

Gordon Institute of Business Science

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Understanding the factors that enable and inhibit strategic decision-making effectiveness

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ABSTRACT

The literature review has revealed that strategic decisions are complex, ill-structured and require much of organizational resources. Organizations are dependent on strategic decisions for sustained performance or even survival. Strategic decision-making is important in an organization as it is the process used to implement the strategic intent of the firm. Literature has also revealed that managers fail to process optimally, information for effective strategic decision-making due to their cognitive limits. This study set out to explore and understand the enablers and inhibitors of strategic decision-making effectiveness.

The study was conducted using an exploratory qualitative method, which consisted of in-depth semi-structured interviews. A total of 14 executives and managers were interviewed from coal mining organizations operating in the Mpumalanga province of South Africa. Interviews were recorded then transcribed into text. Directed content and frequency analysis were used to analyze the data and extract common themes. ATLAS.ti was used for the coding process during data analysis.

The findings of this study were the enablers and inhibitors of strategic decision-making effectiveness being discussed in detail. An empirically based framework was developed using the findings on ensuring strategic decision-making effectiveness. The factors used for the framework are: having support from the superiors, have a competent team in strategic decision-making, considering the external business environment, considering and involving stakeholders, ensure the quality of data and continuously review strategic decision-making process.

KEYWORDS

Managers, Decision making, Strategic decisions, Effectiveness, Organizations

DECLARATION

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

Mxolisi Shirindza

Date

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1 Chapter 1: Research Definition

1.1 Introduction

“Decisions are a regular part of everyday human life, and they strongly influence either life of individuals, or even the lives of many others, depending on the position of a decision maker.”

(Polič, 2009, p. 79)

Strategic decisions (SD) involve complex and ambiguous issues, and require a significant amount of the organization’s resources and improving the quality of individual decisions will improve organizational performance (Amason & Schweiger, 1994). Based on research on individual decision-making, cognitive processes have been linked to strategic decision outcomes (Dean, JR & Sharfman, 1996).

Academics in management agree that decision-making is the most important activity in all the management activities (Lunenburg, 2011). Jonassen (2012) agrees that decisions are important in that they close the gap between ideas and reality and are critical to every cognitive process and problem solving of every human being.

1.2 Problem Statement

According to Leykin and DeRubeis (2010), conflict theory of decision-making characterizes the decision maker based on the confidence shown in the decision, the strategy to cope with the decision situation and arrive at the optimal decision choice. It is important to increase the knowledge of strategies that can yield better strategic decisions. As making a wrong strategic decision can result in high-cost implications for the organization (Milkman, Chugh, & Bazerman, 2009).

The causes of the global financial crisis of 2008 were attributed to poor decision-making on issues relating to strategy such as high-risk lending, unsustainable practices, poorly structured remuneration of top executives, relaxation of regulatory frameworks and, promotion of a culture of self-interest and greed (Stephenson, 2012). Organizations such as Enron and WorldCom collapsed due to poor leadership decisions, and high-quality leadership decisions led to prosperity for companies such as eBay and Southwest Airlines

(Cook, Sutton, & Useem, 2005). The formation and existence of organizations are owed to strategic decisions taken and without these decisions no organization would exist (Mykkänen & Kaja, 2014). The ability of the organization to perform, its strategic intent should be in line with the strategic decisions that is taken for that organization to be successful (Michel, 2007).

Management teams across mining organizations are faced with a series of difficult strategic decisions and tradeoffs, and these decisions are critical for long-term survival of the organization and have a wider impact (Deloitte, 2014);

Some of the key questions identified are as follows (Deloitte, 2014, p.8);

- How to achieve a step change in profitability and safety performance?
- How to attract and retain critical skills?
- How to raise the capital they need for South African operations?
- What is the best and most reasonable use of capital?
- How to balance the conflicting needs of stakeholders?

Strategic decisions unlike normal routine decisions made on a regular basis during normal operation of a firm are decisions that shape the organization's overall direction by committing resources and/or direct important organizational level activities (Bailey & Peck, 2013). According to Johnson and Scholes (1997) strategic decisions owe their complexity to the high degree of uncertainty involved in managing organizations, the integrated approach necessary to managing organizations and the key changes involved in organizations.

Understanding the processes of strategic decision-making (SDM) is important, this will provide tools and information that will enhance the effectiveness of strategic decisions made by managers, thus ensuring organizational success (Shepherd & Rudd, 2014; Polič, 2009).

Decision-making models have been widely credited. However, they fail to reveal and describe how individuals make decisions (Robbins & Judge, 2013). Leaders have to make different kinds of strategic decisions that they would rather not, and an understanding of how and why mistakes occur in decision-making is necessary for the leaders and whoever may be directly or indirectly affected by the decision (Hunter, Tate, Dzieweczynski, &

Bedell-Avers, 2011). Hunter et al. (2011) have established that an error is something that could have been avoided or else it would not qualify as an error.

1.3 Purpose of the Study

This study aims to contribute to the knowledge of behavioral economics with an emphasis on driving and inhibiting factors of strategic decision-making effectiveness. Academics have shown the need for future empirical and theoretical work on the topic to understand why leaders make mistakes in Decision-making (Hunter et al., 2011).

When managers are faced with complex and ambiguous strategic decisions they often make these decisions behaviorally as opposed to optimally, and this is due to the cognitive limitations that may vary between individuals (Papenhausen, 2006; Hahn, Preuss, Pinkse, & Figge, 2014). The purpose of this study is to investigate further how managers respond when faced with a strategic decision-making situation and be able to understand how strategic decision effectiveness can be improved.

Due to bounded rationality, strategic decision makers often do not reach a state of completely understanding strategic issues due to their complexity and ambiguity. They use cognitive frames to understand the environment in which the strategic situation occurs to be able to facilitate their strategic decisions (Hahn et al., 2014). Milkman, Chugh, and Bazerman (2009) suggests a study of biases in decision-making and development of decision improvement strategies. By understanding what does and does not improve decision-making, academics can have a better understanding of the underlying mechanism of Decision-making errors (Milkman et al., 2009).

1.4 Research Scope

This study focused on factors that enable and those that inhibit strategic decision-making effectiveness. This was done through an exploratory study based on interviews with the top executive managers of coal mining organizations operating in the Mpumalanga province of South Africa. The enabling and inhibiting factors will be explored from the view of the managers within their operational environment.

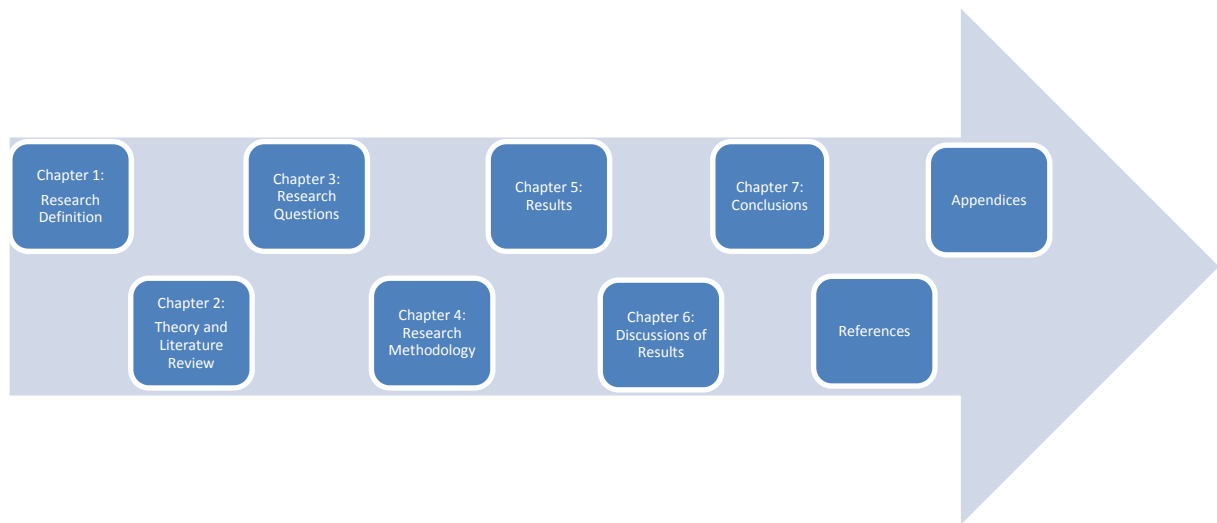
1.5 Research Structure

This study consists of seven chapters as seen in figure 1-1. In chapter one, the overview of the research problem, purpose, scope and the structure of this research report is

discussed. Chapter two will review the literature and theory relating to strategic decision-making and the factors influencing its effectiveness and identifying the gap and establish a theoretical background. Chapter three outlines and describes precisely the research questions which the study aims to explore. The methodology used for the study and the potential limitations are provided in chapters four and seven respectively.

Chapter five presents the results of the conducted interviews. The results are then analyzed and discussed based on the literature review and the research questions in chapter six. Chapter seven will conclude the study by bringing the results together and discuss key findings based on the research questions and purpose, providing a recommendation for academia and business.

Figure 1-1: Research structure



1.6 Conclusion

It is with no doubt that daily human activities are characterized by decisions being made on those activities. As decisions are an essential part of individuals in their personal capacity, it is also evident that organizations exist due to decisions taken on a daily basis within those organizations. Strategic decisions are critical for the performance and survival of organizations and it is clear that improving the effectiveness of those strategic decisions will benefit the business in the long term (Deloitte, 2014).

2 Chapter 2: Theory and Literature Review

2.1 Decision-making

Decision-making is often used as a problem-solving mechanism. Decisions are a huge part of human life and understanding the processes in which decisions are made will help in preventing bad decisions (Polič, 2009; Jonassen, 2012). According to Meek and Rhodes (2014) decision-making is a function of the conditions in which we make those decisions.

To better understand decision-making, we have to look at some of the elements of decision-making. System thinking is a critical element in understanding cognitive processes behind decision-making, decision-making processes and decision-making styles.

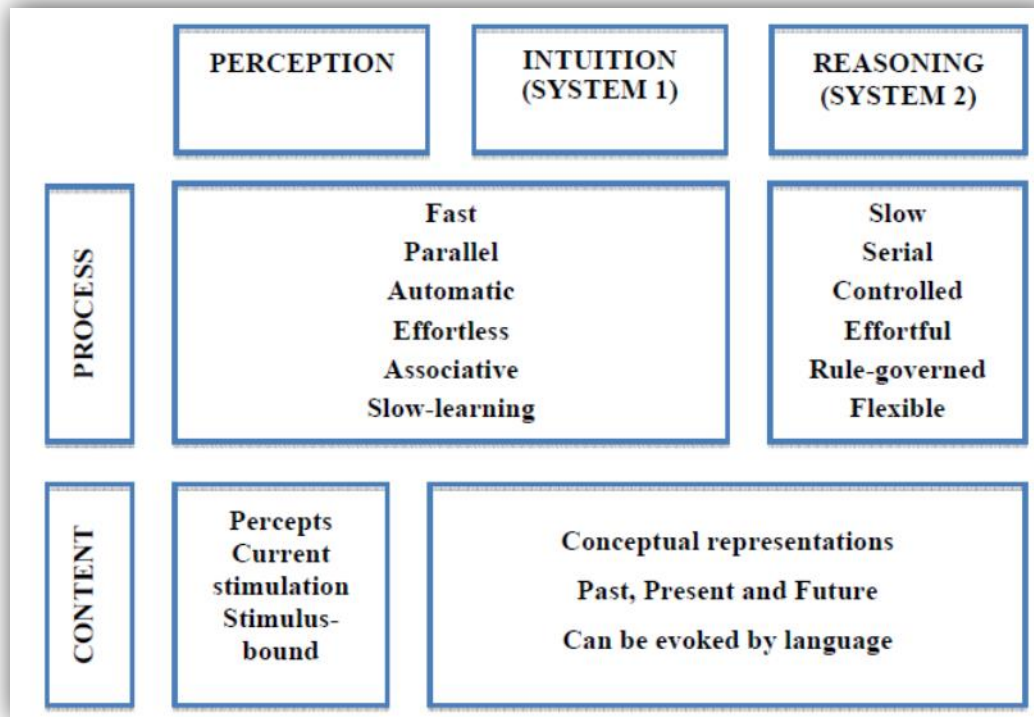
2.1.1 System Thinking

According to Werhane (2002) system thinking takes into account that our practices and thinking is interconnected and interrelated forming a network. Studies have shown that individuals who performed better in complex decision-making tasks had displayed attributes of system thinking even though they were not aware of it (Maani & Maharaj, 2004). Previous research by academics have led to their agreement on two types of cognitive processes in system thinking, and these are labeled as System 1 and System 2 (Kahneman, 2003; Stanovich & West, 2000).

The operations of System 1 thinking often involve emotions however it is fast, effortless and involuntary. System 1 is, therefore, habitual and is not easy to change or control (Kahneman, 2003). System 2 thinking process is slower, controlled, and effortful, and it is governed by rules (Kahneman, 2003).

Intuition and Reasoning are the two cognitive processes where one is subconscious and the other conscious (Kahneman, 2003; Polič, 2009). This dual system view of thinking differentiates intuition from reasoning (Figure 2-1).

