THE EFFECT OF STRATEGIC PROJECT LEADERSHIP ELEMENTS ON SUCCESSFUL STRATEGIC MANAGEMENT IMPLEMENTATION

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DECLARATION

“I NEVIN NARHAN NEL hereby declare that:

- the work in this dissertation is my own original work;

- all sources used or referred to have been documented and recognised; and

- this dissertation has not been previously submitted in full or partial fulfilment of the requirements for an equivalent or higher qualification at any other recognised education institution.”

___________________  30 October 2012

N.N.NEL  DATE
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Most gladly therefore will I rather glory in my infirmities, that the power of Christ rest upon me. Therefore I pleasure in infirmities, in reproaches, in necessities, in persecutions, in distress for Christ’s sake: for when I am weak, then I am strong.

2 Corinthians 12 v 9 and 10

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ABSTRACT

Executives and managers are required to develop the required competencies to ensure the long term success of their organisations. In the competitive and dynamic business environment organisations are faced with, strategic management and planning has gained momentum as a management science which aids managers and executives in circumventing the challenges that such a dynamic environment can present.

Strategic management and planning is, however, of no consequence unless the strategic plan is deployed and implemented in an organisation and the implemented plan is evaluated in action. Many organisations find the process of strategy implementation much more of a challenge than the process of strategy formulation. Consequently, many of these organisations have utilised project management to assist in the strategic management implementation process.

The competitive and dynamic business environment also requires organisations to constantly develop and execute more innovative business strategies to remain competitive. In order to do this, many organisations have started to explore the alignment between business strategy and project management strategy. Various commentators note that successful implementation of strategy is challenging, especially considering the 70 per cent execution failure rate. It is further noted that organisations only realise 60 per cent of the potential value of their intended strategies due to failures in planning and implementation. Consequently, projects are often chosen as vehicles to implement these business strategies.

The primary objective of this research is to improve the implementation of strategic management initiatives within organisations. This was achieved by investigating whether Shenhar’s strategic project leadership elements (i.e. organisational structure, process definition, implementation metrics, implementation tools and organisational culture) have an impact on the successful implementation of strategic management initiatives. The study
also aims to investigate whether age, gender, race, designation, education, industry experience and tenure at Eskom Telecommunications, have an impact on the perception of the following variables under investigation:

- Implementation metrics;
- Implementation tools;
- Organisational structure;
- Organisational culture;
- Process definition; and
- Strategic management implementation.

If the correlation between strategic management implementation and Shenhar’s strategic project leadership elements is established, it would assist organisations in the implementation of successful strategic management initiatives, by aiding an understanding of how these independent variables affect the implementation process. Improved implementation of strategic management initiatives would assist management teams in organisations to overcome the unique challenges that change in an organisation’s internal and external environment cause.

The scope of this study was limited to be conducted in Eskom Telecommunications only. The study is concluded with a number of recommendations that Eskom Telecommunications could implement to improve strategic management implementation and a synopsis of this study’s contribution to theory is provided, in addition to recommendations for future research.
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CHAPTER 1

SCOPE OF THE STUDY

1.1 INTRODUCTION

The competitive and dynamic business environment organisations are faced with, presents unique challenges to senior managers to develop the required competencies for long term organisational success. Strategic management, which has gained prominence since the mid 1980’s (Furrer, Thomas and Goussevskaia, 2008), is generally regarded as “…the major intended and emergent initiatives taken by general managers on behalf of owners, involving utilisation of resources to enhance the performance of firms in their external environments” (Nag, Hambrick and Chen, 2007:942). This view has garnered support from various commentators (Büchel and Davidson, 2010; Ronda-Pupo and Guerras-Martin, 2010; Varadarajan, 2010).

