Organisational culture factors impacting on strategy implementation in a South African mining company

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DECLARATION

I, Dakalo Deborah Tshibalo, declare that this research article is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration in the Graduate School of Business Administration, University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Dakalo Deborah Tshibalo

Signed at Secunda……………………………………………

On the 24 …………………….. day of January…………… 2019..

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SUPPLEMENTARY INFORMATION

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ABSTRACT

The aim of the research was to determine the organisational culture factors that facilitate strategy implementation in a South African mining organisation. In order to address the research questions a case study approach was used with a mixed method research design involving a document search, questionnaire and semi-structured interviews. The most dominant cultures in the organisation were hierarchy and market cultures with an emphasis on stable mining operations and control. The current culture was found to be incongruent with the perceived culture type for driving strategy implementation, except where the criteria of success was concerned. This incongruence was also observed in the results of the correlation analysis between the organisational culture types and performance results. In support of other research, flexible cultures were perceived as highly relevant for strategy implementation. The main facilitating factors identified in the organisation included, communication and engagement; care and trust; change leadership and an emphasis on employee knowledge and competence.

Keywords: Organisational culture, strategy implementation, culture dimensions, culture types

INTRODUCTION

The premise for business performance results is the actual implementation of business strategy. The implementation of strategy does not spontaneously occur at the presence of a formulated strategy, resources and information; it requires a synchronous drum beat across the organisation to achieve results as envisioned by the strategy setters. The drumbeat of the organisation can be seen as the culture, or drive behind the organisation ensuring the interaction between man, machine, methods, material and money yields targeted results.

In the process of pursuing better performance, strategic initiatives often change the organisational culture, causing resistance to the change within the organisation (Cristian-Liviu, 2013). Given the same resources, information and operating environment one company succeeds at implementing strategy while the other fails because of resistance to change (Cristian-Liviu, 2013). Hence researchers advocate for alignment between organisational culture and strategy (Cristian-Liviu, 2013; Goromonzi, 2016).

PURPOSE OF THE STUDY

A strategy that is formulated, but never implemented or one that is implemented with poor results, is said to have failed (Cândido & Santos, 2015). Although Cândido and Santos (2015) argue against the current strategy failure rates of between 50% and 90%, they acknowledge that the number of strategic initiatives that fail is much higher than desirable. The successful implementation of strategy is indeed affected by many variables (Brinkschröder, 2014), among the more difficult to manage, is organisational culture.

Organisations therefore require guidance regarding the impact of culture on strategy implementation. It would add value to the strategic management process if managers knew which culture factors, they ought to drive both in preparation for and during the implementation process. Managers who can proactively manage problems related to strategy implementation and understand where to focus their resources and capabilities to enable strategy implementation will drive good performance results (Pella, Sumarwan, Daryanto, & Kirbrandoko, 2013). This study will add to the database of research concerning the relationship between culture and strategy across various industries, from a mining perspective.

PROBLEM INVESTIGATED

The coal mining industry is among the oldest industries in South Africa (SA), and as such, it has evolved over time to adapt to the changing business landscape in order to deliver results. With evolution comes rigorous changes in both strategy and culture. Exxaro, Anglo American and Sasol Mining, three of the biggest coal mining companies in SA, all explicitly mention their aspirations towards a high performance culture (Anglo American, 2017; Exxaro, 2017; Sasol, 2017). They recognise that culture plays an important role in driving organisational performance. Organisations therefore agree that culture exists and it has an impact on performance, but many of them do not yet understand the type of cultures or levers of culture they ought to pull to drive strategy. Organisational culture, and its dimensions have been found among the factors that drive strategy implementation. However, literature on the impact of organisational culture on strategy implementation remains scarce and fragmented, especially in SA. This makes it difficult to comprehend which factors of organisational culture are the real drivers, enablers or inhibitors of successful strategy implementation.

RESEARCH OBJECTIVES

Research questions

In order to address the problem statement, the aim of the research will be to determine the organisational culture factors that facilitate strategy implementation in a South African mining organisation. The following research questions are applicable:

- What is the current organisational culture at the mining company?
- Does the company deliberately align organisational culture to strategic initiatives or vice versa?
- Does organisational culture play a facilitating role in resolving challenges during strategic change?
- Which organisational culture factors/dimensions facilitate strategy implementation?
- Do flexible cultures have a greater relevance for strategy implementation?

Research objectives

The research objectives are:

- To assess the current organisational culture at the mining company
- To investigate whether the company deliberately aligns organisational culture to strategic initiatives or vice versa
- To explore if organisational culture plays a facilitating role in resolving challenges during strategic change
- To determine which organisational culture factors/dimensions facilitate strategy implementation
- To explore if flexible cultures have a greater relevance for strategy implementation

LITERATURE REVIEW

Introduction

This study is about determining the organisational culture factors that impact on the strategy implementation process. Due to the limited scope of the study, literature on models of both strategy implementation and organisational culture were reviewed to summarise the current context and theoretical framework (Saunders, Lewis, & Thorhill, 2016) of the theory relating to the research question.

These models offer a method to investigate the constructs of organisational culture and strategy implementation at factor level. Magnus Alu and Magnus Svorstøl (2013) summarise the current state of strategy management theory as an evolution from a range of diverse perspectives. In their study of the theoretical development of strategy implementation over time, they concluded that four significant perspectives have contributed to the theory namely, cognitive (or tactics), consensus (or decision making), management or control systems and strategy as practice (Magnus Alu & Magnus Svorstøl, 2013). This study focuses on the paradigm of strategy as practice, where its implementation occurs through various strategic initiatives by various business departments.

There are three main perspectives of organisational culture as an organisational theory namely, the functionalist, Interpretive and postmodernist perspectives (Genc, 2017; Hatch, 2018). According to Genc (2017) the postmodernist view of organisational culture focuses on criticising and deconstructing current theories and their relationships, than constructing new ones. Meanwhile the interpretive perspective of culture is relevant to the study of organisations because it leads to a better understanding of organisations, organising practices and processes (Hatch, 2018). In the functional perspective, culture is seen as a means of achieving organisational goals by the best use of organisational artefacts (Genc, 2017). The literature review on organisational culture factors is based on both the interpretive and functional perspective.

The process of strategic management, according to Johnson, Whittington, Scholes, Angwin, and Regnér (2014) consist of three parts namely understanding the organisation's strategic position, assessing its strategic choices and managing strategy in action. An organisation's strategic position is understood through assessing the external environment, an organisation's resources and competencies, stakeholder expectations and the culture and history of the organisation's impact on strategy (Johnson et al., 2014). Other authors have also highlighted the importance of organisational culture in strategy, such as the claim that strategic initiatives that match the organisational culture are more rapidly and successfully implemented (Pella et al., 2013). In support, Brinkschröder (2014) also notes that organisational culture plays an important role in resolving the issues that arise and require resolution during a strategic change. The literature review will therefore explore theories related to the two main constructs of strategy implementation and organisational culture as well as any links between them.

Strategy implementation

Definition of strategy implementation

The process of implementing or executing strategy involves the translation of strategic intent or goals into action (Faull, Fleming, & Bourne, 2004), that transforms the organisation's outcome. Li, Guohui, and Eppler (2008) emphasise that employees play a key role of executing strategic plans in order to achieve results. They define strategy implementation as (Li et al., 2008, p. 6),

> a dynamic, iterative and complex process, which is comprised of a series of decisions and activities by managers and employees affected by a number of interrelated internal and external factors to turn strategic plans into reality in order to achieve strategic objectives

It is common for researchers to acknowledge strategy implementation as the most difficult stage of strategic management (Baroto, Arvand, & Ahmad, 2014; Hourani, 2017; Li et al., 2008). This explains why other organisations fail to take effective action even if they may know what to do (Faull et al., 2004). A well formulated strategy, if poorly executed will not yield anticipated results. Although, it is important to note that strategies can also fail due to poor formulation, strategy implementation seems to be a challenge that many organisations struggle with (Li et al., 2008).

Strategy is concerned with the long term direction and future survival of an organisation (Johnson et al., 2014), hence the criticality of its implementation to business success. Despite this, the failure rate of strategy implementation seems notable enough to warrant disputes among scholars as investigated by Cândido and Santos (2015). Although Cândido and Santos (2015) argue against the current strategy failure rates of between 50% and 90%, they acknowledge that the number of strategic initiatives that fail is much higher than desirable. The successful implementation of strategy is indeed affected by many variables (Brinkschröder, 2014), among the more difficult to manage, is organisational culture.

In their quest to identify strategy implementation problems in the strategic management process Pella et al. (2013), concluded on sixteen findings. These were divided in two categories, namely seven problems related to strategy implementation steps and nine related to organisational supporting factors. The nine problems related to capabilities that support strategy implementation concerned: “financial capability, leadership, continuous improvement, information technology, culture, organisational structure, HR competence, change management, and strategy management office” (Pella et al., 2013, p. 188). In support of the research objective to determine the organisational culture factors that facilitate strategy implementation, culture was identified as one of the capabilities that needs to be developed in order to drive strategy execution, although it did not make the top seven major findings from the survey due to a relatively lower cross loading of 0.289 (Pella et al., 2013).

Strategy implementation factors

Through a literature review, Okumus (2001) developed a framework of thirteen key variables in strategy implementation as depicted in Table 1. The variables were grouped into four categories namely, content, context, process and outcome. Content variables cover the actual strategy and resulting initiatives accounting for an organisation's direction, context variables refer to the positioning of strategy within the organisation, and process variables are directly used in strategy implementation, while outcome variables are concerned with the results of the strategy (Okumus, 2001). The study also claimed that there must be coherence between these variables in order to ensure strategy implementation success (Okumus, 2001). This was supported by Hourani (2017) who claims that strategy implementation has different variables that interact with each other linearly as well as non-linearly. These variables must thus optimally interact in a manner that leads to successful implementation.

On the other hand Li et al. (2008) grouped nine strategy implementation factors into three groups namely, soft factors, hard (institutional) factors and mixed factors. Soft factors are concerned with the type of people who will execute the strategy, communication of the strategy, commitment to the strategy and the implementation tactics. Hard factors are the administrative systems and organisational structure in place to support strategy. Mixed factors are a combination of both soft and hard factors.

Faull et al. (2004) determined eight principles for effective implementation of strategy that are summarised in Table 1. Principles such as stakeholder behaviour, leadership and point of commitment are seen as having relations to organisational culture. Organisational culture as a key variable forms part of the organisation context that is critical in facilitating strategy implementation (Okumus, 2001), however factors of strategy implementation identified by Li et al. (2008), did not explicitly highlight organisational culture as a factor. Although elements relating to organisational culture were discussed in other variables of strategy implementation. A generally accepted strategy implementation framework does not exist (Siddique & Shadbolt, 2016), but many of the frameworks studied highlight culture as an important variable (Hourani, 2017; Li et al., 2008; Okumus, 2001; Siddique & Shadbolt, 2016). To arrive at the conceptual model for strategy implementation one must consider that “all attempts seek “success” for the strategy implementation outcomes but by different ways” (Hourani, 2017, p. 26). Table 1 provides a summary of strategy implementation factors.

