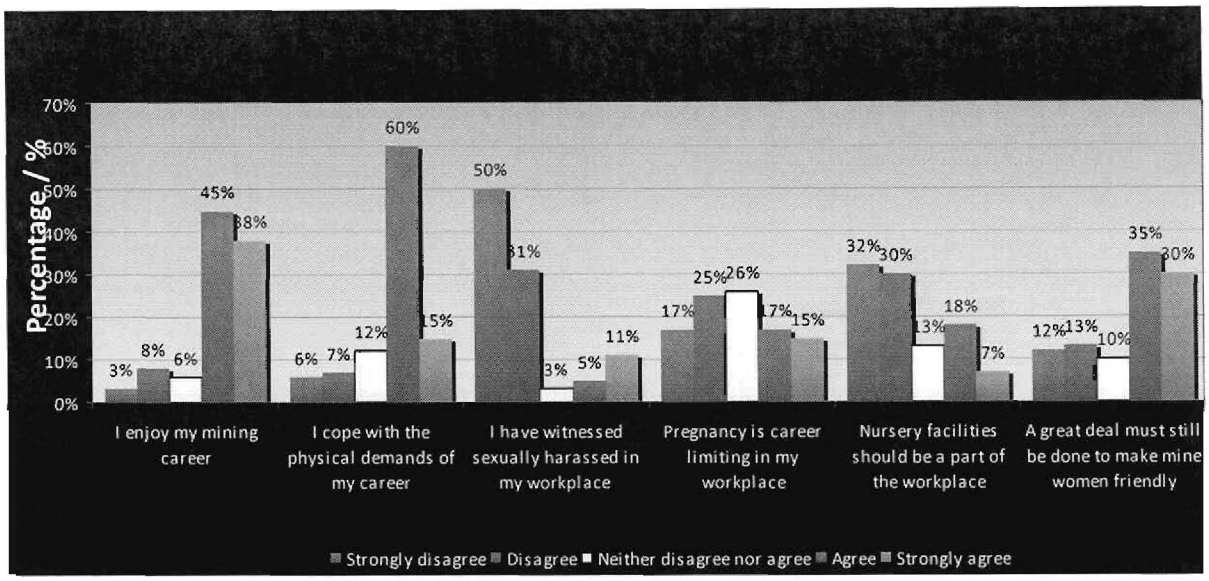
Graph 3.1(a) below tabulates results from analysis of the questionnaire.



Graph 3.1(a): Questionnaire results 1

The questionnaire results to key questions are discussed below:

Graph 3.1(b) below tabulates the results from the analysis of the questionnaire.



Graph 3.1(b): Questionnaire results 2

The questionnaire results to key questions revealed the following:

I enjoy my mining career: *The intention of this question was to find out if women who work underground enjoyed the work they do.*

Results: A total of 45 percent of the respondents said they agreed and 38 percent said they strongly agreed which meant 83 percent responded positively. Only 6 percent sat on the fence whilst 8 percent disagreed and 3 percent disagreed strongly.

I cope with the physical demands of my career: *The intention of this question was to find out if women had problems with the physical nature of the work they were doing.*

Results: As much as 60 percent said that they coped with the physical demands of mining work and 15 percent strongly agreed complementing the positive to 75 percent. Another 12 percent were undecided and 7 percent and 6 percent disagreed and disagreed strongly respectively.

I have witnessed sexual harassment in my workplace: *The intention of this question was to gauge sexual harassment prevalence.*

Results: Half, 50 percent, strongly disagreed whilst 31 percent disagreed. Only 3 percent was undecided. A worrying statistic, although not a huge percentage is the fact that 17 percent have witnessed sexual harassment in the workplace with 5 percent agreeing and 11 percent agreeing strongly.

Pregnancy is career-limiting in my workplace: *The pregnancy question was to gauge the perceptions of the women on whether they thought falling pregnant meant a drawback on their careers.*

Results: The survey shows a normal distribution with almost a balance in terms of negative and positive. Altogether, 17 percent strongly disagreed whilst 25 percent disagreed. Another 26 percent were undecided, while 17 percent agreed and 15 percent strongly agreed.

Nursery facilities should be a part of the workplace: *The intention of this question was to gauge whether women felt the company should provide nursery facilities to make their lives easier.*

Results: Surprisingly, 62 percent of the respondents felt that nursery facilities should not be part of the workplace. This response, however, makes sense in light of the environmental dust prevalent near the shafts and smoke emission from the plant. Only 7 percent agreed strongly whilst 18 percent disagreed. Another 13 percent were undecided.