Strategic management and planning is, however, of no consequence unless the strategic plan is deployed and implemented in an organisation and the implemented plan is evaluated in action. Many organisations find the process of strategy implementation much more of a challenge than the process of strategy formulation. Franken, Edwards and Lambert (2009:50) comment that literature has identified five key reasons for the difficulty organisations experience in achieving successful strategy execution:

1. Shareholders exert relentless pressure on management teams to increase the profitability of organisations, leading to more frequent changes in strategy;
2. The complexity of strategic change programs increase as the complexity of organisations increase, consequently increasing the risk of failure due to lack of sufficient oversight;
3. To ensure the successful implementation of strategic initiatives, managers need to effectively manage the balance between the daily business operations and creating the business of tomorrow;
4. Insufficient involvement of operational (lower level) management at the initial implementation stages of strategy execution; and
5. The resources required to execute the strategy may be difficult to secure.

Consequently, many of these organisations have utilised project management to assist in the strategic management implementation process. Srivannaboon and Milosevic (2006) noted that researchers have only recently embarked upon a process of exploring the alignment between business strategy and project management strategy.

They argue that this shift in strategic view to identify the alignment between business strategy and project management strategy has been fuelled by the need of many companies to develop and execute more innovative business strategies to remain competitive. Morris and Jamieson (2004:32) augment this view by stating that “…, projects are often chosen as vehicles to implement those strategies and PM is [more] commonly considered to be an important business process.

1.2 PROBLEM STATEMENT

1.2.1 Extent of the problem

Eskom (and Eskom Telecommunications) has, as recently as 2010/1, embarked on an organisational strategic review process. The outcome of the strategic review process was the formulation of the Back2Basics organisational strategy which Eskom is currently implementing.

As stated above, many organisations find the process of strategy implementation much more of a challenge than the process of strategy formulation. Franken, Edwards and Lambert (2009:49) comment that the successful implementation of strategy is challenging, especially considering the 70 per cent execution failure rate. It is further argued that organisations only realise 60 per cent of the potential value of their intended strategies due
to failures in planning and implementation (Franken, Edwards and Lambert, 2009:49; Mankins and Steele, 2005). Consequently, it can be concluded that any organisation would be able to benefit from a strategic framework which assisted in the implementation of strategic initiatives.

1.2.2 Importance of the study

This study aims to determine whether the independent variables under study (i.e. organisational structure, process definition, implementation metrics, implementation tools and organisational culture) have an impact on the successful implementation of strategic management initiatives (dependent variable). The study also aims to investigate whether age, gender, race, designation, education, industry experience and tenure at Eskom Telecommunications, have an impact on the perception of the variables under investigation.

If the correlation between the dependent and independent variables is established, it would assist organisations in the implementation of successful strategic management initiatives, by aiding an understanding of how these independent variables affect the implementation process. Improved implementation of strategic management initiatives would assist management teams in organisations to overcome the unique challenges that change in an organisation’s internal and external environment cause.

1.3. RESEARCH OBJECTIVES

1.3.1 Primary research objective

The primary objective of this research is to improve the implementation of strategic management initiatives within organisations. This will be achieved by investigating if:

- organisational structure exerts an influence on the successful implementation of strategic management initiatives;
process definition exerts an influence on the successful implementation of strategic management initiatives;
implementation tools exerts an influence on the successful implementation of strategic management initiatives;
implementation metrics exerts an influence on the successful implementation of strategic management initiatives; and
organisational culture exerts an influence on the successful implementation of strategic management initiatives.

1.3.2 Secondary research objectives

In order to achieve the primary objective of the study, additional secondary objectives of the research will be pursued. These secondary objectives are to determine whether:

- age has an influence on the perception of the variables under study;
- gender has an influence on the perception of the variables under study;
- race has an influence on the perception of the variables under study;
- designation has an influence on the perception of the variables under study;
- education has an influence on the perception of the variables under study;
- industry experience has an influence on the perception of the variables under study; and
- tenure at Eskom Telecommunications has an influence on the perception of the variables under study.