TABLE 1
SUMMARY OF STRATEGY IMPLEMENTATION FACTORS

Authors	Factors
(Okumus, 2001)	Environmental uncertainty; strategic decision, multiple project implementation; organisational structure, **organisation culture**, organisational learning; operational planning, resource allocation, people, communication, control and feedback, external partner companies; and outcomes
(Li et al., 2008)	Strategy formulation, relationships among different units/departments, different strategy levels; executors, communication, implementation tactics, **consensus commitment**; organizational structure, administrative systems
(Faull et al., 2004)	Enquiring approach, action plan, **point of commitment**, **stakeholder behaviour**, dual organisation capability, first small steps, leadership, fault tolerant environment

Organisational Culture

Definition of organisational culture

What began as a fad in both business and academia, today continues to be demystified into an important element of management theory and practice (Hofstede, Neuijen, Ohayv, & Sanders, 1990). Regardless of lack of consensus on the definition, Hofstede et al. (1990) proposed that most authors would agree on the following characteristics of organisational culture (Hofstede et al., 1990, p. 286):

- It is holistic
- Historically determined

- Related to anthropological concepts
- Socially constructed
- Soft and
- Difficult to change

They argue from empirical evidence that shared practices (as defined by rituals, heroes and symbols) overtake shared values as the core of organisational culture. Notwithstanding that most of the variance between organisational cultures was explained by shared practices, shared values manifest in practices within an organisational context.

Hofstede (2011, p. 3) reiterates his definition of culture as “the collective programming of the mind that distinguishes the members of one group or category of people from others". The collectiveness of culture is what makes it a group rather than a personal trait, while programming denotes that it is embedded over a period of time, hence the challenges in changing it. The definition of culture has considerable implications for how it will be examined and studied as different authors have different interpretations of the concept (Sun, 2008). Schein (2004, p. 17) defines organisational culture as

> a pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems.

Cameron and Quinn (2006) describe culture as encompassing the taken-for-granted values, underlying assumptions, expectations, collective memories, and definitions present in an organisation. Because organisations have cultures just as people have personalities, the list of concepts to describe organisational cultures are endless, yet common and shared among the members.

Organisational culture is thus a model describing how a group of individuals think, feel and act in unison in relation to their environment and the stimuli it gives off. A stimulus could be anything from a problem to a leadership style within an organisational setting. An organisation as a constant loop of actions and reactions between individuals and other elements can be seen to be driven by its culture.

There are various studies where the relationship between organisational culture and performance was analysed. In Sokro (2012), organisational culture was found to contribute significantly to the achievement of company objectives. The need for alignment of culture to strategy and vice versa is a topic that has also been emphasised (Goromonzi, 2016; Mehdi, Raza, Raza, & Usman, 2017).

Hofstede culture dimensions

Hofstede was among the first researchers to break down cultures into distinct dimensions. Although his initial research focused on national cultures, it laid the foundation for empirical research in organisational culture by other authors (Hofstede, 2011). The following dimensions were identified by Hofstede (2011) in his IBM study of national culture differences:

- Power Distance, is the extent to which power distribution is accepted as unequal. The level of inequality within a society is endorsed by both leaders and followers
- Uncertainty Avoidance, describes to what extent members are programmed to feel comfortable or uncomfortable in unstructured situations. Laws, rules and codes are used to avoid ambiguity.
- Individualism versus Collectivism, addresses a spectrum of strong group integration versus weak interrelations between individuals in a society.
- Masculinity versus Femininity, looks at the distribution of values and emotional roles between women and men in a society.

In their study on organisational cultures, Hofstede et al. (1990) classified culture manifestations in organisations into four layers namely, values, symbols, heroes and rituals. Symbols, heroes and rituals were summed up into practices due to their observability, yet their cultural meaning was said to be understood through the perception of the members who subscribe to the culture (Hofstede et al., 1990). Because evidence pointed to shared practices as the core of organisational culture, the six dimensions of organisation culture in Table 2 were identified by Hofstede et al. (1990).

TABLE 2
ORGANISATIONAL CULTURE DIMENSIONS

Dimension	Description
Process-oriented vs. results-oriented	Technical and bureaucratic routines versus a common concern for outcomes
Employee-oriented vs. job - oriented	Assume responsibility for the employees' job performance only versus assuming a broad responsibility for their members' wellbeing.
Parochial vs. professional	Members derive their identity from the organization they work for, versus members identifying primarily with their profession
Open system vs. closed system	Refers to the common style of internal and external communication, and to the ease with which outsiders and newcomers are admitted
Loose vs. tight control	The degree of formality and punctuality within the organization
Normative vs. pragmatic	The prevailing way (flexible or rigid) of dealing with the environment, in particular with customers

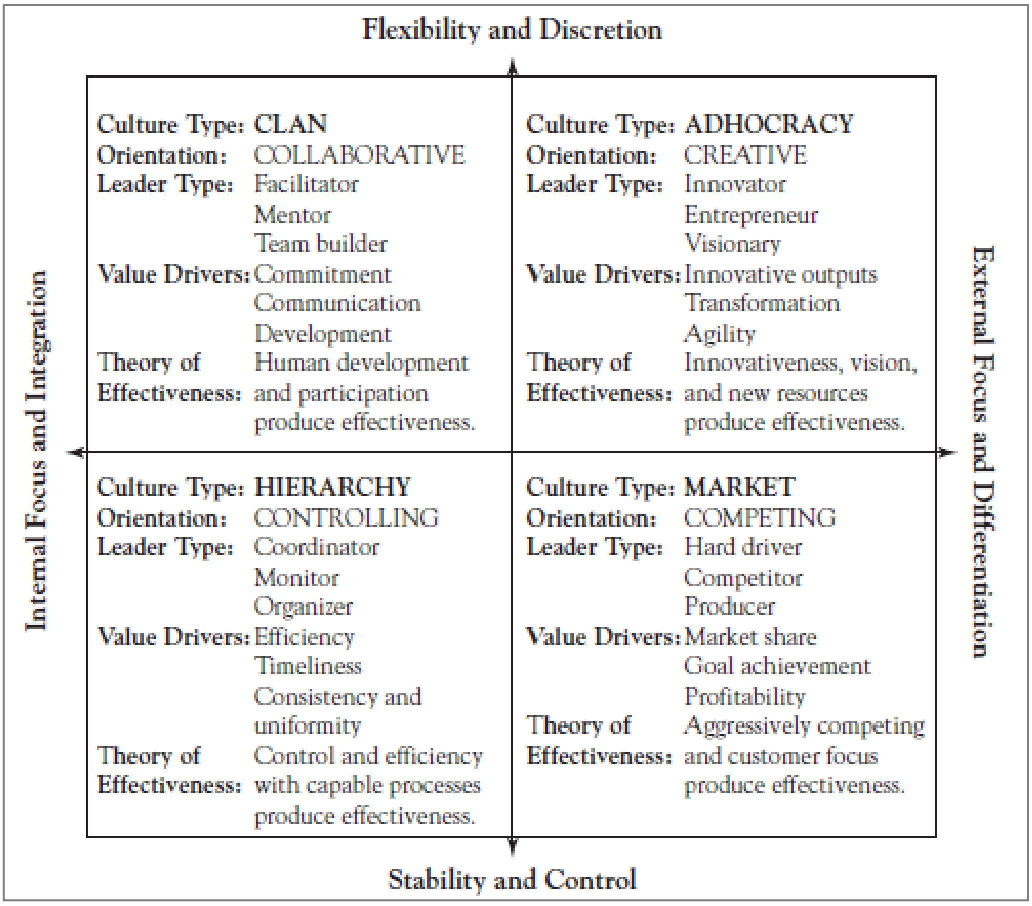
Competing Values Framework (CVF)

The CVF is a framework developed by Cameron and Quinn (2006) to diagnose and facilitate change in organisational culture by identifying the most important dimensions to focus on. The CVF was born from a statistical study of thirty-nine factors of effective organisations, that yielded two major dimensions of organisational effectiveness (Cameron & Quinn, 2006).

The first dimension is a continuum between organisational effectiveness based on flexibility and discretion on one end and stability and control on the other. The second dimension emphasises internal focus and integration on one end and external focus and differentiation on the other. Figure 1 illustrates the emergence of four culture types in organisations namely, hierarchy, clan, adhocracy and market, and their various traits.

FIGURE 1

THE COMPETING VALUES OF LEADERSHIP, EFFECTIVENESS, AND ORGANISATIONAL THEORY.



Source: Cameron and Quinn (2006, p.46)

Organisational Culture Assessment Instrument (OCAI)

The OCAI is a statistically validated survey tool used to diagnose organisational culture. It has been used by various scholars (Ahmadi, Salamzadeh, Daraei, & Akbari, 2012; Mutai, 2015) and organisations across the world, and was found to be useful and accurate in diagnosing the underlying issues of organisational culture (Cameron & Quinn, 2006). The OCAI consist of the following organisational culture dimensions that are each operationalised by four alternatives in the survey : Dominant Characteristics, Organisational Leadership, Management of Employees, Organisational Glue, Strategic Emphases and Criteria of Success (Cameron & Quinn, 2006). The OCAI is a preferred tool in that it superimposes organisational culture dimensions onto a culture typology allowing a more comprehensive diagnosis of culture.

Organisational culture and strategy implementation

Scholars have attempted to define how organisational culture relates to strategy implementation using a range of methodologies such as determining correlations between typologies and dimensions of culture and strategy (Ahmadi et al., 2012) as well as case study research.

Ahmadi et al. (2012) made use of the Competing Values Framework to define the four typologies of culture, for their empirical case study. By correlating the typologies as well as the OCAI culture dimensions to dimensions of strategy implementation, they were able to highlight which culture types strengthen the implementation process (Ahmadi et al., 2012). It was found that more flexible cultures as well as the culture dimensions of strategic emphases and organisational glue have a greater relevance to the implementation of strategy (Ahmadi et al., 2012). The study by Ahmadi et al. (2012) is unique in that it investigates the amount of influence culture dimensions have on the implementation dimensions, thereby emphasising potential culture factors that may facilitate implementation. However, it was not clear how the strategy implementation factors were chosen, which could affect replication.

The aim of the empirical study conducted by Reddy (2017) was to determine the effect of organisational culture dimensions on strategy implementation dimensions as well as the organisational culture factor with the highest impact on strategy execution. Reddy (2017) found that there was a statistically significant correlation between all organisational culture factors and strategy execution factors. The organisational culture factor with the highest impact was achievement orientation, which refer to the extent to which members of the organisation are rewarded for pursuing continuous improvement and high performance (Reddy, 2017). Reddy (2017) claims to have chosen the strategy execution factors from an extensive literature review, however no description of the method followed was provided.