Figure 2-1: Kahneman and Tversky dual view of cognition (Source: Polič, 2009)



The difference in the two systems operation is often the reason the decision processes gets assigned to system 1 or System 2 (Kahneman, 2003). Decisions that require System 2 thinking are often made using System 1 thinking due to the decision maker's limited capacity for mental effort.

2.1.2 Decision-making Processes

The success of decisions and ultimately the success of the organizations is influenced by the processes that executives use to make decisions (Elbanna, 2006). Cyert and Williams (1993) has found that decision-making processes are mainly supported by the organizational structure, and this is because the information structure in an organization is related to the organization structure.

Decision processes are different with regards to their complexity, timing, importance and cost implications. Managers differences in decision-making such as experience, motivation, knowledge, ability to execute and, cognitive abilities and capacities are some of the characteristics and together with the decision process characteristics they define the

decision-making process in general (Hey & Knoll, 2011; Bettman, Johnson, & Payne, 1990).

The decision-making processes can be classified into three decision strategies as discussed by Hey & Knoll (2011, p.400), these are explained as follows:

- **“Aided-analytical strategies** require the application of a prescribed procedure, and usually decision tools are used to derive the implied decision. The decision process may be time-consuming since all the relevant information is considered and processed as the decision is derived and implemented;
- **Unaided-analytical strategies** do not make use of tools. Instead, the decision-making process is entirely carried out in the decision maker’s mind;
- **Non-analytical strategies** comprise simple rules. These are fast decision strategies since little information is processed, and the decomposition is omitted.”

Selection of a decision strategy is then based on cost-benefit analysis, and this will result in a strategy with the maximum net gain being selected (Hey & Knoll, 2011).

2.1.3 Decision-making Style

Decision-making styles have been found to be stable in theory; these are personality traits like patterns in which individuals approach a situation that requires a decision (Leykin & DeRubeis, 2010). Brousseau, Driver, Hourihan, and Larsson, (2006) have observed two fundamental ways in which decision-making styles differ: how to use information and how to create options.

When using the information there are individuals who would go through all available information they can find before making a decision and are called "maximizers" (Brousseau et al., 2006). Leyken and DeRubei (2010) goes on to say “maximizers” are individuals who believe the perfect option is difficult to achieve and are often not fully satisfied with their choice. According to Brousseau et al. (2006) a well-informed decision is reached by “maximizers” however it comes at a cost of time and efficiency.

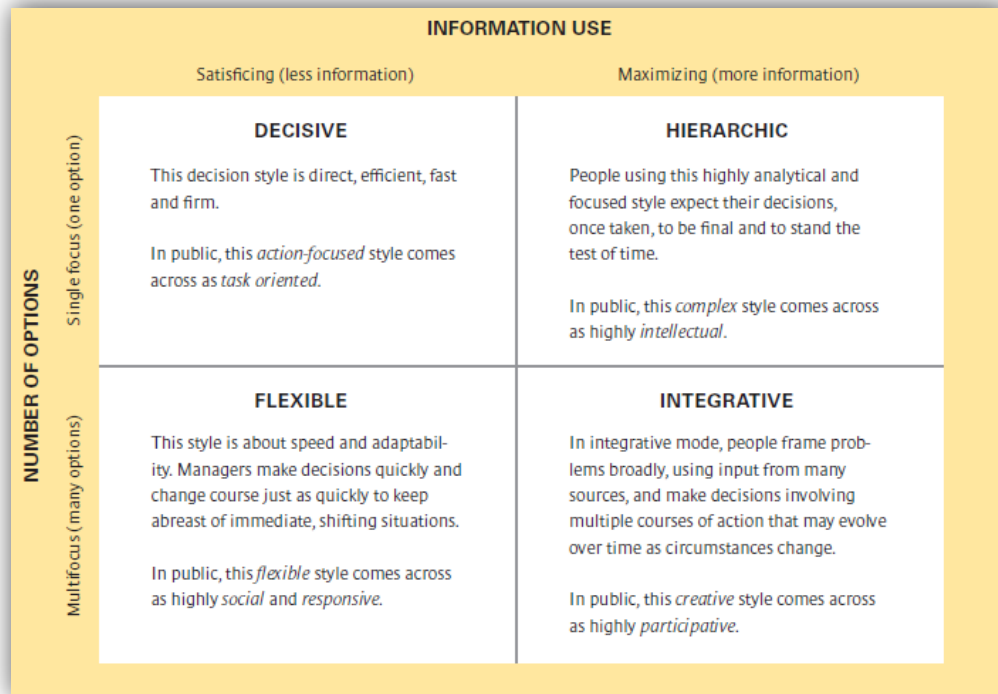
Decision makers who are just happy with the option that meet their needs are referred to as "satisficers" (Leykin & DeRubeis, 2010). They are more often ready to make the decision when they feel they have enough information (Brousseau et al., 2006). In creating options, two types of decision makers are discussed, "single-focused" and "multi-focused."

Single focused individuals are more driven to get the outcome that they believe will be the best. The "multi-focused" individuals are more likely to be flexible to adapt to the situation (Brousseau et al., 2006).

Decisive managers are more often about action and speed when making decisions, and once a plan is in place, they will stick to that plan. Whereas the flexible managers are also about speed, however, the focus is placed more on adaptability in situations (Brousseau et al., 2006).

Hierarchic managers are not influenced by speed, instead they are more focused on analyzing data and would expect their decisions to be final once made. The integrative managers are inclusive in their decision-making and expect contribution from different people, and they do not necessarily aim for one best solution (Brousseau et al., 2006). According to Brousseau et al. (2006) for managers to be successful in their careers, their decision-making styles and behaviors must evolve over time. Circumstances may call for managers to potentially apply all four decision-making styles. The decision-making styles are summarized in figure 2-2 as explained above.

Figure 2-2: Four decision-making styles (Source: Brousseau et al., 2006)



2.1.4 Types of Decisions

It is important to distinguish between the different types of decisions, and Shivakumar (2014) presents a framework that clarifies how strategic decisions are separated from non-strategic decisions. This framework ranks the decisions that organizations make into two dimensions; the scope of the firm and the degree of commitment (Shivakumar, 2014, p. 79).

- “**Degree of commitment** is measured by the extent to which a decision is reversible and,
- **The scope of the firm** refers to the firm’s choice of service, products, markets, and activities”.

When ranking decisions along the two dimensions, four types of decisions are realized: strategic, neo-strategic, tactical, and operational (Shivakumar, 2014). The four types of decisions are illustrated in figure 2-3 below.

Figure 2-3: Four types of decisions (Source: Shivakumar, 2014)

		Commitment	
		Significant Changes	Insignificant Changes
Scope of the Firm	Significant Changes	<i>Strategic</i>	<i>Neo-Strategic</i>
	Insignificant Changes	<i>Tactical</i>	<i>Operational</i>

Shivakumar (2014, p 80) discusses the different types of decisions as follows;

- **“Strategic decisions** are important to the organization as they have a significant change to the commitment and scope of the firm. They have influence on subsequent decisions like tactical and operational decisions;
- **Neo-strategic** decisions will influence the scope of the organization without changing the degree of commitment;
- **Tactical decisions** are the ones that have a significant change to the degree of commitment without altering the scope of the firm. These decisions often follow after strategic decisions have been made;
- **Operational decisions** do not alter the degree of commitment and the scope of the firm. These are routine decisions made each day in the organization.”

As it can be seen above, strategic decisions are the most important as they have a significant impact on the organization.

2.2 Managerial Decision-making

Managers are faced with some different complex problems in their daily decision-making. Managers often cannot process all the available information to make a fully rational decision having considered all the possible alternatives. This is due to the lack of time and cognitive limitations (Bauer, Schmitt, Morwitz, & Winer, 2013).

According to Bauer et al. (2013) different decision strategies are used by managers, and they speed up the decision-making process by relying more often on intuition and experience (Erez & Grant, 2014). Strategic decision-making processes are affected by the manager's individual differences (Wally & Baum, 1994). It is important to explore further the concept of intuition, bounded rationality and experience in managerial decision-making to understand how managers approach and ultimately make decisions.

2.2.1 Intuition

Intuition occurs outside the conscious thought, and one of its defining characteristics is that it is non-conscious (Dane & Pratt, 2007; Wally & Baum, 1994). Intuition allows for problems to be solved without awareness or with incomplete solution awareness (Polič, 2009). The concept of intuition in literature is not clearly defined due to its complexity (Malewska & Sajdak, 2014) and Table 3-1 below presents some of the definition threads by different authors.

Table 2-1: Common threads in defining the concept of intuition (Source: Malewska & Sajdak, 2014, p. 51)

Author	Common threads
C.G. Jung; K.W. Wild; K.S. Bowers; D.A. Shirley and J. Langan-Fox; S. Shapiro and M.T. Spence; R. M. Hoghard; M.H. Raidl; T.L. Lubarr	Intuition is a part of the subconscious mind (it is embedded deeply in the human mind and it is a spontaneous and subconscious action).
R. Rorty; D. Kahneman; E. Dane and M. Pratt	Intuitive decisions are characterized by high speed (they are immediate and lead to direct associations, which are considered to be one of the main advantages of the intuitive decision-making process).

L.A. Burke; M.K. Miller; M.D. Liebermann	Intuitive actions are based on previous experience (it is assumed that there is a linear relationship between a managers' intuitive potential and their knowledge and experience), each intuitive decision is unique and subjective, much the same as the unique experience of the decision maker.
J.S. Bruner; D.G. Myers	Intuitive decision-making is associated with the decision maker's conviction that rational analysis is useless, or its usefulness is limited.
M.R. Westcott; J.H. Razoni	Intuitive decision-making process stems from insufficient information, which is a prerequisite for rational analysis.

Dane and Pratt (2007) support the effective use of intuition as the differentiator between a successful executive from lower managers however Glockner and Witteman (2010) argues that the processes underlying intuition should be investigated before making a claim on its performance. Using intuition in decision-making is becoming popular in the business environment today, and this is because strategic decisions often lack complete, accurate and timeous availability of information (Elbanna, 2006).

According to Malewska and Sajdak (2014) managers who use intuition often do not follow classical models of decision-making processes, and they possess certain thinking and working styles. These intuitive managers also perform at their best when they are working with managers with similar thinking and working style (Malewska & Sajdak, 2014).

2.2.2 Bounded Rationality

Decision-makers have cognitive limits, and their rationality is bounded as a result (Talaucar, Grundei, & v. Werder, 2005). "Human reasoning and decision-making are constrained (bounded) with regards to available information and individual cognitive

capacity” (Patokorpi, 2008, p. 285). In the theory of bounded rationality, three limits of rationality were identified (Pataki & Padar, 2013, p. 34):

- **“Risk and uncertainty:** environmental factors and the outcomes of the choices are assumed to be random which makes finding the optimal choice more difficult;
- **Incomplete information about the alternatives:** limited knowledge and searching activity of the decision maker about the alternatives;
- **Complexity:** assuming complexity in some environmental parameters can be so great as to prevent the decision maker from calculating the best course of action because the cost of computational effort can be higher than the expected increased return due to the improved approximation.”

Bounded rationality according to Shepherd and Rudd (2014) takes into consideration the manager’s limited cognitive ability regarding the collection and analyzing information for decision-making and due to this, managers would often reduce the complexity of the problem to a level where they understand it (Robbins & Judge, 2013).

2.2.3 Experience

Ashill and Jobber (2013) have found that managers with less experience are as adept at understanding the external environment and its impact on the organization as the managers with more experience. Experience reduces response uncertainty, and this enhances and shapes environmental adaptation by managers (Ashill & Jobber, 2013). Experience offers a basis with rich information on which intuition can reveal its power, and this happens if the prior problem situation experience is representative of the current task (Polič, 2009)

2.3 Strategic Decision-making

The study of strategic decision-making has often been divided into two categories, namely the content research which focuses mainly on what strategic decisions are made and process research which is interested in how decisions are made by managers (Elbanna, 2006). This study will focus on the process research on strategic decision-making and to better understand how strategic decisions are made, it is important to understand what strategic decisions are. Strategic decision-making effectiveness is heavily dependent on the methods used to search and collect information required to make the decision (Liberman-Yaconi, Hooper, & Hutchings, 2010).