1.4 RESEARCH DESIGN OBJECTIVES

1.4.1 Research paradigms

Literature identifies two primary research paradigms, being the positivistic research paradigm and the phenomenological research paradigm, also
referred to as interpretivism. A brief description of these paradigms will briefly be discussed.

1.4.1.1 Positivistic research paradigm

The positivistic research paradigm is also known as quantitative, objective, scientific, experimentalist or traditionalist research (Collis and Hussey, 2009). Positivistic research has as its aim the investigation of causal relationships between variables. These variables are determined before the study commences. This allows the researcher to adopt a very objective approach to the research topic. As a consequence, it is a fair assessment to conclude that the researcher is independent from the research being conducted. Knowledge is enhanced by the information obtained because “every rationally justifiable assertion can be scientifically verified or is capable of logical or mathematical proof” (Walliman, 2001:15).

1.4.1.2 Phenomenological research paradigm

Phenomenological research evolved from the inability of positivistic research to answer the why questions that quantitative research data are unable to explain (Jandagh and Matin, 2010). This type of research is also referred to as qualitative, subjectivist, humanistic, interpretivist or new mindset research. Collis and Hussey (2009:57) stated that “interpretivism is underpinned by the belief that social reality is not objective but highly subjective because it is shaped by our perceptions.”

Consequently, phenomenological research requires the researcher to be more involved on a personal level during the research process and as such the researcher is not allowed to be an objective and impartial observer (Spector, 2005).

1.4.2 Research design

The following research design framework will be followed:
(i) Secondary literature review;
(ii) Define the hypothesis;
(iii) Construct a questionnaire (for quantitative data collection);
(iv) Test the questionnaire in a pilot study;
(v) Conduct data collection with the corrected questionnaire;
(vi) Capture the data;
(vii) Analyse the data (utilising content analysis); and
(viii) Interpret the results, draw conclusions and make recommendations.

1.5 HYPOTHESES

The following null hypotheses will be investigated during this study and the hypothesized relationship is graphically represented in figure 1.1:

**Organisational structure**

H1: Organisational structure exerts a positive influence on strategic management implementation.

**Process definition**

H2: Process definition exerts a positive influence on strategic management implementation.

**Implementation metrics**

H3: Implementation metrics exert a positive influence on strategic management implementation.

**Implementation tools**

H4: Implementation tools exert a positive influence on strategic management implementation.
Organisational culture

H5: Organisational culture exerts a positive influence on strategic management implementation.

1.5.1 Conceptual model

Figure 1.1: Conceptual model of the proposed study
1.6 METHODOLOGY OF THE STUDY

1.6.1 Research study paradigms

The two paradigms discussed above are the paradigms that can be described as the extremities of a continuum of paradigms according to Morgan and Smircich (1980, as cited by Collis and Hussey, 2009). The above proposed study will consist of positivistic research methods. The primary paradigm will be of a quantitative nature, describing the research results obtained from the surveys distributed amongst Eskom Telecommunications’ employees.

Descriptive and inferential analysis will be conducted in the following ways:

- **Primary research data**
  - Surveys
    - Questionnaires (via e-mail and intranet) will be distributed to the selected research sample of employees at Eskom Telecommunications.

- **Secondary research data**
  - A literature review of all relevant material will be conducted including, but not limited to:
    - Grey literature;
    - Journal articles;
    - Related theses, dissertations and treatises previously conducted; and
    - Text books

1.6.2 The sample

In this section, the compilation of the sample will be clarified.
1.6.2.1 The population

The sample will be drawn from 438 Eskom Telecommunication’s personnel.

1.6.2.2 The sample size

A conscious decision was made to distribute the primary research tool to 46% of the available population. As the population consisted of 434 employees, 200 employees constituted 46% of the available population. As such the sample size was determined at 200.

1.6.2.3 The sample composition

A sample of 200 employees was selected from the Eskom Telecommunications Alpha List of human resources (dated July 2012) as provided by the Eskom Telecommunications human resources department. All employees in Task grades T04 to T06 were excluded from the study and in total this accounted for four (4) exclusions.

