

**THE IMPACT OF ORGANISATIONAL CULTURE ON GOLD MINING  
ACTIVITIES IN THE FREE STATE**

**By**

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**Submitted: December 2007**

## DECLARATION

I declare that this research study:

THE IMPACT OF ORGANISATIONAL CULTURE ON THE GOLD  
MINING ACTIVITIES IN THE FREE STATE

is my own work, that all the sources used or quoted have been indicated and acknowledged by means of complete references. This dissertation was not previously submitted by myself for a degree at any other university.

.....

**L XINGWANA**

.....

**DATE**

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## LIST OF ACRONYMS

<b>ABBREVIATION</b>	<b>DEFINITION</b>	<b>PAGE</b>
PEST	Political Economical Social Technology	25
ARM	African Rainbow Mines	31
TQM	Total Quality Management	38
SWOT	Strength Weaknesses Opportunity Threat	41
SQB	Safety Quality Blast	58
EOE	Equal Opportunity Employment	59
HOD	Head of Department	63
DC	Development Centre	90
IDP	Individual Development Plan	90
UGR	Unwritten Ground Rules	103

## **ABSTRACT**

### **THE IMPACT OF ORGANISATIONAL CULTURE ON GOLD MINING ACTIVITIES IN THE FREE STATE**

From the Stone Age, each nation or group of people has had a distrust of those different from themselves. This is evidenced in various ways, for example, social welfare given to local residents only, scornful names given to foreigners and other ethnic groups and rituals designed to keep themselves separate from others. These incidents of diversity resulted into an unplanned and emergent set of norms, values and beliefs that exert enormous influence on the way in which an organisation operates, how organisational structure is developed, the integration and adaptation of internal and external relationships, as well as the orientation of the underlying values of the organisation.

The main aim of changing culture is to improve organisational performance. To achieve this aim, it requires an understanding of the underlying assumptions and values that determine what is important in an organisation as well as assessment of the impact of culture on operational efficiency. The impact of organisational culture is identified through the negative and positive outcomes of mining activities, and is illustrated by employee satisfaction, job commitment, organisational loyalty, turnover, absenteeism and productivity.

The aim of this research study was to identify the characteristics of organisational culture and evaluate the impact of organisational culture on gold mining activities in the Free State. The methodology used in this study comprises of empirical as well as a literature study. Questionnaires and interviews were used to gather information for the empirical study.

The empirical study revealed that firstly, organisational culture is created partially by leaders, and that one of the most critical functions of leadership is the creation and the management of culture. Lastly, organisational culture emerges when employees think, believe and act according to the pressures and priorities of their environment. Unfortunately, employees do not set aside their cultural values and lifestyle preferences when they come to work. It is the responsibility of the management to create an environment that is conducive to a healthy working environment.

This study established that the necessity to control the workforce productivity need not be accompanied by ruthless or aggressive exploitation of cultural management, but by reliance on employees' capability to exercise judgement to cope effectively with environmental uncertainty. Rules, norms and strategies developed cannot "fit" every circumstance but encourage conformity rather than creativity, and compliance rather than commitment.

## OPSOMMING

### DIE IMPAK VAN ORGANISATORIESE KULTUUR OP GOUDMYN-BEDRYWIGHEDE IN DIE VRYSTAAT

Vanaf die Steentydperk het elke nasie of groep persone ander wat van hulself verskil, gewantrou. Hierdie verskynsel word op verskillende wyses gestaaf, byvoorbeeld, welsynsbydraes word slegs aan plaaslike inwoners toegewys, minagtende woorde word vir volksvreemde persone en ander etniese groepe gebruik en rituele word ontwerp met die doel om hulself van ander te onderskei. Hierdie insidente van diversiteit het tot die gevolg 'n onbeplande en ontluikende stelsel van norms, waardes en veronderstellings wat 'n ontsettende invloed uitoefen op die wyse waarop 'n organisasie te werk gaan, hoe die organisatoriese struktuur ontwikkel, die integrasie en aanpassing van interne en eksterne verhoudings, sowel as die plekbepaling van die onderliggende waardes van die organisasie.

Die hoofdoel van 'n veranderende kultuur is om organisatoriese prestasie te verbeter. Om hierdie doel te kan verwesenlik, vereis deeglike begrip van die onderliggende veronderstellings en waardes wat bepaal wat vir 'n organisasie waardevol is, sowel as 'n bepaling van die invloed van kultuur op operasionele doeltreffendheid. Die invloed van organisatoriese kultuur kan vasgestel word vanuit die negatiewe sowel as positiewe uitkomst van mynaktiwiteite en word geïllustreer deur werknemers-genoegdoening, werksverbintenis, organisatoriese lojaliteit, werksafwesigheid en produktiwiteit.

Die doel van hierdie navorsingsstudie is om die kenmerke van organisatoriese kultuur te identifiseer en die invloed van genoemde kultuur op goudmynbedrywighede in die Vrystaat te evalueer. Die metodologie in hierdie studie aangewend, omvat beide 'n empiriese, sowel as 'n literatuurstudie. Vraelyste en onderhoude is gebruik om inligting in te win vir die empiriese studie. Die empiriese studie het blootgelê dat, eerstens, ondernemings kultuur gedeeltelik geskep word deur leiers en dat een van die mees kritieke funksies van leierskap die skepping en bestuur van kultuur is. Laastens ontstaan ondernemings kultuur wanneer werknemers dink, glo en optree in ooreenstemming met die druk en prioriteite van hul werksomgewing. Ongelukkig laat werknemers nie hul kulturele waardes en lewens-voorkeure tersyde as hulle werk toe gaan nie. Dit is dan die verantwoordelikheid van die bestuur om 'n atmosfeer te skep wat bevorderlik is vir 'n gesonde werksomgewing.

Hierdie studie het vasgestel dat die noodsaaklikheid om die werksmense produktief te beheer, behoort nie gekenmerk te word deur genadelose of aggressiewe uitbuiting van organisatoriese kultuur te wees nie, maar deur te vertrou op die werknemer se bekwaamheid en oordeelsvermoe om doeltreffend met omgewingsonsekerheid te kan afreken. Bestaande reëls, norme en strategieë, kan nie 'pas' by elke omstandheid nie, maar insiklikheid eerder as kreatiwiteit en toegewing eerder as verbintenis moet aangewakker word

# CHAPTER 1

## BACKGROUND AND SCOPE OF THE STUDY

### 1.1 INTRODUCTION

Due to the change of the political horizon in 1994, there have been substantial changes in social values regarding work ethics, working conditions, leisure, equal opportunities, employee's rights and the quality of worker's life. These changes had an impact on the South African mines and resulted in the organisational culture under study, which has to be managed in a unique way.

Culture management is about developing or reinforcing an appropriate culture and changing a dysfunctional culture (Daft, 1999:35). Through management it is necessary to organise and control resources and activities of an organisation, so that organisational culture can be installed effectively and efficiently. According to Champoux (2000:67), managing organisational culture is the moral action that managers take in managing the impact of the cultures on the organisational activities (cf. 3.2.6.1). Baird, Post and Mahon (1990: 426) briefly define these activities as any required physical movements which include overt and obscure behaviours that are oriented to accomplishing a goal. Every culture provides a set of pattern for completing practical activities of an organisation.

An organisation is a group or collection of people and materials brought together to achieve a common purpose beyond the means of individuals working alone (Schermerhorn, Hunt, & Osborn, 2000:7). In this study, a mine as an organisation, existing within a turbulent working environment, consisting of several groups with identifiable subcultures, is competing with the dominant culture. According to Schein, E. (1999), organisational culture consists of shared values, beliefs and assumptions of how

members behave in order to cope with their problems of external adaptation and internal integration ([http://cims.ncsu.edu/documents/WDWK\\_culture.pdf](http://cims.ncsu.edu/documents/WDWK_culture.pdf)).

According to various research studies, any attempt to manage culture should fail entirely or result into deviance, if the manager did not change worker's values and assumptions by changing their behaviours (Manning, 2001:49).

## **1.2 SIGNIFICANCE OF THE STUDY**

There has been a great deal of literature generated over the past decade about the concept of organisational culture, especially in regard to learning how to change inappropriate culture. Yet, none or less attention has been devoted to understanding the critical impact that culture has on a variety of organisational issues, let alone mining activities. This is particular relevant in the case of employer-employee relationships, as creating long-term cooperative and collaborative relationships is seen as one of the keys to success in today's competitive environment. Culture and its underlying factors play a critical role in this regard as they can have large influence on development and maintenance of competent employees.

Usually, culture failure is credited to lack of understanding of the role and impact the organisational culture has on the organisation's activities. The organisational culture that exists when an entrepreneur and/or shareholders start an organisation, do not last long. The only way to avoid this situation is to continually review the managing of organisational culture so that it "fits" the emerging conditions around it (Manning, 2001: 19). Understanding the organisational culture should foster and provide vital clues to expected behaviours for employees in general.

As a result, this study places emphasis on understanding the desired set of practices in the mining industry, and what is important, what employees do to “fit in”, to be accepted and to succeed. Culture is developed and manifests itself in different ways in different organisations. This means that there can be no universal prescriptions for managing culture, although there are certain approaches which can be helpful (Armstrong, 1997: 368). This allowed the researcher to explore the possibility of over-emphasis on “bottom line” performance and resulting cultures which pose some risk in that they may be at the expense of employees’ health and well-being in the mining environment. This study also inquired into the ways in which, consistency of an appropriate organisational culture is considered as a competitive asset and therefore not easily imitated, and subsequently facilitating the smooth running of the organisation.

The most extensive research of the organisational culture as a concept occurred in low to moderate (low context culture) uncertainty avoidance society and the impact the organisational activities has on the organisational culture (Ashkanasy, Wilderom & Peterson, 2000:409). Little was done, in high-context culture and the impact of organisational culture on the organisation’s activities.

### **1.3 PRELIMINARY LITERATURE REVIEW**

The beliefs and attitudes within the organisation are drawn initially from its external environment. Changes in an organisation’s environment will probably influence its culture. If an organisation fails to respond to environmental change in marketplace or customer needs, it may go out of business. Those organisations, which adapt to change will out-perform and out-live their competitors and rivals (Courtney, Kirkland & Viguerie, 1999:5).

In practice, organisational culture is unlikely to be completely homogeneous and whatever the similarity in output or service, ways of working, shared values, management styles and relationship with the market may differ. Most organisations are characterised by subcultures, which are formed around different roles, functions and levels. There is also inconsistency in culture orientations between subcultures and consensus within the units. Bowman and Jarret (1996:118) state that there are very few beliefs, attitudes or values, which are common to all members. The success of managerial intervention depends on the development of dialogue and co-operation between members of divergent subcultures (Harrison & Shirom, 1999: 266).

Molden and Symes (1999:106) claim that certain environments are created by people to produce specific results, and this in turn, creates a culture in the form of routines which make up workplace behaviour and environment. What must be noted is that culture change is a make or break factor of successful transformation. Organisations may spend millions of rands for this transformation, only to have the old cultural norms stifling the implementation and subsequent use of new programme. It is expected that managers should at all times manage and change the culture of the group or organisation with the aim of better performance (Anderson & Anderson, 2001:100).

Culture is hardly planned or predictable. It is the natural product of human interaction and emerges from collective behaviour and resides in individual interpretations and knowledge (Cameron & Quinn, 1999:132). Gaining commitment for any changes requires awareness of current reality; “see things as they truly are, and shatter negative individual perceptions and self-imposed distortions of reality”. People choose to change only when becoming aware of the current reality. That is why resistance and crises precipitate changes.



Common values in society place constraints upon the kind of organisational culture which is acceptable to members. Harrison and Shirom (1999:281-281) accentuate that well-established, widely shared beliefs, values as well as norms are very resistant to managed change. An individual's beliefs and values generally tend to be stable, and are usually consistent, mutually reinforcing and resistant to change. Interpretation of the worldly needs that does not make sense to the workers will not change habitual ways of thinking lightly. Workers are more likely to internalise beliefs, attitudes and values which are seen to be useful, to be from a credible source and to be in agreement with workers' existing beliefs and values (Puth, 2002:57).

Managers tend to copy long-established structures and practices that prevail widely in their field or industry or are practiced by industry leaders in order to gain legitimacy among government regulators or the public at large. The rules and requirements elaborated by regulatory and non-enforcing bodies eventually become part of the organisational culture, for example: The Labour Relation Act 66 of 1995, Employment Equity Act, The Skills Development Act and Occupational Health and Safety Act (Swanepoel, *et al.*, 2000:132-142).

Manning (2004:11) states that managing culture is neither easy nor foolproof. It takes time and the process might be bumpy, and the whole exercise needs effort and vigilance. Some people get used to it quickly, and other takes more time. The lag time may be shorter if commitment to the program is deep and clear to all stakeholders. During such a long time period, the requirements of change in culture and in other organisational features can shift several times, so trying to change culture, becomes like trying to "hit a moving target". The question left unanswered is "why business units' performances differ in overtly similar sets of circumstances and have been persistent throughout the months?"

## 1.4 STATEMENT OF PROBLEM

According to Nadesan (2005: 16-17) organisations and business units have either strong or weak culture which sturdily influences its daily functioning. Even though, a strong culture aligns employees towards organisation's values and strategic direction, in high-risk organisations such as mining, focus is on compliance rather than commitment. As a result, a strong culture creates a dilemma of limiting the range of values and styles that are acceptable, when employees want to preserve the *status quo*. Also, there is no clear indication of the content of organisational culture in the mining industry, and for this reason, the present research study endeavours to primarily address the following problems:

- What does the expression organisational culture in mining entails?  
and
- What is the impact of organisational culture on gold mining activities?

Robbins (2004:246) emphasises that organisations lure diverse individuals because of the alternative strengths these people bring to the workplace, yet these diverse behaviours and strengths are likely to diminish in strong cultures as people attempt to "fit" in. A strong culture could also be a means of manipulation by imposing pressures on people with alternative or deviant views to conform.

The following research questions emanated from the research problem when the above argument was considered, which are:

- What are factors that have impact on organisational culture?
- What are considered as critical issues to drive culture toward organisational outcomes at the gold mines?

- To what extent are these cultural issues impact on gold mining activities? and
- How is this impact managed in the mining environment or any result-driven organisation?

In order to answer the above questions, this research has a number of objectives.

## **1.5 OBJECTIVE OF THE STUDY**

In the light of the formulated problem, the main objective of the study is to identify and evaluate the impact of organisational culture on gold mining activities in the *Lejweleputswa* district of the Free State.

To assist and achieve the main objective of this study, the secondary objectives of this study are to:

- determine the factors that have impact on organisational culture;
- identify critical issues regarding the desired organisational culture at the gold mines;
- ascertain emergent organisational culture and its influence on the gold mining activities; and
- identify and establish cultural strategies and programmes that can shape and develop the desired or appropriate organisational culture that will promote employee commitment and high productivity.

## **1.6 DEMARCATION OF THE FIELD OF STUDY**

The study was conducted at Lejweleputswa district of Free State. Lejweleputswa district have three gold mining houses of relevance, namely, Harmony, Beatrix Gold Fields, and Dissel (Pamodzi) President

Steyn mines. Beatrix Gold mine was selected as a sample, because it was easily accessible to the researcher, as a result of time and financial constraints. From the overview of the past results, a study of a single mine serves as a valuable representative of other mines having similar characteristics, since it will also reveal trends which can be applied to other mines.

A sample of five hundred literate workers was drawn from the total population of eleven thousand and thirty (11 030) Beatrix mine workers as at 30th June 2007 (cf. 4.4.4), which formed the following categories of respondents:

- 15 supervisors and managers were participants of focus interview;  
and
- 485 first line supervisors and service staff were considered as respondents to questionnaires.

The total sample of 500 persons is believed to be adequate to reveal the patterns and trends of the impact of organisational culture and that will assist in the interpretation of the empirical research findings.

## **1.7 METHODOLOGY**

Information was acquired through the use of secondary (literature review) and primary sources (empirical study).

### **1.7.1 Secondary sources**

Useful information was obtained through a literature review from various publications such as textbooks, journals and Internet documents. The main objective would be to understand the mining environment, evolution of corporate culture, and emergent of subcultures.

### **1.7.2 Primary sources**

Specific information that clarifies and put into perspective the impact of organisational culture was gathered through empirical study. For this instance, questionnaires were distributed amongst service staff and first line supervisors. In seeking clarity on unclear issues raised by questionnaires or that need more explanation; interviews were instituted particularly to supervisors, HODs and managers.

Permission to conduct the study, interview and tape-recording of the proceeding was obtained from management and workers. All the proceedings were treated as confidential and also communicated to the participants before interviews and completion of the questionnaire, could take place. Participation was voluntary and the purpose of the study was explained verbally and in writing to management and workers.

### **1.7.3 Research Design**

Research design is a plan or structured framework aimed at enabling answers to be obtained in order to solve the research problem (Burns & Bush, 2000: 75).

Due to the exploratory nature of this research, no hypothesis is formulated. According to Gray (2004: 32), exploratory nature means any type of research that would provide the research with ideas and insights about broad and vague research problem. The emphasis is to identify and evaluate elements of organisational culture that are inherent and embedded in workers' minds, that have enormous impact on the end-results, as well as how managers manipulate and manage these elements as a means to gain competitive advantage and high productivity.

As a result, the researcher applied mixed-method approaches which involve qualitative and quantitative approaches as well as literature review in this study.

#### 1.7.3.1 Literature review

The rationale for employing a literature study is explained by Mouton (1996:119-120) as involving the incorporating and embedding of the researcher's study into the body of knowledge that is relevant to the research problem being addressed. To do this, the researcher first did a thorough literature search of previous theoretical and empirical work in the field of organisational culture and then related or integrated researcher's own study to the existing literature. Literature review is important for this study in that, firstly, it serves as a map of the terrain, which shows the route other researchers have "travelled". Secondly, it provides guidelines on the design of the researcher's project. Finally, it yields various kinds of resources, such as explanations and definitions of key concepts. The researcher critically appraised the literature for the purpose of detecting a link between one's own study and the accumulated knowledge in the field of this research.

Organisational culture as a concept will be outlined in chapter two and three of this study. The focus will be on different gold mining techniques and activities that are affected by organisational culture and how its impact is managed.

#### 1.7.3.2 Qualitative approach

The qualitative approach is a method used to discover the meanings that participants attach to their behaviour, how they interpret situations at their workplace and world at large, and what their perspectives are on particular issues (Flick, 2002: 17).

The study mostly concentrated on the qualitative approach, through open-ended questions in interviews. The main objective was to give supervisors and managers the opportunity to:

- define their own perceptions and problems experienced with their organisational culture, with regard to sustainable efficiency and productivity; and
- voice their own opinion about how organisational culture is managed.

### 1.7.3.3 Quantitative approach

Quantitative approach is a method used to quantify patterns that the research encounters within the empirical study, indicate or measure the properties of the phenomenon towards certain topics, for example, attitudes towards supervisors' roles at the workplace by assigning numbers to the perceived qualities of employee's behaviour (Heppner & Heppner, 2004:93). The study also used standardised and closed-ended questions directed to first line supervisors and service staff.

## 1.7.4 Data collection methods

Interview and questionnaire are two survey instruments used to collect data and are discussed below.

### 1.7.4.1 Interview

According to Mouton (1996: 643) and Babbie (1998: 290), an interview is a structured and task-oriented data collection instrument and a conversation between an interviewer and respondent. An interviewer asked questions about the respondent's viewpoint on the impact of the current corporate

culture and how the respondent manages this organisational culture as a competitive asset.

In this study, interviews were conducted through face-to-face conversations with supervisors and managers, in order to ascertain employee's attitudes, preferences and working behaviours, and an appropriate organisational culture. The researcher made use of focused interviews.

#### 1.7.4.2 Questionnaire design

Questionnaires are the printed sets of questions (either open-ended or closed-ended) to be answered by respondents, aimed at obtaining answers to the research questions (Sudman & Blair, 1998: 282).

Two kinds of questionnaires written in English were distributed to first line supervisors as well as service staff, respectively, and analysed as soon as they were collected and received. Each questionnaire was designed and divided into two sections. Section A was participant personal information. Section B consisted of closed-ended questions as well as open-ended questions, focusing on the respondent's present cultural practices and its influence on the mining activities.

#### 1.7.5 Sampling methods

Sampling as a concept, involves taking of a portion of the population (miners at Beatrix mine), making observation on this smaller group and then generalising the findings to the large population (Mason, 2002: 122).

The following methods were used in this study:



- a stratified sampling method:- A sample was taken from each stratum or level of organisational structure (managers to service staff); and
- a purposeful sampling method: - Ex-workers of other mining houses, union representatives, service personnel and those who are presumed to have mining knowledge of workplace culture at Beatrix mine were also selected.