A great deal must still be done to make mines women friendly: *The intention of this question was to summarise the current situation, what has been done and whether they believe more should be done.*

Results: A combined figure of 65 percent (30 percent strongly agreeing, and 35 percent agreeing) of the respondents were positive. Another 13 percent disagreed, 12 percent strongly disagreed, and 10 percent were undecided.

The rest of the questions were then split up into five categories, and the resultant graphs form part of Appendix 2.

3.6 ANALYSIS OF IMPALA STATISTICS

Table 3.1 below shows Impala key performance areas, which include production, productivity, sales, costs, profit margins and safety.

IMPALA KEY STATISTICS		FY2007	FY2006	FY2005	FY2004	FY2003
Production						
Tonnes milled	(000 t)	16 302	16 441	15 778	15 639	15 042
Headgrade (5E+Au)	(g/t)	4.71	4.63	4.82	4 91	5.06
Platinum refined production	(000 oz)	1 055	1 125	1 115	1 090	1 040
PGM refined production	(000 oz)	1 872	2 003	2 062	1 976	1 924
Productivity						
	(m^2/panel man)	38.0	38.0	40.1	39.2	40.7
	(Pt oz/employee)	38	42	41	40	37
Mining cost of sales						
On-mine	(Rm)	4 798	3 815	3 346	3 122	2 824
Concentrating & smelting	(Rm)	918	834	764	716	625
Refining	(Rm)	377	387	355	328	312
Selling and administration	(Rm)	385	282	252	225	235
Total Cost						
Per tonne milled	(R/t)	397	323	299	281	266
	($/t)	55	51	48	41	29
Per platinum ounce refined	(R/oz)	6 138	4 726	4 232	4 027	3 843
	($/oz)	853	740	684	587	426
Profit						
Gross margin	(%)	61.8	53.1	42.1	41.5	52.3
Capital expenditure	(Rm)	2 098	1 601	1 693	1 197	1 079
	($m)	292	205	274	174	120
Safety						
LTIFR (per million man hours worked)		4.19	3.94	4.01	5.30	6.07
FIFR (per million man hours worked)		0.106	0.079	0.048	0.099	0.099
Labour complement	(000)	27.6	26.9	26.9	27.5	28.4

Table 3.1: Impala key statistics

(Source: Impala 2008 Financial results)

3.6.1 Safety statistics

In an effort to see whether the introduction of women had an effect on the safety of Impala Platinum Holdings Limited, the study examined the safety statistics over the past five years in comparison with women figures over the same period.

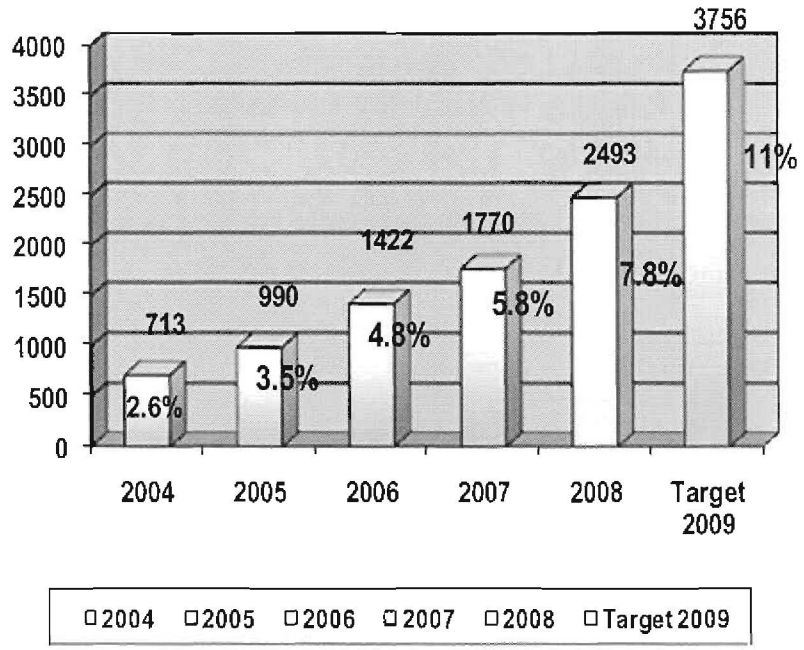
The lost time injury frequency rate of Impala has shown good improvement from 4.8 in 2003 (FY04) down to 2.8 in 2007 (FY08) whilst the number of women has increased from 713 to 2 493 from 2004 to 2008.