2.3.1 Strategic decisions

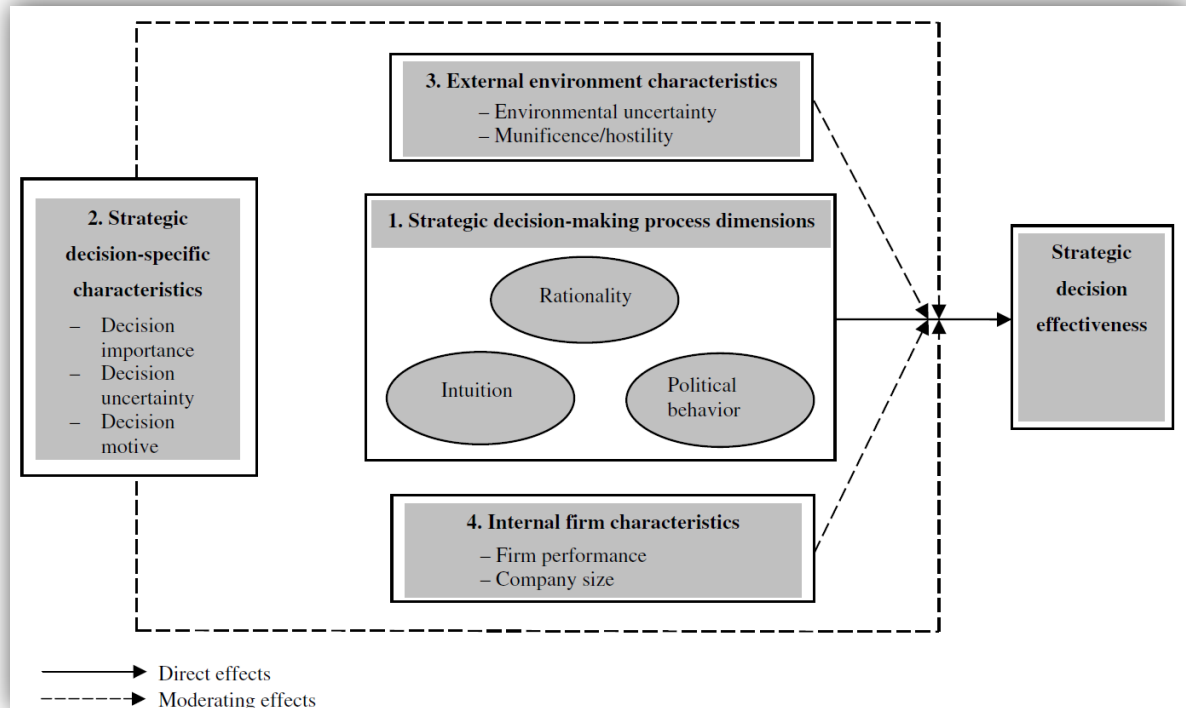
“Making strategic decisions for a non-strategic decision and vice-versa can have dire consequences” (Shivakumar, 2014, p.78). According to Nooraie (2012) strategic decisions require a large amount of organizational resources, are non-programmable (Wally & Baum, 1994), considers the organization’s environment, and it impacts on the long-term performance of an organization (Papadakis, Lioukas, & Chambers, 1998). In organizations, top management is responsible for making strategic decisions (Nooraie, 2012) as they reflect the organization’s interaction with the environment and how this relationship is managed (Elbanna, 2006). Strategic decisions are critical to an organization as they influence the subsequent decisions within the organization (Shivakumar, 2014).

2.3.2 Strategic Decision-making Effectiveness

Dean and Sharfman (1996) defined strategic decision-making effectiveness as the extent to which a decision achieves the goals set by management when it is made. Making effective strategic decisions is critical to an organization as it influences the performance of the organization (Lieberman-Yaconi et al., 2010). Academics have found a number of factors that influence strategic decision-making effectiveness such as organizational design, rationality of the procedure, political behaviour, environmental context & favorability, strategic decision-making process characteristics, Internal firm characteristics, Strategic decision specific characteristics and external environment (Shepherd & Rudd, 2014; Dean, JR & Sharfman, 1996; Elbanna, 2006; Nooraie, 2012; Elbanna & Child, 2007a).

The integrated model of strategic decision-making effectiveness is illustrated below in figure 2-4. As can be seen on the model the strategic decision-making process dimensions directly affects the strategic decision effectiveness whereas the strategic decision-specific characteristics, external environment characteristics and the firm internal characteristics have moderating effects on the effectiveness of strategic decision (Elbanna & Child, 2007a)

Figure 2-4: Integrated model of strategic decision-making effectiveness (Source: Elbanna & Child, 2007a)



2.3.2.1 Strategic Decision-making Processes

The processes that managers follow in strategic decision-making and how they make those decisions are important and according to Elbanna and Child (2007a) rationality, intuition and political behavior have a direct effect on the effectiveness of strategic decisions.

Dean and Sharfman (1996) found that decision processes have influence on strategic decision-making effectiveness and individual differences between managers affect the speed of the strategic decision-making process (Wally & Baum, 1994). Firms that are making fast strategic decisions can exploit opportunities quicker (Baum & Wally, 2003). According to Rajagopalan, Rasheed, and Datta (1993) managers have cited fast decision-making to offer a competitive advantage. To have a deeper understanding of strategic decision-making process Papadakis et al. (1998) emphasizes a need for an integrated

model with factors such as decision specific, management, environmental and organization taken into account.

2.3.2.2 Strategic Decision Specific Characteristics

These are attributes that managers give to strategic decisions based on their perception of stimuli (Shepherd & Rudd, 2014). According to Shepherd and Rudd (2014, p. 349) decision matter, uncertainty, motive, importance and time pressure are some of the labels given to strategic decisions.

- **“Decision matter:** complexity and the extent of politics inherent in a strategic decision will determine how that decision is made;
- **Uncertainty:** this is decision uncertainty as opposed to environmental uncertainty (Elbanna & Child, 2007b). This attribute takes away rationality and rules formalization, however, it enhances conflict and politicization in problem-solving;
- **Motive:** this is whether the decision is made responding to a threat or an opportunity. When a decision is seen as threat, the process of strategic decision-making is more decentralized due to lower levels of management getting involved;
- **Importance:** when the magnitude of the impact of a strategic decision is expected to be high with serious implications for the firm, managers engage in more comprehensive strategic decision-making processes and involve different management levels and communication channels within the organization. Decision importance has been found to be the best explanation of rationality, and not all strategic decisions are equally important and managers handle them differently (Elbanna & Child, 2007b);
- **Time pressure:** when there’s time constraint, there will be conflict and less involvement from other levels of management in the strategic Decision-making process”.

2.3.2.3 External Environment Characteristics

Environmental factors influence the success of strategic decisions and are important in effective strategic decision effectiveness (Mitchell, Dean, & Sharfman, 2011). Managers are not in control of these factors (Dean, JR & Sharfman, 1996). Environmental dynamism being instability and/or unpredictability, environmental munificence, environmental hostility and high-velocity environments have been brought up as a challenge in the strategic

decision-making process as it increases the difficulty in understanding the market (Baum & Wally, 2003; Shepherd & Rudd, 2014, p.352).

- **“Hostile environments:** managers in hostile environments are often less likely to collect and analyze information and are not open to new information. The implications of making a wrong strategic decision in this environment are severe;
- **High velocity/ unstable environments:** change is quick in this environment with regards to the business environment, and information is often inaccurate and unavailable;
- **Environmental Munificence:** this is the best attribute for explaining strategic behavior (Elbanna & Child, 2007b), and rationality has shown to result in high firm performance in these environments especially when there are fewer growth opportunities;
- **Environmental uncertainty:** managers view this from a political and macroeconomic perspective and this environment increases the level of rationality in strategic Decision-making (Elbanna & Child, 2007b)”.

2.3.2.4 Internal Firm Characteristics

Baum & Wally (2003) has looked at centralization and formalization to understand their relationship with firm performance. Shepherd and Rudd (2014, p. 357) discuss the following firm characteristics, power centralization, structure, size, performance (Elbanna & Child, 2007a), slack resources, external control, corporate control, and planning formality.

- **“Size:** refers to the number of full-time employees, large organizations are often more comprehensive in their strategic decision-making than the small organizations. Elbanna and Child (2007b) support this by saying that large organizations use more formal and rational strategic decision-making processes;
- **Structure:** this influences the participation in strategic decision-making and rationality. The effectiveness of the organization depends on how its structure responds to different factors such as environment, technology; organization strategy and size of the organization (Cummings & Worley, 2015). More formalized organizations tend to be more consistent with their strategic decision-making, involving the same small number of individuals;

- **Power centralization:** this is destructive to strategic decisions as the power is with the CEO that result in political behavior;
- **Performance:** organizations with superior financial performance often have strategic decision-making processes that are more comprehensive and make use of financial reporting information. However, Elbanna and Child (2007b) argues that lower performing organizations may have more incentive to be more rational in decision-making as making a wrong strategic decision may result in the organization going out of business”.

2.3.3 Enabling Factors of Strategic Decision-making Effectiveness

To improve the effectiveness of strategic decisions, managers have to learn from their past experience in strategic decision-making (da Silva & Roglio, 2015), this will ensure that the past mistakes that led to strategic decision failures are not repeated. Hunter et al. (2011) argues that managers with past experience in decision errors are more likely to commit errors in the future due to the sunk-cost effect that refers to managers being fixated on a decision due to time, effort and money spent on that decision regardless of it being inaccurate.

Cyert and Williams (1993) has concluded that the organization structure and the information structure supports strategic decision-making, and this is related to the way information flows within the organization structure. According to Nooraie (2012) industry structure determines the profitability of the industry, and it has a major influence on strategic making process however Wally & Baum (1994) argues that industry structure has no influence on the strategic decision-making process.

Tacit knowledge being the knowledge that is gained through experience on the job allows for ease of making strategic decision-making (Brockmann & Anthony, 2002). Cognitive systems from Stanovich and West (2000) can be used as an enabler of strategic decision-making effectiveness (Milkman, Chugh, & Bazerman, 2009).

Table 2-2 below is the summary of some of the main enablers of strategic decision-making effectiveness.

Table 2-2: Enabling factors of strategic decision-making effectiveness (Source: Author, 2015)

Enabling Factors	References
Experience in Strategic Decision-making	(da Silva & Roglio, 2015; Arendt, Priem, & Ndofor, 2005; Mitchell et al., 2011; Hunter et al., 2011)
Organizational design and information structure	(Cyert & Williams, 1993; Nooraie, 2012)
Risk tolerance and high confidence level	(Wally & Baum, 1994)
Tacit knowledge	(Brockmann & Anthony, 2002)
Cognitive systems	(Milkman, Chugh, & Bazerman, 2009; Stanovich & West, 2000)

2.3.4 Inhibiting Factors of Strategic Decision-making Effectiveness

A study that was conducted in the field of strategic decision-making in international organizations revealed weak strategic planning as the main contributor to failed strategic decisions (Shivakumar, 2014). According to Christensen and Knudsen (2013) poor organizational design, lack of knowledge about the decision problem and the cost implications of the decision process can result in poor strategic decisions. Kengne (2015) supports this by saying the manager's lack of knowledge in data collection and analysis can result in poor strategic decisions. Hostile environmental context can affect the speed in strategic decision-making (Wally & Baum, 1994).

Table 2-3 below is the summary of some of the main inhibitors of strategic decision-making effectiveness.

Table 2-3: Inhibiting factors of strategic decision-making effectiveness (Source: Author, 2015)

Inhibiting Factors	References
Poor strategic planning	(Shivakumar, 2014)
Lack of knowledge in decision process	(Christensen and Knudsen, 2013; Kengne, 2015)
Poor organizational design	(Christensen & Knudsen, 2013)
Hostile environment	(Wally & Baum, 1994)
Poor knowledge in collecting data and analysis	(Kengne, 2015; Christensen & Knudsen, 2013)
Cost implications of the decision process	(Christensen & Knudsen, 2013)

2.4 Conclusion

This chapter has reviewed the literature around decision-making and strategic decision-making effectiveness. Decision-making is a wide field in behavioral economics as it was discovered and with the number of different factors influencing decision-making it is a typical example of how complex the subject is. For the purpose of this study, the interest is mainly on process decision-making (Elbanna, 2006) that is how decisions are made by individuals.

Managerial decision-making was reviewed with the aim to understand how individuals engage in the process of decision-making and ultimately make decisions. It was discovered that managers are faced with some factors when having to make a decision and often this presents a challenge in the decision-making process. In these challenging situations, managers would often use intuition to make decisions, which has little to do with available information to make a decision. This can often result in errors in decision-making. Often managers would use intuition to speed up the decision-making process; however the use of intuition cannot be always relied on especially in strategic decision-making in organizations.

Managers are limited in their cognitive ability and this affects decision-making in that managers will tend not to be open to other options when they are making decisions. With strategic decisions being complex and involving a large number of resources of an organization, managers need to be accurate in their decision-making and consider alternatives available to them rather than being bound to a certain way of thinking when making different kinds of decisions. Experience in managers is important for their Decision-making capabilities especially previous experience in decision-making. Experience helps managers in that they tend to be calm when faced with a decision situation that they have experienced before (Ashill & Jobber, 2013).

In the literature, it was revealed that some factors affect strategic decision-making effectiveness. The understanding of how these factors impact on strategic decision-making can help managers to manage these factors to improve their decision-making. It was also found that strategic decision-making process directly affects the effectiveness of the strategic decisions. This effect can be attributed to the fact that the dimensions such as intuition, rationality, and political behavior are related to the decision maker. Decisions are made by individuals; it can be in a group or isolation, and these dimensions are huge parts of Managerial decision-making.

Other factors such as firm internal characteristics, external environment characteristic and decision specific characteristics are moderating factors that managers have no control over however it is critical to understand these factors to make effective strategic decisions.

These factors that influence strategic decision-making effectiveness are critical in understanding the factors that will enable and inhibit strategic decision-making effectiveness in managers. The literature has revealed some of the factors that will facilitate strategic decision-making effectiveness and those that will inhibit strategic decision-making effectiveness. The literature has also revealed that a comprehensive framework based on empirical evidence is yet to be developed on factors that will enable and those that will inhibit strategic decision-making effectiveness and this study, therefore, aims to close this gap in the knowledge.