The evaluation of the strengths and weaknesses of every instrument is done through reliability and validity (Payne & Payne, 2004: 28).

#### 1.7.5.1 Validity

Validity as a concept describes and assesses a measurement or a criterion that accurately reflects the concept it is intended to measure (Heppner & Heppner, 2004: 118).

To ensure validity, naturally occurring data will be used as indirect evidence about the question which the researcher attempts to solve, and the source as a testimony about the impact the research is studying. The reasons why certain sampling methods were used will be discussed in chapter four (cf. 4.3.1).

#### 1.7.5.2 Reliability

Reliability as concept, considers whether the obtained score is a stable, dependable, consistent, accurate and predictable indication of employee's performance on the administered test or criteria (Flick, 2002: 220).

To ensure reliability the researcher applied both the qualitative and quantitative methods of research in this study. According to Gratton and Jones (2004: 25-26), the use of mixed-method approach can produce a final product which can highlight the significant contributions of these

approaches. For example, qualitative data will provide some explanation to quantitative measurements (cf. 4.3.2).

### 1.7.6 Data analysis

Data analysis is a continuous process of managing the collected data and making sense of the evidence through descriptive, comparative or explanatory account (Ritchie & Lewis, 2005:219).

The research study was designed to be exploratory and outcomes analysed by means of descriptive narration of findings. Descriptive narration is an ideal way of describing and capturing the lived practices and experiences of participants. Being descriptive, the study attempted to outline the nature of the targeted population (miners in gold mine) and the trends that rose from the study. The researcher analyses data through the constant comparative method. Comparative method of qualitative data is in the understanding rather than measuring the differences. Comparative method of quantitative data draws comparisons between groups around which the sample design was structured.

This means that researcher:

- 🎬 continuously reflected on the measuring of what is heard and observed and the direction in which the answers may lead to;
- 🎬 constantly compared the data against the themes or organisational core values; and
- 🎬 looked for data that both confirm and disagree with the manager's perception of employee's values and behaviours.

## **1.8 LIMITATIONS OF STUDY**

The qualitative research design is not aimed at generalising or comparing the results from different organisations but to illustrate the relationships between organisational culture and productivity. The following are some of the limitations of this study, and are:

- according to the importance of the context, a small number of literature sources, older than ten years were used in this study; and
- because of the lack of research assistants, the number of samples drawn was minimal, and only limited to managers, supervisors, and service staff;

## **1.9 DELIMITATION OF STUDY**

The study was conducted in the field of Management. This is done in order to:

- contribute to the existing body of knowledge in the field of cultural research;
- establish the impact of organisational culture on the mining activities; and
- attempt to provide suggestions and recommendations on how to develop, nurture and maintain an appropriate culture that the organisation requires in order to have a competitive advantage over its competitors.

## **1.10 THE DIVISION OF CHAPTERS**

The section provides an outline of how the chapters in this study will be divided. The overall dissertation is systematically organised in chapters

and each chapter follows a structured pattern in the form of introduction, body and conclusion. The study is divided into the following six chapters.

#### Chapter 1: Background and scope of the study

Research introduction is a developed proposition that provided explanation why the impact of organisational culture on gold mining activities is important and relevant and why it should be researched.

#### Chapter 2: Conceptualisation of organisational culture

In this chapter, concepts and theories based on findings reported in previous studies are used to illustrate and clarify the factors that have impact on organisational culture.

#### Chapter 3: Mining organisational culture

In this chapter, the impact of organisational culture on mining activities is explored with the assistance of literature review.

#### Chapter 4: Research methodology

Discussion is on research instruments and sampling methods and their justification for being used in this study, and what the literature says about them as means to collect data.

#### Chapter 5: Data analysis and interpretations

This chapter describes the actual sample and its characteristics. There is also discussion on the main trends, patterns, similarities and differences that may have emerged. Quantitative data from questionnaires is reported in tabular form while qualitative data is reported in the narrative form.

## Chapter 6: Findings, recommendations and conclusion

This chapter illustrates discussion on how the main findings link with the primary aim of this study, and discussion of conclusions reached with regard to the secondary aims. Recommendations of practices and actions that need to be implemented are also presented in this chapter.

### **1.11 CONCLUSION**

This chapter provided an orientation statement of this study. In understanding the role and impact of organisational culture on activities and therefore, achieving the desired output in the mining industry, the various mining organisations or units need to understand not only their internal culture but the cultural attributes best suited to promoting desired behaviours. The qualitative and quantitative methods were used to collect data in this regard and will be discussed in detail in chapter three.

Chapter two clarifies the cultural attributes in detail, taking previous studies into consideration.

## CHAPTER 2

### CONCEPTUALISATION OF ORGANISATIONAL CULTURE

#### 2.1 INTRODUCTION

Chapter one provided an orientation statement, problem statement of the study and indicates the way in which this study is going to be conducted. Chapter two sets out to describe the concepts and theories of organisational culture based on findings reported in previous studies in order to illustrate the background of this study and its application to the mining industry.

Culture affects every aspect of life, from the way employees perceive and react to formally defined jobs and structural arrangements, to their relationship with their environment. People tend to identify themselves more easily with individuals or groups with whom they share a cultural framework Two main variables of the cultural perspective, which are keys to organisational success, are adaptation to external environment and integration of all internal variables (Smit & Morgan, 1996: 330).

The researcher also sets about to explore the facets of the present organisational culture, such as factors that resulted into the emergence of culture, diagnosing the presence of culture and whether this culture is strategy-supportive or not. From the Stone Age, each nation or group of people has had a distrust of those different from themselves, shown in various ways, for example, social welfare given to local residents only, scornful names given to foreigners, to other ethnic groups and rituals designed to keep themselves separate from others (Wilson & Rosenfeld, 1997:229). Major problems arise when people of different cultures start working together in an organisation such as mining, and judge others as good or bad on the basis of their own culture.

Organisational culture is also considered to be a unique set of attributes and a complex subject that needs to be explored in detail, together with the idea that beliefs and values can be managed. Recently, with the amendment of various laws and regulations in South Africa, culture barriers are breaking down and there is cross-cultural understanding that leads to changes in basic patterns of life. These laws place a huge challenge on management of organisations which for example, to recognise the existence and the impact of divergent cultures in different units or departments, known as managing organisational culture. Managing organisational culture can be briefly defined as the replication, maintenance and reinforcement of the appropriate culture by the management through the involvement of employees. An integrated culture is therefore needed to ensure that people from various backgrounds, personalities and beliefs should feel respected and valued in the working environment (Manning, 2004: 111-113).

Reference is also being provided to the prevalent incidence of organisational culture, which necessitates the implementation of certain coping strategies to counter the negative influence of culture on the organisational performance and commitment.

## **2.2 ORGANISATIONAL CULTURE**

Glendon and Stanton (2000:194) separate organisational culture theories into interpretational theories and functional theories. In the instance of interpretational theory, culture is seen as a metaphor by which an individual strives to understand a company's operations and ways of reacting to environment pressures. While, in the instance of the functional theory, an ideal culture is where an individual should strive and be manipulated for the organisational interests.

Organisational culture again, is defined from two different perspectives. Firstly, organisation culture is defined briefly as the pattern of basic assumptions that a given group has invented, discovered or developed in learning to cope with its problems of external adaptation and internal integration ([http://www.leap.com.sg/Articles/ORG\\_Culture.pdf](http://www.leap.com.sg/Articles/ORG_Culture.pdf)). These values are evident in more tangible factors such as stories, rituals, language and jargon, office decoration and layout, and prevailing modes of dress among the staff (Wilson & Rosenfeld, 1997: 229).

Secondly, organisational culture is also the way things are done in the organisation, such as the overall unique practices of the organisation, the beliefs and values shared by people in the organisation that govern the way people approach their work and interact with each other; and a set of basic assumptions that worked so well before that they are regarded as valid assumptions within the organisation (Robbins & Barnwell, 2002:377).

When both perspectives are taken into consideration, culture includes groups of people collectively, not individuals alone, who through their experiences together, day after day in the work environment, build a picture of what the organisation is all about.

Also, according to Robbins and Coulter (2002:58), the above-mentioned definitions of culture imply several things, which are, that:

- individuals perceive the organisational culture on the basis of what they see, hear or experience within the organisation;
- even though individuals may come from different backgrounds, they tend to describe the organisational culture in similar terms (shared aspects of culture); and
- individuals tend to describe organisational culture, rather than evaluate it, which is that they are not likely to declare whether they like it or not.



Organisational culture is experienced as implicit rather than explicit phenomenon to the people outside the organisation, and is therefore, illustrated by defining culture through its elements or level of visibility.

### **2.2.1 Elements of organisational culture**

Organisational culture is revealed to people in the form of three different but related elements or levels, namely, behaviour, shared values and beliefs and basic assumptions. These elements vary in their visibility to people outside the organisation, with the first element being the easiest to perceive and the last the most difficult. Some models or research studies argue that corporate culture may modify and manipulate the first elements of organisational culture and could, as a result, have little impact on the underlying assumption. As a result, have concluded by saying assumptions are “caught” not taught and not open to relatively short term manipulation (Lussier, 1997: 43-44, 255).

#### **2.2.1.1 Behaviour**

Behaviour includes the observable things that people do and say, or the action employees take. After a while individuals in an organisation develop unique terms to describe equipment, offices or products that relate to their business and once internalised, these terms act as common denominator that unites members of a given culture or subculture (Robbins, Odendaal & Roodt, 2003:390). In the instance of mines, the mine shaft buildings, underground working attire such as the hard hat, overall, and gumboots, *fanakalo* as language and safety symbols, each illustrate to new employees a specific expected behaviour.

### 2.2.1.2 Values and beliefs

Mullins (2004: 892) states that values represent broad tendencies to prefer a certain state of affairs over others, the way employees ought to behave, what is good or bad and what is important and what not. People in individualistic cultures value equity, while those in collectivistic cultures value equality. Customers may purchase gold, because they want to hide their wealth from spouses, families, the tax authority, creditors, invaders and others. In the mining scenario where there is cultural diversity, strong performance values allow teams to take risks associated with conflict, trust, inter-dependence and hard work (Werner, Bagrain, Cunningham, Potgieter & Viedge, 2007:183).

Cascio (2003: 650) articulates that a belief is a descriptive thought that a person has about something. Beliefs represent the “if”-statement, for example, if an underground employee does not test for methane gas before working with cutting-torches it could result into people dying due to a gas explosion. Another example is that there is a strong correlation between the price of oil and the price of gold. This is so in part because mining gold is an energy intensive process, which means that the cost of mining an ounce of gold will increase as the price of oil increases. Lastly, the positions of women in some societies are considered divine, in others they are equal to men, yet in others they are inferior to men, in line with their cultural assumptions.

### 2.2.1.3 Basic assumptions

Assumptions are shared values and beliefs that are rarely discussed and deeply ingrained as unquestionably true in the minds of workers, and acts as a guide toward feelings and emotions about issues. They are pre-conscious, non-confrontable and highly complex aspects of human group psychology. They are the most stable and enduring part of culture and are

difficult to change (Newstrom & Davis, 2002: 93). For example, winning teams have a tendency to believe that their success gives them the right to dominate others, while losers seek their salvation in an attempt to “knock the winners off their feet”.

### **2.2.2 Myths of organisational culture**

What people in one culture value or perceive as sacred may be considered irrelevant in another culture. Organisations need to discover the ways to harness culture in order to drive the business forward (Fielding, 1997: 479).

According to Schneider and Barsoux (1997: 29) and Williams (2002:41-44), the following are some of the myths that are common in most organisations, which is that:

- culture creates, maintains and legitimises past, present or future actions and consequences. Managers tend to copy long-established structures and practices that prevail widely in their field, or are practiced by industry leaders in order to gain legitimacy among government regulators or the public at large;
- culture maintains and conceals political interests and value systems. There are very few beliefs, attitudes or values, which are common to all members. To those individuals who naturally identify with cultural consensus, the pressure to conform is not noticed, but obviously noticed by those workers whose opinions and lifestyle differ from the prevailing culture. The choice for these workers will be either to conform or leave the organisation;
- culture helps explain and create a cause and effect relationship under conditions of incomplete knowledge. Once organisation culture is

invented and developed by a given group, and has worked well previously, it is considered valid and is taught to new members as the correct way to perceive, think and feel in relation to problems encountered in the organisation;

- culture rationalises the complexity and turbulence of activities and events to allow for predictable action-taking. For example, in mining, employees may object to the use of their mother-tongue to demonstrate the emotional complexity of language in the mining industry, which opted to use *fanakalo* as its language instead;
- the traditional approach of organisational culture states that with the application of a set of tools, methods and procedures, management can predict the future of any business and also be able to choose a clear strategic direction. For this reason, an organisational culture could also be a means or result of manipulation and co-optation; and
- in every cross-cultural alliance there are seeds of potential cultural conflict and misunderstanding. It should thus be kept in mind that behaviour values and beliefs are diverse across cultures and their importance should not be underestimated.

The immense impact of the above mentioned myths on business activities and management performance should not be underestimated, especially when people with diverse behaviour patterns find it difficult to adapt to the culture of an organisation.

### **2.3 FACTORS AFFECTING ORGANISATIONAL CULTURE**

In the section below, organisational culture, as key to external adaptation and internal integration is outlined.

### **2.3.1 External adaptation**

An instance of an organisation reaching the maturity stage where its initiatives have slowed down, may need to create a culture that is adaptive in order to deal with the difficult issues of rapidly-changing external environment. The result is that stakeholders of an organisation with an adaptive culture, share a feeling of confidence that the organisation can deal with threats and opportunities posed by the external environment. A mining organisation is also embedded in a political, economic, social and technological system (PEST). These variables, each on its own, shape and directly influence the cultural activities of the organisation (Lussier, 2003:47-50).

#### **2.3.1.1 Political variable**

A government-oriented culture tends to focus on formal rules, and therefore, the organisation is not likely to function well in a regulated or non-market-based environment. The internal regulations of such culture seek to stabilise its organisational activities. The recent introduction and amendment of various labour legislations and regulations such as the Mining Charter, Basic Conditions of Employment Act, Labour Relations Act. No 66 of 1995 and the Employment Equity No 55 of 1998 and others, have placed an enormous pressure on South African mining organisations to conform and move towards fully representative organisational structure, in order to be granted their periodical mining licence. In an attempt to accelerate this process, for example, various organisations in South Africa are embarking on affirmative action and black empowerment programmes to develop historically disadvantaged groups and to assimilate them into the existing organisational culture (Nieman & Bennett, 2006: 246).

### 2.3.1.2 Economical variable

The economic system of a country has a huge impact on the creation of mining culture for the reason that it must adapt to the risk of currency appreciation, declining of gold price, rapid depletion of ore reserves, and increase of operational costs. Shareholder-oriented culture in mining emphasises the increase in shareholders' wealth; therefore this organisation will cope well in market-based environments where efficiency is important. In times of low rand gold prices, the industry tends to limit its losses by mining higher-grade ore reserves, cutting production by abandoning less-profitable areas, and by selling gold and currency in advance. The risks associated with an investment in gold shares are extremely high. It is extremely difficult to predict or estimate when and to what extent the rand will depreciate. Certainly, the current scenario is unlikely to lead to job growth in the gold sector for the foreseeable future, while job losses are likely to occur (Robbins & Coulter, 2002:98).

### 2.3.1.3 Social variable

South Africa is a melting pot of different ethnic groups, each in itself having a distinct culture. Therefore, there is a growing need for the fulfilment of a culture of social responsibility towards the community in which it is situated. The mining industry has strived throughout its existence for the pursuance of a quality life in the broader community by being one of the main bases for the employment of illiterate workers and also immigrant workers from Lesotho, Mozambique and other neighbouring countries. The mining houses also endeavour to improve services as well as infrastructure, such as building houses, schools, hospitals and sports facilities for its employees in the community by means of social investment programmes, in the form of sponsorships and bursaries (Robbins & Decenzo, 2001: 57-58).

A social phenomenon of the industry sometimes causes disturbances in the socio-economic prosperity levels in the community, thus creating a gap between the expectations of the masses and the economic reality of the industry. The mining industry thus endeavours to align its operational culture with the World Bank Draft Environmental, and Health and Safety Guidelines for Precious Metals and continual impact assessment, as required by the certification process. The greatest environmental concern associated with gold mining is the disposal of a significant amount of waste removed from the mines (Robbins & Coulter, 2002:98).

#### 2.3.1.4 Technological variable

The South African gold industry is faced with the cultural trend of increased automation in underground mining, where work is done by robot machines with computer guidance or even operated from the surface, because labour-intensive operations are too costly at ultra-depths. This enormous cultural challenge has drawn together mine executives, union leaders, government officials and scientists in an undertaking of a massive research project called “Deepmine”. The “Deepmine” programme, launched in July 1998, aimed to create a technological and human resources capacity which will make it possible to mine gold safely and profitably at depths between 3000m and 5000m (<http://deepmine.csir.co.za/Downloads/Report98&99.doc>). The three mines, Anglo Gold, Gold Fields, and Durban Roodepoort, started this project and are operating at about two and half km below surface, and were recently joined by Harmony through the purchasing of shafts of the above mining houses. In the mineworkers union’s perspective and belief, is that the introduction of machines that are computer-operated and able to self-diagnose mechanical problems, is the main cause of unemployment among the illiterate people, and the reason why they turn to a culture of defending the *status quo* (Mullins, 2004:663-668).

### 2.3.1.5 Adaptive cultural types

Cameron and Quinn (1999:92) state that there are four types of organisational culture, which illustrate a wide variety of culture profiles that organisations can develop and what techniques or strategies are used for survival, and they are:

- hierarchy culture - it is characterised by formalised and structured place to work and people follow certain procedures to accomplish their tasks. Mining is dominated by ethnic cultures that need to be aligned to the prescribed culture, as illustrated by large numbers of standardised procedures, hierarchical levels and enforcement of rules;
- market culture - the basic assumptions in the market are that the external environment is not gentle, but hostile and uncertain. Mining organisation operates primarily through economic market mechanisms, mainly monetary exchange rate and the gold price;
- clan culture - the basic assumption in the workplace is that the environment can best be managed through teamwork and employee development, workers are thought of as partners, and an organisation empowers employees and facilitates their participation, commitment and loyalty; and
- *ad hoc* culture - the basic assumption in the organisation is that problems need different types of task and project teams to address them, which then disbands as soon as that task is completed. Often the culture of this organisation is characterised as temporary and specialised unit in that it can configure rapidly when new circumstances arise. Employees are allowed to be innovative and take risks when new opportunities arise.



Secondly, an organisational has its own working environment, the main environment in which management operates.

### **2.3.2 Internal integration**

This is the environment in which management plans, organises, leads, controls and creates a particular culture or the productive functioning of the organisation (activities). The mine management activities are enacted in this environment in pursuit of synergic condition between, organisational and employees objectives, organisational resources and extent influence, as well as alignment of employees interests and organisational values. Typically, some of the more significant sources of an organisation's culture are its mission statement, society within the organisations and management decisions (Lussier, 2003:40-41).

#### **2.3.2.1 Mission of the organisation**

The organisational mission is the purpose or reason for being in business and the creation of the mission is the top management's responsibility (Sisson & Storey, 2000:60). The cultural issues; such as history, previous achievements, abilities and environment of the enterprise, serves as the basis for the mission statement and source of organisational culture rather than forming an integral part thereof. Unfortunately, it is difficult to formulate an exact organisational mission within an unstable and rapidly changing mining environment (and gold-price factor), to predict all other important events and forces that could have a cultural influence on the enterprise (Mullins, 2004:151-152).

Once goals are defined, it is also necessary to address the type of culture that is necessary to advance these goals and objectives. A culture that places great value on employees and the worth of individual uniqueness, for example, will likely be demonstrated through the definition and

protections of employee's rights. It is important that all the employees in the organisation should be given an opportunity to provide inputs for the establishment of its vision. Change in business goals sometimes leads to the changes in the size and structure of the enterprise's labour force. Therefore, any form of change increases the possibility of unproductive conflict in the enterprise, unless the values inherent to that vision have been defined and communicated to all (Lambert, 1996:50).

#### 2.3.2.2 Society within the organisation

People grow up and work in a particular society that shapes their basic beliefs and values, and take a holistic view which defines their relationship with others (Kotler & Armstrong, 1997:93). Subsequently, organisational culture develops out of contact between groups of individuals within an organisation.