Safety					
LTIFR (per million man hours worked)	4.19	3.94	4.01	5.30	6.07
FIFR (per million man hours worked)	0.106	0.079	0.048	0.099	0.099

Table 3.2: Impala safety

(Source: Impala 2008 Financial results)

The fatality frequency rate came down in 2003 (FYO4) down again in 2005 (FY06), but regressed badly in 2006 (FY07) only to improve slightly in 2007 (FY08). It can, however, be argued that women had nothing to do with this regression, because none of the fatalities involved women.



Graph 3.2: Women actual figures

(Source: ImpalaTransformation department)

Safety and women verdict:

The safety record of the mine in terms of fatalities cannot be linked to the rising numbers of women, because all fatalities were male. On the other hand, in terms of all injuries, table 3.3 sheds some light.

	Female No. Injuries	Male No. Injuries	Total No. Injuries	Female percent	Male percent
FY 2006	28	302	330	8 percent	92 percent
FY 2007	59	276	335	18 percent	82 percent
FY 2008	79	243	322	25 percent	75 percent
FYTD 2009	36	79	115	31 percent	69 percent

Table 3.3 Injuries (male versus female)

(Source: Impala Safety department)

The table could only be drawn from the SAP system, which was only introduced in late 2005. The graph shows that in terms of numbers, more women got injured progressively from 28 in 2005 (FY2006) to 79 in 2007 (FY2008). It is, however, interesting to note that for the same period the number of men injured dropped from 302 in 2005 down to 276 and to 243 in 2007.

3.6.2 Profit margins

The gross profit margins rose from 52.3 percent to 61.8 percent from FY03 to FY07, but productivity dropped from 40.7 centares per man down to 38. The increase in profit could be attributed to high metal prices (Impala Financial results 2008).

Profit						
Gross margin	(%)	61.8	53.1	42.1	41.5	52.3

Table 3.4 Impala profit margins
(Source: Impala 2008 Financial results)

Profit margins verdict:

The variation in profit margins could not be linked to women numbers, but were explained in the financial results of 2008 as due to metal prices.

3.6.3 Productivity

Productivity					
(m^2/panel man)	39.0	38.0	40.1	39.2	40.7
(Pt oz/employee)	38	42	41	40	37

Table 3.5: Impala productivity
(Source: Impala 2008 Financial results)

Productivity measured as centares (mining units) per panel man decreased steadily from 40.7 centares per panel man in 2002 to 38 at the end of 2006. One can, however, argue that this cannot be attributed to increasing numbers of women given the fact that the majority of women are not in stoping panels, but in peripheral tasks. The figure of Platinum ounce per man, however, takes into account the whole workforce. For the same period, Platinum ounce per man increased from 37 to 42 only to drop in 2006 to 38.

Productivity verdict: As women numbers increased, productivity dropped, but the same exercise needs to be redone when large numbers have moved to core business, which is stoping.

3.7 PRACTICAL REALITY: WOMEN AT WORK WITHIN IMPALA

In the quest to look at the practical reality within Impala, visits to different teams with women were conducted and observations were made. Interviews were conducted and informal discussions were held with the women.

Currently, 14 women are being trained for their blasting certificates; eight women are on the learner miner officials' programme; 30 women are on engineering learnerships; and 24 women are studying at tertiary level on the Group's bursary scheme.

Impala's first twelve female miners underwent an in-house Safety Supervisory Course from 28 July – 1 August 2008. The course entailed rock engineering, plan reading, ventilation, hazard identification, explosives, safety and communication. The recently qualified female miners said that they are now more than ready to produce.

Photograph 7: Women miners (Source: Team Spirit newspaper)

The progress made has the following success stories:

Story 1:

FIRST FEMALE MINER APPOINTED AT RUSTENBURG

Pinky Riet made Impala history when she became the first woman miner at 6 Shaft on 1 November 2007. During her first month, January 2008, she achieved above 420 centares in 17 shifts. Thumbs up to the Women in Mining project!

Pinky said that she is ready to get the ball rolling and her focus will be on safety and production. She challenged her colleagues to stay focused in their jobs and careers.

Lebo Marumole, mine manager at 6 Shaft together with his team gave her a warm welcome and pledged the necessary support in her set goals. They also congratulated her on her first production achievement.

Pinky Riet, the first woman miner at Impala is flanked by some of 6 shaft's management team. They are from left to right: Martin Moss (shift supervisor of section 62), Frik Pienaar (acting mine overseer of section 62), Michael Morwe (human resources officer) and Lebo Marumole (mine manager at 6 shaft).