3 Chapter 3: Research Questions

3.1 Introduction

In the previous chapter, the literature on strategic decision-making effectiveness was reviewed. It was found that strategic decisions are critical to the performance and survival of the organization. Managers are faced with some challenges in having to make strategic decisions, and this presents a problem in that no framework could be employed by managers to make effective strategic decisions.

The aim of this research is to gather empirical evidence of the factors that enable or inhibit strategic decision-making effectiveness to develop a practical framework that will help managers to make effective strategic decisions. To achieve this aim, analysis of responses to the following questions will be conducted;

3.1.1 Research Question One

How difficult do managers find strategic decision-making and why?

This question sought to understand the level of difficulty and the reasons thereof experienced by the managers during strategic decision-making. The outcome will assist in understanding the key reasons why managers find ensuring the effectiveness of strategic decisions difficult.

3.1.2 Research Question Two

What are the decision-making processes followed by managers in strategic decision-making?

The aim of this question is to get insight and understanding of the processes followed by managers when faced with a strategic decision-making situation. The outcome of this question will highlight as to which process managers follow when making decisions and why that specific process is chosen. This will provide an insight as to what strategic decision-making processes managers use to ensure effectiveness of the strategic decision taken.

3.1.3 Research Question Three

What are the enabling factors of strategic decision-making effectiveness and their relative strength?

The aim of this question is to understand what the managers would consider to be the main driving or enabling factors of effective strategic decision-making. Some of the main high-level themes taken from the literature are consolidated and summarized in Table 3-2 according to different authors on the topic. The outcome of this question will help in better understanding and highlighting the key drivers or enablers for effective strategic decision-making as outlined and ranked by the different respondents.

3.1.1 Research Question Four

What are the Inhibiting factors of strategic decision-making effectiveness and their relative strength?

The aim of this question is to understand what the managers would consider to be the main inhibiting factors of effective strategic decision-making. Some of the main prominent themes taken from the literature are consolidated and summarized in Table 3-3 according to different authors who have researched the topic. The outcome of this question will help in better understanding and highlighting the key inhibitors of effective strategic decision-making as outlined and ranked by the managers.

3.1.2 Research Question Five

How can managers ensure effective strategic decision-making?

This question sought to understand what the managers should focus on to ensure effective strategic decision-making. The literature has highlighted some of the key factors that influence the effectiveness of strategic decision-making. The outcome of this question will help in understanding the key factors according to the respondents and develop a practical and simple framework to help managers in strategic decision-making.

4 Chapter 4: Research Methodology

4.1 Introduction

The research questions which the research study seeks to answer were outlined in the previous chapter. The research questions seek to explore the factors that enable and those that inhibit strategic decision-making effectiveness. This chapter will discuss the rationale for the design and methodology that was used to explore and answer the identified research questions.

The research process followed the following four phases:

Phase 1: A literature review was conducted which provided insight into the area of strategic decision-making and its influencing factors. The rationale for the research regarding the importance of strategic decisions and their role in organizations was discussed.

Phase 2: Collection of data was done through qualitative in-depth, semi-structured interviews with 14 executives and top managers from South African coal mining organizations.

Phase 3: The information gathered from the interviews was processed, classified, integrated, analyzed and interpreted using frequency and content analysis.

Phase 4: The findings and implications for relevant stakeholders were discussed, and areas for future research were highlighted.

4.2 Research Design and Method

An exploratory qualitative research was selected as the primary method, and the main strategy was in-depth semi-structured interviews with the focus of inquiry being executives and top managers.

According to Saunders and Lewis (2012, p.110) “an exploratory research aims to seek new insights, ask new questions and to assess topics in a new light”.

Research methods that can be used to understand business problems can be differentiated as follows: (Zikmund, 2000 p. 50)

- “*Exploratory research*: initial research conducted to clarify and define the nature of a problem;
- *Descriptive research*: Research designed to describe the characteristics of a population of phenomenon;
- *Causal research*: Research conducted to identify cause-and-effect relationships among variables where the research problem has already been narrowly defined”.

Interviewing is a qualitative method that is well suited to exploratory studies and it focuses on the interaction with the interviewees by asking in-depth questions to understand fully the research problem (Saunders & Lewis, 2012). Qualitative interviews are more like informal conversations, and there is respect on how the interviewees frames and structures the responses (Mason, 2002).

The method of collecting data was based on an assumption that the executive’s and/or manager’s knowledge, views, interpretations, experience, views, and interactions are meaningful properties of the social reality which the research questions were designed to explore (Mason, 2002).

4.3 Research Population

The population of relevance consisted of executives and managers who are at a strategic decision-making level in the organization and are required to make strategic decisions regularly. The population consisted of a select group of individuals from different coal mining organizations operating in Mpumalanga province of South Africa.

4.4 Unit of Analysis

To define a research problem, the researcher must first establish the unit of analysis for the study (Zikmund, 2000), which is appropriate for your analysis and to which you will attach relevant categories (Saunders & Lewis, 2012).

The main unit of focus or the primary unit of analysis for the purpose of this study was the perceptions and experience of the executives and managers who regularly make strategic decisions.

4.5 Research Sample

4.5.1 Sampling technique

A purposive non-probability sampling technique was used for the study. Non-probability sampling techniques are used when one does not have a complete list of the population (Saunders & Lewis, 2012). A purposive sampling is a type of non-probability sampling where the researcher's judgement is used to select the participants according to predetermined criteria relevant to a particular research (Guest, Bunce, & Johnson, 2006; Saunders & Lewis, 2012)

4.5.2 Sample size

The size of a purposive sample should be derived inductively, and sampling should continue until theoretical saturation (Guest et al., 2006). It was established in the study titled, 'How many interviews are enough?' That theoretical saturation occurs within the first twelve interviews, with variability within the data following similar patterns (Guest et al., 2006). Therefore, for this study 14 interviews were believed to be sufficient to allow deductive conclusions to be made.

The scope of the research was limited to executives and top managers in large South Africa coal mining organizations for the reasons stated below:

- **Accessibility and convenience:** each of the organizations has approximately ten executives and managers
- **Consistency:** a common set of strategic issues is faced throughout the industry

Furthermore, the scope of the study is described by the definition of the following terms:

- **Executives and Top managers:** These are individuals that have a significant leadership role in their respective organizations. They have decision-making authority and are accountable for the effective and efficient day-to-day running of the organizations and can but do not necessarily report to the board of directors.
- **Large South African Organization:** A company that is publicly listed on the Johannesburg Securities Exchange (JSE) in 2015 and has more than 5000 employees.

4.6 Research Measurement

4.6.1 Interview schedule design

The exploratory nature of the study necessitated semi-structured interviews as they would allow data to be captured from the participant's perspective (Saunders & Lewis, 2012). An interview schedule was designed to serve as a guide during the interviewing of participants. The schedule guide consisted of the following elements to meet the research objectives,

- **Open-ended questions:** these were used to gather more insight into the participant's experiences and to allow free association of themes.
- **Ordinal scale questions:** a 5 point Likert scale was used with verbal and numerical descriptors.
- **Ratio scale questions:** these were used to gather participant's information about age, experience and education.

The interview schedule guide also incorporated the "critical incident" and "force field analysis" techniques to understand better, associate and unpack the enablers and inhibitors of strategic decision-making effectiveness.

4.6.1.1 *Critical incident technique*

"The critical incident technique (CIT) is a qualitative interview procedure that facilitates the investigation of significant occurrences (events, incidents, processes, or issues) identified by the respondent, the way they are managed, and the outcomes regarding perceived effects. The objective is to gain an understanding of the incident from the perspective of the individual, taking into account cognitive, affective, and behavioral elements" (Gremier, 2004, p.66). Participants were asked to share their experience of recent strategic decision that they had to make and were involved in making. As participants were narrating their experience in strategic decision-making the way they perceive them rather than them being asked specific questions, it allowed inferences to be drawn about enabling and inhibiting factors in that strategic decision.

4.6.1.2 Force field analysis

A force field analysis is a technique used to identify visually and analyze the forces affecting a decision situation to plan and make an effective decision (Kumar, 1999). There are always enabling forces and inhibiting forces to a decision and by carrying out the analysis one can plan to strengthen the enabling forces of a decision and reduce the impact of the inhibiting forces of the decision.

4.6.2 Pre-testing

The design phase of the interview schedule was followed by pre-testing aimed at testing whether the interview will be effective in extracting the relevant information of interest. According to Saunders and Lewis (2012) a researcher has to conduct a pilot testing for interviews to check if questions will be understood and will be able to provide the data required for the study. This testing will provide ideas for possible problems with questions and the possible length of the interview.

For this study, pre-testing was conducted with two representative participants who were selected on convenience basis and were on the same level as the main participants. The pre-test revealed that the interview was flowing naturally. The respondents could answer the questions with relative ease. The first representative participant indicated the importance of context in asking the questions and recommended that the researcher should start by setting the context before starting with the interview.

The recommendations were then incorporated in interview schedule guide for the remaining interviews.

4.6.3 Data collection

The data collection method for this study was semi-structured interviews as discussed above in the research design. Respondents were contacted using telephone and email to set up interview time and venue. The researcher contacted the identified participants and contacting them via telephone to request their participation that was followed by a meeting request via email if the participant agrees to the interview.

All the interviews took place in the respective participant's offices except for two which were done in the participant's boardrooms. This involved traveling between different

organizations and preparation was critical to ensure that everything was in place before the interview and arrived at each venue 15 to 30 minutes before the scheduled time.

The office environment offered a quiet setting that also allowed the participants to be more comfortable and relaxed which is critical for an interviewing process. The interviews were approximately 30 - 40 minutes with each of the 14 participants. All the interviews were conducted by the researcher at the participant's respective offices and boardrooms in their organizations.

Interviews with all the participants were recorded using a voice recorder with the consent of the participant; this also allowed the researcher to listen more and only take notes of issues that required further clarity during the interview. The face-to-face semi-structured interviews were useful in obtaining unstructured information (Zikmund, 2003). Participants were asked probing questions based on the key themes from the literature review to get a more practical insight of the research problem and proposed solution.

4.6.4 Data analysis

When data collection phase is completed for qualitative research, the data collected has to be converted and interpreted in a format that will enable the research questions to be answered (Zikmund, 2000). Qualitative data analysis is a search for general statements about relationships and underlying themes (Marshall & Rossman, 2016). The first step in analyzing qualitative data is to develop meaningful codes or categories to describe the collected data (Saunders & Lewis, 2012). Editing, coding and categorizing data patterns and identification of themes present in the data forms the basis for qualitative data analysis.

Frequency analysis and content analysis techniques were used on the collected data from interviews (Zikmund, 2003). "Content analysis is a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns" (Hsieh & Shannon, 2005, p.1278). Three approaches to content analysis have been presented by Hsieh and Shannon (2005) in their study, namely: conventional, directed, or summative.

For the purpose of this study, directed content analysis was used. Codes were developed from existing theory from the literature reviewed in Chapter two and during the analysis

process of the transcripts; new codes were developed during the analysis from the data itself. The directed content analysis was aimed at validating and extending to the existing theory of this study (Hsieh & Shannon, 2005). Table 4-1 below provides an explanation of the three approaches.

Table 4-1: Three approaches to content analysis (Source: Hsieh & Shannon, 2005, p.1286)

Type of Content Analysis	Study Starts With	Timing of Defining Codes or Keywords	Source of Codes or Keywords
Conventional content analysis	Observation	Codes are defined during coding analysis	Codes are derived from data
Directed content analysis	Theory	Codes are defined before and during the data analysis	Codes are derived from theory or relevant research findings
Summative content analysis	Keywords	Keywords are identified before and during data analysis	Keywords are derived from interest of researchers or review of literature

The initial codes that are the enabling and inhibiting factors of strategic decision-making effectiveness were developed from the reviewed literature in chapter two of this report. Computer-aided qualitative data analysis software (CAQDAS) called ATLAS.ti was used for coding, categorizing and analysis of the data. During the coding process on ATLAS.ti, a large number of codes were generated over and above the initial codes. Similar codes were merged and grouped into code families as per the relevant themes from the data.

Force field analysis was used to determine the relative strength of the enabling and inhibiting factors of strategic decision-making effectiveness. The strength of each of the factors was represented by the weighted total of each factor. Each respondent was asked to use a five-point Likert scale to rate the relative importance of each factor (see Appendix 2). The weighted total of each of the factors was derived from multiplying the frequency of the factor by its rating. This meant that the higher the weighted total of each factor, the greater the factor's importance. This analysis provided the enabling factors that executives

and managers need to focus on and the inhibiting factors that they need to minimize, control and manage to ensure strategic decision-making effectiveness.

Consistency matrix was used to ensure consistency throughout the data collection and analysis of this study (see Appendix 1).

4.6.5 Trustworthiness

Irrespective of how the data is collected, it is important to ensure minimal errors in the data collection process (Zikmund, 2000). Loh (2013) argues that for a study to be accepted into the body of knowledge and seen as suitable for use in various ways, the criteria of validity, reliability and generalizability is essential. Guba (1981) has suggested four criteria in ensuring rigor and evaluating the trustworthiness of qualitative research, which are credibility, transferability, dependability and confirmability, and will be discussed below.