Almost every division of a mining house develops its own culture and such culture has a direct impact on the formulation and implementation of its broad corporate culture or specific employment strategies. In developing a corporate culture, the diversity of the subcultures within an organisation must be taken into account; otherwise the core culture of the organisation will demonstrate the ethnocentricity of top management (Adey & Andrew, 1996:40-43; Grobler, Warnich, Carrell, Elbert & Hatfield, 2002:50).

Cultures form the binding force which could determine the success or failure of an organisation. Organisation culture is a factor that influences managerial ethics. When managers are required to take an ethical stand, it may be difficult to explain to a person who does not adhere to the same ethical viewpoint (Jacob, 2003:197-204). Managers are also responsible for linking employees' interests and expectations to the organisational culture.

### 2.3.2.3 Management decisions

The values of a particular group or society could be an important factor in the choice of leadership style adopted by managers (Robbins & Decenzo, 2001:246). Briefly, this means that leadership participation is a function of cultural traditions. In contrast, the perception of people about the product, organisation and even a country's industrial and technological competency, depends almost entirely on the leaders of industries. As a result, the leaders demonstrate the ability to direct, restructure and mould the kind of organisational culture that will promote excellence, benchmarking, capacity building, quality, and development (Lussier, 2003: 210).

Management models and techniques (performance appraisal, management by objectives, participative management and total quality management) are management styles, and if developed in one culture, will not necessarily be effective in another culture. Business procedures are often founded on values acceptable to one culture only, and appointments to senior positions may be influenced by criteria more favourable to one subculture than another (Dadoo, Gyhoot, Lephoko & Viquerie, 1997:185; McShane & Travaglione, 2003: 534). Some management models may not work at all, while others may have to be adapted.

As emphasised by Wilson and Rosenfeld (1997:204), a decision to reposition and reduce business activities or merge with other enterprise(s) should be accompanied by a thorough feasibility study so that the organisation does not lose a substantial amount of investment on account of unprofessional service or insufficient information. For example, the merging of Harmony and African Rainbow Mines (ARM) mines was possible because there was limited difference between their cultural philosophies as well as approaches and they were making use of similar management models. As a result of merging and changes in control, the

number of South African gold companies has decreased from thirty five, eight years ago to four gold producers of relevance today, which are Anglo Gold Ashanti, Durban Deep, Gold Fields and Harmony (<http://www.mbendi.co.za/indy/ming/gold/af/sa/p0005.htm#top#top>).

#### 2.3.2.4 Integrative cultural types

According to Wilson and Rosenfeld (1997:23), every organisation has its own unique culture and most large organisations consist of a mix of the following four types of cultures, which are:

- power culture - culture depends upon a single source of influence usually situated at the centre. It involves a powerful central character, small group of people (clique) or leader;
- role culture - it is also known as bureaucracy. Roles or positions in the organisation are given priorities over individuals who fill them. People are recruited into preset roles;
- task culture - senior management allocates task or projects to the various parts of the organisation that in turn develop and work autonomously as a project task team. The influence is based more on expert power than position or personal power; and
- person culture - the individual is the focus point of the organisation. The organisation is there to serve the interest of the owners. A group of professionals (lawyers, architects and consultants) initially organise themselves in this kind of culture.

### 2.3.3 The power of internal and external variables on organisational culture

According to McKenna and Beech (2002:89), the power of internal and external variables in the way they influence the behaviour of people in the organisation, can be explained with reference to the following factors, which are:

- power distance - managers operating in culture ranked high in power distance behave rather autocratically in conditions of low trust and act in a directive way. In contrast, in cultures ranked low in power distance, a closer and more intimate relationship exists between superiors and subordinates (Schermerhorn *et al.*, 2000:46);
- uncertainty avoidance - people in cultures ranked high in uncertainty avoidance tended to be risk averse. That is, people are working very hard and display intolerance to non-compliance (Schermerhorn *et al.*, 2000:46); and
- individualism-collectivism - people within the individualistic culture then tend to place emphasis on the exercise of individual initiative and performance. By contrast, in collectivist cultures there exists a broader set of loyalties to the extended family (organisation) (Werner, Bagrain, Cunningham, Potgieter & Viedge, 2007:239).

Once an organisation has analysed the external and internal environment and has conducted thorough analysis of its internal resources and culture, then the organisation is in a position to formulate strategies in pursuit of a competitive advantage.

## 2.4 MANAGING ORGANISATIONAL CULTURE

Whether an organisation is large or small, it is important for managers to be able to stand back and look at their organisational culture analytically in order to be fully aware of the “soul” and “spirit” that forms its cultural foundation. Thereafter, managers will be able to speculate the way in which it should be managed. According to Rollinson, Broadfield and Edwards (1998: 555-556), the organisational culture can be managed by making the following four steps which are, firstly, the existing culture or cultural approach should be analysed. Secondly, the need to change the current culture is identified. Thirdly, the gap between the first and the second issue is identified, and then it is decided whether it is considered functional or dysfunctional or not. Fourthly, the strategy to modify or reinforce the existing culture is determined.

### 2.4.1 Cultural approach

The managers guide the organisation by communicating and instilling their cultural version of the overall mission for the organisation through symbols, a motto, a company creed or singing the company song. A well-functioning organisation is clearly recognised (Harzing & Ruysseveldt, 1998: 125). At this organisation employees are lively and creative; disagreements are settled quickly and without conflict, and employee turnover is usually very low. Wilson and Rosenfeld (1997: 234), illustrate this viewpoint by making use of four ways of viewing organisational culture, which are:

- 📌 control mechanism - the organisational culture can be viewed as a control mechanism by which the managers create parameters of what are acceptable and unacceptable ways in which things are done in their organisation;

- organisation history - the organisational culture can be viewed through the context which an organisation has developed and progressed, previous achievements and weighing of the past actions over present beliefs, values and attitudes;
- commitment to the core values - the organisational culture can also be viewed from the process through which individuals are motivated and committed to the prevailing beliefs in the organisation, as well as individuals incorporating the organisational values system into their own personal beliefs (Attwood & Dimmock, 1996:219-220); and
- a recipe of success - it is quite evident to view the present organisational culture by matching organisational culture to the strategic success. That is, the extent to which certain cultures are able to cope with the change process in the organisation.

Kreitner and Kinicki (2004: 85-91) propose three perspectives to explain the type of cultures that enhance organisational performance. They are:

- strength perspective - the idea is that a strong culture creates goal alignment, employee motivation which requires formal structure and controls, to improve and reinforce organisational performance (Brown, 1995:183);
- fit perspective - it is based on the point of view that an organisational culture must align with its business strategic context; and
- adaptive perspective - the most effective culture helps organisations anticipative and adapts to environment changes, entails risk-taking, trusting and proactive approach to organisation and individual life.

## 2.4.2 Designed and emergent organisational culture

The best organisation designs their culture by means of setting the standards of attitudes, values, behaviour and beliefs that everyone is required to adhere to as condition of employment or joining the organisation. This is done by extensive induction, orientation programmes and training schemes, and procedures and sanctions to ensure that these standards continue to be met (Robbins *et al.*, 2003:385). Differentiated cultures are more likely to be managed and formal cultures.

According to Lussier (2003:43-44), organisational culture is “caught” and learned by the employee when adopting or adhering to the following artefacts, which are:

- 🎬 heroes - by idolising previously successful people who embodied the core values of the organisation;
- 🎬 stories - internalising the stories about incidents or of people who did exceptionally well;
- 🎬 symbols - employees identify jargons and symbols which the organisation differentiate itself from the others; and
- 🎬 ceremonies - organisation transmits the culture through thanksgiving ceremonies either at the year-end functions or after achieving a million fatality free shifts.

Employees tend to bring certain predetermined basic assumptions and values with them to work every day, most of them are culture, customs and social values of the society in which the organisation is situated. The result is that workers think, believe and act according to the pressures and priorities of their peers and pursue their own agenda. It tends to create change-house cultures, elite groups and departmental culture (Pettinger, 1998:90). These are often called subcultures and informal emergent cultures, which need to be changed to conform to the existing culture.



### 2.4.3 The need for cultural change

Newstrom and Davis (2002: 93) mention that an organisational culture is relatively stable in nature and changes gradually over time. Exception to this condition may occur when there is a need for a change of organisational culture.

The difficulty in creating a culture becomes more complex when attempting to bring about a significant culture change, because cultures are so elusive and hidden. Culture requires the use of difficult techniques, rare skills and considerable time to change it, and culture also sustains people through periods of difficulty. Other aspects of organisational cultures are altered suitably as the organisation discovers its own way of achieving external adaptation and internal integration (Jacob, 2003: 108). Some of the reasons why an organisational culture ought to be changed are:

- when “business as usual” is no longer effective and efficient. A realisation by management that the organisation has entered a period of slow or no growth;
- alternatively, as top management has a major influence in transmitting culture, a change in the organisational key leadership positions facilitate the imposition of new values;
- if the organisation has grown very rapidly and culture which was appropriate when it was in the process of growing, may no longer suit a large organisation. Cultural change is easier to implement when the organisation is in transition stage to the growth stage and from maturity into decline. As the organisation moves from a growth stage or another stage, major changes are necessary;

- take-over, mergers or other forms of re-organisation will normally need or require adjustments the culture. There are always significant differences between cultures of the organisations concerned (Wilson & Rosenfeld, 1997:204);
- in dramatic crises (under-performance) that is widely perceived by the organisation's members. Current practices are questioned and opens the door to accepting a different set of values that can respond better to the crises;
- environmental changes, such as technological changes in production, and increasing competition will have implications on the number of people employment. The rate of technological change associated with information has created an environment intolerant of the *status quo*. An organisation may be on the brink of disaster due to internal weaknesses, environment threats or both and could stay in that state until drastic and urgent action is taken; and
- the degree and rapidity of change in external environment demands a response without which organisational failure is the end-result frequently. The most common organisational change initiatives implement recently in the mining industries are TQM (Total quality management), downsizing and re-engineering initiatives (Cameron & Quinn, 1999:44).

#### **2.4.4 Understanding the different types of culture**

It is essential for managers have to understand how different types of organisational cultures facilitate or inhibit organisational efforts to improve performance and increase productivity, before they can think of changing the organisational culture (McKenna & Beech, 2002:92-94). Two types of

culture, relating to the impact perspective, discussed below as toxic and healthy organisational culture.

#### 2.4.4.1 Toxic organisational culture

This organisational culture is referred to as toxic because it is dysfunctional in terms of relationships and adjustment to changing times. This culture exists when employees do not agree with the generally accepted shared values, when there are many inconsistencies among team members and employees are sometimes rebellious, which could lead to personal conflict as the team progresses (Robbins, Odendaal & Roodt, 2003:382). The following examples of toxic culture are briefly discussed below, which are:

- authoritarian-hierarchical culture - the manager makes all the major decisions alone behind closed doors. The standard mode is to command and control, with no regard to the well being of subordinates or the future of an organisation;
- competing-conflictive culture - there is some sort of power struggle going on between employees for positions or promotion, such as back stabbing to gain competitive advantage;
- *laissez faire* culture - there is an absence of direction, standards and expectations and each department or individual does whatever he/ she desire;
- dishonest-corrupt culture - there is little regard for business ethics or the law. Bribery, cheating, and fraudulent practices are widespread; and

- rigid-traditional culture - there is strong resistance to any kind of cultural change. Managers cling to out-dated methods and traditions, unwilling to adapt to the changes in the environment. Workers are discouraged to suggest innovative ideas.

The above five types of toxic culture are not mutually exclusive; an organisation may adopt both authoritarian and traditional cultures.

#### 2.4.4.2 Healthy organisational culture

A healthy culture is conceptualised as coherent set of beliefs and values, assumptions and practices knowingly embraced by most members of the organisation and employees behaving as expected and being strongly committed to the organisational core values (Berry, Broadbent & Otley, 1995: 188).

The following organisational cultures are described as healthy cultures, and they are:

- progressive-adaptive culture - there is openness to new ideas and a willingness to take risk and adopt innovations. It is a culture that adjusts quickly to changing environmental conditions;
- purpose-driven culture - the leadership of an organisation communicates the purpose of the organisation effectively, so that there is a common purpose and a shared vision for all the workers. Every individual should know what the core values and priorities are, and where the organisation is going;
- community-driven culture - there is a strong emphasis on collectiveness and cooperation. The organisation's management

attempts to build a community, in which there is team spirit by involving and empowering all staff members; and

- people-centred culture - there is a genuine caring for each worker in the organisation. Every employee is valued and validated, regardless of their positions in the organisation.

The above-mentioned cultures are known as positive, because they create a positive work climate, which is conducive to productivity and job satisfaction (<http://www.human-synergistics.com.au/content/articles/papers/attractive-quentin-jones-mar-05/Default.asp>). In order to fulfil a strategic direction an organisation will need to consider or formulate various strategic methods.

## **2.5 CULTURAL ROOTS IN STRATEGY FORMULATION**

According to Schneider and Barsoux (1997:28-30), strategic planning is the means for achieving corporate objectives and are mobilised to centralise and formalise the process. Managers should be aware that the contents of healthy and toxic cultures have different effects on strategy. For example, it is easy to instil strategic cultural values in new employees within a short time in an organisation with a very strong culture of customer service and satisfaction, than in an organisation with a weak culture. Strategic planning is part of a routine job for managers. Managers are trained to analyse organisational SWOT (strength, weakness, opportunity and threat) in order to create the appropriate strategic alignment, or “fit”, but a strong culture may act as significant barrier to accepting any changes in the organisation’s strategies (Robbins & Coulter, 2002:202-204).

It is the combination of business strategy and caring for the employees that develop and then maintain a culture of ownership, accountability, work passion, initiative and creativity (Brown, 1995:167).

### **2.5.1 Formulation of organisational culture**

Top management regularly meet to establish the core values of the organisation, normally known as corporate culture. Sometimes managers issue certain documents that express core values of the organisation. For example, documents are paying attention to specific detail issues like, doing it right for the first time, delivering defect-free products and practising open communication. A key part of the management and leadership function is to establish required and acceptable ways of doing things which include standards of attitudes, behaviour and performance, as well as personal and professional conduct. Interrelated with these issues is business ethics that indicate the requirements that establish and reinforce what is normally correct in a certain situation (Ivancevich & Matterson, 1999:70).

### **2.5.2 Learning organisational culture**

According to Armstrong (2000:161-162), cultural development is essentially a learning process and can be classified under trauma and positive reinforcement. In trauma, people tend to act in certain ways in order to reduce any work related pain or anxiety that may experience uncertainty as to how it will survive and be successful. People also seek generally acceptable solutions to problems that both seem to work and make life more predictable. While in positive reinforcement people learn from the positive and negative feedback they receive about their actions, repeating what gains positive feedback and giving up behaviour that receives negative feedback.

This principle is incorporated into any organisation's culture by always testing the validity of their responses.

### 2.5.3 Maintaining of appropriate organisational culture

In each and every organisation, core cultural values and beliefs have to be maintained and sustained to ensure continuity, also referred to as validity. According to Robbins *et al.* (2003:385-387), the following forces reinforce organisational culture, which are:

- selection and promotion - selection and promotion processes maintain an organisational culture by not selecting those individuals who might question and undermine its core values. Employees appointed in an organisation and who support the organisational core values are rewarded by promotion, and those who challenge and do not adhere to it, are demoted and even disqualified for future promotion;
- managerial style - the generic cultural features of managerial style is to provide an opportunity for the individual development, allows opportunities to change the *status quo*, recognise intellectual capacity and maintaining the organisational culture of learning;
- socialisation - each individual arrives with a set of values, attitudes and expectations about the work to be done and the organisation as whole. Employees are then socialised to the attitudes and behaviours that the organisation requires. The organisational culture is transmitted to employees in a number of forms, the most important being stories, rituals, material symbols and language, by top management; and
- other forces - there are number of other persistent forces operating to maintain a given culture. These are written statements about the organisation's mission statement and philosophy, the design of

physical spaces and buildings, entrenched rituals, popular stories about key people and events, the organisation historic performance evaluation criteria, and the organisation formal structure (Robbins *et al.*, 2003: 385).

#### **2.5.4 Cultural issues in ethical behaviour**

The statement “When in Rome, do as the Romans do” reflects the position of cultural relativism. According to this notion, there is no correct way to behave and that ethical behaviour is always determined by its cultural context. Ethical standards are more universal in nature and should apply absolutely across cultures and national boundaries. Critics of this notion or approach claim that it is a form of ethical imperialism or an attempt to externally impose manager’s ethical standards on other (Schermerhorn, 1999:118). The management has a responsibility to build the type of ethical culture in the organisation that will allow for the realisation of all the core values ([http://www.fasset.org.za/downloads/events/CPE19\\_ethics\\_discussion\\_questions\\_oct\\_2007.doc](http://www.fasset.org.za/downloads/events/CPE19_ethics_discussion_questions_oct_2007.doc)).

#### **2.5.5 The impact of organisational culture on business activities**

The term impact is seen as the positive and negative, intended or unintended long-term results produced by the organisational activities, either directly or indirectly to the intervention of the overall organisational goal.

It was only relatively recently that organisations started to take into consideration the idea that organisational culture has an impact on business activities otherwise it was discounted as devising and measuring performance interventions.



### 2.5.5.1 Effect of culture on employees performance

According to Robbins, *et al.* (2003:16), an organisational culture has an integral role in shaping the behaviours and attitude of its employees. The first three factors (productivity, absenteeism, and turnover) are categorised as behaviours and the last one (job satisfaction) as an attitude, and they are discussed briefly below as:

- productivity - an organisation is productive if it achieves its goals and does so by transferring inputs in outputs at the lowest cost (effectiveness and efficiency). Popular measures of organisational efficiency include return on investment, profit per rand of sales, as well as output per hour of labour. Performance suffers when employees are never sure whether the culture of supervisor is to criticise them for making a decision or humiliate them in front of others. When employees feel that their needs have been ignored they tend to reduce their discretionary efforts (Human, 2005:96);
- absenteeism - failure of employees to report to work on schedule regardless of the reason is considered the most serious disciplinary problem. In a tough-guy, macho culture situation, where health stakes are high, employees tend to be absent from work due to fatigue, sicknesses and incidents;
- turnover - a high turnover rate results increases recruiting, selection and training costs. This further disrupts the efficient running of an organisation when knowledgeable and experienced personnel leave and a replacement must be found and prepared to assume duties. In this instance, weaker and less integrated cultures may emerge. When employees “feel at home” in the organisation they will fairly less inclined to leave the organisation (Human, 2005:97-98); and

■ job satisfaction - not only is job satisfaction conversely related to absenteeism and turnover, but organisation also have the responsibility to create a culture that provide employees with jobs that are challenging and intrinsically rewarding (George & Jones, 1999: 78).

For example, a study conducted at twelve leading British organisations found a positive relationship between long hours and absenteeism and staff turnover as well as an inverse relationship between long hours and job satisfaction and productivity. “A *long hours culture* was defined by the employees as one in which long hours were valued, employees were praised for working long hours and working long hours was viewed as a sign of commitment”. While long hours culture may improve productivity in the short-term, this is not sustainable, and quality and productivity may decrease in the long-term (<http://www.eeotrust.org.nz/content/docs/reports/Employee%20Engagement%202007%20Report.doc>).

#### 2.5.5.2 Effect of culture on management performance in mining

Due to the fact that culture limits what managers can and cannot do, an organisational culture is an important focal point used by managers. Robbins and Coulter (2002:63-64) indicate that the organisational culture establishes what is seen as appropriate behaviour for managers, and is that:

■ if an organisational culture supports the belief that profits can be increased by cost cutting, managers throughout the organisation are unlikely to pursue programmes that are innovative, risky, long-term or expansionary;

- an organisation whose organisational culture supports and values workforce diversity, management decisions and actions should support diversity efforts (Grobler *et al.*, 2002: 50);
- in an organisation whose culture conveys a basic distrust of employees, managers are more likely to use an authoritarian or autocratic leadership style than a democratic one; and
- in a risk-averse culture, managers are more likely to favour strategies that are defensive, that minimise financial exposure, and that react to changes in the environment rather than try to anticipate those changes.

Evans, Campbell and Stonehouse (2003:79-89) state that management does not just “throw in the towel” but tend to understand the core value of organisational culture and are able to use it effectively. Below, the significance of the cultural ethos and orientation of a mining industry in the strategic development of a mining organisation is outlined.

## **2.6 CONCLUSION**

In conclusion, the business environment has an enormous influence in the shaping of corporate culture. Management must be aware of all internal and external forces, like opportunities, threats, strengths, and weaknesses of organisation, that are likely to affect the organisation’s productivity and create strategies that support the core values and beliefs of an organisation. Culture can be viewed as an external variable brought into the organisation, as an internal variable within an organisation, or as a root symbol for a unique or conceptualised organisation.