Photograph 8: Pinkey Reit (woman miner) (Source: Team Spirit newspaper)

Story 2:

LEBO, FIRST WOMAN SHIFT SUPERVISOR

Meet and welcome Lebogang Penyenye, known as Lebo, a newly appointed woman shift supervisor at the smelter acid plant department. Lebo is the first woman to occupy this position.

According to the production foreman, Olefile Mogwere, Lebo's dedication, discipline, perseverance and hard work led to her appointment. She joined Impala as a plant operator in August 2007. Lebo matriculated and studied further in Mining and Minerals at the Centurion Academy, and has covered all the acid plant unit standards from September 2007 to March 2008. She also completed the Safety Representatives course in April 2008.

The outgoing Lebo is a tennis fanatic. She encourages Impala's female colleagues to persevere in what they are doing and to grab whatever position comes their way. "Let's show the world what we are capable of," Lebo enthuses. Johan Wessels, the acting operations manager of the acid plant, welcomed Lebo to the management team.

Photograph 9: Lebogang Penyenye (woman shift supervisor)
(Source: Team Spirit newspaper)

Story 3:

A DAY IN THE LIFE OF A MERENSKY PLANT OPERATOR – A WOMAN'S PERSPECTIVE

Lebogang Sebaeng is a 26-year old woman working as a plant operator in the concentrator. She worked as a security guard before deciding to change her destiny by joining the Impala team. She started working as a plant operator in the Merensky section of the concentrator in November 2005.

When Lebogang arrives at work she changes at the change house before going to the flotation section where she meets her colleagues who hands the shifts over to her. This means that they talk about problems that arose during her colleagues' shift and which of them Lebogang needs to attend to. She then checks that everything is running smoothly, including all the floating cells and other equipment in her area.

If a problem arises, Lebogang needs to find the relevant person to fix it. After her shift, she hands over to the next person, goes back to the change house and goes home. Being the only woman in her shift doesn't concern Lebogang. "My colleagues give me tremendous support; everyone from the shift leader to the people that work next to me", she says.

Lebogang says that what she enjoys most about her job is learning a lot about how platinum is produced.

She sees herself as being the first female shift leader in the concentrator. Her advice to other aspiring women is, "Keep communicating with your colleagues and support them as much as they support you".

The concentrator works hard at employing female employees. They currently stand on 8.2percent of their 10percent target.

Story 4:

11C SHAFT APPOINTS A FEMALE ONSETTER

On 15 January 2008, Jeania Mosale was appointed as an onsetter at 11c.

Jeania, known as "Mama Jea" to her colleagues, was encouraged to study for the job by the engineer, Adrian Burn and shaft foreman, Hannes Nel, at 14 Shaft, where she was previously working. They spotted her talent and commitment to her duties and mentored her. She followed their advice and was sent for training on 2 February 2007 which she completed on 27 June 2007.

Jeania, who started at Impala on 10 March 2006 as a shaft helper, said her passion and commitment in whatever she does have helped her to be where she is today.

Photograph 10: Jeania Mosale (woman onsetter)
(Source: Team Spirit newspaper)

Story 5:

FIRST FEMALE SERVICEMAN AT 7A

Cynthia Masokwane is a 30-year old woman who was recently appointed as a serviceman at 7A shaft. Cynthia is the first female serviceman to be appointed at the shaft.

Cynthia started working at Impala in 2005 as an equipment helper before she was moved to the engineering department where she worked as a helper. After eight months she went for serviceman training. Cynthia was the first woman to undergo electrical serviceman training at the training centre.

After a lot of hard work and learning, Cynthia started working in her field at 7A Shaft in November 2007. "What I enjoy most about my job is the teamwork. My next goal is to become an electrician", she says.

Cynthia's advice to young women is: "Work hard and study hard and you will get far in life."

Story 6:

Photograph 11: Cynthia Masokwane (woman serviceman)
(Source: Team Spirit newspaper)

Story 7:

FIRST FEMALE MINER AT 14 SHAFT

Monica Nolwaza Sentsho has recently been appointed as the first female miner at 14 Shaft. Impala now has a total of two female miners employed with the company.

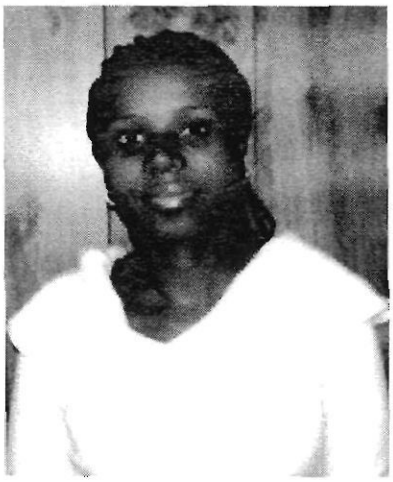
This 28-year old obtained the Blasting Certificate in May 2008. "I saw an opportunity and thought that I could make a difference for women in the mining industry," she says. "I've only been working at Impala for a week now, but I find that the men respect me a lot", she added.