Contrary to Reddy's research, Mutai (2015) made use of a case study research design with a focus on identifying the type of cultures and how they influence strategy implementation within a case organisation. A qualitative study was conducted where data from nine senior managers of different departments was collected through interviews with open ended questions (Mutai, 2015). Data was analysed using the content analysis technique. Although the method of research was appropriate for the in depth study of the case organisation, it did not evaluate the culture types at the organisation, which made it difficult to understand how the author identified the dominant culture, perhaps it was in the data analysis that the author failed to highlight this. Mutai (2015) found that the vision and mission statements were the founding factor in the development of strategy.

Conclusion

Schein (2004) claims that although culture is an abstraction, its behavioural and attitudinal consequences are very concrete. The literature review supports this view in that, definitions, dimensions and typologies of cultures vary between authors. What has emerged as a common theme is the impact of culture on strategy implementation and performance as significant. The following questions ensued from the literature review:

- Do organisations deliberately align organisational culture to strategic initiatives or vice versa?
- Does organisational culture play a facilitating role in resolving challenges during strategic change?
- Do flexible cultures have a greater relevance for strategy implementation?
- Do the dimensions; strategic emphases; organisational glue; and criteria for success (related to achievement orientation) have a greater relevance for strategy implementation?

RESEARCH METHODOLOGY

Introduction

This chapter describes the research design considered appropriate in answering the research questions. It will cover the research context, research methodology, methods of sampling and data collection, data analysis and ethical considerations

Research Design

Research context

The case study research format aims to understand the uniqueness and complexity of a particular case (Welman, Kruger, & Mitchell, 2005). It is an interpretive and inductive form of research focused on exploring meanings of experience, as opposed to testing hypothesis (Saunders et al., 2016) and therefore describing the context of the case study is important (Tesol International Association, 2018). The research study aims to obtain an in depth understanding of the culture phenomenon, in the context of the chosen organisation and how it has facilitated strategy implementation as perceived by the members of the organisation.

The research setting will be at an underground coal mining company in South Africa. The organisation consists of six mines, but only five of these mines will form part of the study due to proximity of the author to their location. Although each mine operates as a separate entity of ten to fourteen production sections, strategy formulation takes place at the central head office. The strategy is then, through a cascading process, translated, communicated and executed at each mine. A vice president who reports directly to the senior vice president at the company head office manages each mine. The group of mines produces just over forty-one million tons of coal per annum, which is mostly used upstream for the production of fuels and other products.

The execution of strategy at each mine is driven by the Transformation Office (TO). This office consists of the company's executive members (senior vice president and vice presidents), head of departments and business improvement leaders. The office therefore consists of both formulators and executors of strategy, responsible for cascading the strategy through communication, providing resources, support, programme management and performance tracking against desired targets.

Research methodology

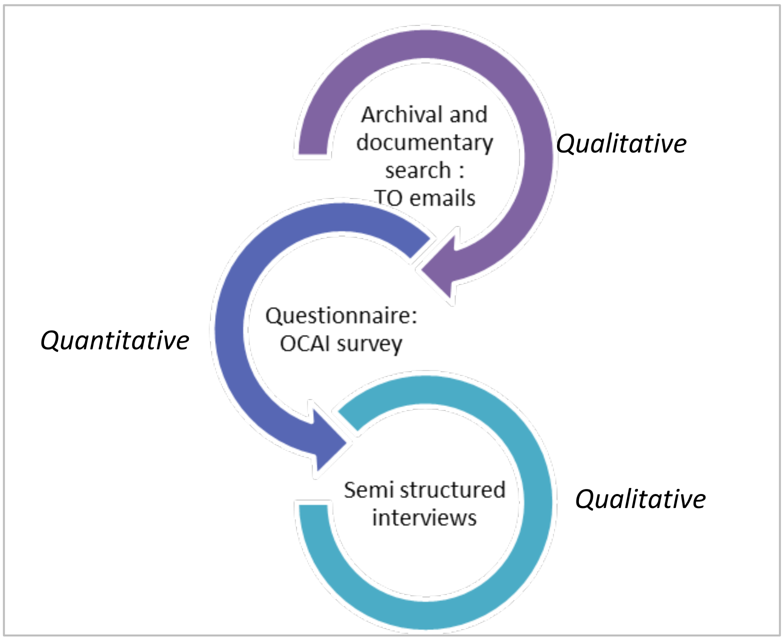
Most of the literature reviewed made use of a mono method quantitative study with the aim of examining relationships between the two variables (Saunders et al., 2016) of organisational culture and strategy implementation. The methodology for these studies was appropriate for testing certain theories about the two constructs.

In contrast to the literature reviewed, this study followed a multiple mixed method within a case study setting. Firstly, an archival and documentary search (Saunders et al., 2016) of communication emails sent by the Transformation Office during strategy implementation since its inception in May 2017, was completed to determine the strategy implementation dimensions most relevant to the case study in comparison to those identified in theory.

Secondly, a part of this research was quantitative in nature, as data was collected using the adapted OCAI survey instrument to assess the current culture types and dimensions of the organisation (Cameron & Quinn, 2006). The questionnaire was adapted to include the rating of dimensions of strategy implementation identified through the document search against dimensions of culture.

A phenomenological view of the concepts of organisational culture and strategy implementation led to the third part of this research following a qualitative approach. According to phenomenologists, human experience lies with the person experiencing it and the two cannot be separated (Welman et al., 2005). Therefore, the aim was to understand the facilitating nature of organisational culture on strategy implementation from the perspective of the organisational members experiencing it. The emergent nature of this research design means that data collecting procedures can be adapted during the study to benefit from new data that become available during the research process (Welman et al., 2005). The research process followed was descriptive in nature, exploring the ‘what’ and ‘how’ (Saunders et al., 2016) of both culture and strategy. The pitfall of descriptive studies comes when conclusions are not drawn from the data being described and therefore this approach requires the skill to evaluate data and synthesise ideas (Saunders et al., 2016). The chosen instrument for this last part of the research was semi-structured interviews that received partial guidance from the preliminary questionnaire results. Figure 2 illustrates the research design as described.

FIGURE 2
RESEARCH DESIGN



Sample and data collection

Population and sample

The target population consisted of all the coal-mining companies operating in South Africa. When a case study approach is followed, the researcher must select the case study organisation and a specific sample from the selected organisation to collect data from (Saunders et al., 2016). The selected organisation (or sample) was an underground coal mining company. Within the company, the Transformation Office was the unit of analysis. The Transformation Office was established by the current SVP when he assumed office in January 2016 with the main accountability for driving strategy execution across the business. Thus a non-probability sampling technique called purposive sampling was used by applying judgement in selecting a case that would enable the author to answer the research questions (Saunders et al., 2016). Non-probability sampling was appropriate in this study because generalisations were not to be made about the population, but to the theory (Saunders et al., 2016). The chosen technique is summarised in Table 3.

TABLE 3
TARGETED SAMPLE SIZE

Nature of study	Minimum sample size	Targeted sample size
Archival and documentary search	-	All relevant emails sent by TO since May 2017 when the office was established to execute current strategy
Questionnaire	-	Mine A - 1:8:10 Mine B - 1:8:10 Mine C - 1:8:10 Mine D - 1:8:10 Mine E - 1:8:10 Total sample of 95 TO members including executive, senior and middle management at a ratio of 1:8:10 respectively per mine
Semi-structured interviews	5 – 25*	3 Executive members; 3 Heads of departments; 4 Business Improvement leads

Note. Developed from Saunders as cited in (Saunders et al., 2016)

Data collection

A multiple mixed method within a case study setting was used to collect data related to the research objectives. A sequential multi-phase design involves the collection of "qualitative data, followed by quantitative and a further phase of qualitative data" (Saunders et al., 2016, p. 171). This research method is rather dynamic, characterised by an iterative process where one phase contributes to and directs the next stage of data collection and analysis (Saunders et al., 2016). According to Saunders et al. (2016) the following reasons (relevant for this case study) substantiate the use of mixed methods:

- *Facilitation:* new insights discovered during the research can contribute to or be followed up by another method
- *Complementarity:* meanings and findings from a questionnaire could for example be elaborated and clarified during an interview.

- *Interpretation:* one method may be used to explain an identified relationship between variables from another method
- *Diversity:* mixed methods may help the study to reflect more diverse views
- *Confidence:* by cancelling out the effect of a single method, it may lead to more confidence in the conclusions

Archival and documentary search

The literature review revealed that a great number of variables have been used in the past to operationalise the construct of strategy implementation. The author has criticised that scholars undertaking empirical studies did not clearly indicate the criteria for choosing variables for their specific study (Ahmadi et al., 2012; Reddy, 2017). The list of strategy implementation factors is therefore not always congruent (Li et al., 2008; Okumus, 2001).

In order to ensure that the chosen variables for strategy implementation were representative of the case study, it was anticipated that communication distributed by the TO would contain elements of what is important to the strategy office during strategy implementation. For example, the TO may communicate progress on implementation, expected behaviours to drive execution as well as offer support during the implementation process. Through such communication, factors that are important in driving strategy execution in the organisation were identified.

Emails used for the case study were secondary data as they were not initially intended for research (Saunders et al., 2016). With this in mind, the researcher was sensitive to the nature and original purpose of the emails, the manner in which they were analysed and generalisations that could be drawn, as cautioned by Hakim (as cited in Saunders et al. (2016)). The researcher had direct access to all emails sent by the Transformation Office to the organisation, but only used seventeen emails that were sent out at a rate of almost two emails per month. Excluded emails deviated from the strategy communication due to other urgent and unforeseen events that needed to be communicated by the TO office that were unrelated to the strategy implementation process. These events included emergencies and safety incidents that affected the organisation. To improve credibility of this method it was used in combination with other methods described in sections to follow.

Organisational Culture Assessment Index questionnaire

The organisational culture construct was measured using the OCAI questionnaire. Additional strategy implementation questions were added to the survey to allow participants to rate whether the six culture dimensions in the OCAI facilitate the strategic dimensions identified by the organisation as important in executing initiatives. An example of the adapted survey can be found in Exhibit A of the appendix. The OCAI instrument was chosen because it looks at culture from both a typology and dimensional perspective, it is statistically validated and used widely in organisations (Maximini, 2015) and it requires minimal time to complete (Cameron & Quinn, 2006). The questionnaire results were analysed to unearth the organisational culture types and relate them to strategy implementation dimensions. The survey was administered online since all potential participants had access to both email and the internet. The semi-structured interviews were used in parallel to determine the preferred culture for driving strategic objectives.