Chapter three deals with the literature review of organisation culture, in the mining industry.

## CHAPTER 3

### CULTURE IN MINING INDUSTRY

#### 3.1 INTRODUCTION

Chapter two provided a general overview of general organisational culture as a concept. This chapter presents a literature review of the impact of organisational culture on mining activities.

#### 3.2 ORGANISATIONAL CULTURE IN THE MINING INDUSTRY

The mining industry exists in a risky and uncertain environment. Gold Fields mine has embarked on the risk management strategy and the cascading of an understanding throughout the organisation ([http://www.goldfields.co.za/company\\_risk\\_management.asp?navDisplay=Sustainability](http://www.goldfields.co.za/company_risk_management.asp?navDisplay=Sustainability)). Employees form an overall subjective perception of the organisation based on such factors as the degree of risk tolerance, team emphasis and support of people.

##### 3.2.1 Nature of mining activities

The nature of the activities an organisation undertakes and particular operating environment in which it exists may have a profound effect on its culture. The operational requirements of service organisation differ in fundamental ways from those of manufacturing organisation such as mining (Ashkanasy *et al.*, 2000:310-312).

Mining has played an important role in the development of the South African economy for many decades, resulting in population immigration to the urban areas and causing economic growth. For instance, through gold mining, many towns and cities such Welkom, Klerskorp, Witbank and

Johannesburg, have come into being. Consequently, most of the infrastructural developments such as roads, electricity generation, water reticulation and housing were meant for the development of the mining industry in order to provide the inputs to the gold mining industry (<http://www.bullion.org.za/MiningEducation/Gold.htm>). Extraction of minerals and coal continues to provide the foundation of local economies in some parts of the country. Products of mining industry are used as inputs of consumer goods, processes, services provided by all other industries, including agriculture, manufacturing and transportation, utilities, communication and construction. For example, coal for energy, copper for wiring, gold for satellites and sophisticated electronic components, and a variety of other minerals as ingredients of medicines and household products.

Mining is a process of delving into the earth to extract naturally occurring minerals, either on surface or underground mining. Surface mining is undertaken if the mineral deposit is near the earth surface, while underground mining is used when the mineral deposit lies deep below the earth's surface. Underground entries are constructed so that miners can get themselves and their equipment to the ore and carry it out, while allowing fresh air to enter the mine (<http://www.bullion.org.za/MiningEducation/Gold.htm>). The majority of jobs in the mining industry are in construction and extraction occupations, entered mostly without formal schooling. On the other hand, white collar jobs may be entered directly from high school, or after acquiring some experience and on-the-job training. The increasing machinery sophistication and automation used in mining requires high level of technical skills for many positions. Once all minerals or coal have been extracted, the mine and its surrounding environment must be restored to the condition that existed before the mining began (Burger, 2004/5:419-428).

Mullins (2004:893) and Deal and Kennedy (1982:13-14) describe organisational cultures of the mines according to two determining factors, which are:

- the degree of risks associated with the organisation's activities; and
- the speed at which the organisations and their employees receive feedback on the success of decisions or strategies.

### **3.2.2 The degree of risks associated with the mining activities**

A risk is a possibility that something eventually could occur. When management chooses to take risks, it also aims to lessen any negative impact and increase any positive impact that might be caused by the organisational culture. The risks of working in a mine are the possibility of fire caused by electrical, combustible material, explosives and arson, occupational illness caused by exposure to heat, dust, noise, radiations, vibration and harmful gases, environment incidents such as slime dams collapsing, cyanide or other chemicals spillage and water, air or ground water pollution, material handling, tramming and track related accidents. Although mine health and safety conditions have improved dramatically, dust generated by drilling and blasting in mines places people at risks of developing either pneumoconiosis or silicosis (Burger, 1999: 97-103).

Therefore, according to Armstrong (2000:161-162) the mining culture revolve around critical incidents from the lessons learned about desirable and undesirable events or behaviours, and also from the need to establish and maintain effective working relationships amongst the organisation's members.

Because mining business is risky, Vaughan (1997: 18-19) asserted the following cultural techniques which mining management may attempt to deal with this certain situation, which are:

- risk avoidance - when people in an mining organisation feel threatened by uncertainty and ambiguity, management should create formal rules, norms and standards which could as a result avoid conflict and competition;
- risk reduction - risk reduction means reducing the chance that a risk will occur by simply changing an activity to make it safer for all involved. Mining safety programmes, fire departments, security devices and guards are all methods to reduce risk;
- risk retention - mining organisation face an almost unlimited number of risks, in most cases nothing is done to reduce some of the risks, and therefore it is retained and provision for resultant loss is made. For example, a mining organisation may fail to understand the exclusions of an insurance policy or insufficient understand of the scope of the business risk and therefore risks are retained unintentionally; and
- risk transfer - risk transferring involves sharing risks with another organisation which is willing to bear the risk, through entering into a contract. Some gold mining houses use the process of “hedging” as a transfer technique, against the decline or increase of market price of their product.

According to Dobie (2007), mining corporate culture is a balance between compliance with laws, governance regulations and reliance on disciplinary codes and policies as well as the organisational values ([http://www.ipfa.co.za/download/Compliance\\_&\\_Ethics.pdf](http://www.ipfa.co.za/download/Compliance_&_Ethics.pdf)). One of the cultures that came into being because of compliance to the laws of the country is safety culture.

### 3.2.3 Safety culture

According to Cooper (2000), safety culture can be defined as *“the set of beliefs, norms, attitudes, social and technical practices that are concerned with minimising the exposure of employees and members of the public to conditions considered dangerous or injurious”* ([http://behavioural-safety.com/articles/Towards\\_A\\_Model\\_Of\\_Safety\\_Culture/](http://behavioural-safety.com/articles/Towards_A_Model_Of_Safety_Culture/)). Safety culture is the dominating characteristic of corporate culture in a high-risk industry. Safety culture has some purposes, which are:

- producing behavioural norms;
- reduction in accidents and injuries;
- ensuring that safety issues receive the attention warranted by their significance;
- ensuring that organisational members share the same ideas and beliefs about risks, accidents and ill-health;
- increasing people commitment to safety; and
- adhering to Health and Safety programmes.

Mining is a dangerous environment in which a person does not get a second chance to live, often. For this reason safety values has to be deeply ingrained and integrated into production practices ([http://www.miningmx.com/mining\\_fin/185083.htm](http://www.miningmx.com/mining_fin/185083.htm)). One of the objectives of Health and Safety Act of 1996 is to promote a culture of health and safety in the mining industry (<http://www.labourguide.co.za/MINE%20HEALTH%20AND%20SAFETY%20ACT.doc>).

### 3.2.4 The degree of uncertainty facing management decisions

Feedback on the success of decisions or strategies is associated with certainty that management culture can predict the future of any business



and be able to choose a clear strategic direction (Courtney, Kirkland, & Viguerie, 1999:11). Some examples of uncertainty that are applicable to especially gold mining industry are that:

- mining pay-limits are under pressure from the low rand gold price and as a result, lower grade and marginal mining activities are curtailed and crews redeployed to higher grade areas;
- mine reserves are limited and can be exhausted at anytime, while some mines experience a rapid depletion of ore reserves; and
- the degree of uncertainty is caused by the political, economical, socio-cultural and technological change which influences the management process.

Owing to above uncertainties, according to Armstrong (2000:161-162), the mining culture is formed by the leaders in the organisation and then imposed on the employees; as well as through the influence of the organisation's environment, such as the relatively dynamic or stable of political, economical, social and technological environments.

Uncertainty can then be reduced by management gathering more data on which to base better predictions and by anticipating and preparing for a wide range of outcomes. Managers are able to make decisions, and if incorrect decisions are made, they should be prepared to take prompt corrective action (Courtney, Kirkland, & Viguerie, 1999:11). The management culture differences or viewpoints discussed below need to be viewed as tendencies and patterns rather than as absolutes.

In most cases, management takes a binary view when predicting the future either manager underestimate uncertainty and make the forecasts required by the organisation or overestimate uncertainty and abandon all analysis and follow their instincts. On the other hand, managers may assume the environment as either certain and are therefore open to

precise predictions about the future, or may be uncertain, and therefore completely unpredictable (adopting a “just do it” approach).

### **3.2.5 Generic types of culture relative to the mining industry**

According to Mullins (2004:893) and Deal and Kennedy (1982:13-14), the two binary views mentioned above give rise to the following four generic types of cultures, that are prominent in the mining industry, which are the:

- tough-guy macho culture - an organisation consists of employees striving or fighting to gain big wins or bonuses. An individual frequently take risks and receives instant feedback on his or her right or wrong actions. Financial and health stakes are high and there is a focus on speed;
- work-hard culture - it is also called play-hard culture. An organisation success depends on their ability to produce and sell the product Employees takes few risks and receive fast feedback. It is the team that produces the volume or quantity of products;
- better-your-company culture - an organisation spends an extensive amount of funds on research projects and development of their employees, hoping the final product will be successful. There is large amount of decisions to be made with high risk but slow feedback. It takes months or yeas for employees to know whether they were successful or not; and
- process culture - the mining organisation concentrates mostly on how work is done, which gives rise to a possible bureaucracy with either flat or vertical structure. It is found in the less competitive market place, slow feedback culture scenario, where employees find it difficult to exercise many initiatives since they rely on well-defined procedures.

In every cross-cultural alliance and simultaneous application of two or more of above types of culture, there are seed of potential cultural conflict and misunderstanding.

### **3.2.6 Impact assessment of organisational culture in the mines**

Impact assessment is a means of measuring the effectiveness of mining activities and judge the significance of changes brought about by those activities

(Levine, 2005, <http://www.abanet.org/lpm/lpt/articles/mba07051.html>).

Impact assessment is closely link with systems, organisational structure, staffing, management style, employees' skills, strategy and socialisation.

#### **3.2.6.1 Assessing the effect of organisational culture**

An organisational culture has a crucial impact on its overall performance. It is accepted in a subtle but influential way, that culture has an effect on mining activities as follows, which is that culture:

■ affects the manner in which an organisation processes information (Systems). Systems in any organisation are codified knowledge or patterns, organised in a logical sequence. According to Arroba and James (1992: 40), there are five common patterns of behaviours that are evident at any production-driven organisation. Firstly, work that is done must be done really well. Secondly, the speed at which an employee accomplishes the task is what counts. Thirdly, employees have to put an extra amount of effort in doing their tasks. Fourthly, employees must be able to work in a team. Lastly, there is close supervision and accountability, which means employees have to act to please other people;

- determines the extent to which people work constructively together (Structure). Organisational structure may be described as the way in which an organisation breaks down its activities into distinct elements and how these elements are coordinated. In reality, an organisation needs structure in order to predict the way its activities will be organised and the kind of relationships that employees will have with each other;
  
- determines which people are recruited and which behaviours will be rewarded (Staffing). The term staffing refers to the way in which people are matched to jobs or “fitted” to the organisational culture, whether they are recruited from outside or whether they are developed, transferred or promoted from within;
  
- determines the way in which decisions are made (Style). Style is the philosophy, values and shared beliefs adopted by managers in their use of power. Power relationship determine how people view one another in terms of the potential impact one person is likely to have on the other’s working life and destiny (Thomson, 2002:6-7);
  
- affects the way it responds to external demands and constraints (Strategy). Strategy is defined as the process of developing a mission and long-term objectives of an organisation, the way forward as well as the span of an organisation over long term (Nieman & Bennett, 2006: 89). Ideally, strategy matches its resources to its changing environment and in particular its markets, customer or clients in order to meet stakeholders expectations (Jones, 1996:32-50);
  
- affect the way employees are developed (Skills). Skills are defined as the competences the organisation needs in its people in order to perform difficult tasks of high standard. The importance of this issue is that the creation and maintenance of standards relies largely on well-

trained staff, development of subordinates to higher positions in the organisations and updating employees' knowledge in the changing environment; and

- affects how employees are motivated (Socialisation). Socialisation, as a key to transmitting and maintaining organisational culture, is defined as a learning activity when a new employee comes to understand and accept the key values, goals and practices of an organisation (Tehrani, 2001:129). Employees are then socialised to the attitudes and behaviours that the organisation requires in order to meet expectations and perpetuate organisational culture (Ashkanasy *et al.* 2000:355).

To be able to deal with the impact of organisational culture, management needs to acknowledge the presence of a diverse group of people from different cultures and place of origin in their organisation.

#### 3.2.6.2 Managing of organisational culture in the mining industry

Mullins (2004:415) emphasises that mining management should acknowledge the diversity of their workforce and then strive to address the requirements and needs of all their employees. This notion indicates that a relationship does exist between innovation, quality, diversity and productivity. The two integral issues for the development of organisational culture are:

- innovation culture - the best corporate cultures encourage creativity and innovation. According to Lussier (2003: 210), the organisational structures and culture that encourage and stimulate innovation are commonly structured as flat organisations with limited bureaucracy, have general division of labour, coordinate with cross-functional teams, and are less rigid, but flexible. The degree to which employees are

encouraged to be innovative and take risks is one of the characteristics that capture the essence of organisational culture; and

■ quality culture - the reason why any mining business exists is to satisfy the needs of a specific group of stakeholders, such as shareholders, customers or employees. Organisations with (TQM) total quality management culture place more emphasis on continuous improvement of their products and services through their systems and processes (Kirkpatrick & Lewis, 1995:36). Leaders always ensure that all employees want to feel proud of what they do (Smit & Morgan, 1996: 31). The core values of TQM in the mining industry have been established by jargons like (SQB) safety, quality and blast as well as *Jongingozi*, in order to:

- ❖ focus everyone in the organisation on delivering customer value; and
- ❖ continuously improve the system and its processes such as doing things right the first time.

According to Cameron and Quinn (1999:44), in order to foster the highest levels of quality in an organisation, it requires the application of activities such as intensive training, correct equipment, while it is supported by culture activities such as improving measurement, process control, as well as systematic problem solving. The two integral issues for the maintenance of the organisational culture in the mining industry are:

■ appointing new employees, because of race, gender or disabling demands, which are different to the majority of the organisation's members, could create a misleading notion and therefore is a paradox. Management expects new employees to accept the company's core cultural values and at the same time acknowledge and demonstrate

support for the differences that these employees bring to the workplace; and

- management and co-workers need to learn more about each other in order to create a receptive working culture. While some countries like Japan are racially homogeneous societies, South Africa is racially diverse. Diversity programmes have replaced most (EOE) Equal Opportunity Employment and Affirmative Action programmes, by actively encouraging the recruitment of a diverse workforce. Women in the mining industry, are now also allowed to work underground (Mullins, 2004:337-338).

Regardless of the strength of the culture, it is imperative to manage the organisational culture in order to foster and enhance the kind of organisational culture that will lead to excellence, to growth, to people and communal development, as well as a positive job orientation.

### **3.2.7 Culture as competitive advantage**

There is a range of factors that differentiate successful from less successful organisations, units or managers. One of those factors is the acknowledgement of the integral part “played” by organisational culture and how culture can increase profits when managed wisely. Therefore, cultural strategies are the means that organisations use to compete for business in the marketplace and to gain competitive advantage (George & Jones, 1999:554-558).

In practical terms, cultural strategies mean getting everybody in the organisation, from the top to the bottom, doing things that ensure the effective implementation of the organisational strategy (George & Jones, 1999:554).

According to Cascio (2003:19-23), the idea is to use internal resources of the organisation more wisely with respect to the strategy needs of the organisation, as will be demonstrated below. Firstly, the implication of managing people may include selecting highly skilled individuals, whose beliefs, attitudes and values are related to time management, using minimal controls and making greater investments in human resources. Lastly, doing profile of behaviours appropriate for a quality-enhancement and cost-reduction strategies should be the priority, such as a high concern for quality with modest concern for quantity of output, a relative short-term focus as well as the level of commitment to the goals of the organisation.

### **3.3 CONCLUSION**

Although the tools and techniques and the change strategy are implemented vigorously in gold mines, many efforts to improve organisational performance fail, because the fundamental impact of culture on the organisation's activities is not managed and therefore remains the same, which are, the values, the ways of thinking, the managerial styles, and the paradigms and approaches to problem solving. As this discussion does not conform to one organisation, it can serve as the starting point when considering changing organisation culture and making a decision about the way in which that mainstream jobs conform to the organisation's core cultural values, attitudes and goals which must be achieved. For example, applying a mining organisational culture to textile organisations could not be applicable; instead it should find cultural patterns that meet needs of the textile industry environments.

Chapter four focuses on the data collection so as to identify the critical issues and concern of organisational culture and how managers manipulate and manage these aspects at the mines as well a means to achieve higher productivity.



## **CHAPTER 4**

### **RESEARCH METHODOLOGY**

#### **4.1 INTRODUCTION**

The literature review in chapter two indicated the essence of culture in the organisation and the framework to be used for this empirical study. The nature of the activities an organisation undertakes and an environment in which it exists, provide a profound effect on the current organisational culture. Also discussed, was how organisational culture as a concept limits what managers can and cannot do. Therefore, a challenge to the researcher was to determine the choices available for the modern manager in managing organisational culture in new business dispensation, as a competitive asset. This enabled the researcher to explore the possibility that organisational culture is a natural and organically emergent phenomenon (behavioural regularities such as language, jargons and rituals) or imposed management tool (norms, standards, rules and policies).

Chapter four presents an empirical research design and research methodology in order to evaluate the impact of organisational culture.

#### **4.2 RESEARCH METHOD**

To undertake an empirical study into the impact of organisational culture on mining activities, qualitative and quantitative methods were considered by the researcher as relevant and suitable, in order to find insight into the manner in which culture is managed and applied as a competitive advantage. Somekh and Lewin (2005:276) state several key dimensions that the researcher should follow when designing a mixed-method study, which are that; firstly, the research methods should be integrated

throughout the study. Secondly, the qualitative method was considered dominant and the quantitative less dominant. Lastly, qualitative and quantitative methods were implemented sequentially, for reasons of practicality, for example, initially starting with the quantitative method to collect data and then followed by the qualitative method to gain clarity about the issues raised in the first section.

According to Gray (2004:32), exploratory studies seek to explore what is happening and ask questions when not enough is known about it (cf.1.7.3), as is the case in this study. Mouton (1996:103) states that the aim of exploratory study is to establish the facts, to gather new data and to determine whether there are interesting patterns in the data. In this research, an exploratory study was conducted through the means of a literature review, self-completion questionnaires and face-to-face interviews.

#### **4.2.1 Rationale for choosing the qualitative and quantitative methods**

The need for reliability (cf. 4.3.2) and to analyse data through analytical, descriptive narration, as well as comparative and statistical analysis, necessitated the researcher to apply both the qualitative and quantitative methods of research, which are explained in the sections below. Subsequently, it can be argued that the validity of the findings of this study improved through the development of consistent conclusions drawn from both the qualitative and quantitative methods.

Quantitative and qualitative methods worked well together for the research (Silverman, 2002:35-37). For example in this study, quantitative method showed what impact has occurred and by questionnaires, how generally and frequently it occurred. On the other hand, qualitative method revealed in fine detail just how the impact occurred in day-to-day activities of the mine.

#### **4.2.2 Qualitative method**

According to Payne and Payne (2004:175) and Punch (1998:139-143), the qualitative research method is subjective, value-laden, biased, and is an *ad-hoc* process that seeks to interpret the meanings people make of their lives in natural settings, on the assumptions that social interactions form an integrated set of relationships in an environment. Because of this reason, this research is accomplished through the study of a small number of cases. Therefore, qualitative research is appropriate to the study of organisational culture in its natural settings.

The interview is an instrument used to collect qualitative data in this study through the use of open-ended questions (cf.4.5.1 and 4.5.2). This instrument was aimed to explore opinions of a small number of respondents (two supervisors and eight managers and HODs) after the questionnaires have been completed with the intention to gain clarity on certain issues that emerged during the analysis of questionnaires (cf. 1.7.4.2). Subsequently, qualitative research was used to collect more insightful or complex information from a small group of people, whereas the quantitative method is used to collect information from a larger group of respondents.

#### **4.2.3 Quantitative method**

According to Welman, Kruger and Mitchell (2005:6), the quantitative method of research is often described as an objective search for singular truths that relies on hypotheses and variables, and is used in large-scale enquiries. The quantitative method is used to gather relatively straightforward information from a relatively large group of people. The questionnaire, experiment and observation are some of the quantitative methods that are usually designed to gather statistically valid information

from a sufficient large group of respondents and that can be applied to a population as a whole.