Monica says that she likes to be in charge of her team. She likes to do early entry examinations to ensure that the work is safe for her colleagues. Monica's advice for

young women who want to follow in her footsteps is not to be scared of responsibility. "Learn hard and don't always see the negative side of working", she says.

Monica sees herself as a mine overseer in five years time.

Under the leadership of mine manager, Dries Barnard and his team, 14 Shaft has set an example to other shafts with achieving, and exceeding their 'women in mining' targets.



Photograph 12: Woman miner
(Source: Team Spirit newspaper)

CHAPTER 4
CONCLUSION AND RECOMMENDATIONS

4.1 INTRODUCTION

After the literature study and the empirical study, it was possible to come to a conclusion and make some recommendations. Like in many other change management processes, the process resulted in lessons learnt along the way. This chapter discusses some recommendations for sustaining current change initiatives and future change at Impala. These can be split up into the following sections:

- Communication;
- Targets for compliance;
- Change consultants;
- Sustaining change;
- Questionnaire results; and
- Resistance to change.

4.2 RECOMMENDATIONS

4.2.1 Communication

Heatherfield (n.d.) makes two very important points:

1. You cannot over-communicate when you are asking your organisation to change; and

2. Communicate consistently, frequently, and through multiple channels, including speaking, writing, video, training, focus groups, bulletin boards, intranets and more, about the change.

Change communication must be thoroughly done and at all levels. The brief system as used by most mines is not enough. Face-to-face communication is important. This can be achieved by line management after the CEO is through with the road-show. It is important that when line management communicates, they should avoid language like *"The CEO said ...* or *"the manager said ...".* Such language distances the speaker from the message and creates the impression that the speaker does not support the message he or she is conveying.

4.2.2 Targets for compliance

The organisation, in its quest for successful integration of women should look beyond compliance. The women base should be tapped not only for achieving compliance but as a source of skills in light of the skills shortage. The notion of beyond compliance also means that one does not focus on numbers but on keeping them.

As Campbell (2007:3) mentions, "*the real problem the industry is discovering is retaining its female technical and production staff*".

This warning must be heeded.

4.2.3 Change consultants

Mark Sanborn, in his article, "Why organizational change fails" makes a very interesting point that change is an inside job. Although outsiders like consultants might provide valuable ideas and input, people inside the systems must accept responsibility for the change. Scapegoating and passing the buck are not an option.

Steven Covey (2004b:317), quoting Amiel, agrees with this statement by Sanborn and writes, "Real change comes from the inside out. It doesn't come from hacking at the leaves of attitude and behavior with quick fixing personality techniques. It comes from striking at the root – the fabric of our thought, the fundamental, essential paradigms, which give definition to our character and create the lens through which we see the world."

4.2.4 Sustaining change

To sustain change, organisations such as Impala need to teach new values to existing employees as well as all new employees. The new values must become the new culture. Kotter (1996b:16) sights one common error that organisations do: neglecting to anchor changes in the corporate culture.

People need to be taught values, and socialisation plays a very important role in achieving this. Chatman and Eunyoung Cha (2003:24) say that socialisation is the process by which an individual comes to understand the values, abilities, expected behaviour and social knowledge that are essential for assuming an organisation role and participating as an organisation member.

The induction programme of the company is very strong, but newcomers are generally not socialized through formalized programmes in such a way that they can contribute and create value sooner rather than later. They learn the values on the job.

4.2.5 Learning organisation

According to Kreitner and Kinicki (2004:638), a learning organisation is one that proactively creates, acquires, and transfers knowledge, and that changes its behaviour on the basis of new knowledge and insights.

Today's organisation should emphasize training and development at all levels of employment. It should be recognized that education empowers workers to respond and adapt to the dynamic world that we are living in. This, in turn, gives the organisation a competitive edge in the dynamic business world.

Learning organisations constantly scan their external environment and build into their training newer methods which make it easier to perform manual and "macho" tasks. Although many companies do have the many characteristics of a learning organisation, the key missing issue remains empowerment of people to learn from their mistakes. There is a fundamental missing link between allowing mistakes and disciplinary codes.