Semi-structured interviews

The semi-structured interviews were used as a final tool to collect, verify and elaborate on data found through the other two methods. Saunders et al. (2016) highlights data quality issues to be cognisant of in semi-structured interviews as follows:

- *Reliability/dependability:* this is concerned with whether under similar circumstances other researchers would uncover similar information
- *Forms of bias:* this can be both the interviewer and interviewee bias. Interviewer may impose their own views on the interviewee, meanwhile the interviewee may perceive the interviewer as being intrusive because of the nature of the unstructured exploration of certain themes.
- *Cultural differences:* this can affect what the interviewee is willing to say, the questions asked and how the researcher interprets the data.
- *Generalisability/transferability:* this refers to the extent to which the findings will still apply in other settings.
- *Validity/credibility:* refers to the extent to which the researcher gains access to the participant’s knowledge and experience and reaches their intended meanings.

In order to overcome some of the data quality issues outlined above the choice and reasons for the research design were discussed earlier in the chapter. This was to ensure that others can refer to the process used and understand the findings and find them to be dependable (Saunders et al., 2016). The researcher conducted interviews at the interviewee's work place. Although the transcripts indicate only the research questions, casual discussions often preceded the interview in order to reduce any concerns before the interviews began. Where findings could be related back to theory, this was done to highlight theoretical significance. The use of clarifying questions, probing of meanings and exploration of responses from various angles assisted in improving validity (Saunders et al., 2016). Triangulating multiple perspectives was also used to add texture, depth and multiple insights as recommended by the Tesol International Association (2018). The interview questions (Exhibit B) identified from literature review were sent as preparatory material to the interviewees before each interview.

Data analysis

Respondents

The survey yielded a much lower response rate than was anticipated. After obtaining written permission to collect data at each Mine from the respective vice presidents, online survey links were sent to a total of 95 managers at the various mines, over two phases. The first phase was the initial request, followed by a second phase a month later to remind the potential participants to respond. Forty-six surveys were attempted with only 28 found to be complete and useful, the rest were abandoned incomplete. This equates to a response rate of 29%. This sample was therefore too small to infer any statistical conclusions to the rest of the population within the study. Possible reasons identified for the low response rate included:

- Other organisational surveys that were running at the same time as the research survey, were found by participants to be more important
- The survey was possibly too long for the working environment where even managers spend a considerable amount of time underground.

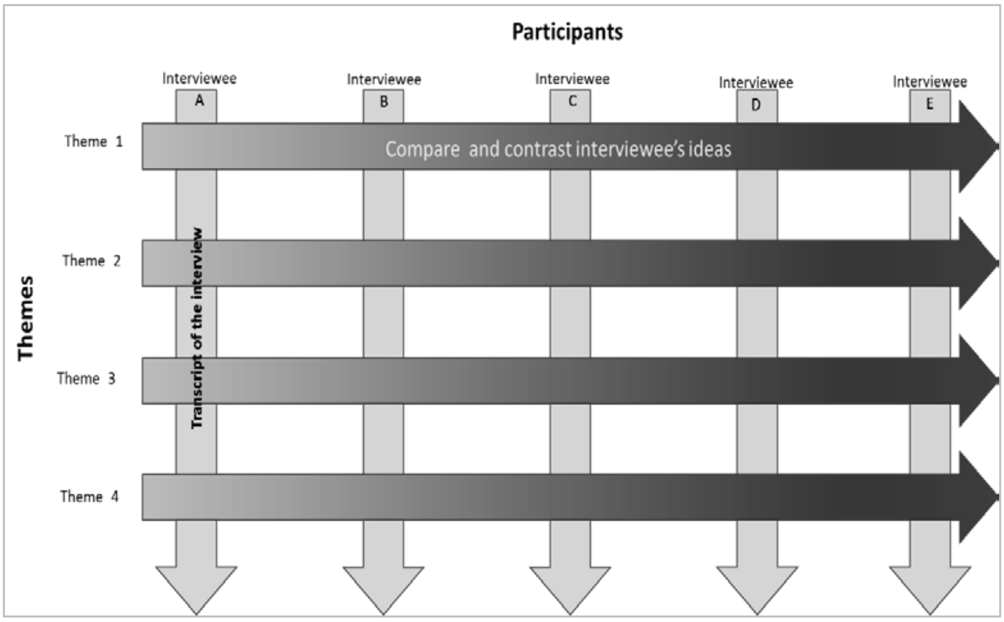
For these reasons it was decided that the main focus would be on the data from the semi-structured interviews and the survey results would be used to supplement the findings. The request for interviews was sent out to ten managers and seven responded positively, resulting in a 70% response rate. Furthermore, all the mines were represented by the interview respondents.

The thematic analysis technique was used to analyse the data from both the document search and the semi-structured interviews. Especially for the interviews, the process was iterative proceeding from the more general to more specific observations (Tesol International Association, 2018). The assessment of the organisation’s current culture was analysed through the Competing Values Framework. The resulting culture types of each of the five mines were compared concerning their impact on the production and safety performance of the mines. The purpose of this comparison was to validate findings of the perceived relationship between culture and strategy implementation by drawing correlations between the dimensions of culture and performance results. The performance measures included the tons produced per annum as a percentage of the budget and the safety recordable case rate (RCR) as a percentage of the target. These measures were chosen based on their impact on the business bottom line in the last five years.

Theme identification methods

Themes are described as overarching constructs that are identified before, during and after data collection (Welman et al., 2005). Audio recordings and notes taken by the researcher were transcribed. Dealing with one transcript at a time, the following techniques were used to identify themes (Welman et al., 2005): counting of frequently occurring keywords; identifying organisational jargon and attached meanings; comparison and contrast of texts as in Figure 3; searching for missing information; metaphors and analogies used in expressing thoughts; transitions and connectors. Subsequent to this, data was coded with reference to literature and the research questions. Ideas were grouped into named categories or themes. Where possible information from the collected data was displayed in a systematic, visual representation to enable drawing of conclusions (Welman et al., 2005).

FIGURE 3
QUALITATIVE DATA ANALYSIS STRUCTURE



Source: Saunders, Lewis and Thorhill (2016)

Ethical considerations

The author was given written permission to conduct the research study within the chosen organisation, written informed consent was obtained from the individuals who were interviewed, as well as consent from those taking part in the survey. Informed consent mean that participants were given enough information and opportunity to ask questions regarding both the collection and use of data they provided (Saunders et al., 2016). As an employee of the organisation under research it was important for the author to refrain from coercion when approaching colleagues for access to data, as all individuals have the right to privacy (Saunders et al., 2016). The author realises the importance of treating data in an ethical manner, by protecting other people's personal information and not using it for purposes not consented to. Letters of consent and permission to collect data were signed by participants and submitted to the researcher. The project also received ethical clearance from the University of the Witwatersrand, with the following protocol number: WBS/BA1779734/550.

Conclusion

The research design followed a case study approach at a coal mining company. A mixed method of collecting data, including a documentary search, a questionnaire and semi-structured interviews were used to enhance the validity of findings. The section that follows will describe the findings of the research and discuss the results in relation to the theory.

RESULTS

Introduction

The aim of the research was to determine the organisational culture factors that facilitate strategy implementation in a South African mining organisation. A mixed research methodology was followed, which encompassed an archival and documentary search (Saunders et al., 2016) of communication emails, a quantitative survey using the adapted OCAI instrument and interviews with the management team of the organisation. The findings of the research will be discussed in this section, following the structure below:

- Dimensions of the strategy implementation construct according to the document search of the case study
- Survey results
- Thematic analysis of the interview data

Archival and documentary search

The literature review revealed that a great number of variables have been used in the past to operationalise the construct of strategy implementation. The author has criticised that scholars undertaking empirical studies did not clearly indicate the criteria for choosing variables for their specific study (Ahmadi et al., 2012; Reddy, 2017). In order to identify strategy implementation variables that were relevant for the case study, a document analysis of communication emails by the Transformation Office responsible for strategy execution was conducted. The combination of the literature review and the findings of the analysis informed the variables that formed part of the adapted OCAI survey. The survey was adapted to include questions that allowed the participant to rate the culture dimensions according to their effectiveness in facilitating strategy implementation.

Content analysis of email communications

Content analysis was completed on textual data (Erlingsson & Brysiewicz, 2017) from seventeen email communications sent out by the TO during an intense process of implementing strategic initiatives. Every email on average was fairly detailed, and sent on average twice a month as a business update. Therefore, 17 emails presented a large amount of text, which required further analysis to arrive at summarised key results that embody the construct of strategy implementation. The process followed included identifying meaning units within the data, condensing these meaning units, coding, categorising and finally defining relevant themes from the data (Erlingsson & Brysiewicz, 2017). An excerpt of the process followed is presented in Table 4.

Document analysis findings and discussion

The following categories were defined from the content analysis that related to the strategy implementation theory: Leadership; Integrated planning; Communication; Competence; Recognition; Change; Commitment and Performance

These were found to be elements of strategy implementation that were communicated and emphasised by the organisation under study, during the process of executing strategy. The dimensions were found to be closely related to those used in empirical studies by other researchers. Reddy (2017) makes use of the leadership factor, which was used in this case study to sum up the actions of team engagement, involvement and coaching. All the factors used by Reddy (2017) were identified in the email communication analysis, except for the factor structure. No reference was made to any changes or use of the organisational structure to enhance strategy implementation. Other factors found in this research that were also prominent in other research, were planning, communication and commitment (Faull et al., 2004; Li et al., 2008; Okumus, 2001).

TABLE 4
CONTENT ANALYSIS OF EMAIL COMMUNICATION (EXCERPT)

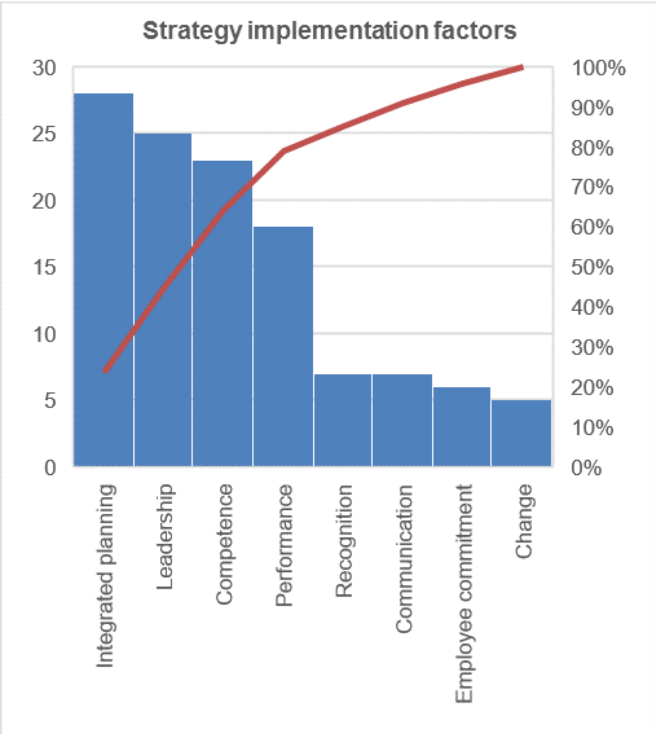
Meaning units	Condensed meaning units	Codes	Categories
Our people are working with energy and passion to develop initiatives	Developing initiatives with energy and passion	Commitment	Employee commitment
I want to thank you for your commitment, energy and passion	Commitment, energy and passion	Commitment	Employee commitment
We have identified production initiatives to the value of 50% of the productivity gap	Current initiative close 50% of gap	Tracking progress	Performance
And a web based tracking tool	Tracking tool	Tracking progress	Performance
I am excited about the progress that has been achieved to date	Excited about progress achieved to date	Tracking progress	Performance
Held idea generation sessions involving most production sections	Idea generation involved production sections	Team involvement	Leadership
Involving most of our people in shaping the solutions required to close our performance and organisation health gaps	Involving people in shaping solutions to close gaps	Team involvement	Leadership
Ensure that you involve those in your area by coaching them	Involving and coaching teams	Involving and coaching	Leadership
I would like to engage with you around the BIP	Engagement of team around BIP	Team engagement	Leadership

Communication was especially emphasised by the ritual of the emails that were sent out regularly by the TO. The top six frequently occurring themes were integrated into the adapted OCAI survey using the statements in Figure 4. Integrated planning was combined with performance tracking of the action plan. Participants were requested to rate how well the culture dimension of their organisation facilitate the five dimensions of strategy implementation.