In this study the questionnaire is used as an instrument to gather quantitative data. One of the main reasons why questionnaires were used in this research study, was firstly, its flexibility features that allows the researcher to adapt and make changes to the study where and when necessary, especially when the interview follows the questionnaire. The second reason was for the researcher to have some idea of the relative frequency of the impact, such as frequency of certain incidents, words and phrases that form a theme or impact. Lastly, the other reason was to give the reader guidance as to the frequency of the issue to which the anecdote refers (Bryman, 2001:438-439).

### **4.3 CHARACTERISTICS OF RESEARCH INSTRUMENTS**

An important attribute of a research instrument is the existence of reliability and validity, the latter being the most essential characteristics. Mouton (1996:78) postulates that research is a scientific method of inquiry, thus information should be carefully assessed by means of reliability and validity focusing on the trustworthiness, which invite explanation of the phenomena reliability and validity.

#### **4.3.1 Validity**

Validity is the term used to claim that research results explains or measures what the researcher said he or she would be measuring or explaining or have precisely addressed in posing certain research questions (Kumar, 1999:137). Validity of qualitative designs is the degree to which the interpretations of concepts have mutual meanings between the participants and researcher. This means the researcher and participants agree on the description or comparison of events. There are

numerous yardsticks for determining validity, and they are face, criterion-related, content and construct validity (Somekh & Lewin, 2005:348-349).

In this study, the researcher used a combination of the following strategies to enhance design validity. Firstly, an audit trail of the research process was established, recorded precisely, and designed in such a way that it contains almost literal and detail descriptions of organisational culture and situations. Secondly, the researcher mechanically recorded data by making use of a tape recorder in the interviewing process (cf.1.7.5). Thirdly, the researcher ensured that participants know what is measured by making a short introduction of the objective of the study and confirmation of confidentiality of their identity. Fourthly, the researcher asked each participant after the interview process to review researcher's summary of all interviews for accuracy of representation. Fifthly, the researcher actively searched for, recorded, analysed, and reported negative cases of discrepant data that are an exception to patterns or that modify patterns found in the data. Lastly, the final method of validation was that of participant validation. The findings of this research were made available to the organisation concerned in order to identify its situation as reflected in the findings. When all issues are taken into consideration, the validity of this research study is supported.

#### **4.3.2 Reliability**

Reliability is the term used to validate that the truth of the findings has been established by ensuring that they are supported by sufficient and compelling evidence. In qualitative research, it refers specifically to a measurement repeatedly giving the same result (being consistent) under the same conditions. In quantitative research, reliability is a matter of whether a particular technique, applied repeatedly to the same object, would yield the same result each time. However, reliability does not

ensure accuracy any more than precision ensures it (Somekh & Lewin, 2005:348-349).

Because the researcher was of the opinion that different respondents would provide different answers as a result of their own attitudes and demeanour, the following strategies were used to create reliability. Firstly, in asking people for information and opinions, the researcher exercised caution by asking only about issues relevant to them, for example, about safety in mines and ensured that every respondent understood the questions, for example, questions were designed in simple language. Secondly, the researcher used triangulation, a measure that emphasises that the more the respondents are in agreement on different data sources on a particular issue, the more reliable the interpretation of the data, by looking at the same phenomenon (impact of culture) through the use of both qualitative and quantitative methods (Seale, 1999:53-61). That is, looking at the same phenomena from different points of view. Thirdly, the researcher also asked each interviewee to confirm the context of the interview by reading the summary at the end of the interview, and indicating whether it was factually correct. Lastly, the researcher also gave some recorded information to the supervisor of this study to verify the conclusion and recommendation. Therefore, the reliability of this research study is supported.

### **4.3.3 Replication**

According to Bryman (2001:30) and Kumar (1999:97), it happens in certain instances that the researcher might choose to replicate the findings of others when it is taken that not enough information was generated to match other evidence that is relevant to the domain in question. Mouton (1996:103) on the other hand, indicates that the main aim of replication is to establish whether the same results will be obtained with different

qualitative sampling instruments under different conditions and time frames (cf.1.2).

#### **4.4 SAMPLING AND SELECTION**

According to Gray (2004:83), a typical human trait is to generalise from limited information or experiences. This may be done, for example, by asking the miners what they think about the impact of organisational culture on the business activities. The views of these miners may be inferred as the opinion upheld throughout the organisation or by the entire workforce. This workforce is known as the research population or simply as target population. Welman, Kruger and Mitchell (2005:126) state that the target population is the population to which the researcher ideally would like to generalise his or her results. Beatrix mine has employed about 11 030 workers (as at 30<sup>th</sup> June 2007), and this is the population from which a sample of this research was drawn.

The researcher wished to assess the opinions and views of the miners at Beatrix mine (cf.6.4) and came to a conclusion that it is not necessary to question all the workers but devise some way of selecting a sample. Sampling is the act, process, or technique of selecting a suitable sample or a representative part of a population for the purpose of determining characteristics of the whole population (Bryman, 2001:85).

The reasoning behind the choice of Beatrix mine as an area of focus was because it possesses a wealth of experience in being able to withstand the low gold price and inflation, which in turn can provide much needed knowledge for other organisations attempting to change their culture in order for it to become a competitive asset.

The main aim of choosing a representative sample is to explore the cultural mechanisms of relationship creation, maintenance and

enhancement of performance in and around the mine. This involved the identification of several sectors in the mine where the organisational culture is considered as healthy and then also to identify other sections where it is regarded as unhealthy.

The sampling theory also distinguishes between probability and non-probability sampling (Bryman, 2001:88-99). The sample methods used in this research study are stratified (probability) and purposeful (non-probability) samplings.

#### **4.4.1 Stratified probability sampling**

When probability sampling is considered, a sampling error is reduced by making use of a large sample and a homogeneous population (David & Sutton, 2004:151). Stratified sampling is designed to produce more representative samples and is also based on the last factor (homogeneous) of sampling theory. Rather than taking a sample from the whole population at large, the population is divided into strata or elements that form the subsets of the population and which are homogenous when gender, status or age are considered (Babbie, 1998: 216-217). Therefore, stratified sampling is the process by which the sample is constrained to include elements from each of the segments (divided by their class, level, age or gender).

The choice of stratification variables typically depends on what variables are available such as arranging miners by seniority, department, and geographical region. Why the researcher used this method, is because the sampling sizes are likely to be too small for generalisation. Resultantly, using stratified sampling, supervisors and managers were interviewed and first line supervisors and service staff were asked to complete questionnaires. Information is thus obtained on the current organisational culture from first line supervisors and service staff, while the opinion about



core values of the organisation are acquired from the supervisors and managers.

#### **4.4.2 Purposeful non-probability sampling**

Gray (2004:404) and Babbie (1998:195) indicate that in certain instances it is appropriate for a researcher to select a sample on the basis of knowledge of the population, its elements, and subjective judgement, as well as the purpose of the study. This sampling selection process is called purposeful sampling. Subsequently, the researcher could use only those respondents who are literate and able to understand and give opinions as well as views about the questions posed to them, as sample. According to David and Sutton (2004:152), it is also possible for a researcher to study a small subset of a larger population in which many members of the subsets are easily identified, and suffice for general comparative purposes.

Researcher also was particularly interested in studying and understanding the impact of cultural atypical cases as well as regular patterns of cultural attitudes and behaviours. In order to gain insight into the nature of organisational culture and its influence on the gold mining activities, the researcher distributed questionnaires and conducted interviews only at Beatrix mine.

#### **4.4.3 Sampling size**

The absolute size of the sample is the crucial factor to be considered rather than the relative size or the proportion of the population sampled. The larger the sample size, the smaller the error will be in estimating the characteristics of the whole population, but the more expensive it will be to administer a survey and analyse the data. The sample size should be dependent on the accuracy required and the likely variation of the population characteristics being investigated, as well as the kind of

analysis to be conducted on the data. The larger a sample size becomes, the smaller the impact on accuracy which means that this is a “cut-off” point beyond which increased costs is not justified by the (small) improvement in accuracy (Mouton, 1996:139).

In this study, the sample size depended on the nature of the analysis performed (cf.1.7.6), that is, descriptive and comparative analysis, as well as the aim of the findings of this study (cf.1.8). Subsequently, a sample of five hundred literate workers was viewed by the researcher as adequate for this study (cf.1.7.2).

#### **4.4.4 Selection of sample**

There are about eleven thousand and thirty (11 030) employees at Beatrix mine (cf.1.6), of which about eighty seven percent (9 626) are classified as Payroll two and about thirteen percent (1 404) as Payroll one, known as officials. Payroll two workers are daily-paid employees and those researcher assumed to be illiterate (cf.1.8), while Payroll one is where the samples were drawn from.

Mine Overseers and HODs distributed and supervised the completion of three hundred questionnaires in their sections to first line supervisors and service staff and one hundred and eighty five were administered by the researcher personally to all those who came from leave and were undergoing induction and refresher courses at the training centre of the mine (cf.4.5.2), during July and August 2007.

An interview one was conducted with Vice President of Gold Fields (Free State), interview two was conducted with two Senior Operation Managers and four HODs, and interview three was conducted with four Mine Overseers and four production supervisors (cf.4.5.3).

#### **4.4.5 Choice of the mine**

According to Hussey and Hussey (1997:144), a cultural group is selected for the specific reasons. Firstly, a group meets the prerequisite of shared culture and sub-culture since its workforce composes of people from a diverse nationality and community. Secondly, the selection of a particular cultural group should be driven by practical, intrinsic interest, theory or any combination thereof. The practical factors involve research commitments, timely opportunities and accessibility. Thirdly, a group should be selected because miners as a cultural group are unique and unfamiliar, misunderstood or undermined, marginal and unheard of, yet not reflectively explored.

Subsequently, this cultural group was chosen on the basis of the objective of this study (cf.1.5), as well as being representative of the above considerations.

### **4.5 DATA COLLECTION INSTRUMENTS**

The data collection instruments, questionnaires and interviews were employed in this research study; in order to gather information concerning current organisational culture and its management.

#### **4.5.1 Procedure for research permission**

An initial letter, accompanied by a questionnaire and interview schedule, outlining the research project and intention of the interview and questionnaire was handed to the Senior Human Resource Manager of Beatrix mine in person. The researcher and manager agreed on the time and date in which response could be obtained from the management regarding the research permission. The location and time of interview as

well as the manner of distribution of questionnaires was agreed upon between the researcher and Senior Human Resource Manager.

#### **4.5.2 Questionnaire**

Gray (2004:187) and Buckingham and Saunders (2004: 294) mention that a questionnaire is a research data collecting instrument through which people are asked to respond to the same set of written questions in a predetermined order. As a result, a questionnaire commonly requires subjects to respond to a stimulus, and therefore does not encourage acting naturally. However, questionnaires have their uses, especially as a cost-effective way of collecting data from a large number of widely dispersed participants that cannot be reached through personal interviews. Though the information generated by a questionnaire is limited, it is still very useful to initially gain information and then follow it up by making use of an interview to gain clarity on some issues that arose from the responses from the questionnaire (Koshy, 2005:87).

In this study, questions contained in the questionnaire were both closed-ended and open-ended. According to Welman *et al.* (2005:175), a closed-ended question is one which offers the respondent a range of answers to choose from, when answering predetermined questions. For example, in this study a closed-ended questions asked the respondent to make a cross (X) in the block provided, next to the answer from the list provided by the researcher that the respondent viewed as correct. Highly structured closed-ended questions are quick for respondents to answer and are easy to analyse using statistical techniques, enabling comparisons to be made across statistical techniques, as well as enabling comparisons to be made across groups (Bryman, 2001:145).

Mouton (1996:233) regards an open-ended question as one that involves asking the respondent to answer the questions in his or her own words

and allowing the respondent to give a free response in a continuous text. Hence the questionnaire must be designed in such way that respondents are provided with enough space for such a response, as was done in this study. The main advantage for using open-ended questions is the potential for richness of response; some of those answers were not anticipated by the researcher as well as exploring some areas of which the researcher has limited knowledge. On the other hand, they are difficult to analyse, and also present difficulty for the interviewer to administer.

Sudman and Blair (1998:288) mention that questionnaires can either be self-administered or administered by an interviewer. In this study, mine overseers were asked to distribute and supervise the completion of a number of questionnaires in their sections and others were administered by the researcher personally at the training centre of the mine. A questionnaire objective to conduct the research study was also clearly specified at the onset of the questionnaire to encourage respondents to present their views and opinions with honesty (see appendix A and B).

#### 4.5.2.1 Questions explained

The following section explains the reasons why a particular question was used in both questionnaires (cf. Appendix A and B). All questionnaires were divided into Sections A and B. Section A consists of biographical questions designed as closed-ended questions, and were intended for all parties, that is, first line supervisors as well as service staff. Questions in section A were meant to check on the representativeness of the sample with regard to gender, age and qualification. For example, whether a need existed to generalise results to older or younger workers as well as qualification, since to obtain personal information from mine sources, could have infringed the promise for confidentiality by the researcher.

Section B consists of more specific questions directed to both first line supervisors and service staff, respectively. Closed-ended questions were posed first and then followed by open-ended questions to justify or explain briefly the reasons why a particular choice was made.

(a) Questionnaire for first level supervisors

First line supervisors are responsible for a team of about ten members and ensuring the compliance of safety and health in their underground workplace, and therefore are able to provide valuable information about the current organisational culture in their workplace. They are holders of a blasting certificate, and a minimum schooling requirement to be a miner is Grade 8. The reason why the researcher used first line supervisors as respondents was that the term miner is known only in the mining industry as referring to first line supervisors, whereas in other sectors, the word miner denotes everybody who is working in the mines.

Questions 1 and 2 are direct questions meant to enquire about the current organisational culture.

Questions 3, 4, 5, 6, 7, 8, and 12 enquire about the influence of culture on the organisational activities.

Questions 9, 10, 11, and 13 tend to establish the cultural factors that are likely to have a positive or negative effect on the organisation

(b) Questionnaire for service staff

The term service staff in mines represents all people who are working in other departments other than the production department, such as finance, safety, administration, human resources, ventilation, mineral resources,

and engineering. Their main objective is to provide service to underground production teams.

The reason for including service staff is that they are able to disclose diversity of subcultures emerging as a result of pressures and priorities of other departments while performing their own functions.

Questions 1, 2, 3, 4 and 5 are aimed at understanding the organisational culture, the critical issues about this culture and how this culture influences the activities at the workplace.

Questions 6, 7, 8 and 9 are aimed at establishing the cultural factors that are likely to have a positive or negative effect on the organisation.

Questions 10 and 11 were meant to encourage workers to suggest the cultural strategies that could be able to improve work performance.

After questionnaires were completed and collected personal interview were effected.

### **4.5.3 Interviews**

According to Gray (2004:213-217), an interview is a conversation between people in which one person has the role of interviewer. The interview poses some challenges and further clarifies some questions which are not understood clearly, and therefore by so doing create human interaction between interviewer and respondent. Interviewing can be generally defined as a method of data collection that involves the interviewer asking the interviewee open-ended questions either personal or telephonically. Welman *et al.* (2005:163-164) distinguished between the two methods by stating that a personal interview is when an interviewer visits the respondent at home or at a workplace to conduct an interview. In the case

of a telephonic interview, *“the interviewer asks questions from the interview schedule over the telephone and records the respondent’s responses”*. In this study the researcher used personal (face-to-face) interviews.

Walliman (2005:284) and Welman *et al.* (2005:165) state that structured, semi-structured and unstructured interviews are three prominent types of interview. Firstly, a structured interview is method similar to a questionnaire in that the previously compiled questions contained in the questionnaire are posed to the respondent either face-to-face or telephonically and the latter’s response is recorded. Secondly, a semi-structured interview is when a researcher has a list of themes and questions to be covered in order to guide the proceedings of the interview. The order of questions may also change depending on what direction the interviews take. Lastly, the unstructured interview is normally referred to as an in-depth interview in that the researcher poses some questions without a predetermined list of questions to work from and allows the perceptions or responses of the interviewee to guide the conduct of the interview. In such an interview, the interviewer has only a list of issues or topics.

In this study, focused interview was administered to top management (Executive committee members of the mine) as well as middle management (Production Supervisors and Mine Overseers) (cf.1.7.4.1) due to only limited time granted for interviews. According to Bryman (2001:110), focused interview refers to *“an interview using predominantly open questions to ask interviewees about a specific situation or event that is relevant to them or was involved with previously and is of interest to the researcher”*. The interviewer had prior knowledge of the mining situation and wishes to probe certain issues, such as the impact of organisational culture on gold mining activities, in more depth (Gray, 2004:217).



#### 4.5.3.1 Procedure for interviews

Before the onset of the interviews, the initial letter (cf. appendix G), outlining the research project and intention of the interview was handed to the relevant manager in person. The researcher and manager agreed on the time and date on which the researcher could conduct interviews in his section. The interviews were conducted in each person's office. Fifteen respondents were interviewed (cf.4.4.4).

According to Welman *et al.* (2005:167-168), there are steps to be followed when conducting semi-structured interviews and which subsequently guided the researcher during the interview process. The first step is to prepare for an interview. This includes the drafting of a questionnaire and an interview guide as well as pre-testing of the questionnaire. Subsequent questions should be based on the questions that emanate from the research problem (cf.1.4). The second step is to foresee the various factors that may cause the respondents to provide biased or even false information, such as time scheduling or avoiding the indication of being affiliated to another group (cf.1.8). The third step is for the interviewer to introduce himself or herself in an appropriate manner and be able to provide satisfactory answers to all questions asked by the interviewee. This means also to conduct the interview process in simple and understandable language within a manageable time. The last step is for the researcher to record the important issues and notes of the practical details of the interview, for example, the opinions of the respondents, and also note whether the researcher was able to obtain anticipated answers. Whenever the interview process was not recorded, the researcher should make use of his/ her notes and immediately after the interview, compile a descriptive report (Foot & Hook, 1999:97).

The rationale for making use of semi-structured interviews in this study was that the behaviour, values and beliefs and assumptions of an

individual could be understood more clearly through the use of open-ended questions rather than making use of closed-ended questions and at the same time by following the list of issues or questions to be covered (Gray, 2004:215-217). An open-ended interview is when an interviewer poses general questions in the frame of reference of the interviewee and then asks further questions for clarification (Bryman, 2001: 110), which was exactly the aim of interviews used in this study.

Before the researcher started the actual interview process, a list of topics that needed to be covered was compiled with the help of the responses from the returned questionnaires. All interviews which were conducted with supervisors and managers were either tape-recorded or handwritten notes. Researcher undertook to keep the participant's identity unknown and the context of the interview confidential. The detailed questions posed in these interviews were designed to probe the participant's views and opinions and if desirable, asked the interviewees to expand on their answers.

#### 4.5.3.2 Advantage of the interview

According to Welman *et al.* (2005:163), interviews serve many different purposes in the cultural assessment process. Firstly, the interviewing of individuals working at different organisational levels and posts offered the researcher an understanding of different job descriptions, language and concepts. In this case, interviewees carefully revealed how things are done at a particular level and therefore it enhanced researcher's confidence of being in complete control of the interview situation. Lastly, the interviewing process provided significance to statistical links found in the questionnaires, and allowed the researcher to probe for more details and also confirmed that the participants were interpreting questions in the way they were deliberated. For instance, when responding to a question,

the interviewee was able to describe what was meaningful or important to him or her.

#### 4.5.3.3 Interview questions explained

The following section explains the reasons why a particular question was used in both interview schedules (Appendix C and D). According to Welman *et al.* (2005:166) an interview schedule or guide is a list of topics or aspects of the topic designed to have a bearing on the theme under study. These topics would guide the researcher in formulation of the questions that should be answered in order to achieve the main objective of this study. Two interview schedules intended to supervisors and managers, was designed to have five questions each that was meant to mainly cover the last three questions in the problem statement (cf.1.4). An interview schedule intended to the supervisors deals with mostly the issues encountered in the unit or section in which the interviewee is working. On the other hand, the interview intended to managers deals with the challenges that the mining organisation is facing.

##### (c) Interview schedule meant for supervisors

The word supervisor in this case, means production supervisor in mining language, and is the person to whom the first line supervisors are reporting. Production supervisors are concerned with the day-to-day planning of the tasks that need to be accomplished in each and every workplace in the mine.

The interview schedule meant to supervisors contains the five questions.

Questions 1 and 2 were used to enquire about the current organisational culture and understanding of the employee's expectations and goals that

they are trying to achieve and how such issues fit into the organisational culture.

Question 3 was included to identify critical cultural issues or factors that affect and impede the optimum utilisation of resources in the workplace.

Question 4 was aimed to illustrate the impact of culture on organisational activities as well as the measures introduced in order to enhance productivity.

Questions 5 is set to identify the cultural strategies that can shape the desired culture and inquire whether employee's goals are well aligned with the company's goals or whether satisfactory job performance is manageable as well as found.