4.2.6 Innovative human resources strategies

Talent management should form part of the bigger picture and be one of the strategic pillars of human resources. In the article, *The overuse of people as competitive advantage,* John Madigan said that real competitive advantage lies in the systems built, sustained and continually improved to consistently deliver winning performances. One of these systems is how to find, select, on-board, develop and manage the performance of the company's talent – the talent management system. Talent management systems are not only crucial for attracting and hiring, but for retention of that talent, which is sustainable as far as performance is concerned.

4.2.7 Warning signs from questionnaire results

Concerning the results of the questionnaire, the only worrying factor is that 16 percent of respondents had witnessed sexual harassment. This is a worrying factor and the mine must take a zero tolerance approach. Victims must be encouraged to come to the fore to report. Action that gets taken should not only be punitive, but should deter would-be perpetrators.

4.2.8 Resistance to change

Resistance to change as depicted in the literature must be well managed. The important lesson to be learnt is, as Wynn (2005:5) puts it, that leaders must develop the proper attitude toward resistance to change and realize that it is neither good nor bad. In fact, resistance can serve as a signal that there are ways in which the change effort should be modified and improved.

4.3 CONCLUSION

The recommendations and lessons below cannot be generalized to all change initiatives, because the lessons might not apply to slightly different circumstances. Jolly (2007:328) supports the notion saying the lessons of change management cannot be transferred easily from one context to another, or from one successful leader to another, as what worked once in one situation will not necessarily work a second time in new circumstances.

Impala have made huge strides in the implementation of women into the workplace. There is so much evidence that Impala are committed to this change as evidenced by the changes that have been made – to make the mining company change adept, the structure change, and the progress report.

It is, however, not within the framework of this mini-dissertation to see how Impala will fare on their scorecard with the Department of Minerals and Energy (SA, 1996c) when companies' scorecards will come under review. The positive signs discussed here suggest Impala will achieve their targets and will continue to be competitive in the foreseeable future.

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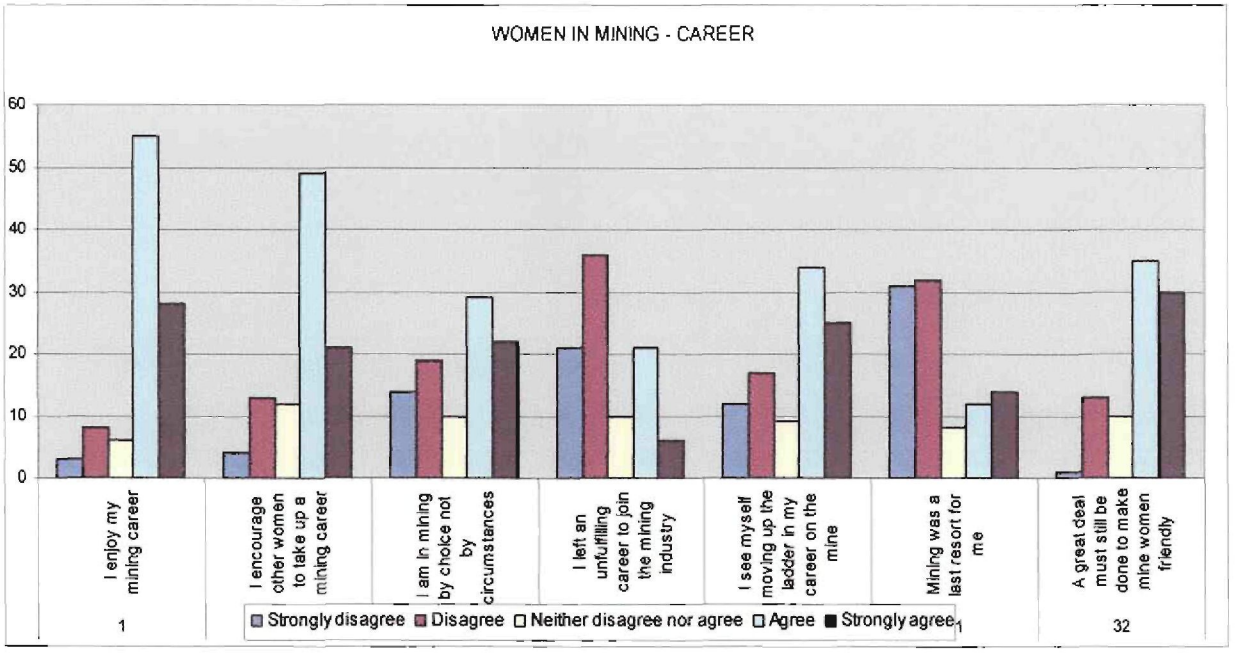
APPENDICES