Survey results

The OCAI instrument provided a validated conceptualisation of the construct of organisational culture (Maximini, 2015). In the instrument, the construct is disseminated into culture dimensions and specific culture factors, which combined, make up the culture types. The CVF analysis of data from the OCAI survey reveal additional dimensions of culture, namely the culture types, internal versus external orientation and flexibility versus stability orientation. The instrument was used as a general questionnaire survey aimed at collecting data about the organisation's culture typology. Through the added strategy implementation questions, the culture typology was assessed in terms of how well it drives strategy implementation in the organisation.

FIGURE 4
STRATEGY IMPLEMENTATION FACTORS PARETO AND EXCERPT FROM THE ADAPTED OCAI SURVEY QUESTIONNAIRE REPRESENTING STRATEGY IMPLEMENTATION



1. Team involvement in the planning and execution of strategic plans by the leadership
2. Clear communication between those who formulate strategy and those implementing strategy
3. Rewarding or recognition of individuals responsible for successful strategy implementation
4. Integrated action planning and performance tracking
5. Development and sharpening of skills required to implement action plans

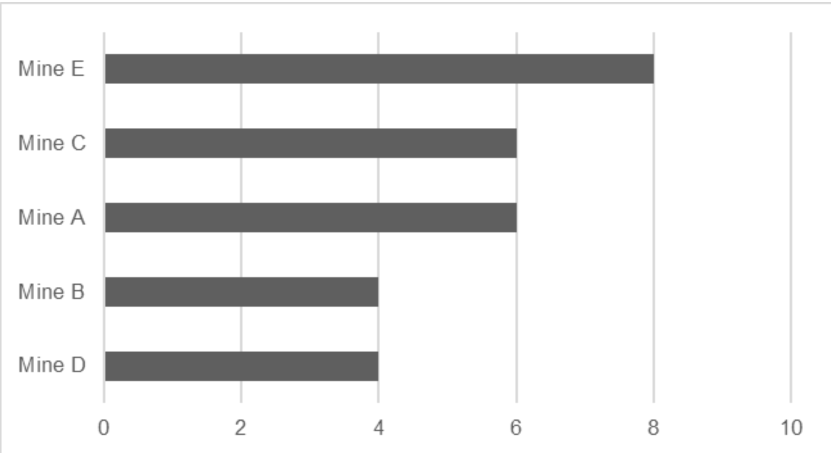
Demographic information

The total responses received from the online survey were 46, however only 28 of those were completed in full and useful for analysis. This constitute a response rate of only 29%. Three questions were asked under the demographic section and these were related to the respondent's work place, level in the organisation and nature of work.

Workplace demographics

Figure 5 represents the number of completed responses to the survey, which were received per mine. Mine E had the most responses at 8 responses, which equate to a 42% response rate, followed by both Mine C and Mine D with response rates of 32% each. Mine D and Mine B both had the lowest response rate of 21% each. The low response rate from each mine have an impact on both the confidence level and margin of error, which affects the accuracy of the inference from the sample to the full population. According to the *Qualtrics* sample calculator the ideal sample size for statistical analysis at a 95% confidence level and 5% margin of error was 77 responses. This survey was therefore 49 responses short. The results are thus indicative and not statistically significant, as they exhibit a low level of confidence and high margin of error.

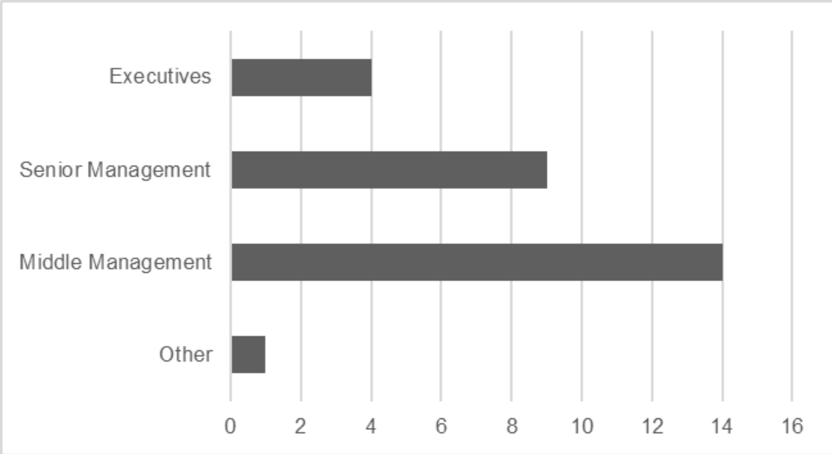
FIGURE 5
SURVEY RESPONSES PER MINE



Organisational level

Reddy (2017) Noted a decrease in respondents with an increase in management level. However, for this case study the observation can be explained by the fact that there are less people at the top of the structure and therefore less responses are linked to that population group. The category indicated as other (Figure 6), could be an indication of a specialist whose position in the structure is at management level. There was a balance in the responses across the organisational levels.

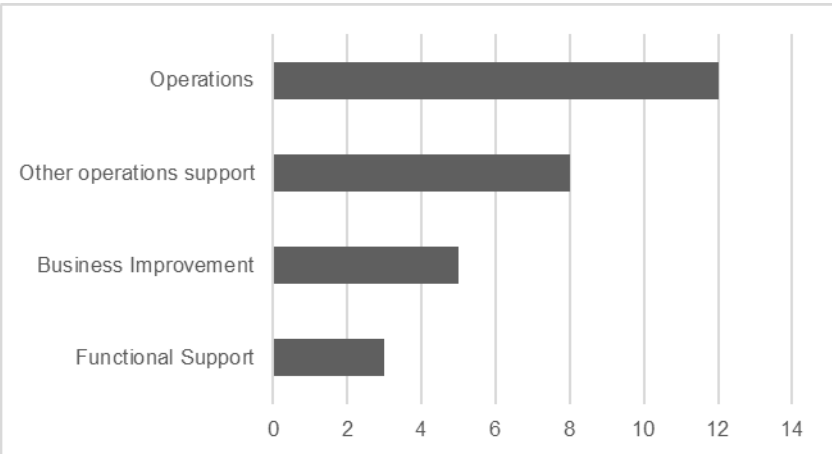
FIGURE 6
ORGANISATIONAL LEVEL OF RESPONDENTS



Nature of work

The Operations team is the biggest team in each mine, hence the highest response in this category (Figure 7). The other Operations Support teams include departments such as Safety, Survey and Geology and usually form the second biggest part of the mine teams. Business improvement managers responded across all mines, with functional support only forming 10% of the respondents. The Functional Support team includes departments such as HR, Finance and Supply Chain.

FIGURE 7
THE NATURE OF WORK DONE BY THE SURVEY RESPONDENTS



The culture assessment

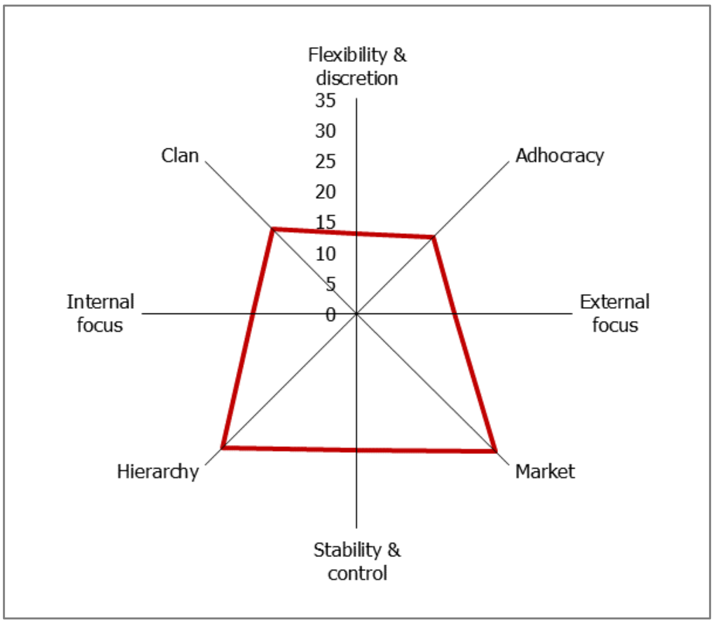
The survey design was based on the OCAI survey template by Cameron and Quinn, supplemented by additional questions used by the respondent to rate their perception of the tendency of the culture dimensions to facilitate strategy implementation. Due to this overlay of additional questions on the original OCAI, it was possible to summarise the OCAI only ratings of the organisation, highlighting the perception of the current culture type dominant within the mining company. The OCAI results were analysed using an Excel toolkit developed by Müller (2005). In Figure 8, the respondents rated the hierarchy and market cultures, an average of 31 and 32, in comparison to 18 and 19 for adhocracy and clan culture respectively. The company is therefore perceived to emphasise stability and control with a similar amount of internal and external orientation.

The hierarchical culture is especially highlighted in the company's dominant characteristics of control, structure and governance through formal procedures. The respondents perceive that the organisational glue keeping the company together is formal rules and policies and success is measured in terms of low cost production and efficiency (Cameron & Quinn, 2006). The respondents however, believe that the leadership is aggressively focused on results and management drive high demands for achievement. This market culture type also emanates from the strategic emphasis on stretched targets and market place dominance.

Current culture impact on strategy implementation

In the second part of each main survey question, the respondent was asked to rate the dimensional factor they have scored the highest for the company in terms of how well it facilitated strategy implementation. The aim of this question was to gain understanding of whether the current company culture is perceived to be conducive to strategy implementation or not. A Likert scale was used to rate the facilitating nature of the culture factor that was scored the highest. The following scale was used, and it was coded for data analysis: extremely well (5), very well (4), moderately well (3), slightly well (2) and not well at all (1).