#### (d) Interview schedule meant for managers

The interview schedule meant for managers contains five questions.

Questions 1 and 2 were used to enquire about the current organisational culture and understanding about the goals that managers are trying to achieve and how they fit into the organisational culture.

Question 3 was included to identify critical cultural issues or factors that affect and impede the optimum utilisation of resources at the workplace.

Question 4 was aimed to identify the impact of culture on organisational activities, and whether measures introduced in order to enhance productivity, existed.

Question 5 is set to identify the cultural strategies that can shape the desired culture that will ensure that people's goals are well aligned with the company's goals so that jobs seem easier as well as being enjoyable.

#### **4.6 CONCLUSION**

Chapter three was largely devoted to a theoretical and detailed description of the research design, the methodological procedures and data collection instruments. Two instruments, the questionnaire and the interview, used in this study to gather data, were explained in detail. It was also noted that the application of both instruments enhanced the understanding of human behaviour, attitudes, beliefs and values that is unique in a natural setting. Lastly, the questions posed in both instruments were explained and the purpose of each question received attention.

Chapter five contains the clarification of data collected in this chapter.

## **CHAPTER 5**

### **DATA ANALYSIS AND INTERPRETATION**

#### **5.1 INTRODUCTION**

Chapter three was devoted to research methodology and explaining how the research inquiry was applied to provide evidence for answering the research questions. A major element of the research methodology in chapter three was the development and distribution of the questionnaire, targeting people working at Beatrix mine, as well as covering similar topics in those used in the interview schedules.

After completing the data collection stage in chapter three, the task of analysing and interpretation of all the information received is discussed in this chapter. In doing so, the researcher looked at the basic research questions (cf.1.4) that still need to be answered and any inconsistencies that were present within the data to attempt to achieve validated results.

The data from the questionnaires is analysed initially and thereafter the data from interview.

#### **5.2 DATA ANALYSIS**

Once the data is collected it must be analysed and interpreted. Data analysis is the breaking down of large or complex data into component parts, to aid understanding of its characteristics, elements and structures. The steps followed in preparing the data for analysis and interpretation, differed due to the type of the data collected and philosophical rationale (Gray, 2004:327 and Walliman, 2005:248). In this study the researcher make a distinction between two forms of data analysis (qualitative and

quantitative data) as well as the philosophical rationale which constitutes the general steps of data analysis.

The kind of analysis that can be performed on a set of data was considered well before the researcher gathered data to ensure that data from questionnaires and interviews were in the correct format for the type of analysis the researcher wished to carry out. In this study, the researcher applied a combination of qualitative and quantitative analysis approach because it supports triangulation (cf.4.3.2) and provides flexibility.

Since this study (cf.1.7.3.2) initially used questionnaires to obtain data, the quantitative data analysis is briefly discussed in the next section.

### **5.2.1 Quantitative data analysis**

In this study, information gathered from quantitative data is in a numeric form and involves the use of numbers, counting and measures of things, and consists of information obtained from the completed questionnaires. According to Gray (2004:286) and Walliman (2005:302), quantitative data analysis involves the translation of data into diagrammatic or tabular form in order to assist, identify and communicate interpretations of the meaning of the data.

As it is typical to most research studies, the research analysis began with initial reactions or observations of the data. These initial reactions involved identifying patterns or calculating simple numerical values.

The researcher performed quantitative data analysis of questionnaires by following the steps discussed below (Welman *et al.*, 2005:211-219).

Initially, the researcher checked for responses that may be out of line or unlikely. Such instances included; the selection of more than one answer

when only one can be selected or choosing the answer that does not need explanation afterwards, and so on. The researcher then analysed the data, firstly by identifying the recurring themes through counting of words and repetitions of words in the spaces provided for explanation or justification of the response. Secondly, the researcher compared the responses of participants in the same category and find out the magnitude of this relationship. Lastly, the researcher also identified the patterns of theme through the use of statistics (percentages).

After analysing quantitative data, the researcher analysed qualitative data presented in words and opinions from questionnaires as well as interviews.

### **5.2.2 Qualitative data analysis**

Qualitative data, in this study, are information gathered in a narrative form, such as data from interview transcripts or field notes and audio recordings, expressed simply as what people have said or done in the interview proceedings, as well as opinions expressed in the questionnaires.

Walliman (2005:308) defined qualitative data analysis as the range of processes and procedures whereby the qualitative data that have been collected are converted into some form of explanation, understanding or interpretation of the people and situations the researcher is investigating.

However, the researcher wishes to stress that qualitative data tend to be very bulky, for example, data collected through field notes and tape recordings in interviews tend to be very lengthy. As a result, the steps that the researcher followed in order to analyse this data, is presented below, which are that:



- 🎬 firstly, the researcher started by reading and listening to all the responses obtained from field notes and tape recordings, respectively, in order to get the feeling of what people were saying;
- 🎬 secondly, the researcher categorised all comments into different themes. The researcher identified the important words and meanings that a specific focus group attaches to these themes;
- 🎬 thirdly, each category was looked at separately, for a number of unique comments and how strongly it was stated. This entails comparing the answers given by members of different groups; and
- 🎬 lastly, the researcher looked at the relationship that emerged between demographic groups (questionnaires) and categories of comments (interviews). This means the researcher identified the reasons why portions of texts differ from each other in order to draw a general conclusion.

Subsequently, the process of data analysis consisted of two main activities, that is, writing and identification of themes. Writing involved writing about the data and what the researcher found in questionnaires and interviews. The data that was recorded, either through audio or handwritten field notes, were written down in a note book. Each focus group interview conducted was given a number as interview 1, 2, and 3 and comments presented separately as such.

The responses from the questionnaires were classified under similarities and certain identified themes. The identification of themes involved coding. In this study, coding means firstly, the identification of passages of text, such as the nature of current organisational culture or critical issues regarding the impact of culture. Secondly, it means also the applying of labels to these passages of text that would indicate that they are examples of the impact of organisational culture or cultural strategies. This process assisted the researcher to retrieve and assemble all data associated with

the impact idea so that they can be examined together and different cases can be compared in that respect.

### **5.3 DATA DISPLAY**

In this study, data is displayed by making use of tables in the quantitative method and through narrative presentation in the qualitative method. This section displays the commonly-accepted culture characteristics in order to understand how culture impacts on the gold mining activities.

The following section starts analysing first the questionnaires completed by first line supervisors and then service staff.

#### **5.3.1 Data display of questionnaires**

According to questionnaire' design (cf. Appendix A and B), each of the two questionnaires commenced with a section requesting personal information, followed by a section of Yes or No answers or True or False answers and the request of views and opinions about the selected answer in the space provided.

The questionnaires were analysed through the descriptive methods, which included numbers and percentages to present the main characteristics of the sample and the profile of organisational culture. The closed-ended questions were supplemented with focus interviews (cf. 5.3.2) to produce an overall organisational culture profile that indicates the impact of culture on mining activities. The main purpose of the questions in this section is to find the effect of culture on staff satisfaction, staff turnover, absenteeism and customer service.

The section below illustrates the number of questionnaires that were completed and returned to the researcher for analysis.

**Table 5.1: The number of completed questionnaires**

	<b>First line supervisors</b>	<b>Service staff</b>	<b>Total</b>
Questionnaires	163	322	485

Table 5.1 indicates that four hundred and eighty five questionnaires were completed, and together with interview participants in table 5.7 sums up to a total of five hundred respondents. The sample consisted of first line supervisors and service staff members drawn from the three shafts.

#### 5.3.1.1 Data obtained from first line supervisors questionnaires

One hundred and sixty three questionnaires were completed and returned by first line supervisors between May and August 2007, which comprised all those that attended the refresher course at the training centre of the mine and those who were working within that period in their respective sections. The main objective for the choice of first line supervisors is to develop a picture of the current operating culture of the mining organisation and identify possible indicators of the impact of culture on mining activities, at an underground workplace.

The first three questions of section A are grouped together in one table in this section. This section addresses demographic data of the sample.

**Table 5.2: Biographical characteristics of first line supervisors**

CATEGORY	NUMBER	PERCENTAGE
<b>Gender</b>		
Male	163	100%
Female	0	
TOTAL	163	100%
<b>Age</b>		
18 – 35 years	93	57.1%
Over 35 year	70	42.9%
TOTAL	163	100%
<b>Qualification</b>		
Below grade 12	128	78.5%
Grade 12	28	17.2%
Grade 12 plus	7	4.3%
TOTAL	163	100%

The table above presents a summary item analysis of the biographical characteristics of the first line supervisors, included in it is gender, age, and qualification.

Table 5.2 indicates that at present:

- the job of first line supervisors at this organisation is still dominated by male employees, since all one hundred and sixty three (100%) responses were from male respondents; partly due to the fact that these questionnaires were distributed to underground working employees;
- ninety three (57, 1%) respondents that completed the questionnaires were below thirty five years since recently, young people are joining this field in big numbers, others hoping to study further in future. On the contrary, seventy (42.9%) respondents who were above thirty five years constitute those that have been on this job for many years and do not want to be promoted or have other personal reasons; and

■ one hundred and twenty eighty (78.5%) of respondents that completed the questionnaires have education qualifications below grade twelve since the minimum entry qualification required for this job is grade eight (cf. 4.5.2.1) and blasting certificate. On the other hand, twenty eight (17.2%) and seven (4.3%) participants have qualifications of grade twelve and they are learner supervisors who intend to be supervisors after gaining experience (ranging from six months to two years or over) of being first line supervisors.

In summary, all respondents were male, mostly below thirty five years and have educational qualifications below grade twelve.

Table 5.3 shows responses to questions 1 and 2, requesting True and False answers, meant to establish the current organisational culture from the perspective of first line supervisors.

**Table 5.3: Current organisational culture**

NO	STATEMENTS	TRUE	%	FALSE	%
1	This mine has a history of cutting costs.	163	100		
	This mine consists of workers coming from different groups of society.	163	100		
	Over the years, people who had good record of production achievement are seen as heroes	117	71.8	46	28.2
	The mine uses <i>Fanakalo</i> as its language and symbols to communicate with all employees.	155	95.1	8	4.9
2	The organisation provides a stable environment in which employees can develop and exercise their skills.	141	86.5	22	13.5
(a)					
(b)	The organisation promotes from within and values seniority.	130	79.8	33	20.2
(c)	The organisation has more opportunity for those with timely and specialised skills.	110	67.5	53	32.5
(d)	The organisation's employees are highly skilled and can get jobs anywhere.	121	74.2	42	25.8

■ In response to question 1, table 5.3 illustrates that all one hundred and sixty three (100%) respondents were of the opinion that this mine is known for cutting costs and has a multi-cultural workforce. It also

shows that most respondents answered positively that previously successful leaders are seen as heroes and that *Fanakalo* is a language used extensively in this organisation.

■ In response to question 2, table 5.3 indicates the following as the four reasons provided by the respondents to justify their choice of the answer, and that is:

- ❖ in statement (a), one hundred and forty one (86.5%) respondents agree that this organisation provides development and opportunities for all their workers citing the existence of a development centre (DC). The majority of black team leaders who were sent for a first line supervisors' course, were identified by the development centre (DC) through different psychological tests. These respondents also mentioned that the development centre requires every department to have a career path and each and every individual to have an individual development plan (IDP). They place a high level of confidence in this organisation as a stable workplace to work in;
  
- ❖ in statement (b), one hundred and thirty (79.8%) respondents were of the opinion that this organisation promotes from within and values seniority. They emphasise the point that each and every employee has to start from the bottom and mount the "hierarchy ladder" to the senior positions. On the contrary, thirty three (20.2%) respondents expressed great concern with the large number of people coming from outside to occupy prominent positions while qualified people inside the organisation are not considered for promotion and agree that this is not a motivating factor which could demoralise employees;

- ❖ in statement (c), one hundred and ten (67.5%) responses regarding the presence of opportunity to be developed, coached and mentored for people with timely and specialised skills emphasise that shortage of skilled workers led to management employing contractors on a temporary basis, to do those specialised jobs, such as wire matching to support the tunnels as well as construction of ventilation walls underground to channel air to where it is needed. On the other hand, fifty three (32.5%) responses claim that this is another excuse on the side of management by citing lack of skills as the reason for employing people from outside to fill vacant posts other than grooming their own workers. They also feel that lack of opportunities is the reason why management is unable to retain its skilled workers; and
  
- ❖ in statement (d), one hundred and twenty one (74.2%) respondents pointed out that employees of this organisation are highly skilled, and if there are no opportunities and challenges offered by this organisation, they always leave for greener pastures. Consequently, they claim that this organisation has turned to be a training centre for other mining organisations, since once an individual has obtained the qualification and experience needed; he or she leaves the organisation. On the contrary, forty two (25.8%) respondents question the skills competency of the employees, citing the fact that people that left the organisation previously for greener pastures; tend to return within the same year of leaving the organisation.

In summary, the fact that the majority of respondents answered positively to both question one and two above, shows the way things are around here. On the contrary, the minority of respondents that answered negatively shows that culture emerges out of the combined thoughts, energies, and attitudes of the people in the group.

The next three questions in the questionnaire were open-ended questions, that is, question 3, 4, and 5. Below appears answers of those questions in numerical order:

■ Question 3 enquired about the presence of rules in the workplace. All one hundred and sixty three (100%) respondents agreed that certain rules exist in the workplace. In terms of rules, the responses revealed the following two rules which employees have to adhere to, which are:

- ❖ work to standard and work safely; and
- ❖ adherence to Ethics Policy Statement and Health and Safety Policy (Appendix F).

■ Question 4 addresses the purpose of standard. All one hundred and sixty three (100%) respondents agreed in principle that the purpose of standard is to ensure that employees achieve the required target safely and efficiently. They also mentioned that when standards are followed, management could predict the outcomes of the people's behaviours or actions.

■ Question 5 intends to find out whether employees work on their own or in teams. All one hundred and sixty three (100%) respondents indicated that they work as a team, citing the reason being to help one another to accomplish organisational objectives, develop a synergy approach whereby a team's contribution is more than that of individual members and lastly to develop a greater safety awareness since all workplace meetings focuses on safety.

The next seven questions are grouped together in table 5.4 and require yes and no answers.



**Table 5.4: Questions requesting Yes and No answers from first line supervisors**

NO.	QUESTIONS	YES	%	NO	%
6	Does your manager have answers to all your questions?	163	100		
7	Does your manager ever ask your opinion?	88	54	75	46
8	Does your manager inform you of new things which should be done?	163	100		
9	Do you like it when ways to do things change?	163	100		
10	Are you clearly told what is expected of you to do at work?	137	84	26	16
11	Do you feel free to talk to your manager about your problems at your workplace?	129	79	34	21
12	Do you get something extra if you do good work?	79	48	84	52

When responses to table 5.4 are considered, the following is revealed:

- to questions 6, 8, and 9 all one hundred and sixty three (100%) participants felt that their managers gave answers to all their questions. Secondly, managers always inform their subordinates of new things in the section through their close supervisors, section meetings and newsletters at the notice boards. Lastly, they like when ways to do things change;
- for question 7, seventy five (46%) respondents claim that managers never asked their opinions, citing the reason being that they always give instructions, always look for their mistakes and that they are not close to them;
- for question 10, twenty six (16%) respondents feel they are not clearly told what to do because of pressure to achieve the target, issuing of instructions as a method of communication, and end up working long hours in fear of disciplinary measures;

- for question 11, thirty four (21%) respondents do not feel free talking to their managers due to the fact that managers always complain and nothing happens, employees' opinions are taken for granted since they claim to be accounting officer in their sections, no report back from managers and they prefer to issue instructions, and managers do not provide time for meeting with his/ her subordinates; and
- for question 12, seventy nine (48%) responses agree that they get rewards such as bonuses as a team and promotion as an individual if there is a vacancy, or when a target has been achieved. The participants stated that the bonus system is the only reward system that motivates them for working at this organisation, since the salary scale is minimal as compared to people working in Driefontein and Kloof mines in Carletonville. On the other hand eighty four (52%) respondents claim not getting any reward for a job well done since managers feel it is the way the job should be performed, not even giving a "thank you".
- Question 13 is an open-ended question aimed to address the type of reward given to employees when a certain number of shifts have been completed without any fatality. One hundred and sixty three respondents (100%) revealed that employees usually get t-shirts, jackets and *braai*-packs, or a party and a "thank-you" from management.

#### 5.3.1.2 Data obtained from service staff questionnaires

This questionnaire was completed by three hundred and twenty two (322) service staff between May and August 2007, and consisted of all staff that attended the refresher course at the mine training centre and also those people who were working within that period in their respective sections. The main objective was to develop a picture of the current operating

culture of the mining organisation and identify possible indicators of the impact of culture on mining activities at departmental level.

The first section of the questionnaire illustrates the biographical characteristics of the sample, consisting of three questions grouped together in one table and is indicated in table 5.5. The main purpose of this section is to identify the number of females and males, the average age as well as the level of education of the sample.

Table 5.5 below summarises the biographical characteristics of the service staff, included in it is gender, age, and qualification.

**Table 5.5: Biographical characteristics of service staff**

<b>CATEGORY</b>	<b>NUMBER</b>	<b>PERCENTAGE</b>
<b>Gender</b>		
Male	288	89.44%
Female	34	10.56%
<b>TOTAL</b>	<b>322</b>	<b>100%</b>
<b>Age</b>		
18 – 35 years	174	54.04%
Over 35 years	148	45.96%
<b>TOTAL</b>	<b>322</b>	<b>100%</b>
<b>Education</b>		
Below grade 12	131	40.7%
Grade 12	119	37.0%
Grade 12 plus	72	22.3%
<b>TOTAL</b>	<b>322</b>	<b>100%</b>

Table 5.5 indicates that thirty four (10.6%) of the responses came from female respondents, partly because these questionnaires were distributed to mainly surface working employees. This is due to the fact that service staff includes clerical and administration personnel. It also indicates that one hundred and seventy four (54.0%) respondents are between the age of eighteen and thirty five years, being young to middle year and have

educational qualifications below grade twelve, one hundred and thirty one (40.7%), meaning that they are not well-educated.

The following seven questions are grouped together in this section below, and endeavoured to establish the organisational culture from the perspective of service staff.

**Table 5.6: Questions requesting Yes and No answers from service staff**

NO	QUESTIONS	YES	%	NO	%
1	Do you consider your mine to be a great place to work?	246	76.4	76	23.6
2	Does this organisation strive for close supervision and accountability?	322	100		
4	Is there a formal system that is followed in order to say your task is completed?	237	73.6	85	26.4
6	Do attempts to create change usually meet with resistance?	169	52.5	153	47.5
7	Is each worker encouraged to develop his or her potential personally?	195	60.6	127	39.4
8	Are competent people allowed to do specialised tasks with less supervision?	186	57.8	136	42.2
9	Would you consider working late to finish your task or improve productivity?	254	78.9	68	21.1

When responses to table 5.6 are considered, the following is revealed:

- For question 1, two hundred and forty six (76.4%) of respondents agreed that this organisation is a great place to work at because; they benefit financially for working for this mine, many opportunities for career advancement exist and personal growth and development are a priority since a career path for every job in this organisation exists. On the contrary, seventy six (23.6%) respondents disagreed citing the fact that; Black people are not given opportunities and are not in the jobs which they qualified for (misplacement), a need to achieve the target and earn additional bonus, places unnecessary pressure to work more than eight hours daily and this has affected the health of workers in the long-run, mining policies (written) are not followed, but

manipulated to suit a certain section of the workforce, and if you are not part of a certain group your working life is going to be difficult;

- for question 2, all three hundred and twenty two (100%) respondents maintain that this organisation strives for close supervision and accountability. The reasons highlighted by the respondents were that the organisation has a vertical organisational structure and there is operational and financial risks involved in undertaking mining as a business, hence the focus is on compliance rather than on commitment;
- for question 4, two hundred and thirty seven (73.6%) respondents indicated that there is the degree to which adherence to formal channels is maintained hence standards, rules and plans are there to be followed;
- in question 6, one hundred and sixty nine (52.5%) respondents claim that an attempt to create change usually meets with resistance. The reasons being that most managers have been in those positions for a long time and cannot change what worked well for them, as well as a lack of sincere participation in change of organisational culture by all stakeholders, that is, either management or workers are hesitant to be the first ones to “bump the lamp”;
- In question 7, one hundred and ninety five (60.6%) respondents answered positively to this question, citing the presence of individual development programme and team building in order to align them to the core values of the mining business through various workshops, symposiums and presentations that individuals had to attend. On the other hand, one hundred and twenty seven (39.4%) respondents feel that these programmes are selective by being provided to previously disadvantaged workers only. This is done selectively to previously

disadvantaged employees as a form of “delaying tactics” for employment to positions, while some are discouraged from attending courses citing budget constraints as the reason.