1.6.2.4 The sample design

The proposed sampling method was non probability sampling, as the population of respondents that will participate in the sample are based on the Alpha List described above. Some of the respondents are known to the researcher and have already indicated their willingness to participate in the research study.

1.6.3 The measuring instrument

The measuring instrument will be developed in three sections. During section one a literature review will be conducted where secondary research data will be overviewed to critically assess the knowledge already produced on related topics. The information obtained from the literature review is to be utilised to
construct an effective measuring instrument in which positive statements will be coded and presented in the form of a survey questionnaire. The questionnaire will be constructed in the form of a 5-point Likert scale to which the research sample will respond to scales ranging from 1 (strongly agree) to 5 (strongly disagree). It is proposed that 5 independent variables (i.e. organisational structure, process definition, implementation tools, implementation metrics and organisational culture) relating to the utilisation of project management tools be tested against strategic change as the dependent variable. Each variable will be represented by seven questions on the questionnaire, resulting in a questionnaire with 42 questions in total.

During section 2 a pilot study will be conducted with industry experts and academics to confirm the validity of the survey questionnaire, prior to the survey being distributed to the research sample. The reliability (or internal consistency) of the survey will be tested using Cronbach’s alpha.

Upon the confirmation of the reliability and validity of the questionnaire, the survey questionnaires will be distributed to the research sample at the commencement of section 3. The research data will be analysed with a statistical program (STATISTICA 10). Conclusions based on the results of the research data will be drawn and recommendations for the implementation of strategic management initiatives will be presented.

1.7 DEFINITION OF CONCEPTS

The following key concepts are will be utilised throughout this study:

**Implementation metrics (IM):**

The performance metrics used to determine the level of success obtained during the implementation of strategic management initiatives.
**Implementation tools (IT):**

The implementation tools are the instruments organisations use to take cognisance of the all relevant factors influencing the strategy, both internal and external to the organisation.

**Organisational culture (OC):**

“The set of beliefs, values, and norms, together with symbols like dramatized events and personalities, that represent the unique character of an organisation, and provides the context for other action in and by it” (Morgan, 1997:41).

**Organisational structure (OS):**

The formal division of an organisation into subunits which guides and coordinates the following activities within an organisation:
- The level of authority of employees
- The powers and responsibilities of employees
- The direction of information flow in an organisation

**Process definition (PD):**

Rules and policies in an organisation designed to provide guidance to a series of actions, or specific activities, or functions to bring about a desired result.

**Strategic Management (SM):**

“The major intended and emergent initiatives taken by general managers on behalf of owners, involving utilisation of resources to enhance the performance of firms in their external environments” (Nag, Hambrick and Chen, 2007:942).
1.8 OUTLINE OF THE CHAPTERS

The study will be divided into six chapters. In Chapter 1, an introduction of the study is provided. The problem is identified and defined; the research objectives and research design objectives are elaborated upon; and a methodological outline of the study is provided. The following chapters are:

- Chapter 2: Literature review of Strategic management;
- Chapter 3: Literature review of Project management;
- Chapter 4: Research methodology;
- Chapter 5: Empirical results; and
- Chapter 6: Summary, conclusions and recommendations
CHAPTER 2

LITERATURE REVIEW – STRATEGIC MANAGEMENT

2.1 INTRODUCTION

The competitive and dynamic business environment organisations are faced with, presents unique challenges to senior managers within these organisations to develop the required competencies for long term organisational success. Strategic management, a field of study which has undergone significant and fundamental changes since the momentum of strategic management theory, gained prominence in the mid 1980’s (Furrer, Thomas and Goussevskaja, 2008). Although various contributions to the field of study have been made over this time, many commentators agree that a fundamental definition which is rarely questioned, does not exist for the field of strategic management (De Witt and Meyer, 2010; Furrer, Thomas and Goussevskaja, 2008; Nag, Hambrick and Chen, 2007).