- **Credibility:** the credibility deals with how the research findings correspond to reality (Shenton, 2004) and Guba (1982) argued that ensuring credibility is one of the critical factors in establishing trustworthiness. Triangulation was used for this study to ensure credibility. The data was collected from literature and interviews with executives and top managers within the coal mining industry. A consistency matrix (see Appendix 1) was used as a basis to improve internal validity during data collection.
- **Transferability:** this is concerned with the extent to which the findings of one study can be applied to other situations (Shenton, 2004; Anney, 2014). The researcher has to provide sufficient contextual information about the fieldwork sites so as to enable practitioners to relate the findings to their position or situation (Shenton, 2004). For transferability of this study, the researcher has provided information on limitations and recommendations in Chapter seven (see sections 7.3 and 7.4) of this report.
- **Dependability:** this refers to the consistency of the findings over time if the study was to be repeated in the same context using the same methods with the same participants (Shenton, 2004). Dependability also refers to “the stability of the findings over time” (Anney, 2014, p. 278). To ensure dependability for this study,

the researcher has discussed in detail the research design with data collection and data analysis techniques utilized in Chapter four (see sections 4.6.3 and 4.6.4) of this report.

- **Confirmability:** this refers to the extent to which the findings of a study could be confirmed by other researchers and the collected data, and its interpretation of such a study is not the ideas of the researcher but the experience and the ideas of the respondents (Anney, 2014; Shenton, 2004). A schedule guide was used by the researcher for this study (see Appendix 2) to maintain confirmability.

4.7 Conclusion

This chapter provided and discussed details of the research methodology proposed for this study to answer the research questions. An exploratory qualitative research approach was selected as the most appropriate due to the limited knowledge of strategic decision-making (Papadakis et al., 1998). It was then necessary to explore in detail the subject of strategic decision-making effectiveness. The respondents for the study were identified through a purposive non-probability sampling technique using the researcher's judgment to ensure that the identified respondents can provide sufficient information to be able to address and answer the research questions.

Data collection was conducted through in-depth semi-structured face-to-face interviews with the identified executives and top managers. The collected data was transcribed and analyzed using frequency analysis and directed content analysis approach for establishing common themes in the data.

5 Chapter 5: Results

5.1 Introduction

The previous chapter discussed in detail the methodology selected to explore the research questions detailed in Chapter Three of this report. The data analysis was designed with an aim of addressing and answering the research questions. The relationship between the literature, research question, data collection methodology and analysis is shown in the consistency matrix (see Appendix 1). This chapter presents the results obtained from the data that was collected and analyzed.

5.2 Results of qualitative interviews

Direct content analysis and frequency analysis was conducted on the data from the interviews. The recorded and transcribed data from the interviews was analyzed for common themes as referred to by the different respondents. Transcripts were uploaded onto ATLAS.ti, and the coding process was conducted on the software. Different themes other than the initial themes emerged from the data during coding and analysis process. Similar codes were merged and grouped into code families as per the specific theme or construct. For example, participant's responses of "what information do I have" and "you needed a lot of information" was merged and grouped into the theme "Availability of data". The frequencies of occurrence for some of the themes are more than the sample and this is as a result of participants citing a particular theme more than once.

5.3 Demographics of participants

A purposive non-probability sampling technique was used for this study (Saunders & Lewis, 2012), and it achieved a sample size of 14. Demographics of the sample are shown below in Table 5-1, Table 5-2, and Table 5-3. The sample was selected to study the perceptions of executives and top managers who are in strategic Decision-making role and have made strategic decisions in their respective organizations within the mining environment. Below is the list of participants and their occupational titles in their respective organizations. For the purpose of this study, the terms participant and respondent will be used inter-changeably.

Table 5-1: List of respondents and their occupational titles

Name	Title
1. Lucky Kgatle	Vice President: Strategy & Business Development
2. TMan Mpokane	General Manager: Operation
3. Surina Nel	Vice President : Financial Services
4. Kgomotso Molobye	Vice President: Human Resources
5. Bart van den Steen	Head of Strategic Planning
6. Peter Steenkamp	Senior Vice President: Mining Operations
7. Kobus Louw	Vice President: Project Management Services
8. Pierre Jordaan	Vice President: Safety, Health, Environment & Mining Services
9. Ashen Chathury	Vice President: Supply Chain Management
10. Themba Masondo	Head of Underground Operations
11. Leon Joseph	General Manager: Operation
12. Lucky Mabuza	General Manager: Operation
13. Nzama Baloyi	Vice President: Export Value Chain
14. Neels Esterhuizen	General Manager : Operation

The participant's age, highest qualification, and the number of years as an executive or in top management are described and shown in the tables below. The areas shaded in grey highlights the mode of the categories.

Table 5-2: Respondents age

Age (Years)	30 to 39	40 to 49	>50
Frequency	2	7	5

The age of the respondents widely distributed with the table above indicating that 50% fell into the forty to forty-nine (40 to 49) age category.

Table 5-3: Respondents highest qualification

Qualification	Diploma	Degree	Post - Graduate
Frequency	0	2	12

The table above indicates that all the respondents are in possession of a tertiary qualification with twelve respondents also in possession of a post-graduate qualification that represents 86% of the total respondents.

Table 5-4: Respondents years of experience as an executive or at top management level

Years in Top-Management	0 to 2	3 to 5	6 to 8	9 to 11	12 to 15	>15
Frequency	2	1	4	4	1	2

The above table indicates a widespread number of years of experience of respondents as an executive or in top management. The majority of the respondents fell into the six to eight (6 to 8) and nine to eleven (9 to 11) which together constitute a 57% of the total respondents with experience between six to eleven (6 to 11).

5.4 Analysis of the qualitative interviews outcomes

5.4.1 Difficulty level of strategic decision-making

During the interviews, participants were asked to indicate the level of difficulty they experience when making strategic decisions. A five-point Likert scale was provided to indicate clearly the level of difficulty. The results are shown in Table 5-5 below.

Table 5-5: Strategic decision-making level of difficulty (raw data)

Level of Difficulty	Very Easy	Easy	Moderately Difficult	Difficult	Very Difficult
Frequency	0	5	1	6	2

An inspection on Table 5-6 above shows that majority of the respondents (6) found strategic decision-making difficult with two respondents indicating that it is very difficult. For the purpose of clear illustration, the “Difficult” and the “Very Difficult” responses were combined and the “Very Easy” and “Easy” responses were also combined. Table 5-7 below shows the same results in a collapsed table.

Table 5-6: Strategic decision-making level of difficulty (collapsed table)

Level of Difficulty	Easy or Very Easy	Moderately Difficult	Difficult or Very Difficult
Frequency	5	1	8

5.4.2 Reasons for strategic decision-making being difficult

All the participants were asked a follow-up question to elaborate on their response to the level of difficulty indicated. The interest was more on the respondent’s reasons of why they found strategic decision-making to be difficult. Seven key themes emerged from the interviews and data analysis; these will be discussed in detail in Chapter 6. The illustration of the reasons, frequency and rank for strategic decision-making to be difficult is shown in Table 5-7 below.

Table 5-7: Reasons for strategic decision-making being difficult

Rank	Reasons for difficulty	Frequency
1	Strategic decisions are long term and Influenced by external factors	26
2	There is too many uncertainties in strategic decision-making	19
3	Thinking and poor knowledge in strategic decision-making	15
4	Continuously changing business environment	12
5	Strategic decisions requires a lot of information	11

The highest ranking reason in Table 5-7 above implies that for strategic decision-making to be easy, one need to have a long-term view and a clear understanding of the external factors that impact on the strategic decision. This was indicated as the primary reason for the strategic decision being difficult.

5.4.3 Critical incidents of strategic decision-making

The respondents were asked to think and share a strategic decision that they had to make or involved in recently. The respondents were allowed to narrate their experience in that specific strategic decision-making situation freely. Some strategic business decisions were discussed by the respondents. Some of the respondents also shared strategic decisions that they were currently faced with. Table 5-8 below shows some of the strategic decisions shared by the respondents.

Table 5-8: A sample of strategic decisions taken by respondents

No.	Strategic Decision
1	Borrow funds externally to fund new operations
2	Contract price negotiation for a 15-year contract for product supply
3	Set out the path of the South American operation
4	Whether to sell or lease company built houses for the employees
5	Buying seven old mines and consolidate into one big mining operation
6	Deciding on a suitable area to sink a new mining shaft
7	Optimizing the use of current assets

An inspection in Table 5-8 above, for example, strategic decision number six referred to deciding on the suitable area to start a mine. This entailed looking at different factors regarding the area (geology, depth, and water source) to ensure cost effectiveness when sinking the shaft and transport costs to where the final product should end up. This was a critical strategic decision for the company as the mine would have a 30+ years of operation.

5.4.4 Decision-making processes used by managers

The participants were asked to indicate whether they use decision-making processes in making strategic decisions and explain the process they use in more detail. Through the respondent's narratives and data analysis, it emerged that there is no specific process applied in strategic decision-making. The main theme that emerged from the data was that there is a logical process followed however it is dependent on the decision to be made.

Some of the different respondent's illustration of this theme is given by the quotes below.

Respondent 1: *“What you typically do there is some uhm what you go through is evaluating of different options and then assessing the impact of those options to your bottom line and then arrive at a decision so, you will not write it down as a hmm you know coded process. It's pretty much a way of uhm logic of course, the logic of how you arrive at a decision and not necessarily a process...So yes you do have a process that you can, it is not codified per se uhm, but you will then argue that it is a process.”*

Respondent 2: *“In making strategic decisions obviously the first thing is the business case, if we make the decisions what would be the return for the shareholders. So the business case is paramount in the strategic decision. Secondly as part of the business case is the market you know, the product that you will be doing, do you have the market, are there people that are busy doing that and what gives you a competitive advantage to enter into that market.”*

Respondent 3: *“Not a specific process, more like a different combination of processes like one would be decision analysis. You look at certain criteria, and you go with different options on different criteria.”*

Respondent 4: *“My process is always what the outcome is? What are we trying to do? What information do I have at hand? What other information do I need to source? Whom do I need to talk to as part of the consultation process? So there is a mental process that I would follow.”*

Respondent 5: *“...it will vary, not all the decisions, others you will follow a certain process to come to decisions uhm again depending what type you need to*

make...then others you just use your experience to say what my experience in this field says to me this is what we need to do”

Respondent 6: *“I would say... you know it is important to follow some guidelines rather than a specific process which basically means that when you look at your long-term plan that you have to make sure that your needs are very well defined...”*

An inspection to the above quotes, it is clear that there is knowledge of a decision-making process theoretically however managers find themselves having to apply their thinking and experience into what steps to follow in arriving at a decision.

Two of the respondents, however, indicated that they follow a company strategic model in making strategic decisions; this was illustrated by the quotes below.

Respondent 7: *“Look um game plan is based on a model, to say that you have got a model that will give us direction based on infrastructure, safety, safe coal work, workforce and business enablers, yeah that kind of things, that is the model. The models help you to say what must be in place regarding infrastructure, regarding recourses.”*

Respondent 8: *“...the business development and implementation model. There is a model that we got, especially with major projects or strategic projects. There’s a specific guideline.”*

These findings on decision-making processes will be unpacked and discussed in further detail in Chapter 6 with the use of theory for better understanding.

5.4.5 Factors enabling strategic decision-making effectiveness

All the participants were asked an open-ended question during the interview to identify and list the driving forces that were crucial in making the various strategic decisions. The respondents were then asked to indicate on a five-point Likert scale the importance of each factor.

The frequencies of occurrences and total weighted scores of each factor are compiled and ranked as shown in Table 5-9. The calculation of the weighted total of each factor has been discussed in Chapter 4 (see Section 4.6.4).

Table 5-9: Major enabling factors of strategic decision-making effectiveness

Rank	Factor	Frequency	1	2	3	4	5	Weighted Score
1	Availability of data	19				4	10	66
2	Evaluate options	24			3	3	8	61
3	Consultation with stakeholders	20			3	5	6	59
4	Have clear strategic direction	29			2	3	7	53
5	Evaluate decision outcomes	24		2	5	3	4	51
6	Competence of the team in strategic decision-making	25			2	4	5	47
7	Quality of information	11			3	2	4	37
8	Support from superiors	8				1	6	34
8	Have an external perspective	10			4	2	2	30
10	Have a long term view	15			1	3	3	30

An inspection of the table above, item ranked seven “support from superiors” has been cited eight times by the respondents as an enabling factor however its importance, when compared with the rest of the enabling factors, was relatively higher with a total weighted score of 45. As can be seen on the table above, availability of quality information, evaluation of options and outcomes of decisions, stakeholder involvement, and consultation together with a clear strategic intent can lead to effective strategic decisions, and this will be discussed in detail in Chapter 6 of this report.

5.4.6 Inhibiting factors of strategic decision-making effectiveness

All the participants were asked an open-ended question to point out the important inhibiting factors or barriers to effective strategic decision-making in their various decisions that they have made. Again the frequency of occurrences was recorded, and the weighted scores were calculated as discussed in Section 4.6.4 of this report. Table 5-10 below shows the frequency of occurrences, ranking and weighted total scores for the inhibiting factors as cited by the respondents.