APPENDIX 1: QUESTIONNAIRE

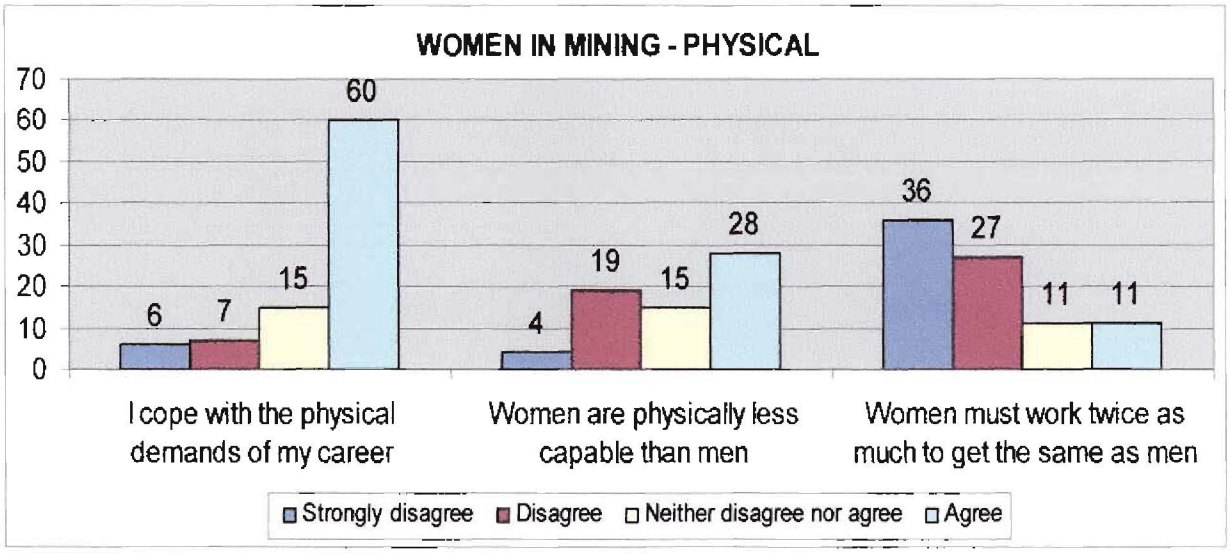
Office use		Statement	Perception of statement				
			A 1	A 2	A 3	A 4	A 5
			C	1	C 2	C	3
			Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
		01) I enjoy my mining career					
		02) I encourage other women to take up a mining career					
		03) I cope with the physical demands of my career					
		04) There should be gender equality in the workplace					
		05) There are some mining tasks that can only be done by men					
		06) Women should never be treated differently in the workplace					
		07) Women are physically less capable than men					
		08) Specific tasks must be reserved for women					
		09) There is nothing wrong with having an affair in the workplace					
		10) I have been involved in a workplace affair/relationship					
		11) I have been approached for sex in my workplace					
		12) I have been approached for sex in exchange of favours					
		13) I have witnessed sexual harassment in my workplace					
		14) I have been sexually harassed in my workplace					
		15) I have reported sexual harassment in my workplace					
		16) I have witnessed but did not report sexual harassment					
		17) My workplace deals effectively with sex/harassment offenders					
		18) Pregnacy is career limiting in my workplace					
		19) The pregnancy policy in my workplace works well					
		20) The pregnancy policy is well understood by all concerned					
		21) I understand the pregnancy policy of my workplace					
		22) I have seen a better pregnancy policy elsewhere					
		23) I have heard about a better pregnancy policy elsewhere					
		24) I am in mining by choice not by circumstances					
		25) Menstruation affects women ability in the workplace					
		26) A breastfeeding scheme should be a part of the workplace					
		27) Nursery facilities should be a part of the workplace					
		28) I left an unfulfilling career to join the mining industry					
		29) I see myself moving up the ladder in my career on the mine					
		30) Women must work twice as much to get the same as men					
		31) Mining was a last resort for me					
		32) A great deal must still be done to make mine women friendly					