FIGURE 8
PERCEPTION OF THE ORGANISATION'S CULTURE TYPES



Organisational culture dimensions

As a collective, the survey respondents perceive the organisation to have two dominant culture types, namely hierarchy and market cultures. This means that a greater number of points were allocated to the "C" and "D" statements of the OCAI survey, which place an emphasis on results and control. According to Table 5, the current culture types in the organisation are perceived to only moderately (a score around 3) facilitate the implementation of strategy.

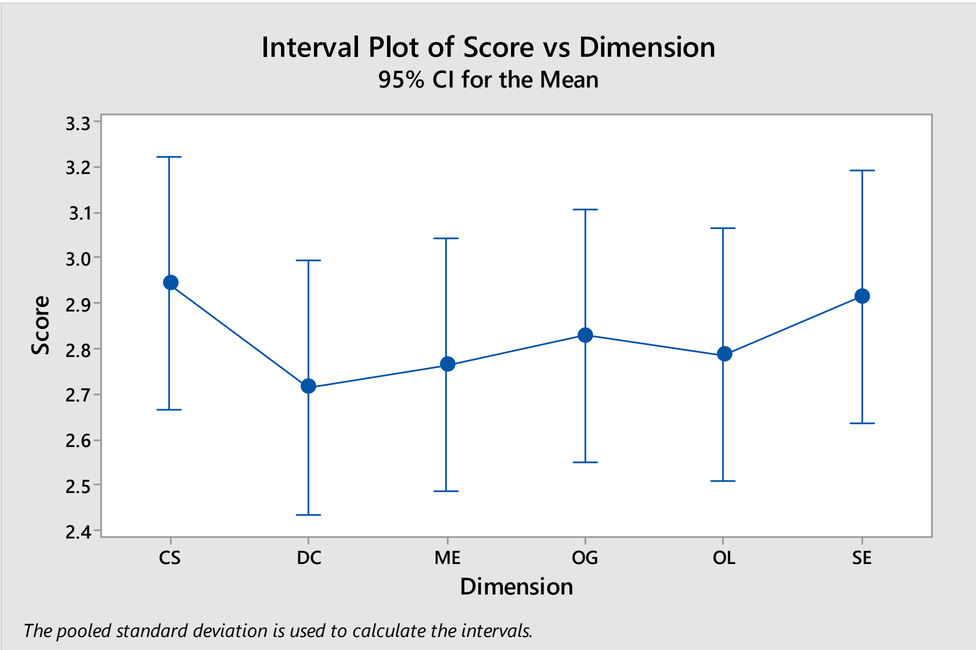
TABLE 5
THE IMPACT OF ORGANISATIONAL CULTURE DIMENSIONS ON STRATEGY IMPLEMENTATION

Variable	Dimension	N	N*	Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
Score	CS	28	0	2.943	0.136	0.722	1.600	2.400	3.000	3.350	4.400
	DC	28	0	2.714	0.126	0.668	1.600	2.200	2.600	3.350	4.000
	ME	28	0	2.764	0.136	0.720	1.800	2.250	2.600	3.350	4.600
	OG	28	0	2.829	0.142	0.752	1.400	2.400	2.900	3.400	4.600
	OL	28	0	2.786	0.145	0.766	1.200	2.050	2.800	3.350	4.200
	SE	28	0	2.914	0.158	0.833	1.600	2.400	2.700	3.500	4.800

Note. CS – Criteria of success; DC – Dominant characteristics; ME – Management of employees; OG – Organisational glue; OL – Organisational leadership; SE – Strategic emphases

Additionally, the one-way ANOVA analysis for the difference between means (α =0.05; F=0.40; p=0.85), found there was no significant difference between the mean scores of the culture dimensions in relation to strategy implementation (Figure 9). Therefore, findings indicating that culture dimensions of strategic emphases, organisational glue and criteria of success have a greater relevance to the implementation of strategy, could not be verified in this context by the survey results (Ahmadi et al., 2012; Reddy, 2017). The three factors however, had the highest means and therefore this finding may be due to a small sample size.

FIGURE 9
COMPARISON OF CULTURE DIMENSIONS MEAN RATINGS OF HOW WELL THEY FACILITATE STRATEGY IMPLEMENTATION



Culture congruence to strategy implementation

In order to determine culture congruence to strategy implementation, the respondents were asked to suggest the dimensional statement that would be more conducive when implementing strategy. Statements A to D under each of the six dimensions of the OCAI survey instrument can be found in Exhibit A of the appendix. Contrasting views were observed about the current organisational culture dimensional emphasis and the emphasis perceived by the respondents to facilitate strategy implementation. It was only under the “criteria of success” dimension that there was congruence between the organisation culture factor and the culture factor conducive for strategy implementation. Table 6 gives a summary of the comparison between the highest scored culture factor and the suggested culture factor required for strategy implementation. Some respondents did not give the highest score to one culture factor and therefore the follow up question that required them to rate the highest scored factor could not be evaluated.

TABLE 6
A COMPARISON OF THE HIGHEST SCORED CURRENT CULTURE DIMENSION EMPHASIS TO THE ASPIRED DIMENSION EMPHASIS FOR STRATEGY IMPLEMENTATION

	Dominant characteristics		**Organisational Leadership**		**Management of Employees**		**Organisational Glue**		**Strategic Emphases**		**Criteria of Success**	
Statement	*Suggestion*	*Actual*	*Suggestion*	*Actual*	*Suggestion*	*Actual*	*Suggestion*	*Actual*	*Suggestion*	*Actual*	*Suggestion*	*Actual*
A	7%	4%	18%	14%	14%	14%	21%	14%	21%	11%	29%	11%
B	**56%**	4%	21%	11%	7%	**39%**	**39%**	4%	**32%**	0%	11%	14%
C	19%	**43%**	18%	**43%**	**32%**	14%	18%	32%	18%	**39%**	18%	18%
D	19%	39%	**39%**	21%	29%	29%	21%	**36%**	29%	25%	**43%**	**39%**

The first dimension in Table 7 suggests that there is an opinion among the respondents that allowing employees to be entrepreneurial and take risks, makes for better strategy implementation. This is in contrast to a strong results orientation within the organisation. Although respondents believed that an innovative organisation is conducive for strategy implementation in the previous question, they did not rate innovative leadership as the highest factor that will facilitate strategy implementation. It was however, rated as the second highest factor. The greatest contrast was that of the management style, where managers are perceived as innovative and risk taking, but respondents believe they should be driving competitiveness and high achievements in order to facilitate strategy implementation.

TABLE 7
CURRENT CULTURE EMPHASIS IN COMPARISON TO THE CULTURE EMPHASIS THAT IS PERCEIVED TO FACILITATE STRATEGY IMPLEMENTATION IN THE ORGANISATION

Culture dimension	Current organisational culture emphasis	Organisational culture emphasis conducive for strategy implementation
Dominant characteristics	C. The organisation is very results oriented. A major concern is with getting the job done. People are very competitive and achievement oriented.	B. The organisation is a dynamic and entrepreneurial place. People are willing to stick their necks out and take risks.
Organisational leadership	C. The leadership in the organisation is generally considered to exemplify a no-nonsense, aggressive, results-oriented focus.	D. The leadership in the organisation is generally considered to exemplify coordinating, organizing, or smooth-running efficiency.
Management of employees	B. The management style in the organisation is characterized by individual risk taking, innovation, freedom, and uniqueness	C. The management style in the organisation is characterized by hard-driving competitiveness, high demands, and achievement.
Organisational glue	D. The glue that holds the organisation together is formal rules and policies. Maintaining a smooth running organisation is important	B. The glue that holds the organisation together is commitment to innovation and development. There is an emphasis on being on the cutting edge.
Strategic emphases	C. The organisation emphasizes competitive actions and achievement. Hitting stretch targets and winning in the marketplace are dominant.	B. The organisation emphasizes acquiring new resources and creating new challenges. Trying new things and prospecting for opportunities are valued.
Criteria of success	D. The organisation defines success on the basis of efficiency. Dependable delivery, smooth scheduling and low-cost production are critical.	D. The organisation defines success on the basis of efficiency. Dependable delivery, smooth scheduling and low-cost production are critical.

Source: Cameron and Quinn (2006)

The outcome of strategy implementation

The TO email analysis highlighted an important part of strategy implementation in the organisation as the tracking of performance. According to Okumus (2001), this is referred to as the outcome variable of strategy, which is concerned with the results achieved when strategy is implemented. Safety and production are the main measures of performance on the mines. Table 10 indicates the performance of the various mines as a percent of their annual budgets in relation to their culture types. The less the percentage score for safety and the higher the percentage score for production, the better performance for the organisation. Good performance is an indicator of strategy implementation.

TABLE 8
CORRELATION BETWEEN PERFORMANCE AND CULTURE TYPES

	Safety	Production	Clan_A	Adhocracy_B	Market_C	Hierachy_D
Mine E	**69%**	81%	20	17	**31**	**32**
Mine D	127%	83%	22	14	**29**	**34**
Mine B	142%	**92%**	20	**29**	**28**	24
Mine C	164%	88%	20	15	**34**	**31**
Mine A	198%	91%	17	16	**34**	**33**

	Safety	*Production*	*Clan_A*	*Adhocracy_B*	*Market_C*	*Hierachy_D*
Safety	1					
Production	0,827	1,000				
Clan_A	-0,584	-0,551	1,000			
Adhocracy_B	-0,034	0,521	-0,041	1,000		
Market_C	0,502	0,170	-0,645	-0,590	1,000	
Hierachy_D	-0,015	-0,566	-0,007	-0,964	0,482	1

An adhocracy culture had weak correlation with safety and a strong correlation with production. This could possibly be explained by the element of risk taking in the adhocracy culture. As the clan culture scores increase, the safety scores decrease but so does production scores. The higher the market culture scores the higher the safety percentage score, which is not desirable. A strong negative correlation also exists between the hierarchy culture and production performance. This could be an indication that the current culture is not effective in driving production.

As may be expected from a competing values framework approach strategic initiatives implemented to improve productivity in the organisation have a negative effect on safety. This could be an indication of conflicting strategies and or values, where a market culture is incongruent with the safety strategy and a hierarchical culture is incongruent with the production strategy. A more collaborative clan culture seems to facilitate better safety performance while a culture of adhocracy facilitates better productivity. The research findings of flexible culture types such as clan and adhocracy having a greater impact on strategy implementation are confirmed by these correlation results (Ahmadi et al., 2012; Reddy, 2017). According to Cameron and Quinn (2006) organizational culture has a powerful effect on the performance of an organisation, which in turn confirms its impact on strategy.

Interview results

An explanatory framework is used in this section to summarise the results of the interviews as guided by the research questions (Sunday, 2015).

What is the current organisational culture at the mining company?

The perceptions of the organisational culture by the interview participants were summarised into a few broad themes. These included the culture content, culture practices and norms, culture diversity and values. The culture content is similar to the content variable of strategy defined by Okumus (2001) and therefore refers to the actual culture as observed by the interviewees. Table 8 is a reflection of the statements used by the interviewees to define the culture within their various mines. The culture practices and norms are what the interviewees defined as the way they experienced the members of the organisation to live out the culture of the organisation.