Table 5-10: Major inhibiting factors of strategic decision-making effectiveness

Rank	Factor	Frequency	1	2	3	4	5	Weighted Score
1	Uncertainties	19			1	4	6	49
2	Government regulation	17			1	2	5	36
3	Available time to make the strategic decision	8		2		3	2	26
4	Continued changes in decision scope	3					3	15
5	Political factors	3				1	2	14
6	Lack of knowledge in decision-making	3			1	2		11
7	Breaking through the culture	3					2	10
7	Incorrectly defining strategic decision	3					2	10
9	Hostile environment	2				1	1	9
10	Lack of support from superiors	1					1	5
10	Change in role players in strategic decision-making	1					1	5

Reviewing the table above it can be seen that the level of uncertainty and government regulations have a negative effect on ensuring effective strategic decision, this and the other factors on the above table will be further unpacked in more detail in the next chapter of this report.

5.4.7 Suggestions for ensuring effectiveness of strategic decision-making

All the participants were asked how they would, in the future, ensure the effectiveness of strategic decisions that is minimizing the inhibiting factors and maximizing the enabling factors. All participants were also asked to share any thoughts or comment on strategic decision-making effectiveness. Analysis to the responses was conducted by content analysis and frequency analysis as described in Chapter 4, and eight key themes that emerged and their associated frequencies of occurrence were compiled and ranked as shown in Table 5-11 below.

Table 5-11: Factors for optimizing strategic decision-making

Rank	Factor	Frequency
1	Consider external business environment and economic factors	33
2	Have a competent team in strategic decision-making	25
3	Consider and involve your stakeholders	15

4	Ensure quality of information	11
5	Continuously review strategic decision-making process	9
6	Have support from superiors	8

An inspection on the table above suggests that always taking into consideration the external market and economic factors, having competent people and involving your key stakeholders in strategic decision-making will be ways of ensuring the effectiveness of strategic decisions that are taken for the business. These factors will be further discussed in more detail in the next chapter to gain more insight.

5.5 Conclusion

The main purpose of this chapter was to present the results of the data analysis conducted on the data captured during the in-depth, face-to-face qualitative interviews. The results of the analyzed qualitative in-depth, face-to-face interviews will be used to answer the research questions as discussed in Chapter 3 of this report. These results and direct quotes from the interviews will be interpreted and discussed in further detail in Chapter 6 to be able to answer the research question.

6 Chapter 6: Discussion of Results

6.1 Introduction

The previous chapter presented the results from the in-depth, face-to-face qualitative interviews using the critical incident technique with 14 executives and top managers. This chapter will interpret and analyze the results presented in Chapter 5 based on the literature review conducted in Chapter 2. An insight into the research problem will be provided in this chapter by answering the research questions discussed in Chapter 3.

6.2 Discussion of the level of difficulty in strategic decision-making effectiveness

Research Question 1: How difficult do managers find strategic decision-making and why?

The research results regarding this question are shown in Tables 5-5, 5-6 and 5-7 in Chapter 5. The majority of participants (8) have indicated that they found strategic decision-making to be difficult as shown in Table 5-6. These results are supporting the literature which states, human reasoning and decision makers in organizations have cognitive limits, and their rationality is bounded making it challenging to process information fully to arrive at an optimal decision (Talaular et al., 2005; Patokorpi, 2008; Robbins & Judge, 2013; Shepherd & Rudd, 2014). Strategic decisions are difficult to make in that their motive is hard to understand, and the consequences of making a wrong decision are very costly (Shivakumar, 2014).

Five major themes emerged from the data analysis as reasons for strategic decisions being found difficult by managers. Table 5-7 shows the compilation of these reasons for strategic decision-making being difficult, their ranking and frequencies of occurrences. All of these are discussed below in detail.

6.2.1 Strategic decisions are long term and Influenced by external factors

The conclusion that strategic decisions are long term and influenced by external factors has ranked the highest most important factor for strategic decision-making being difficult as it was cited 26 times by the respondents. This outcome is aligned with the literature

which states that strategic decisions are challenging in that they impact the long-term success of an organization, and they are highly influenced by the external and internal business environmental factors (Papadakis et al., 1998; Nooraie, 2012; Elbanna, 2006; Shepherd & Rudd, 2014).

The fast changing business environment presents a challenge in strategic decision making as managers have to take constantly into consideration new factors that come with the change to make an effective strategic decision (Baum & Wally, 2003).

6.2.2 There are too many uncertainties in strategic decision-making

The theme “there are too many uncertainties in strategic decision-making” was the second most important factor (19 frequencies of occurrences were cited by participants) for strategic decision-making being difficult. Strategic decisions are long term and are critical to the long-term success of the business. The long-term nature of strategic decisions comes with many uncertainties due to the ever changing external business environment (Elbanna, 2006; Shepherd & Rudd, 2014)

The perceptions of business uncertainty are important in that they influence the behavior of managers in strategic decision-making (Ashill & Jobber, 2013). This outcome supports the literature that states due to difficulty in dealing with strategic decision uncertainties, firms are tempted to delay making a strategic decision until the uncertainty is resolved however delaying might be costly and the opportunity might be missed (Shivakumar, 2014).

6.2.3 Thinking and poor knowledge in strategic decision-making

The third most important factor for strategic decision-making being difficult is the thinking and poor knowledge in strategic decision making (15 frequencies of occurrences cited by the respondents). This result is supporting the literature that states managers with more experience have a reduced response uncertainty leading to easy adaptation of the environment and have a strong basis in which to use intuition in strategic decision-making especially if a similar current decision situation has been experienced before (Polič, 2009; Ashill & Jobber, 2013).

Experience in strategic decision-making allows managers to perform better in future strategic decision-making as mistakes committed in the past will be avoided. Cognitive

capabilities are improved by experience in strategic decision-making and this aid managers in the understanding of their environment and making better choices (Ashill & Jobber, 2013).

6.2.4 Continuously changing business environment

Ranked fourth (12 frequencies of occurrences as cited by the respondents) is the continuously changing business environment. The changing environment of business presents uncertainties that managers have to contend with in making strategic decisions thus making it difficult. This outcome supports the literature that states environmental dynamism presents a challenge in strategic decision-making as it increases the difficulty of managers in understanding the market (Shepherd & Rudd, 2014).

Managers find it difficult dealing with changing business environment as it brings about many uncertainties that in turn make strategic decision-making difficult. As the business environment changes in strategic decision-making, new information has to be collected to adapt to the new business environment, and this delay the decision-making process.

6.2.5 Strategic decisions require a lot of information

Strategic decisions require much information ranked as the fifth most important reason for strategic decision-making being difficult (11 frequencies of occurrences as noted by the respondents). Managers often find it difficult to process all the information available to them to make the correct decision due to their cognitive limits and this result in the use of intuition to make strategic decisions. Strategic decisions are complex and ill-structured, and managers require a lot of information to reduce the level of complexity and be able to make an effective strategic decision (Elbanna, 2006; Bauer et al., 2013).

As strategic decisions require much information, organizations must have a system that enables them to search, gather, process and interpret large amounts of information to make effective strategic decisions less challenging.

6.2.6 Conclusion for Research Question 1

Strategic decision-making has been found to be difficult by the majority of the respondents as illustrated in Table 5-6. Five key factors were highlighted by the respondents as the reasons for strategic decision-making being difficult. These findings are consistent with the literature as discussed in each of the reasons above.

These five reasons are in alignment with the nature of strategic decisions in that they are long term, require many organizations resources, are influenced by the external environment that constantly changes and involves many uncertainties. How individuals approach strategic decision-making is also important and experience in strategic decision-making is an advantage to a decision maker in that it reduces the level of uncertainty that might be encountered.

6.3 Discussion of the processes followed by managers in strategic decision-making

Research Question 2: What are the decision-making processes followed by managers in strategic decision-making?

6.3.1 Decision-making processes

The participants were asked an open-ended question to explain the process they use for strategic decision-making within their business environment to ensure the effectiveness of the decision. As outlined in Chapter 5 (see section 5.4.4), the majority of respondents indicated that there is no formal process they use for strategic decision-making to ensure the effectiveness of the decisions. When managers are faced with a strategic decision situation, decision specific characteristics such as the impact of the decision, cost implication, timing of the decision and also experience in decision making are considered to choose a course of action for that decision.

These findings are supporting the literature that states, the manager's differences such as experience, motivation, knowledge, execution abilities and cognitive abilities in strategic decision-making are some of the characteristics that define decision-making process (Hey & Knoll, 2011; Bettman et al., 1990). The processes followed by managers in strategic decisions are mainly according to what the decision is and the importance of that decision and simply by understanding the type of decision at hand they can apply their thinking and experience in choosing the course of action. Ensuring effectiveness of strategic decisions this way can be challenging as it is dependent on the individual's knowledge, experience and cognitive ability which might be limited (Dean, JR & Sharfman, 1996).

Two of the respondents, however, indicated that they follow a company's strategic model when making strategic decisions (Respondents 7 and 8) which support the literature that

says the organization structure supports the decision-making process as information flows through the organization structure (Cyert & Williams, 1993). Making strategic decisions this way could ensure the effectiveness of the decisions as they would be in alignment with strategic goals of the organizations thus ensuring the success of the organization. With the changing business environment, the company strategy will have to be reviewed for strategic decisions taken against it to remain relevant.

6.3.2 Conclusion to Research Question 2

With the above findings and discussions, it is challenging to link the effectiveness of strategic decisions with the processes that managers use to make those decisions. The absence of a specific process is a good evidence of this fact and in the review of literature it is found that there has not been a demonstration of the link between the strategic decision processes and effectiveness of decisions (Dean, JR & Sharfman, 1996).

Managers approach strategic decision-making according to the current internal and external business environment and as this environment change, their approach changes to adapt to the new environment. This explains why each strategic decision is approached in a different way to another as the respondents indicated however in this manner it is challenging to ensure the correct and effective strategic decision-making process.

6.4 Discussion of the enabling factors of strategic decision-making effectiveness

Research Question 3: What are the enabling factors of strategic decision-making effectiveness and their relative strength?

The results of this question are shown in Table 5-9 in Chapter 5 of this report. The objective of the question was to understand the factors that enable strategic decision-making effectiveness as highlighted by the respondents regarding importance. The factors were ranked, and frequencies of occurrences were noted and weighted scores were calculated for each factor as discussed in Chapter 4 (see section 4.6.4). Ten factors were identified as the main enabling factors of strategic decision-making effectiveness. Due to the wide gap in total weighted scores of the factors ranked at the top half of the table and

the factors ranked at the bottom half of the table, only the top half (top six ranked factors) of the table of enabling factors will be discussed in detail below.

6.4.1 Availability of data

Availability of data has been ranked as the most important enabler of strategic decision-making effectiveness (a total weighted score of 66 and 19 frequencies of occurrences noted by respondents). The process of strategic decision-making effectiveness is highly reliant on the availability of quality information. The reviewed literature has revealed that the methods used for data collection and analysis are critical to ensuring effectiveness of strategic decision-making (Lieberman-Yaconi et al., 2010). This was highlighted by one respondent to emphasize the importance of having information for decision-making when he said;

“... I do not make decisions without data. My decisions are data driven because I say; I cannot make a decision in a vacuum so for that reason if I do not have data I make an emotional decision”.

Decision making require information, it is difficult to make a decision without information as illustrated above. Strategic decision-making effectiveness however not only requires information, but quality information sourced and analyzed in the appropriate manner for that strategic decision.

6.4.2 Evaluate options

Evaluating options in strategic decision-making has been ranked second most important enabler of strategic decision-making effectiveness (weighted score of 61 and 24 frequencies of occurrences were noted). This enabler refers to looking at different scenarios in the strategic decision-making process to ensure that the most optimal choice is made about other available choices. Making wrong strategic decision can be costly to the organization (Milkman et al., 2009) and central to making strategic decisions; different scenarios are conducted based on cost, time and impact during strategic decision-making processes to ensure the effectiveness of the decision made.

6.4.3 Consultation with stakeholders

Consulting stakeholders during strategic decision-making process was ranked third as an enabler of strategic decision-making effectiveness (with a weighted score of 59 and 20

frequencies of occurrences). Organizations are influenced and affected by the surrounding environment in which they operate. Within that environment, there are interested, and affected parties involved directly and indirectly in the organizations. Decisions taken by the organizations are important to the external stakeholders in that they affect them be it directly or in-directly. To make an effective strategic decision; support from all affected parties is important and consultation increases the level of buy-in by the externally affected parties.

6.4.4 Having clear strategic direction

Having clear strategic direction ranked fourth as the most important enabler of strategic decision-making effectiveness with a weighted score of 53 and 29 frequencies of occurrences. This finding is consistent with the literature that states that many organizations that have failed in strategic decision-making have admitted to not have not established a robust strategic intent or general strategic direction of the firm (Mitchell et al., 2011; Shivakumar, 2014). Two of the respondents (Respondent 7 and 8) pointed out that they use the company's strategic model for strategic decision-making; this ensures alignment of strategic decisions with the strategic intents of the company and thus ensuring the effectiveness of those strategic decisions.

6.4.5 Evaluate decision outcomes

Evaluating decision outcomes as an enabler of strategic decision-making effectiveness was ranked fifth with the total weighted score of 51 and 24 frequencies of occurrences. This result refers to the impacts the decision would have on the organization. This was highlighted to be an enabler in that when managers are to make strategic decisions; it is important to them who will be affected and how the organization will be impacted by the decision.