■ For question 8, one hundred and thirty six (42.2%) respondents answered negatively to this question. The reasons being that a qualified or competent person still need authorisation from an unqualified person and the supervisor wants to do everything by him/herself and does not delegate. On the other hand, one hundred and eighty six (57.8 %) of respondents agreed that when people are found to be competent, they are allowed to do specialised tasks with less supervision.

■ In question 9, sixty eight (21.1%) respondents answered negatively to this question. The reasons highlighted by respondents were that some employees are shift workers and therefore no overtime is given to them, and no need to sacrifice a person’s private time for the company that does not look after them. On the contrary, two hundred and fifty four (78.9%) respondents felt that a person should leave the working place when his/ her work is finished and allowed to do overtimes if they is a need to improve productivity.

The responses of open-ended questions 3, 5, 10 and 11 are addressed in the next page.

■ In question 3, all three hundred and twenty two (100%) respondents agreed in principle that the mine communicates its values through initial selection and the recruitment stage as well as in all training and development programmes in order to instil cultural values in new employees and enhance specific expected behaviour for old employees.

Question 5 addressed the way new and improved methods were adopted, and the respondents were of the opinion that people were allowed to attend workshops and courses, regular on-the-job training sessions are conducted, instruction of how to do the job are given and weekly meetings are held to inform people.

Question 10 addressed the problem of commitment and productivity and the responses revealed the following, that:

- ❖ prescribed policies must be followed and applied to all persons equally;
- ❖ promotion policies are applied fairly unbiased and transparent;
- ❖ job opportunities must be open to all employees and not selectively;
- ❖ people are motivated by market related salaries and a performance-based bonus system;
- ❖ workers are allowed to attend team-building workshops to create positive employees;
- ❖ people-oriented supervisors are needed; and
- ❖ employees are given proper training and resources to do their tasks.

Question 11 was intended to obtain more information about the organisational culture through general comments. The following answers were obtained from one hundred and forty eight respondents (46%), while the 54 percent did not comment. They said that:

- ❖ employees must be encouraged to stay positive by allowing them to attend motivational workshops;
- ❖ management must show commitment in employee development, and only then will employees remain loyal to this organisation; and
- ❖ government must do follow-ups on the implementation of mining laws at the mines in order to ensure good governance; and.

### 5.3.2 Feedback from interviews

The interview texts were constituted by responses to five questions from supervisors, mine overseers, HODs and managers, as shown below. The purpose of these questions was to identify what the management considered to be the ideal organisational culture.

**Table 5.7: Interview participants**

<b>Respondents</b>	<b>Supervisors</b>	<b>Mine Overseers</b>	<b>HODs</b>	<b>Managers</b>	<b>Total</b>
Interview	4	4	4	3	15

Table 5.7 indicates that fifteen participants were interviewed and together with respondents in table 5.1 (four hundred and eighty five) totalled five hundred participants.

The procedure that was followed included the tapes with the recorded interviews being transcribed by the researcher as well as checked by the research supervisor and then coded into categories which are descriptive and interpretative. As interview transcripts were made, the researcher continuously examined the data, by highlighting certain points in the text or writing comments in the margins. This exercise assisted the researcher to identify the indicators of the impact of culture on activities.

In section 5.3.2.1 and 5.3.2.2 the researcher interviewed the mine managers in order to obtain a vision of the ideal or preferred culture for the organisation. This preferred culture was used as a standard against which the actual organisational culture could be compared. The gap between the ideal and current culture is identified through the assessment of the extent of focus on critical issues by the management.



### 5.3.2.1 Interview one

For this focus interview, the Vice President of Gold Fields (Free State Division) was interviewed. He has nine years of service at Beatrix mine in senior positions and this was his second year in his present position. The interview took place at the managers' conference room of the mine after their weekly Wednesday meeting and lasted approximately fifteen minutes. This interview was tape-recorded. The main purpose was to identify the behavioural outcomes that the Vice President wanted to see, as to what makes working at this organisation special and what needs to be done in order to make people more focused, productive and committed to this organisation. Five questions (cf. Appendix C) were posed to him, and the following answers were recorded:

Question 1 - *What would you say makes a gold mine great place to work in?*

🎬 “I have been working at this industry for most of my working life. There is nothing more important than culture in this industry, it includes how we choose to work together, enjoy life, have fun and explore goals and objectives”.

Question 2 - *What motivates you every day to come to work?*

🎬 “This mine is my place of work. I have been working at this organisation for nine years, longer than at any other organisation than I worked at , which was probably about two or three years. I enjoy working here. I am able to explore my knowledge and expertise in my field of work. There are also incentives for good performance. The relationship between the employees and the employer is very good. The abovementioned aspects inspire me to come to work daily and influence others as the leader of this organisation”.

Question 3 - *If asked this question, "What are the biggest challenges facing your organisation today?" What will you say?*

🎬 "Firstly, safety, focus on methane and minimising personal injuries is at the forefront. Secondly, grade, to be able to manage grade by mining the right panels at the right time. Lastly, productivity, to be able to reach our targets and explore our goals as well as objectives. Looking at long-term sustainability, unless we are productive, that is, moving volumes of ore from underground workplaces; we are going to shorten the life of this organisation".

Question 4 - *If you are standing in front of people that work in your shaft(s) or department, what will you say to them, regarding the above challenges?*

🎬 "This organisation has been safety-minded traditionally. We are currently doing very well in that regard. Generally speaking, this organisation has proud safety records. We do have methane issues and we must just keep methane at the upfront and keep focus on standard, doing the right things and achieve our targets as planned".

Question 5 – *The mining industry goes through tough times. What would you say makes this organisation so successful?*

🎬 "Firstly, this organisation has ore reserves even if in some instances we encounter a low grade. People are able to move their *stopping* panels underground from one area to another. This mine has a lifespan of thirteen to fifteen years up to 2020. Secondly, the people, I have not met a more productive labour force than this of Beatrix mine. One can ascribe to various reasons why guys are productive, we are not too deep, it is a relatively shallow mine and heat is not a big issue, distance wise is neither too far nor too close. Lastly, this organisation has a good bonus system of reward, especially at team level, for target

and above target performance. Generally, the management of Gold Fields have embarked on a programme called Unwritten Ground Rules (UGR), which ourselves at Beatrix mine have changed it to “champion’s agreement”. This programme really means to create a cultural climate that is “user-friendly” for all employees to operate smoothly and the executive committee members have committed themselves to UGR as well as creating a culture that will ultimately achieve its aims. Each and every shaft or department have created its own UGR (cf. Appendix E”).

Interview two and three in this section are group interviews. The main reason is to give the managers and supervisors the opportunity to say what factors they think drive the organisation’s success, why they want to be working at this organisation and lastly what changes would increase their commitment to the organisation’s success.

#### 5.3.2.2 Interview two

For this focus group interview, four HODs of different service disciplines (Finance, Human Resource, Mineral Resource and Metallurgy) and two senior operation managers were interviewed. Their working experience in the mining industry ranges from fifteen to thirty years. All of them were male and also members of Exco (executive committee) team. The interview took place at the managers’ conference room of the mine after their weekly Wednesday meeting and lasted approximately thirty minutes, after interview one. The interview was tape-recorded. The main purpose was to identify the critical issues facing the mine from their specialist’ perspective and how these issues were managed. Five questions, the same as the first interview (cf. Appendix D) were posed to them, and the following answers were recorded as their overall responses.

Question 1 - *What would you say makes a gold mining a great place to work in?*

■ The participants commented that what is great about this mining industry, is its absolute “can do attitude” and demand of excellence in their organisation. The participants emphasised that generally there is a corporate spirit that allows people to work together and support one another, and this is what they want.

Question 2 - *What motivates you every day to come to work?*

■ From the participants’ responses, the things that inspire them to come to work are to work with people as explained below. The participants:

- ❖ lamented that there are people out there who are desperately in need of work, and the fact that they are part of job creation and preservation by instilling discipline, trust, honesty, and commitment amongst the employees towards this organisation, is a great achievement;
- ❖ expressed their role as that of keeping this organisation going in order to allow people to carry on with their lives and earn money; realise their expectations and aspirations, buy a house and educate their children and do simple “stuff”;
- ❖ felt that their responsibility is to influence the people’s lives so that they can improve their standard of living, socially and financially by investing in community activities;
- ❖ felt that it is an honour to work with people and be part of a team which has a culture of winning like the one of this organisation; and

- ❖ ideally wanted to see people progress through the organisation, to develop people to their full potential and to see what people are capable of.

Question 3 - *If asked this question, “What are the biggest challenges facing your organisation today?” What will you say?*

- The respondents soundly believed that the biggest challenges facing the mine currently were firstly to look at the costs and to make sure that people understand the current economic climate and expectations of the shareholders and investors. They felt that the majority of people forget the fact that shareholders expect a fair share of their investment or profit of the organisation. They also believe that it is important that cost control and elimination of bad cost is not seen as a financial department function rather as a team role. Secondly, the interviewees mentioned that employees’ tasks must have quality productivity by paying attention to the core business of this organisation. According to the respondents this means going back to basics and paying attention to details. The respondents also indicated that this organisation is not going to operate if all employees do not get the stuff (ore) out of the mine and that all shafts work together. Lastly, the respondents mentioned that managers should be able to manage people’s growth, and create team values because working alone as an individual in the gold mining industry means you are doomed to failure when not operating as a team.

Question 4- *If you are standing in front of people that work in your shaft(s) or department, what will you say to them, regarding the above challenges?*

- One of the participants quoted that “tough times do not last, but tough people do” implying that people should stay focused on productivity. The only way to do that is to get safety and production right and make

sure that the organisation's costs are under control. One of the participants mentioned that what people invest (effort) in the organisation, they will reap "ten-fold" whether in bonuses, promotions, friends, or personal growth. The participants made it clear that this is the company where individuals make the effort and come forward, rather than sit back and expect the organisation to do something for them. The interviewees commented that they have confidence and commitment in their teams and are pretty sure they will continue to support them in ensuring that people mine the right area at the right values so that people continue to produce the gold that the mine needs in order to keep this operation going for the next twenty years. This is what the participants felt they are passionate about and it might be misinterpreted at times, but everything depends on what people are doing. The participants pledge themselves in ensuring that this mine continues with excellence that has been going for the last twenty years. In an organisation of this size, the participants were of the opinion that people should not be complacent of the current high gold price, but should critically examine how costs are managed and to ensure sustainability of productivity overrides lack of control. In short, they emphasised that teams should deliver what is expected of them.

*Question 5 – The mining industry goes through tough times. What would you say makes this organisation so successful?*

■ The participants were of the opinion that people are the lifeline of this organisation. The most successful teams are those who care and support one another and know where they are going. They also mentioned that this organisation believes in the team concept and family oriented-approach. The participants' philosophy had been and would always be that every member of the team is important in achieving the success and their responsibility is to instil a sense of belonging and importance of the role that people play to achieve their

targets. The respondents pointed out that the team could “pull together] if they are informed, and that is what themselves as leaders should do; inform people, give them the “means“ and everything else will fall in place.

#### 5.3.3.3 Interview three

In this focus group interview, the researcher interviewed four supervisors and four mine overseers in order to develop a picture of the current operating culture of the organisation and identify possible subcultures at the department or section level. The interview revealed the following answers.

Question 1 - *What interests you about the mining industry and working for this organisation in particular?*

- The participants pointed out that they had an opportunity to be employed and therefore would be able to take care of their personal commitments. They also claim that this is one industry that employed mostly a large number of not well-educated people.

Question 2 - *What makes your organisation a great place to work at?*

- The respondents felt that it is interesting to know that they were employed at a place of work where their contribution is highly valued and that at the end of the month they would earn money to support their families. They stated that there are lot of opportunities at this organisation if explored fairly, that is, with consistency and transparency.

Question 3 - *What are the critical issues facing your section or department?*

■ From the responses obtained from the participants, the critical issues facing the shafts and sections were, firstly, pay limit or grade. This issue is relative to the gold price and appreciation of South African currency. Secondly, lack of flexibility in planning ahead for areas to be mined. They claim that they cannot find the area to mine due to slow advancement of development ends and therefore no new ground is available for the *stopping* sections. Thirdly, achieving the target. Due to budget constraints, not enough resources are available for the participants to achieve their targets. There are other contributing issues such as lack of discipline amongst the members of the team, as well as not getting assistance in time from the service departments. Fourthly, safety is another critical issue that must not be overlooked or compromised by all people working at this organisation. The participants pointed out that accidents mean additional costs, and as a result, safety must go hand-in-hand with productivity in order to maximise the company's profit.

Question 4 - *If you were asked to say a few words to your subordinates, what would you say to them regarding the above issues?*

■ The participants mentioned that people's performance is not so bad, but people should concentrate on quality blasting, and taking that "stuff" out of the mine. People should also focus on achieving their targets consistently and safely, month in and out, with no accidents. The participants stressed the point that the success of this organisation depends on people's optimum performance. People must know that each individual is a grown-up person and therefore entrusted by the company to care for fellow workers, as well as being accountable and committed to the achievement of company's objectives.



Question 5 - *All units or sections go through tough times, what would you say makes some units more successful than others?*

■ One of the participants quoted that “motivated people are a successful team”. The participants were of the opinion that motivated people are those who have dedication, a sense of belongingness and willingness to do much more. They also emphasise that what motivates people is monetary reward, such as a good bonus system or market-related wages. Another participant quoted that “a good leader will always lead a successful team”. All participants agreed that a leader is the one that executes his or her tasks perfectly, such as good monthly planning, daily organising of resources and people, directing people to the right areas of good values “grade” and controlling the activities of people through the rules and standards.

This concludes the data analysis of data collected both from questionnaires and interviews. When data is closely studied, it becomes apparent that similarities and differences are revealed. This issue is addressed in chapter six.

## **5.4 CONCLUSION**

Chapter four deals with breaking down of data collected through questionnaires and interviews. The data was displayed and followed by its interpretations. The analysis of data collected by two questionnaires as well as opinions and views obtained from three focus interviews were displayed.

The following chapter contains findings, conclusions and recommendations of this study.

## CHAPTER 6

### FINDINGS, RECOMMENDATIONS, AND CONCLUSION

#### 6.1 INTRODUCTION

All organisations, whether it is a mining or a textile industry, have unique characteristics that make them different from one another. When these unique differences are taken into consideration; one organisation could experience a spectacular success in creating vitality at the workplace while another group experiences failures in this respect. The key variable, culture, then becomes a reality and therefore improving organisational performance is considered to be a proposition of cultural change. Because top management has a major influence in transmitting culture, a change in the organisation's key leadership positions facilitates the impositions of new values. On the other hand, new leadership, *per se*, does not provide the guarantee that employees would accept the implementation of new values.

Achieving an element of change in culture requires an understanding of the current organisational culture that determines what is important in an organisation in order to compare it with the expected and appropriate behaviours with regard to human's relationships at the workplace. The difference between current culture and expected behaviour is identified through the assessment of the impact of organisational culture on mining activities. The main objective of any organisation is to foster an organisational culture that is strategically integrated and culturally cohesive.

When the above argument was considered, the following main questions were posed as research questions, which are:

- What are factors that have impact on organisational culture?
- What are considered as critical issues to drive culture toward organisational outcomes at the gold mines?
- What impact do these cultural issues have on gold mining activities? and
- Can culture be managed in the mining environment or in any other result-driven organisation?

The aim of this research study was to identify the characteristics of organisational culture and evaluate the impact of organisational culture on gold mining activities in the *Lejweleputswa* district of the Free State. This study addresses mentioned aims by making use of three means, which are; firstly it provides a general overview of organisational culture. Secondly, the report provides an overview of findings regarding the impact of organisational culture. Lastly, based on the two previous objectives, the study also discusses some avenues for future research.

The above-mentioned questions have been addressed in the relevant sections of the study in the following way:

- chapter two and three comprise a literature review where the nature of organisational culture in the mining industry and the effects of culture on employee's performance were identified and illustrated by relevant sources shown. These chapters also formed the basis on which the process of assessing the impact of organisational culture could be compiled in chapter four;
- chapter four contains the collection of data on the nature and impact of organisational culture through two questionnaires and three focus group interviews at Beatrix Mine. The aims of the questions are also fully explained. Sampling instruments used to identify the critical issues and mining activities outcomes are also discussed in detail;

- chapter five analyses the data displayed from questionnaires and interpreted open-ended questions of interviews making use of narrative description; and
- in chapter six the answers of the research questions are presented through the study findings. Findings indicated that two categories of measuring the impact of culture are evident. Firstly, positive behavioural outcomes that an organisation needs in order to survive are addressed in the section of literature, questionnaire and interview findings. Lastly, the extent of cultural factors that are likely to contribute to mentioned positive outcomes are dealt with in the section of general findings.

The contribution this research study could make to the body of knowledge in this field is that it should be able to assist managers to identify to what extent organisational culture can be regarded as an asset and a competitive advantage.

## **6.2 FINDINGS OF THE STUDY**

The findings are discussed in four sections. The findings on the literature study is discussed first; secondly that of questionnaires; thirdly that of interviews; and lastly, general findings.

### **6.2.1 Literature findings**

The literature review in chapter two and three, revealed the following study findings, which is that:

- organisational cultures are partly the result of environment conditions under which the organisations must operate to survive. Such cultures are developed from the operational structure of the organisation, from

the norms which are followed in every-day actions, and from the language used as a means of daily communication within the organisation. Conversely, organisational culture grows out of its own accord (cf. 2.3.);

- different cultures are reflected in different organisational structures and systems, indicated by a formalised line of communication and structured place of work as well as individuals following certain procedures to accomplish their tasks (cf. 2.2.1.1, 2.3.2.2 and 2.4.2);
- the increasing sophistication of machinery and automation used in mining have a profound effect on its culture and urging the organisation to require high level of technical skills in many work-related positions (cf. 3.2.1);
- the cultural values of a particular group or society could be an important factor in the choice of leadership style adopted by managers (cf. 2.3.2.3, 2.4.3, 2.4.4.2 and 2.5.1);
- three characteristics of culture can be used to describe the organisational culture, which are:
  - ❖ the risks of working in the mines (cf. 3.2.2); and
  - ❖ the time it takes before employees receive feedback about the outcomes of their tasks (cf. 3.2.3);
  - ❖ the uncertainty management has to face when making a decision (cf. 3.2.3); and
- in cultures that are achievement-oriented, people are rewarded for meeting performance standards (cf. 3.2.5.1).

## 6.2.2 Questionnaire findings

Responses from questionnaires, revealed the following findings, which are:

- the effects and outcomes of organisational culture are illustrated by the type of people employed, their career aspirations, their educational backgrounds and their status in the society (cf. table 5.2 and 5.5);
- any organisation operates within a diversity of cultures, which is enhanced by the increasing mobility of people and different activities of the organisation (cf. 5.3.1.1);
- there are four characteristics that provide insight into an organisation's culture (cf. 5.3.1.1 and 5.3.1.2), which are:
  - ❖ risk tolerance – due to the nature of the mining activities, the organisation emphasises risk management in its daily operations and encourages all its workers to be safety-conscious at all times;
  - ❖ identity – the organisation has to ensure that workers identify themselves with the organisation as a whole, by establishing a team concept and strong family culture such as 'crews' to promote job involvement, employee motivation and to create an attitude of "problem prevention";
  - ❖ control – the employee's behaviour is reviewed and managed through the presence of organisational ethics, standards and rules; and
  - ❖ communication patterns – the organisation uses certain ways, which are classified as formal ways, such as meetings, memorandums, and notice boards and informal ways such as *braai* parties and motivational workshops in secluded areas to communicate the core values; and

- any organisation maintains its culture through recruitment and selection (hiring a particular type of person) as well as training of employees to develop their working skills.

### 6.2.3 Interview findings

Responses from interviews revealed the following findings (cf. 5.3.2), which are:

- every organisation has a culture as result of procedures, messages, symbols and rules (written or unwritten);
- management focus is only on those characteristics of culture which are obvious and which maintain internal cohesion, which are:
  - ❖ safety culture - a financial and public relations approach to problems is stated, by being financially successful and employees are allowed to “have a life” outside the organisation as well;
  - ❖ quality (grade) culture - concern with practical know-how and getting the work done effectively. People want to belong to successful organisation where security of their jobs is certain; and
  - ❖ corporate (production) culture - emphasizes technical solutions and innovations to optimise the work process. Focus is on results such as paying attention to the core business of the organisation;
- four characteristics (cf. 5.3.2) that provide insight into an organisation’s culture were revealed, which are:
  - ❖ reward system – the reward allocation such as a salary increase, bonus and promotions are based on employee performance;

- ❖ direction – the management has set clear objectives and performance expectations and expect people to deliver as was initially planned for;
- ❖ integration – all elements (units and departments) are encouraged to cooperate and coordinate their functions; and
- ❖ individual initiative – employees are allowed to take responsibility and exercise independency in their personal growth and development within the organisation, rather than waiting for the organisation to do it for them.