APPENDIX 2: STATISTICS

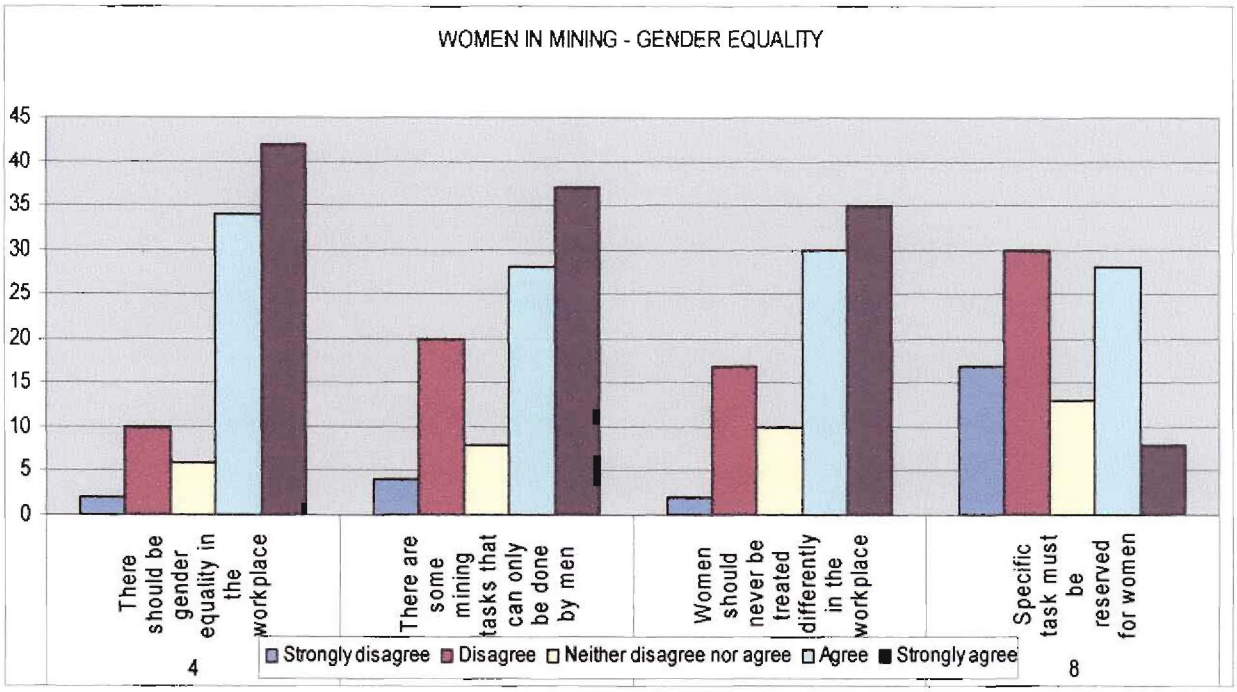
Career prospects



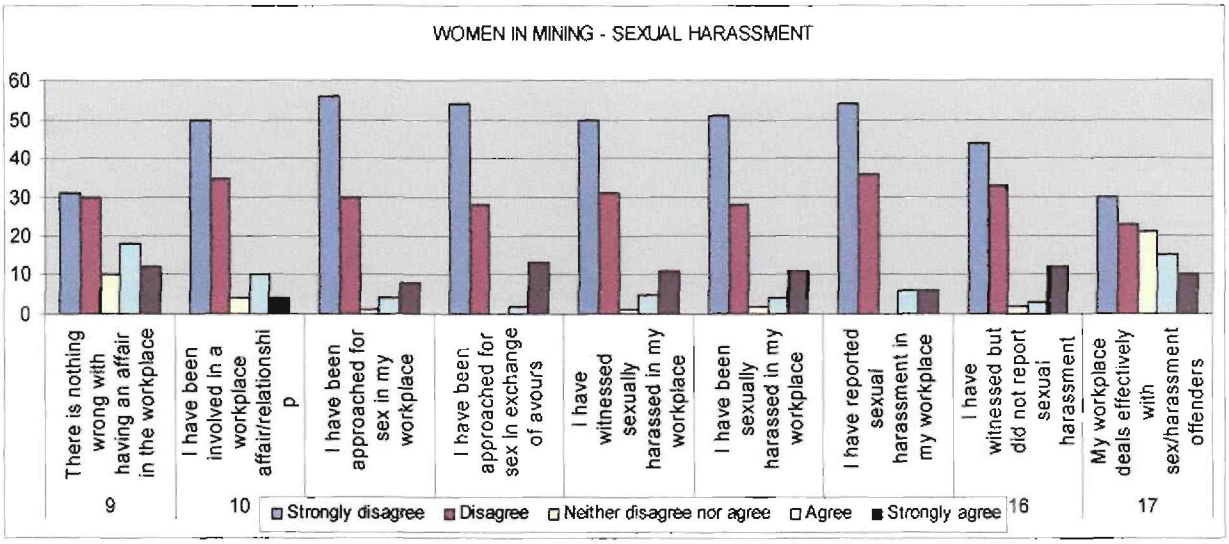
Physical capabilities



Gender Equality



Sexual Harassment



Pregnancy