This is consistent with the literature that state; when managers see that the importance of a strategic decision is high based on the outcome, they will engage in a comprehensive strategic decision-making process to ensure the effectiveness of the decision. Decision importance translate to how rational managers are in strategic decision-making processes (Shepherd & Rudd, 2014; Elbanna & Child, 2007b)

6.4.6 Competence of the team in strategic decision-making

Competence of the team in strategic decision-making has been ranked sixth as an enabler of strategic decision-making effectiveness (weighted score of 47 and 25 frequencies of occurrences). The experience of managers in decision making improves the level of rationality in the strategic decision-making process. Literature has revealed that metacognitive experience in decision-making will allow managers to have more control in the strategic decision-making process and thus making less erratic decisions (Mitchell et al., 2011). How information is analyzed for strategic decision-making processes is critical for the effectiveness of the decisions and managers must have knowledge on the sourcing and processing of the information.

6.4.7 Conclusion to Research Question 3

Ten enabling factors were identified by respondents as the enablers of strategic decision-making effectiveness. However, six were discussed in detail above due to them being highly ranked according to the weighted scores. To ensure strategic decision-making effectiveness looking at these findings; availability of data is key to the strategic decision-making process. Strategic decision-making is not an individual task, and every affected party has to be consulted to ensure buy-in and support for the success of the decision.

Having a clear strategic intent is critical in the strategic decision-making process as the decision made has to in alignment and support of the organizational strategy. The competent team in strategic decision-making brings metacognitive experience in dealing with information for strategic decision-making and reducing errors due to the increased rationality in decision making. The quality of information, support from superiors, external perspective and having a long term view are the other enablers noted by respondents for strategic decision-making effectiveness. Managers have to maximize these factors to ensure strategic decision-making effectiveness.

6.5 Discussion of the inhibiting factors of strategic decision-making effectiveness

Research Question 4: What are the Inhibiting factors of strategic decision-making effectiveness and their relative strength?

The results of this question are shown in Table 5-10 in Chapter 5 of this report. The objective of the question was to understand the factors that inhibit strategic decision-making effectiveness as highlighted by the respondents regarding importance. The factors were ranked, and frequencies of occurrences were noted and weighted scores were calculated for each factor as discussed in Chapter 4 (see section 4.6.4). Eleven factors were identified as the enabling factors of strategic decision-making effectiveness. Due to the significant difference in total weighted scores of the factors ranked at the top half of the table and the factors ranked at the bottom half of the table, only the top three inhibiting factors will be discussed in detail below.

6.5.1 Uncertainties

Uncertainty was ranked as the most important inhibiting factor of strategic decision-making effectiveness (weighted score of 49 and 19 frequencies of occurrences). This inhibiting factor is consistent with literature that characterizes strategic decision-making with risk and uncertainty due to the ever changing environment that influences the behavior of managers in the strategic decision-making process (Ashill & Jobber, 2013, Pataki & Padar, 2013; Mitchell et al., 2011). Strategic decision-making under risk and uncertainty is challenging for managers as the calculations and processing of information to find an optimal solution is difficult, as one manager indicated;

“Strategic decision-making is tough because of the uncertainty you never know where you have made the right decision until you see the outcome, or you see the impact of your decisions.”

Hostile environment presents many uncertainties in strategic decision-making and managers have to collect constantly new information to reduce the level of uncertainty in strategic decision-making process.

6.5.2 Regulatory environment

The regulatory environment has been indicated as the second most important inhibiting factor of strategic decision-making effectiveness (weighted score of 36 and 17 frequencies of occurrences). This outcome characterizes the type of industry (mining) that the managers are operating in which is highly regulated. The success of a mining operation is highly dependent on compliance with the government regulations, and strategic decision-making has to be aligned to these regulations for continued success. One of the respondents highlighted this by saying that;

“The inhibiting factor is the regulatory requirement, some of the things we would like to do, we might be stopped because of the regulatory environment, If you want to transfer reserves from one company to the next they might not give you permission to do that, so in terms of all that although that might be the best solution you will not be able to implement because they will not give it to you. You will not get the mining rights. The regulatory environment plays a role there”.

The literature review has not revealed this factor specifically however it is critical for the success of a mining organization operating under government regulatory laws as uncovered in this study.

6.5.3 Available time to make a decision

Available time to make a decision has been ranked third as an inhibitor of strategic decision-making effectiveness with a weighted score of 26 and eight frequencies of occurrences. This outcome although it was noted eight times, it was regarded to be more important by managers as an inhibitor of strategic decision-making effectiveness. This finding although not consistent with the literature reviewed in Chapter 2, it is indicated to be important in that it brings about an element of time pressure in the strategic decision-making process. The fewer time managers have for strategic decision-making means limited time to collect and process information leading to the use of intuition. Research in strategic decision-making has not linked intuition to strategic decision-making effectiveness and this area still requires more investigation (Glockner & Witteman, 2010).

6.5.4 Conclusion to Research Question 4

The research question was aimed at uncovering and understanding the inhibiting factors of strategic decision-making effectiveness. Eleven factors were indicated by the respondents

however according to the weighted scores of each factor; three factors were indicated as important based on their scores. Uncertainties, regulatory environment or government regulations on the industry and available time to make strategic decisions were rated highly by the respondents. Uncertainties and the time available to make strategic decisions can be attributed to the ever changing business environment that influences strategic decision-making effectiveness process.

Other factors that were indicated as inhibitors of strategic decision-making effectiveness were; continued changes in decision scope, this result due to strategic goals not clearly defined. Political factors which refers to the external political environment and its involvement and influence in the mining industry. Incorrectly defining strategic decisions can lead to strategic decisions not treated as important as they should and less comprehensive processes may be favored to make the strategic decision. Change in role players in strategic decision-making that slows the process of making the decision.

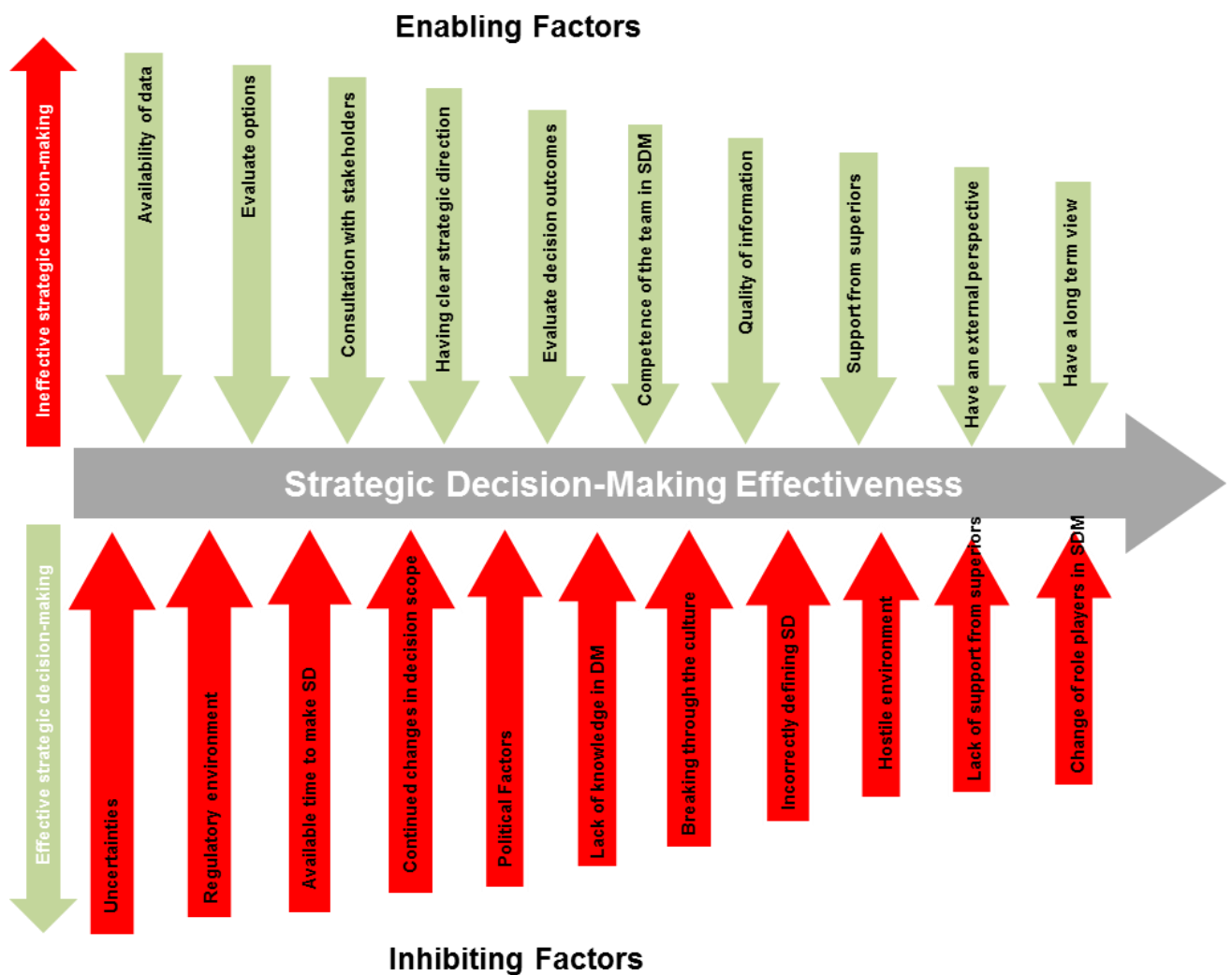
Strategic decision-making is complex and it is important to note the above factors and minimize them in the process of strategic decision-making effectiveness. The external business environment will remain a challenge as it is constantly changing and managers have to find ways of managing this change and looking out for the above inhibiting factors and minimizing or eliminating them completely, will benefit the process of strategic decision-making effectiveness.

6.6 Force field analysis: Enabling and inhibiting factors of strategic decision-making effectiveness

The development of force field analysis has been credited to Kurt Lewin and is a technique used to identify forces affecting a problem situation to effect a positive change (Kumar, 1999). Figure 6-1 below is force field analysis drawn up from the results of this study using the enabling and inhibiting factors of strategic decision-making effectiveness as indicated by the respondents. According to Kumar (1999) force field analysis clearly shows which of the forces needs to be strengthened or maximized and which factors need to be weakened or minimized to achieve the effective change.

The horizontal axis indicates the effectiveness of strategic decision-making and the vertical axis shows the level of effectiveness of strategic decision-making effectiveness. Ten enabling and eleven inhibiting factors of strategic decision-making effectiveness illustrated in Tables 5-9 and 5-10 has been used to formulate the force field analysis diagram as shown in Figure 6-1. The relative strength of each factor is indicated by the length of the arrow of that factor. This diagram illustrates that managers will have to focus more on maximizing the enabling or driving forces and minimizing the inhibiting forces to ensure strategic decision-making effectiveness.

Figure 6-1: Force field analysis of the enabling and inhibiting factors of strategic decision-making effectiveness



6.7 Discussion on ensuring strategic decision-making effectiveness

Research Question 5: How can managers ensure effective strategic decision-making?

Participants were asked to explain how they would ensure the effectiveness of strategic decisions in future when having to make a strategic decision. The results of this research question are shown in Table 5-11 in Chapter 5 of this report. The question was aimed at understanding the key factors required to ensure effective strategic decision-making according to the respondents. In Table 5-11, six factors were identified by the respondents, and they were ranked according to the frequency of occurrences and each factor will be discussed briefly below.

6.7.1 Consider external business environment and economic factors

Considering the external business environment and economic factors was ranked as the most important factor to ensure strategic decision-making effectiveness (33 frequencies of occurrences were noted by respondents). Taking into consideration and understanding the external business environment and economic factors by managers in strategic decision-making will minimize the level of uncertainty in the strategic decision-making process and thus making it easier to make an effective strategic choice.

This outcome supports the literature reviewed which states, environmental factors influence strategic decision-making and are important for strategic decision-making effectiveness (Dean, JR & Sharfman, 1996; Mitchell et al., 2011). Managers do not have control of these external environmental factors, and this creates a challenge in that it makes it difficult to understand the market for strategic decision-making effectiveness (Baum & Wally, 2003; Shepherd & Rudd, 2014).

6.7.2 Have a competent team in strategic decision-making

Having a team of competent individuals in strategic decision-making was ranked second as a factor to ensure strategic decision-making effectiveness with 25 frequencies of occurrences noted by respondents. Knowledge gained by managers in strategic decision-making is important for future strategic decision-making processes, as mistakes committed before are easily avoided thus ensuring the effectiveness of the strategic decisions.

A literature review has revealed that lack of knowledge in strategic decision-making processes can result in poor strategic decisions (Christensen & Knudsen, 2013). One respondent made an emphasis on this by saying;

“People should be capable. If you have the right people in the right places you can start leveraging and everybody is clear about what roles they should play. The lines for information and communication sharing are open then it starts flowing the way it should. The leader should say here is where are going, and this is when we need to get there. This is what you are going to be doing, do you need anything from me to help in the process, which works easier”.

Putting together a competent team with diverse thinking for strategic decision-making will improve the strategic decision-making effectiveness; this team of individuals should have different preferences, motives, and abilities so as to evaluate thoroughly alternatives from different perspectives.