An inductively derived consensus was the outcome of a study undertaken by Nag, Hambrick and Chen (2007). This definition was based on empirical evidence gained by evaluating the most influential strategic management articles, interviewing the thought leaders in the strategic management field and researching the predominant subfields in the strategic management environment. Based on this research Nag, Hambrick and Chen (2007:942) provided a seminal description of strategic management as “…the major intended and emergent initiatives taken by general managers on behalf of owners, involving utilisation of resources to enhance the performance of firms in their external environments,” a view which has garnered support from various commentators (Büchel and Davidson, 2010; Ronda-Pupo and Guerras-Martin, 2010; Varadarajan, 2010). Strategic management and planning is of no consequence unless the strategic plan is deployed and implemented in an organisation and the implemented plan is evaluated in action. Strategic management tools are used to this end (Wells, 2000).
This chapter aims to explain the following:

- The differences and relationships between three of these strategic management tools, i.e. a strategic business model, a balanced scorecard and a value chain, with reference to strategic business philosophy:
- the usefulness of strategic management tools as strategic frameworks in the formulation of strategy; and
- a discussion of the three most well-known generic competitive business strategies.

Each of these strategic management tools are independent and established frameworks within business. These frameworks are useful to analyse and resolve complex business issues and is best utilised in synergy.

2.2 OVERVIEW OF THE STRATEGIC MANAGEMENT TOOLS AND THEIR ROLES IN STRATEGIC BUSINESS PHILOSOPHY

Any organisation’s strategy aims to gain a competitive advantage over its rivals in the marketplace. Competitive advantage can be obtained from multiple sources of the organisation’s activities. These sources may be grounded in the external environment (as proposed by the competitive strategy school of thought who focuses on the industry structure and the strategic position that the firm adopts) or on the internal capabilities (based on the resource-based view, focusing on inimitability, value creation strategy and uniqueness of the strategy employed) of the organisation (Adner and Zemsky, 2006; Makadok and Coff, 2002; Eisenhardt and Martin, 2000).

The resource-based view proposes that an organisation’s resources could be classified into four groups, being:

- Financial capital resources;
- Human capital resources;
- Physical capital resources; and
- Organisational capital resources (Brewster et al., 2009).
The function of strategic management planning is to align these resources with the prevailing business environment to ensure that an organisation may achieve superior performance. The organisation's ability to adapt and adjust to changes in its industry or business environment, is known as strategic flexibility and an organisation's business model is key in sustaining strategic alignment between the organisational resources and the strategic direction that the organisation wishes to embark upon in a hypercompetitive environment (Brewster et al., 2009).

2.2.1 **The business model framework**

Osterwalder and Pigneur (2009:14) describe a business model as “…the rationale of how an organisation creates value”. Once the organisation’s strategic direction has been defined (creation of the vision and mission statements of the organisation), the business model is, in essence, the organisation’s management’s roadmap that explains how the organisational strategy will be able to create value for its stakeholders. The question that immediately comes to mind is whether there is a difference between an organisation's business model and its strategy?

Casadesus-Masanell and Ricart (2009:2) provide clarity in this regard by stating that strategy is “…the choice of business model through which the firm will compete in the marketplace” and the business model “refers to the logic of the firm, the way they operate and how it creates value.” The business model, that the organisation ultimately employs, will be the determining factor as to what tactics the organisation could utilise to compete against or cooperate with other organisations in the marketplace. The business model is a relevant strategic tool for both new entrepreneurial ventures as well as for large established organisations. Based on extensive literature research and practical industry experience, Osterwalder (2009) concluded that a business model consists of nine building blocks that constitute the business model canvas.
As depicted in Figure 2.1, the business model canvas is created around the value proposition. The value proposition is a description of what value the organisation is going to offer their customers. This concept is defined during the strategic planning phase. The following step is identifying the customer segments that are addressed by the value proposition. This would entail deciding on the products or services the business is going to offer to the various customer segments that it aims to serve. When the organisation has identified its customer base it needs to decide what the best manner is in which interaction with the customers will take place, e.g. viz. the internet, stores, distributors, exporters, etc. Once the organisation knows how to reach their customers, they have to decide what types of relationships they will have with their customers, i.e. mass customisation, personalised relationships, sales force automation, etc.