- Their observations included teamwork, “they used to work very well together” (interviewee 4, Mine D),
- the speed of recovery from setbacks, “whenever there is challenges…recovery for the mine is much faster” (interviewee 3, Mine E),
- reaction to good performance, “on a good shift, you will see the guys are smiling and you know they are very excited in the passages” (interviewee 2, Mine B),
- as well as how people live out the values of the organisation.

Additionally, the culture of doing what is necessary to achieve targets was observed in the friction between support services and the production teams, “from the miner’s point of view they believe you spend money, from support services’ point of view we believe we need to save money” (interviewee 7, Mine B). Also included in this theme were rituals, heroes and symbols (Hofstede et al., 1990). The section teams having their own names and competing among each other is something that is a symbol of teamwork across the business. Each mine had their own ritual, symbol or hero such as the “May-way” at Mine E. May the miner, was described by the mine leader as someone who was associated with “out of the box thinking, coming up with innovations to actually make jobs easier for the employees” (interviewee 3, Mine E).

TABLE 9
STATEMENTS OF THE CULTURE CONTENT

Statement	Interviewee
An extension of the culture of Group	1
Set by the leadership	1
Action based on principles	1
We take ownership	1
High performance culture	2
A non-compliance culture	2
A very unique culture	3
People really understand what is intended to be achieved	3
People that are dedicated to make a difference	3
About really winning against all odds	3
A can do attitude or a can do culture	4
Very much a culture of compliance	5
Not having trust between the lower levels and the leadership	5
Set by the middle management who have stayed longer	6
Friendly and welcoming, people are allowed to bring their own perspectives	6
You can do whatever you like in order to achieve targets	7

The participants were also found to define a strong association between organisational culture and leadership. Besides the emphasis on similarities, an equal emphasis is placed on differences between the cultures of the mines. There is a perception that leadership may be a possible cause for sub-cultures within the organisation. The leader is seen as the initiator of the culture and the exemplar for the organisation to emulate culture practices from. Evidence is seen in the statements below:

“*Even if you look at Group per se, because of the way we are actually set up, you will actually find a lot of different cultures. I think it’s also because of the leadership that you find in different areas*” (interviewee 3, Mine E).

“That culture is set by the leadership of Mine A and it's a culture that says leaders should be leading based on values, company values that are also aligned to their personal values.” (Interviewee 1, Mine A)

“…although it's in one company or one business unit but they do things a bit different.” (Interviewee 4, Mine D)

“Culture is set by the middle management who have stayed longer in their positions” (Interviewee 6, Mine E).

The interviewees mentioned the words, lead, leaders and leadership over 120 times across all seven of them during the interviews, highlighting the importance of leadership to the organisation. The values upheld by the mining company as a whole are clearly upheld by the various mines. In some areas it is almost as if this is done out of compliance than a shared system. When asked what are the values upheld by Mine D, one of the interviewees stated, *“We don’t have at mine D. We obviously have to comply with the Group values…But you can’t have Group values, the Division values and the Mine values, it is too much.”* (Interviewee 4, Mine D). The general response included values of safety, caring for people, ownership, win-win outcomes and diversity and inclusion.

Does the company deliberately align organisational culture to strategic initiatives or vice versa?

In order to answer this question, two categories were explored. The separation of strategy from tactics and the importance of culture as a factor of strategy implementation in the organisation. There were split responses between interviewees about the separation of strategy execution and daily operational activities. Some of them felt that the execution of strategy occurs through the day to day activities of the business and therefore, the two could not be separated. These were two actual statements, *“I think it’s the same because your strategy once it’s set, the execution of that comes from your day to day activities” (interviewee 3, Mine E)* and *“our daily work is set up as such, that you actually build up to the strategy execution” (interviewee 6, Mine E).* An interviewee from another mine also mentioned this in support of the views from Mine E: *“we work it into the daily business. Because as soon as it is two separate things, it doesn't hit the floor, it doesn't happen”* (interviewee5, Mine C). However, even the people with this view felt that the strategy content must be kept in mind when executing daily tasks. Interviewees emphasised this by saying, *"you must also try to begin with the end in mind, you must know where you are going to"* (interviewee 4, Mine D) and *"It's important that your day to day activities are aligned with your end goal"* (interviewee 3, Mine E). There was therefore an emphasis on keeping aligned to the wider strategy for this group. For the other interviewees, there was an expectation that managers dedicate their time to both strategic and operational activities. Although it was found that managers struggled to strike the balance and lean more towards operational activities. The challenge is evident in the statement: *"Yes currently the balance between being in the dance floor, operational focus and strategic focus, it's not right we are working on that to make sure that at least senior leaders, they are not spending too much time on operational issues"* (interviewee 1, Mine A).

When asked if a strategy can fail due to organisational culture alone, the resounding response was yes. The interviewees articulated various scenarios where strategic initiatives failed due to the culture of the organisation. Referring to an attempt to change the shift system at a mine, one interviewee stated, *"…all those things which would have all changed with the other structure. And they just made it fail. They made that terribly fail"* (interviewee 2, Mine B). This statement illustrates inertia in the culture. In fact, the statement "culture will eat strategy for breakfast" is universally understood in the organisation. The gravitas of culture within the organisation is probably best explained by this statement: *"culture is the core of the business, it's like the roots. A business without a proper culture can get derailed by any kind of circumstance or any kind of challenge"* (interviewee 6, Mine E).

In terms of whether strategy must be aligned to culture or vice versa, one of the answers was *"I believe we need to have a strategy and then cultures need to fit into the strategy, so every operation should see how their culture supports the strategy"* (interviewee 6, Mine E). The rationale was that an adjustment to strategy to suit all the sub-cultures at each mine, would alter the strategy content of the organisation. More senior level management, expressed the view that a bit of both approaches needed to be followed. Meaning there needs to be an iterative process of fine-tuning and translating both the strategy and culture to arrive at the best alignment between the two. One Executive answered: *"I think it is something of both... One has to try and* *understand, what the embedded culture is and see, how can you put your strategy together for… to really utilise the strong points"* (interviewee 2, Mine B). They also referred to how the response depends on the type of strategy, by making reference to a strategy that is required for survival being a non-negotiable and an instance where culture has to be changed.

The one thing interviewees agreed on was that the organisation does measure culture through a company-wide survey; their views differed on the effectiveness of the measure. Some felt that a measurement once every two years is sufficient because culture change initiatives take time to show results. In contrast, they also supported the view that the results of the survey are dependent on the law of recency. "The Law of Recency refers to the observation that memories of recent experiences come to mind more easily than memories from the distant past" (T. Brown, 1824; Calkins, 1896 cited in (Sederberg, Howard, & Kahana, 2008, p. 1)). If anything bad happened just before the survey was administered, the results were usually bad

Do flexible cultures have a greater relevance for strategy implementation?

The author found that the interviewees emphasised a management style that drives systems thinking and compliance. This means managers must emphasise planning, team work and supportive behaviour during execution. *"You've got to see if any of those things are falling behind. And then as a team you must decide what you want to do to get these guys back on track"* (interviewee 2, Mine B). During the execution of strategic initiatives, leaders are expected to provide direction and support.

In general, it is believed that teamwork is essential for strategy implementation. The leaders of the mines describe teamwork as a source of diverse ideas and something that enables buy-in into the strategic initiatives ensuring their success. There is however in the mining space still a divide between the production teams and engineering teams which hinders the teamwork. One of the managers described how conflict is an important part of teamwork and helps to drive strategy. *"When there is conflict, when there is disagreement, then you say but to move forward as a team, this is what is important, this is what we need to do and everybody agrees to what needs to be done then there'll be commitment to get it done"* (interviewee 1, Mine A). Following teamwork, another important factor for flexible cultures is innovation.

Innovation is seen as a way of using technology to enable production through timeous information and communication with the equipment and teams underground. This is important as it facilitates quicker decision-making. Most of the managers claim to encourage innovation and risk taking, even in a highly regulated environment such as mining. The one leader explained how he manages safely making mistakes by asking *"questions to risk proof disaster"* (interviewee1, Mine A). In contrast there is another perception that there is now more red tape involved in testing anything new in the business which discourages innovation. One manager stated: *"I think innovation is a little bit restricted by the way we work…the way we have designed the organisation has actually dampened it a little bit as well…because you've got to be prepared to test and take failures"* (interviewee 2, Mine B) and the other explained *"we've got too much red tape. I believe we've killed innovation"* (interviewee 4, Mine D).

When it comes to internal versus external orientation, the organisation is more internally focused because of their captive market. As part of a vertically integrated company, the focus is on the internal customer and how to best support them and people development is one way to do it. Referring to looking at industry benchmarks, a manager responded: *"we would look at it but I don't think we would strategize around it to say what must we do to beat these guys?"* (interviewee 2, Mine B).

Does organisational culture play a facilitating role in resolving challenges during strategic change? Which organisational culture factors/dimensions facilitate strategy implementation?

The following topics, culture as an enabler, culture as an inhibiter and other strategy implementation factors were used in answering the two research questions. The aim was to identify where culture has played both roles within the organisation and to identify the other strategy implementation factors involved. Table 9 illustrates the interviewees' responses and themes from the most frequently referred to concepts.

TABLE 10
CULTURE AS AN ENABLER AND INHIBITOR AND OTHER STRATEGY EXECUTION FACTORS

Interviewee	Culture element as enabler	Culture element as inhibiter	Other strategy factors
4	Engagement of people; holistic thinking; change management; common culture; buy-in; incorporating stakeholder values; know-how; team work and trust	Neglecting change management	The strategy; reason for change; definition of victory; piece-wise strategy; proper planning; visibility; outcome
3	Commitment; engagement; alignment; role clarity; collaboration; create understanding; leverage strengths and weaknesses; team work; ownership; accountability; drive right behaviour; gap analysis; compliance	Wrong assumptions; lack of adaption, accountability, compliance and discipline; rewarding wrong things	The strategy; capability building; motivation; training; coaching; up skilling; human resources; leadership, vision articulation; co-creation, rewards and recognition.
1	Being part of something greater; winning attitude; buy in to vision; ownership and pride; belief in leadership; caring for people; relationships and trust; communication feedback; exemplary leadership	Not stretching the team; not rewarding; wrong attitude; lack of creativity with rewards	Strategy; burning platform; vision; story line; impact on stakeholders; communication; ownership; what is in it for the team
2	Motivation to make it work; supportive; embracing change	Incentivising the wrong behaviour; conflicting initiatives; non-compliance; no consistency	Holistic thinking; multi-skilling training; focus plans; recognition; momentum
5	Trust; support each other; getting things done; caring culture; integration; winning as a team	Planning for the perfect world; too prescribed; not engaging the right people; silo thinking; blame culture	Get buy-in; engagement of people; sound strategy

Interviewee	Culture element as enabler	Culture element as inhibiter	Other strategy factors
6	Win-win culture; communication; positive attitude; keep core team happy; enabling HR structure; listening; change readiness	Silo mentality; lack of communication; win-lose culture; resource hoarding; not recognising team	Communicate strategy; bottom-up engagement; understand roles in execution; attention to detail; risk management; business case for change; monitoring progress
7	Drive for productivity; involvement of teams; articulate benefits of change; buy-in; feedback from teams; trying new things	Slow in adapting strategy; hindering behaviour; reliance on specialists	Monitoring conditions and adapting; piece-wise strategy; incentive for execution
Themes	**Communication and engagement, Change leadership, Care and trust, Knowledge and competence**	**Silo mentality, Non-compliance, Accountability, Slow adaption**	**Strategy content, Cascading strategy, Capability building, Piece-wise approach, Outcomes**

CONCLUSIONS AND DISCUSSION

Introduction

The aim of the research was to determine the organisational culture factors that impact on strategy within a mining company. The specific objectives included an assessment of the current organisational culture; understanding how the organisation aligns culture to strategy; exploring the facilitating role of culture in resolving strategy implementation challenges, understanding the role of flexible cultures and finally determining the culture factors that affect strategy. Management responses on questions relating to the research objectives were gathered through a survey and interviews. Their perceptions of the impact of culture on strategy implementation were tested against the correlations between culture types and organisational performance. The results indicated that culture has an impact on strategy implementation and performance and flexible cultures are associated with better performance in the case study.