6.7.3 Consider and involve your stakeholders

Consider and involve relevant stakeholders was ranked third (15 frequencies of occurrences noted) as a factor to ensure strategic decision-making effectiveness. Stakeholder management in strategic decision-making is critical in that it reduces resistance towards the strategic decision. One of the managers highlighted this by saying;

“...secondly, keeping all the stakeholders engaged for example the municipality, they also have movement. You need to keep them practically updated to say that this is what is going on; we are now going to this, not the reactive updating”.

Involving stakeholders in strategic decision-making ensures a process that is characterized by rationality, political behavior and intuition (Mori, 2010). Organizations are made up of stakeholders, and organizational performance is directly linked to your stakeholders by creating a win-win environment.

6.7.4 Ensure quality of information

Ensuring the quality of information used in strategic decision-making has been ranked fourth (11 frequencies of occurrences noted by respondents) as a factor to ensure strategic decision-making effectiveness. Methods used to search, collect and process information are critical for strategic decision-making effectiveness (Lieberman-Yaconi et al.,

2010) and managers need to understand these methods to ensure the quality of the information before making strategic decisions. Information that is accurate and relevant for the strategic decision effectiveness is important and one respondent supported this by saying;

“If you do not have quality information, you have to make many assumptions, and that will influence the quality of that decision.”

Strategic decision-making involves much information to be processed to make an effective strategic decision; managers have to select individuals with the correct knowledge in methods of dealing with data for decision-making purpose properly. Having systems that allow big data to be processed and analyzed can enable managers to make effective strategic decisions.

6.7.5 Continuously review strategic decision-making process

Reviewing strategic decisions-making process continuously during strategic decision-making has been ranked fifth most important factor in ensuring strategic decision-making effectiveness (9 frequencies of occurrences were noted by respondents). Due to the changing business environment that influences strategic decision-making effectiveness, it is necessary for managers to review the assumptions made during strategic decision-making process to improve the effectiveness of the decision continuously. However, this should not compromise the speed of strategic decision-making, Wally & Baum (1994) has argued that organizations that make fast strategic decisions take advantage of the opportunities quicker thus improving the performance of the organization.

6.7.6 Have support from superiors

Getting support from senior management ranked sixth (8 frequencies of occurrences were noted by respondents) as the most important factor to ensure strategic decision-making effectiveness. Having a commitment from a senior executive in strategic decision-making increases the level of buy-in and thus the chances of an effective strategic choice being made. Papadakis & Barwise (2002) have found in their study that top management teams and CEO's have influence on strategic decision-making processes. This is consistency with this finding in that if one has a commitment from senior executives it increases the likelihood of success in strategic decision-making effectiveness.

6.7.7 Conclusion for Research Question 5

Six key factors were identified by the respondents as shown in Table 5-11 to ensure strategic decision-making effectiveness. The results as discussed above were consistent with some of the main enabling factors of strategic decision-making effectiveness as indicated by respondents in Table 5-9. The discussion of the factors for strategic decision-making effectiveness above has shown consistency with the literature reviewed in Chapter 2, and it is suggested that these factors be used as input to the formulation of the proposed strategic decision-making effectiveness framework.

7 Chapter 7: Conclusion

7.1 Introduction

Chapter six presented the analysis and discussion of the outcomes of this study in the context of the literature in chapter two on factors enabling and inhibiting strategic decision-making effectiveness, factors of why managers find strategic decision-making challenging and factors to ensure strategic decision-making effectiveness. This chapter will discuss the summary of the main findings of this study. The implications and recommendations for management will then be outlined with research limitations and suggestion for possible future research presented.

7.2 Summary of main findings

The research was based on 14 in-depth semi-structured interviews with executives and managers to uncover and understand the enabling and inhibiting factors of strategic decision-making effectiveness. The participants were also asked to indicate how they experience strategic decision-making and how would they improve the effectiveness of strategic decision-making.

The findings revealed ten enabling factors of strategic decision-making effectiveness according to the respondents. Availability of data, consultation and evaluating of options during strategic decision-making were the main themes to emerge from the data analysis as enablers of strategic decision-making effectiveness. To make effective strategic decisions, managers felt that availability and quality of data, involving stakeholders affected by the decision, and evaluating different alternatives in the process of strategic decision-making is critical for the effectiveness of the decision. A force field analysis as shown in Figure 6-1 illustrates the enabling factors which managers will have to maximize on to effectively make strategic decisions.

Uncertainties, the regulatory environment and the time available to make strategic decisions were regarded as the main inhibitors of strategic decision-making effectiveness by the respondents. Uncertainties and time available to make a decision in strategic decision-making are due to the ever changing business environment as it was revealed in the literature reviewed in chapter two. The regulatory environment however was a finding that is consistent with the industry in which the study was conducted, the mining industry

operate under a highly government regulated environment, and compliance to these regulations is key to the long-term success of the organization. These inhibiting factors together with those shown in Figure 6-1 will have to be minimized to ensure strategic decision making effectiveness.

The force field analysis will help manager in strategic decision-making effectiveness by quickly highlighting which factors to maximize and minimize to arrive at an effective strategic decision.

7.2.1 Strategic decision-making effectiveness framework

The construction of the SDM effectiveness framework was with reference to the business challenges identified in chapter one. The literature review in chapter two and discussion of results in chapter six allowed for the development of the strategic decision-making framework. Suggestions of managers to ensure effectiveness of strategic decision-making and reasons why strategic decision-making is difficult were consolidated with reference to the enabling and inhibiting factors of strategic decision-making effectiveness to construct the framework. The SDM framework is shown in Figure 7-1 below.

Figure 7-1: Strategic decision-making effectiveness framework



Figure 7-1 above illustrates the six factors which form the strategic decision-making effectiveness. These factors were identified by the respondents as reasons to ensure effective strategic decision-making and that is why they were suitable to be used to develop the framework. The underlying assumption of this framework is that each factor has to be satisfied before moving on to the next factor in the process. With the changing environment, it is advised to continuously review assumptions used for the SDM process by collecting and processing new data from the ever changing business environment.

The factors have been discussed in more detail (see section 6.7) with reference to the literature reviewed in chapter two; this should give insights to the managers in the effective use of the framework.

7.3 Implications and recommendations for management

With regards to the practical implications and recommendations for managers, the strategic decision-making framework can assist managers in the following way:

- The strategic decision-making effectiveness framework can be used as a process of strategic decision-making. Following the factors in the framework as uncovered in this study will help managers with a structural approach to ensuring strategic decision-making effectiveness.
- The challenges and difficulties experienced by managers in strategic decision-making can be evaluated using the factors in the force field analysis and using the SDM effectiveness framework to ensure the success of strategic decisions.
- The framework can be used for training purposes on how to address each of the factors to ensure the effectiveness of the framework. The factors in the framework have been explained in detail in chapter six (see section 6.7).
- The framework can be incorporated into the business model of the organization on decision making to instill a culture of following a process for strategic decision-making effectiveness.

7.4 Research limitations

The findings of this study cannot be generalized due to the following limitations:

- The study was limited in focus as it was conducted in the coal mining organizations operating in Mpumalanga of South Africa. Therefore it cannot be a representative of the mining industry of South Africa.
- The sample cannot be considered as a representative of all managers because of the non-probability purposive sampling technique used and the sample size. The main selection criteria used by the researcher was based on the individuals that will be suitable for the study.
- The respondents in this study may have a different view of their success in strategic decision-making to another manager, and this may result in a possible response bias.
- Semi-structured interviews were used for this study, and this can lead to a possible interviewer bias in the use of leading follow-up question.

7.5 Recommendations for future research

The process and the findings of this study have led to the following suggestions for future research as stated below:

- The study uncovered enabling and inhibiting factors of strategic decision-making effectiveness, however, some of the factors were not regarded as important in the views of the respondents. A suggestion of a quantitative study with a more representative sample to further understand each factor's impact can be explored.
- This study only focused on the top management in the organizations. An empirical study involving the junior- and middle-management is suggested to have a deeper understanding of the process of strategic decision-making effectiveness.

- Organizations in the coal mining sector were used for this study; future studies can investigate the entire mining industry the concept of strategic decision-making effectiveness.

7.6 Conclusions

This study has presented a comprehensive review of strategic decision-making effectiveness literature and together with the data collected and analyzed, proposed a strategic decision-making effectiveness framework based on empirical evidence. Strategic decision-making is complex as revealed in the literature; each factor proposed in the framework will have to be satisfied fully before moving to the next factor in the process to achieve the effectiveness of the framework for effective strategic decisions.

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Appendix 1: Consistency Matrix

Question Number	Research Question	Literature Review	Data Collection Tool	Analysis
1	How difficult do managers find strategic decision-making?	Wally & Baum (1994) Stanovich & West (2000) Kahneman (2003) Polič (2009) Bauer, Schmitt, Morwitz, & Winer (2013) Patokorpi (2008) Ashill and Jobber (2013)	A qualitative semi – structured interview with the executive/manager. Interview schedule Question 1	Content analysis to identify key themes and words that are frequently used. Coding and analysis Constant comparative analysis
2	What are the decision-making processes followed by managers in strategic decision-making?	Cyert and Williams (1993) Elbanna (2006) Malewska and Sajdak (2014) Elbanna and Child (2007a) (Rajagopalan et al., 1993) Dean and Sharfman (1996)	A qualitative semi – structured interview with the executive/manager. Interview schedule Question 2 & 2.1	Content analysis to identify key themes and words that are frequently used . Coding and analysis Constant comparative analysis

<p>3</p>	<p>What are the enabling factors of strategic decision-making effectiveness and their relative strength?</p>	<p>Dean and Sharfman (1996) Ashill and Jobber (2013) Shepherd and Rudd (2014) da Silva & Roglio, (2015) Cyert and Williams (1993)</p>	<p>A qualitative semi – structured interview with the executive/manager. Interview schedule Question 3.2</p>	<p>Content analysis to identify key themes and words that are frequently used. Coding and analysis Constant comparative analysis</p>
<p>4</p>	<p>What are the Inhibiting factors of strategic decision-making effectiveness and their relative strength?</p>	<p>Dean and Sharfman (1996) Ashill and Jobber (2013) Shepherd and Rudd (2014) Christensen and Knudsen (2013)</p>	<p>A qualitative semi – structured interview with the executive/manager. Interview schedule Question 3.3</p>	<p>Content analysis to identify key themes and words that are frequently used. Coding and analysis Constant comparative analysis</p>

5	How can managers ensure effective strategic decision-making?	(Brousseau et al., 2006) Shivakumar (2014) Erez & Grant (2014)	A qualitative semi – structured interview with the executive/manager. Interview schedule Question 3.4, 3.5 & 4	Content analysis to identify key themes and words that are frequently used. Coding and analysis Constant comparative analysis
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Appendix 2: Interview schedule guide and letter of intent

Interview Schedule Guide					
Age (Years)					
30 - 39	40 - 49	50+			
Highest Qualifications					
Diploma	Degree	Post - Graduate			
Experience in Top Management (Years)					
0 - 2	3 - 5	6 - 8	9 - 11	12 - 15	15 +
Q1. How difficult do you find strategic decision making?					
Very Easy	Easy	Moderately Difficult	Difficult	Very Difficult	
Q2. Do you follow a decision making process when making strategic decisions?					
YES	NO				
Q2.1 If yes, please explain the process you follow.					
Q3. Can you think of a strategic decision that you have made recently.					
Q3.1 what was the strategic decision?					

Q3.2 With that strategic decision, what were the key enabling factors to making that decision and how would you rate each factor from the scale of 1-5 below?

Factor	1 Unimportant	2 Somewhat Important	3 Important	4 Very Important	5 Critical

Q3.3 In the same strategic decision, what were the key inhibiting factors to making that decision and how would you rate each factor from the scale of 1-5 below?

Factor	1 Unimportant	2 Somewhat Important	3 Important	4 Very Important	5 Critical

Q3.4 In future strategic decision making, how would you maximize the enabling factors?

Q3.5 In future strategic decision making, how would you minimize the inhibiting factors?

Q4. Any other comments relating to strategic decision-making?

Gordon Institute of Business Science University of Pretoria

Interview Consent Letter

Title: Understanding factors that enable and inhibit strategic decision making effectiveness

I am conducting a research on understanding the drivers and inhibitors of strategic decision making effectiveness. To that end, you will be asked to participate in an interview to better understand the techniques executives use to maximize the driving forces and minimize the inhibiting forces.

The interview should take no more than 30 minutes of your time. Your participation is voluntary and you can withdraw at any time without penalty. All the data collected will be kept confidential.

By agreeing to be interviewed, you indicate that you voluntarily participate in this research. If you have any concerns, please contact me or my supervisor. Our contact details are provided below:

Researcher: **Mxolisi Shirindza**

Email: shirindzam@gmail.com

Phone: 072 132 3579

Research Supervisor: **Dr Mandla Adonisi**

Email: adonisim@gibs.co.za

Phone: 011 771 4000/4155

Signature of Participant: _____

Date: _____

Signature of Researcher: _____

Date: _____

Appendix 3: Ethical clearance letter of approval

**Gordon Institute
of Business Science**
University of Pretoria

Dear Mxolisi Shirindza

Protocol Number: Temp2015-01456

Title: Understanding Factors That Enable and Inhibit Strategic Decision Making Effectiveness

Please be advised that your application for Ethical Clearance has been APPROVED.

You are therefore allowed to continue collecting your data.

We wish you everything of the best for the rest of the project.

Kind Regards,

Adele Bekker