#### **6.2.4 General findings**

General findings can be summarised as follows:

- the organisation that has been studied has clearly defined itself as an entity pursuing team and family related matters and it was distinctly asserted what is expected from individuals working inside the organisation. As a result, the organisation has made enormous strides toward developing the organisation as a ‘great’ place to work, and experienced that workers intended to stay with the organisation;
- the organisation consists of employees striving or fighting to gain “wins” or bonuses. For this to materialise, it was found that production should be at an optimal point, but unfortunately two negative aspects materialised, namely financial and health issues. It became evident that this happens when workers are focused on reward only, they tend to neglect the safety aspects of their jobs, resulting in mine accidents or fatalities and this could result in a financial loss to the mine. It was also indicated that workers are also prone to mine related illnesses such as pneumoconiosis or silicosis. Therefore in mines, the financial and health stakes are high and as a result; there is a focus on safety and getting “things done” as per standard. Consequently, management



controls the activities of the organisation through business ethics, standards, policies and rules;

- it was revealed that any organisation invests an extensive amount of funds in the development of their employees, hoping that the final product will be successful. As a result, people are empowered by the organisation with the knowledge, skills and competence they require in order to be able to do their jobs. This issue confirms that it is through people that results are achieved and if this is demonstrated people would prefer to be associated with such an organisation. On the other hand inadequate training will result in dissatisfaction with working conditions and directly affect an employee's confidence in the organisation;
  
- this study disclosed that one of the critical issues concern to a mining organisation is "grade". The majority of managers in a mine that operates at a "low grade" scenario believe that their success depends upon the team commitment and cooperation to produce the volume or quantity of ore instead. When this culture of commitment is illustrated by employees, the mine can sustain consistent growth, safety, profits and service delivery and also bring employees into line with the organisational objectives. Doing so, management believe that they need commitment from individuals in all levels of the organisation;
  
- it was revealed that a key problem of moving toward a culture based on diverse mental models exists in an organisation, but unfortunately two conflicting cultures emerged. Firstly, management opt to make cultural choices based upon an economically rational model of past achievement. On the other hand, employees make their decisions based on social compatibility, which creates a paradox.

- the organisation strives to create a positive culture that delivers results regularly every month in order to gain competitive advantage by streamlining their strategies and processes to be as efficient and cost-effective as possible. The concern of a high performing organisation is strived to maintain its culture, and also to continue to benefit from the resultant competitive advantage.

### 6.3 FINDINGS DIRECTLY RELATED TO RESEARCH PROBLEMS

When considering the research problem that this study investigated, the following findings emerged, which is that:

- organisational culture is the result of the environment in which it is operating, the type of people employed and critical issues facing the organisation;
- the critical issues facing the organisation are:
  - ❖ collective understanding of what the organisation stands for (strategy) is reflected in day-to-day actions;
  - ❖ timely accomplishment of all tasks necessary to achieve desired results (structure, system); and
  - ❖ accumulated knowledge, skills, and commitment of the organisation (leadership style, socialisation, and staffing).
- the impact of organisational culture is identified through the negative and positive outcomes of mining activities. An organisation with high level of achievement, self-actualisation and team involvement behaviours lead to employee satisfaction, job commitment, organisational loyalty, profitability and return on investment, low turnover and high productivity. On the other hand, an organisation with

high level of passive and aggressive defensive behaviours promote staff dissatisfaction, high staff turnover and reduced outcomes; and

- once performance of an organisation's activities is considered as a priority because it cannot achieve the set goals, the organisation should determine the extent to which employees are enabled and engaged, identify the impact of the current organisational culture, and then apply effective strategies to change the culture. What must be noted when considering the above approach is, firstly, growth and merging with another organisation are other important reasons for assessing organisational culture. Secondly, the approach used can make the organisation stronger or weaken it. Lastly, constructive culture is promoted by aligning the organisation's vision, structures, systems, job design, leadership styles and socialisation with an ideal culture.

#### **6.4 LIMITATIONS OF STUDY**

The study has the following limitations shown below, which are that:

- due to the large number of illiterate people in the mining industry, questionnaires written in English were distributed to first line supervisors and service staff only, which means that the opinions of illiterate people are not included in this study (cf.4.4);
- some people were of the opinion that the researcher was affiliated to a certain group of people, for example union members felt the researcher was doing this study to benefit mine management and therefore labelled him as an intruder, and did not fully participate by giving their honest opinion. As a result, these people were excluded from this research study;

- some respondents resented the time it took to complete the questionnaires and had problems interpreting its content, and were of the opinion that they could have done something work-related instead. Their annoyance, the researcher believes, caused incomplete or inaccurate responses and delayed the research proceedings (cf.5.3.1,1 and 5.3.1.2);
- a number of people who agreed to be interviewed did not keep their appointments or asked for re-arrangement of times, delayed the interviews or even refused to be interviewed in their offices. This inconvenience caused the researcher to change personal interviews to focus group interviews;
- researcher selected respondents within easy access of his base (workplace), thereby cutting down travelling costs and time, which means that one mine only was used as sample, where more mines could have revealed a more accurate understanding of culture (cf. 1.6 and 1.9); and
- the findings of this research are not aimed to generalise the findings, but only to understand the impact of organisational culture on mining activities and how it is managed in any result-driven organisation.

Although the study is conducted at Beatrix mine in the *Lejweleputswa* district of the Free State, the findings could also be applicable to other Gold mines in the province and country.

## **6.5 RECOMMENDATIONS**

The organisational culture has a definite impact on gold mining activities and its ability to successfully sustain itself in future. In this study the researcher found that organisations with strong cultural capacity for

managing change increased productivity, expanded workforce and activities, raised share prices, and improved net incomes. The researcher suggests that the recommendations identified below are fundamentals in the consideration for successfully transforming an organisational culture, which is that in an organisation:

- ❏ being a good employer is not what counts, but employees must also be committed to the vision and the strategy of the organisation, and should be prepared to commit themselves. For example, people need to strictly comply with all Health and Safety standards, practices and procedures. On the other hand, management should have the means to make these a reality as well, by firstly creating a sense of purpose through clarification of what is required; and lastly leading by example and showing strong leadership commitment. Maintaining a winning culture requires more than quick-fix actions because culture is a way of being;
  
- ❏ innovation cannot succeed in places where people are reluctant to share creative ideas in fear of criticism or lack of support from management. Management should encourage sharing, by:
  - ❖ compelling and pulling people towards management;
  - ❖ appealing to all people to work together in a generous and supportive way;
  - ❖ showing that collective contribution is valued;
  - ❖ ensuring that people know how they are doing and what to expect in future; and
  - ❖ being part of the team that understand people's work and their expectations.

Without trust, people will simply pay “lip” service to teamwork and collaboration, without making any real commitment to organisational goals;

■ reinforcing employees’ application of new skills through just-in-time coaching and feedback is fundamental to employee development. Management should empower people by:

- ❖ encouraging people to give up dependency;
- ❖ not giving in to people’s desire for avoiding responsibility;
- ❖ developing people’s collective self-confidence; and
- ❖ backing up people if they make honest mistakes.

Work should not be seen as a burden that “kills the human spirit, but should be seen as a calling that sets it free to soar and accomplish”. The employees must be able to say “we got the support we needed from management and even if we fall short, we are sure that we have done our level best”;

■ by obtaining employees’ views about working in the organisation, management can reduce staff turnover and use the information to design strategies to entice new employees. Management should maintain high standards by:

- ❖ ensuring quality delivery;
- ❖ employing ambitious people in prominent positions, who will drive the culture change forward and build momentum;
- ❖ empowering people through training and development so that they can take the business to great heights; and
- ❖ ensuring that people are placed in right positions and departments, and be willing to lose those people who do not want to embrace the ideal culture.

People deserve a more caring and creative workplace where managers are seen as mentors and colleagues as friends;

- the organisation should develop strategies that enhance the people's sense of self-worth and provide opportunities for social relationships to develop within the organisation. Everyone should be involved in making decisions, no matter how inferior those inputs or ideas would seem. What should be kept in mind is the fact that people support what they helped to create; and

- in order to be able to gain a significant competitive advantage and start to build a stronger, more loyal and productive workforce, management should create an environment in which people are valued, developed and rewarded, by:

- ❖ determining their desires, intentions and goals in terms of rewards;
- ❖ arranging an agreement in which people commit to accomplishing the above objectives; and
- ❖ providing the appropriate reward.

The subject is too complex to be covered by one research project only and suggestions for further research are necessary.

## **6.6 SUGGESTIONS FOR FURTHER RESEARCH**

Although the researcher has studied many aspects of organisational culture in this study, there is much more about the impact of organisational culture that needs attention. The main aim of this research was to indicate some avenues for thought and exploration about organisational culture. Suggestions for further research are that research is needed to investigate:

- in detail the components of organisational culture, such as , what behaviour is ethical and accepted, the mood and enthusiasm of employees in the mining industry;
  
- the extent of education and increasing number of women working underground in the overall performance of the mining organisations; and
  
- the impact of organisational culture on profitability, share value and return on investment.

## **6.7 CONCLUSION**

The empirical findings of this study provide an insight into the impact of organisational culture on gold mining activities. In particular, these findings revealed a low turnover rate and a high level of job satisfaction and productivity at team level and lower level of management. The impact is demonstrated through a sense of identity and unity of purpose by members of the organisation, commitment of people to their work and existence of strategies and programmes which provide guidance on what is expected.

From the results presented in this study, one may conclude that an organisation's culture has a crucial impact on its overall performance. Culture determines which human behaviours will be reinforced, the extents to which people work positively or constructively together, and the way in which decisions are made. It also affects the manner in which an organisation processes information, the way it responds to external demands and constraints, and the motivation of its employees.



When considering the above impact on activities, it follows that a key task of management is to understand, monitor and actively manage the culture of the organisation. To achieve this issue it is important that management have access to accurate, reliable and comprehensive information about the current organisational culture featured in any workplace.

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# APPENDIX A

## QUESTIONNAIRE TO SERVICE STAFF

This questionnaire is an attempt to gain information on the impact of the organisational culture on gold mining activities. The researcher wishes to ensure you that your response will remain confidential and anonymous. Please complete this questionnaire and keep the following general instructions in mind:-

1. Do not write your name on the questionnaire.
2. There is no right or wrong answer.
3. Answer all questions with honesty and as requested.

### SECTION A

Please make a cross (X) on the correct answer:

<b>☛ Are you a</b>	Male	<input type="checkbox"/>	Female	<input type="checkbox"/>
<b>☛ What is your age?</b>	Between 18-35 years	<input type="checkbox"/>	Over 35 years	<input type="checkbox"/>
<b>☛ What standard did you pass at school?</b>	Std/Grade	<input type="checkbox"/>	Abet Level	<input type="checkbox"/>
<b>☛ Do you have tertiary qualification?</b>	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

If yes, please specify your qualification: .....

**SECTION B**

Please give your answer to the question that follow, by making a cross (X) to the correct one and filling the space provided.

1. DO YOU CONSIDER YOUR MINE TO BE A GREAT PLACE TO WORK?

Yes  No

Please justify your answer.

.....  
.....  
.....

2. DOES THIS ORGANISATION STRESS CLOSE SUPERVISION AND ACCOUNTABILITY?

Yes  No

If **yes**, please explain

.....  
.....  
.....

3. HOW DOES THE ORGANISATION ENSURE COMMON DIRECTION AND VALUES? IS IT BY INCORPORATION OF THE ORGANISATION'S VALUES:

<input type="checkbox"/>	In the initial selection and recruitment stage?
<input type="checkbox"/>	In all training and development programmes?
<input type="checkbox"/>	Both of them?

Other, please specify.....

Briefly state how your choice of selection is done.

.....  
.....  
.....

Yes  No

4. IS THERE A FORMAL SYSTEM THAT IS FOLLOWED IN ORDER TO SAY YOUR TASK IS COMPLETED?

Please, briefly describe your answer

.....  
.....  
.....

5. STATE BRIEFLY HOW NEW AND IMPROVED METHODS TO DO WORK SAFELY ARE CONTINUOUSLY ADOPTED.

.....  
.....  
.....

6. DO ATTEMPTS TO CREATE CHANGE USUALLY MEET WITH RESISTANCE?

Yes  No

If **yes**, in what form is this resistance?

.....  
.....

7. IS EACH WORKER ENCOURAGED TO DEVELOP HIS OR HER POTENTIAL PERSONALLY AND PROFESSIONALLY?

Yes  No

If **yes**, how is it done?

.....  
.....  
.....

8. ARE COMPETENT PEOPLE ALLOWED TO DO SPECIALIZED TASKS WITH LESS SUPERVISION?

Yes  No

If **No**, what is the reason?

.....  
.....  
.....

9. WOULD YOU CONSIDER WORKING LATE TO FINISH YOUR TASK OR IMPROVE

Yes  No

PRODUCTIVITY?

If your answer is **No**, why?

.....  
.....

10. WHAT SUGGESTIONS DO YOU HAVE FOR IMPROVING EMPLOYEES' COMMITMENT TO INCREASE PRODUCTIVITY?

.....  
.....  
.....

11. OTHER GENERAL COMMENTS?

.....  
.....  
.....

**THANK YOU FOR ANSWERING THESE QUESTIONS**

**APPENDIX B**



**QUESTIONNAIRE TO FIRST LEVEL SUPERVISORS**

This questionnaire is an attempt to gain information on the impact of the organisational culture on gold mining activities. The researcher wishes to ensure you that your response will remain confidential and anonymous. Please complete this questionnaire and keep the following general instructions in mind:-

- 1. Do not write your name on the questionnaire.
- 2. There is no right or wrong answer.
- 3. Answer all questions with honesty and as requested.

**SECTION A**

Please make a cross (X) on the correct answer:

- ☛ **Are you a** Male  Female
  
- ☛ **What is your age?** Between 18-35 years  Over 35 years
  
- ☛ **What standard did you pass at school?** Std/Grade  Abet Level
  
- ☛ **Do you have tertiary qualification?** Yes  No

If yes, please specify your qualification: .....

**SECTION B**

1. INDICATE IN THE BLOCKS PROVIDED, WHETHER THE FOLLOWING STATEMENTS ARE TRUE OR FALSE, IN YOUR OPINION.

This mine has a history of cutting costs.

This mine consists of workers coming from different groups of society.

Over the years, people who had good record of production achievement are seen as heroes.

The mine uses *Fanakalo* as its language and symbols to communicate with all employees.

2. WHAT DO YOU LIKE ABOUT THIS ORGANISATION? INDICATE WHETHER THE FOLLOWING IS TRUE OR FALSE.

a. The organisation provides a stable environment in which employees can develop and exercise their skills.

b. The organisation promotes from within and values seniority.

c. The organisation has more opportunity for those with timely and specialized skills.

d. The organisation's employees are highly skilled and can get jobs anywhere

Other, specify .....

After answering Question no 2, explain why you have chosen the specific option in:

a. ....

b. ....

c. ....

d. ....

3. DO YOU HAVE CERTAIN RULES IN YOUR WORKPLACE, WHICH GUIDES YOU AND TELLS YOU WHAT TO DO?

Yes

No

IF **YES**, WRITE **TWO** OF THESE RULES WHICH YOU HAVE TO ADHERE TO.

.....  
.....

4. WHAT DO YOU THINK IS THE PURPOSE OF STANDARDS IN YOUR WORKPLACE?

.....  
.....

5. DO YOU WORK IN TEAMS OR ALONE? .....

5.1 If in **teams**, what is the advantage of working as a team?

.....  
.....

5.2 If **alone**, what is the disadvantage of working alone? Answer briefly.

.....  
.....

6. DOES YOUR MANAGER HAVE ANSWERS TO ALL YOUR QUESTIONS? Yes  No

If you say **No**, why can he/she not answer your questions?

.....  
.....

7. DOES YOUR MANAGER EVER ASK YOUR OPINION? Yes  No

If you say **No**, why do you think he/she does not want to hear your opinion?

.....  
.....

8. DOES YOUR MANAGER INFORM YOU OF NEW THINGS WHICH SHOULD BE DONE? Yes  No

8.1 If **Yes**, how does he or she let you know?

.....  
.....

8.2 In your opinion, which is the best effective method of communication, and explain why do say so?

.....

.....  
9. DO YOU LIKE IT WHEN WAYS TO DO THINGS                      Yes                       No   
CHANGE

If **No**, why do you not like things to change?

.....  
.....

10. ARE YOU CLEARLY TOLD WHAT IS EXPECTED                      Yes                       No   
OF YOU TO DO AT WORK?

If **No**, why do you think you are not told?

.....  
.....

11. DO YOU FEEL FREE TO TALK TO YOUR MANAGER                      Yes                       No   
ABOUT YOUR PROBLEMS AT YOUR WORKPLACE?

If **No**, what is the reason?

.....  
.....

12. DO YOU GET SOMETHING EXTRA IF YOU DO                      Yes                       No   
GOOD WORK?

If **Yes**, what is the reward and do you get rewarded as individual or team?

.....  
.....

13. WHEN YOU HAVE ACHIEVED A CERTAIN NUMBER OF SHIFTS (MILLION) WITHOUT ANY  
FATALITY, WHAT HAPPENS?

Explain briefly

.....  
.....  
.....

**THANK YOU FOR ANSWERING THESE QUESTIONS.**

## **APPENDIX C**

### **INTERVIEW SCHEDULES**

This research study forms part of my M. Comm. dissertation at Central University of Technology – Welkom Campus. The researcher wishes to ensure you that your response will remain confidential and anonymous. Your participation is voluntary and personal identity will be kept secret. This interview is an attempt to gain information on the impact of the organisational culture on gold mining activities.

#### **INTERVIEW SCHEDULE FOR MANAGERS**

1. What would you say makes a gold mining organisation a great place to work in?
2. What motivates you everyday to come to work?
3. If asked this question, “What are the biggest challenges facing your organisation today? What would you say?
4. If you are standing in front of people that work in your shaft(s) or department, what will you say to them, regarding the above challenges?
5. Mining industry sometimes goes through tough times. What would you say makes this organisation so successful?

#### **APPENDIX D**

#### **INTERVIEW SCHEDULE FOR SUPERVISORS**

1. What interests you about the mining industry and working for this organisation in particular?
2. What makes your organisation a great place to work?
3. What are critical issues facing your section or department?
4. If you were asked to say few words to your subordinates, what would you say to them regarding the above issues?
5. All units or sections go through tough times, what would you say makes some units more successful than others?

**THANK YOU FOR YOUR CO-OPERATION**

#### **APPENDIX E**

Each department have its own UGR (Unwritten ground rules) known in this case as Champion Agreements

**U**  
**C**  
**E**  
**A**  
**-**  
**O**  
**E**  
**A**  
**B**  
**L**  
**O**  
**O**  
**E**  
**F**  
**E**  
**M**

- ✓ Around here we have a safe environment with realistic team specific production targets and procedures where the person responsible can be held accountable
- ✓ Around here we have quality planning and equipping of our ore reserve through proper staffing and the management thereof
- ✓ Around here we do not attack the person but solve problems in a open, creative, constructive and supportive way
- ✓ Around here we feel secure in our jobs in that we share responsibility and work more interdependently in our support of one another
- ✓ Around here we have skilled people with positive attitudes who walk the talk and restore pride through positive recognition and encouragement

**S**  
**O**  
**U**  
**T**  
**H**  
**S**  
**E**  
**C**  
**T**  
**I**  
**O**  
**N**

TRAMMING    VENTILATION    METHANE    WINCHES    FALL OF GROUND

UGR FOR SOUTH SECTION (1 and 2 Shafts)

**U**  
**C**  
**E**  
**A**  
**-**  
**O**  
**E**  
**A**  
**B**  
**L**  
**O**  
**O**  
**E**  
**F**  
**E**  
**M**

- ✓ Around here communication must be the right information to the right people in time & in a way to understand it & to allow them the opportunity to provide feedback
- ✓ Around here we will have the moral obligation to express & listen to a opinion in an open & honest manner & we will respect & commit to implement the decisions made
- ✓ Around here we will identify & accept responsibility & accountability in our management areas & meeting our objectives
- ✓ Around here MRM is one team

**M**  
**R**  
**M**

TRAMMING    VENTILATION    METHANE    WINCHES    FALL OF GROUND

UGR FOR MRM DEPARTMENT

(Pamodzi)