In this chapter the findings of the study will be discussed according to how the research objectives were met, followed by the shortcomings of the study and finally concluding with the recommendations and managerial implications.

Discussion of results in relation to research objectives

Objective 1: *To assess the current organisational culture at the mining company*

The quantitative survey results indicated that participants perceive the organisation as having a combination of hierarchy and market cultures. Both of these are characterised by stability and control, with both an internal and external orientation (Cameron & Quinn, 2006). This was also supported by the qualitative interview results where an emphasis is placed on both compliance and high performance. This emphasis creates a conflict in the goals that must be met as was seen with the safety and production performance results, productivity is positively correlated with poor safety performance. Effectiveness in a hierarchy culture is based on control, efficiency and capable processes (Cameron & Quinn, 2006) and was especially emphasised at Mine B. The following statement is an indication of the theory in practice at Mine B, *"If you give the guys the equipment and you give them the right ground, they always perform well"* (interviewee 2, Mine B). The results indicate that the hierarchy culture is negatively correlated to production performance, meaning that the emphasis on control and standard procedures could have a negative impact on productivity.

The market orientation appears to be associated more with internal competition than a drive to win external market share, except for the export market business unit illustrated by this statement: *"if we don't consistently deliver on the qualities as we have it, P58, then we don't become a preferred supplier of P58. Somebody will overtake us"* (interviewee 1, Mine A). This orientation was found to be positively correlated to poorer safety performance. According to Hofstede et al. (1990) empirical evidence showed that shared practices (as defined by rituals, heroes and symbols) overtake shared values as the core of organisational culture. In the interviews conducted for this study, there were clear, shared practices articulated by management that highlighted the culture of the mines. It was also emphasised that these shared meanings are what mobilises teams behind the organisation's vision and strategy, hence the need for alignment between strategy and culture.

Objective 2: •*To investigate whether the company deliberately aligns organisational culture to strategic initiatives or vice versa*

According to the survey results, the company was rated as having a strategic emphases on achievement, competitiveness and achieving stretch targets as well as efficiency and stable operations. In order to achieve these targets, the document analysis indicated that there are efforts to engage and involve the teams in generating ideas and developing initiatives through which strategy is implemented. These efforts were grouped under the leadership category and included elements such as team involvement, coaching, accountability, acting on feedback and organisational health. Two of the managers indicated that they struggled to strike a balance between strategy activities and daily operational activities, while the rest believed by executing daily activities they were ultimately executing strategy.

More senior level management, expressed that there needs to be an iterative process of fine-tuning and translating both the strategy and culture to arrive at the best alignment between the two. One Executive said: *"I think it is something of both... One has to try and understand, what the embedded culture is and see, how can you put your strategy together… to really utilise the strong points"* (interviewee 2, executive). They also referred to how the decision on whether culture must align to strategy or vice versa depends on the type of strategy, by making reference to a strategy that is required for survival being a non-negotiable and an instance where culture has to be changed. To arrive at the conceptual model for strategy implementation one must consider that "all attempts seek "success" for the strategy implementation outcomes but by different ways" (Hourani, 2017, p. 26). What was observed through data in this case was that the organisation has not neglected culture in the process of strategy implementation but has attempted to address it using a bottom up approach at strategic initiative level, which formed part of integrated planning.

Objective 3: *To explore if organisational culture plays a facilitating role in resolving challenges during strategic change*

Strategic change presents certain challenges as investigated by Brinkschröder (2014). Similar challenges were identified through the qualitative results of the research. These challenges included broad themes of resistance to adaptation or change, silo mentality, non-compliance and lack of accountability as summarised in Table 9, under culture as an inhibitor. The interviewees identified these as a manifestation of culture having a negative impact on strategy implementation. In order to address these various challenges, the interviewees define the elements of culture that enable or facilitate strategy. These factors include communication and engagement of all stakeholders, especially the lower level teams who are the actual executors of initiatives.

What the organisation has done, as discovered in the TO communication analysis, especially through engagement sessions and storytelling is to communicate the rationale for change, as one interviewee puts it*: "it is difficult, it is painful to go through change, so the first thing they will ask you is why should I go through this, what is there for me?"*(interviewee 7, Mine B) and he proposes that the culture that must be instilled during change to overcome this, is one that recognises people as important and addresses the benefits of change for the people in order to gain buy in. Another interviewee called this a culture where people feel cared for and they believe in the vision (interviewee 1, Mine A).

Objective 4: *To determine which organisational culture factors/dimensions facilitate strategy implementation*

Although the organisation's culture was rated as a combination of a hierarchical and market culture, the survey results provided suggestions on other elements of the culture emphasis they thought would impact strategy implementation. The following organisational culture orientations were rated as being conducive for strategy implementation:

- B. A dynamic and entrepreneurial work place
- D. The leadership exemplify coordinating, organizing, or smooth-running efficiency.
- C. A management style of driving competitiveness, high demands, and achievement
- B. The organisation is committed to innovation and development. There is an emphasis on being on the cutting edge.

- B. The organisation emphasizes creating new challenges and prospecting for opportunities is valued.
- D. Dependable delivery, smooth scheduling and low-cost production are critical to success.

The “B” statements in the OCAI survey when combined result in an Adhocracy culture, that is more flexible and allows for discretion. This culture type places an emphasis on innovation and trying out new things. Therefore the participants’ responses indicate that flexible cultures are a factor affecting strategy implementation, as was found in literature. The D statements are a possible manifestation of the emphasis on schedule and safety compliance within the organisation and therefore the participants could be aware of the limitations of a strong adhocracy culture in a heavily regulated industry. The C statement could be a reflection of the emphasis on stretched targets as the interviewees indicated that their mines were high performers, winners and had the drive to surpass any challenges.

The interviews also shed light on organisational culture factors that facilitate strategy implementation in the context of the case study. These are included in Table 9 as the following high level themes: communication and engagement; change leadership; care and trust; and knowledge and competence. Because of the bottom heavy structure of the organisation, it means that strategy is understood by a few and must be translated to the many. The importance of leadership in the process of strategic change was emphasised and knowledge and competence were important in bridging the gap between management and the lower levels. An environment of trust, where people feel cared for is something the organisation is trying to drive to ensure people can participate positively in the strategy execution process.

•Objective 5: *To explore if flexible cultures have a greater relevance for strategy implementation*

Quantitative results suggest that for the organisation in question both the hierarchy and market cultures are inversely correlated to the performance results of production and safety respectively. Meanwhile a clan or more collaborative culture type is linked to better safety performance and an adhocracy culture type is linked to better productivity. The clan and adhocracy culture types are oriented towards flexibility and discretion on the competing values framework (Cameron & Quinn, 2006). The survey results indicated that there is a possible misalignment between the current culture of the organisation and the type of culture perceived to drive strategy implementation, except where the criteria of success dimension was concerned. For the rest of the culture dimensions, respondents felt that the organisation needed to change to be more innovative and flexible in order to improve strategy implementation. However, interviewees noted that the need for innovation should be balanced with caution due to a deeply embedded culture of safety regulation compliance.

One of the three findings by Ahmadi et al. (2012) was confirmed in this study, and that is flexible cultures have a greater impact on strategy implementation than cultures with an emphasis on stability and control. This is possibly due to the agility and innovation required in implementing strategy in the current era. There was sufficient evidence through triangulation to conclude that even the mining industry requires flexibility, and a more open and loose orientation (Hofstede et al., 1990) towards strategy implementation as tight control does not always yield strategic results and may suppress innovation.

Limitations of the study

The aim of the study was to identify organisational culture factors that facilitate strategy implementation at a mining organisation. Although sub-cultures within the organisation may exist, the study is limited to a single organisation case study. In practice, an organisation might have its own interpretation and comprehension of its own culture in a given environment (Sun, 2008). The implications are that the results from the study are not generalizable to other organisations or industries. The sample size for the survey results was not big enough to be able to identify significant relationships. The author may have neglected the impact of factors that would affect the response rate in the organisation, such as participant availability. Although generalisations could be made to previous empirical studies, there were not too many studies of the same topic available for review. Because the research focused on a case study of managers there is possibly a bias towards keeping the company image good, which can affect the accuracy of responses. The limitations of a cross sectional study in this case, pertain to the long term nature of culture, responses given could be a reflection of recent events rather than an embedded culture.

Recommendations

The use of a qualitative method such as in-depth semi-structured interviews has led to a discovery of organisational culture factors that are context specific, in this case to a coal mining company. In order to test these constructs for validity and reliability in measuring the concept of culture, a quantitative study is recommended using data from the same industry as the current case study. There is also an opportunity to conduct a similar study with a more representative sample size, especially for the survey so that statistical inference can be drawn with confidence about the case population. The impact of leadership on strategy implementation in the mining environment is also an area that will require further investigation.

Managerial implications

Because of increased volatility in the mining environment, companies must transform more often and much faster each time. With each strategic transformation, managers must consider whether shared values and norms can remain the same and still support strategy implementation or they need to change (Cameron & Quinn, 2006). Organisations must become more flexible or agile in order to adapt timeously. This will require improved levels of communication, engagement and collaboration with employees and strong leadership with change management skills that will enable much quicker adaptation of the organisation to new strategies. Successful strategy implementation is highly dependent on people and therefore managers must create an environment that minimizes resistance and fosters trust and commitment. It is also recommended that such an environment should be conducive for idea generation and value creation by removing obstacles and ambiguity about what teams can or cannot do with regards to innovation, especially as far as safety regulation is concerned.

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