**Figure 2.1:** Nine building blocks of the business model that constitutes the business model canvas

Revenue models are based on market indications of what consumers would be willing to pay for the organisation’s products or services. Revenue models
are crucial in identifying the organisation’s revenue streams (subscriptions, leasing, support, sales, etc.) and target profit margins. The outcome of this process is that the organisation now knows what value they aim to create and they are aware of whom they are doing it for. The next questions relate to how the value will be created:

- What are the key resources or assets required to create the value?
- What activities need to be performed?
- Who are our key partners and what is their motivation to participate in the business model?
- What are our cost structures?

These questions are best considered within the framework of the value chain.

**2.2.2 Value chain**

The value chain provides a framework to analyse the specific activities through which an organisation aims to create competitive advantage. Value chain analysis has been conducted by researchers from a wide array of disciplines and consequently, various methods of value chain analysis have emerged in the literature (Faße, Grote and Winter, 2009). One of these methods entails how the business administration environment manages the modeling and simulation of supply chains (Faße, Grote and Winter, 2009; Ondersteijn et al., 2006; Kotzab et al., 2005).

Porter’s value chain framework has been acknowledged by various commentators as a strategic framework which is useful to identify the potential sources of differentiation between competitors (Bhatnagar and Teo, 2009; Ahmed and Sharma, 2006). In addition, it assists in the understanding of the strategically relevant cost drivers which the organisation engages in during its value creation activities.

Porter’s value chain model has been split into two distinct sectors, primary and secondary value chain activities (Bhatnagar and Teo, 2009; Ahmed and
Both the primary and secondary value chain activities that have been identified have, as its primary goal, the creation of value that exceeds the cost of providing that product or service. By creating this value that exceeds the cost of providing the service, organisations are able to generate value for their shareholders via the profit margins generated.

By constructing a value chain, organisations are able to isolate the value creating activities of the various functions within each organisation’s value adding processes. This allows the organisation the ability to strategically analyse the cost vs. the value add benefit that it derives from any activity within the value chain and make strategic choices relating to which activities should be outsourced, whether backward integration in the value chain should be considered, or whether forward integration of upstream distributors or suppliers is a viable option to create a sustained competitive advantage (Cook, Bhamra and Lemon, 2006; Ward and Graves, 2005; Mathieu, 2001; United Nations, 2002).

Value chain analysis provides a detailed analysis of a company’s cost position to obtain a cost advantage. It seeks to understand the cost structure of all activities across the value chain to determine where low-cost advantages or cost disadvantages exist (Bhatnagar and Teo, 2009). Analysing the organisation’s strengths and weakness using its costs per value add process, provides a more objective analysis than the traditional cost accounting tools most organisations use.

Value chain analysis is invaluable in analysing competitor performance, in an effort to ensure that the strategic focus of the organisation is directed such, that it allows the organisation to improve its organisational performance. In dynamic industries value chain analysis could be used to isolate a key competitor and find the source of their competitive advantage in their value chain, so that the organisation could respond strategically in an appropriate manner.
By taking cognisance of the entire value chain and forming a strategic alliance with distributors and suppliers, organisations are able to optimise their value creation processes and reduce costs. Cheng and Huang (2009) concluded that in this manner, organisations are able to create competitive advantage. The performance of the value creating strategic business units within the organisation needs to be monitored continually to ascertain whether their performance is aligned to the strategic intent of the organisation. Business performance management plays a crucial role in this regard and the Balanced Scorecard is the framework of choice for many organisations.

2.2.3 Balanced scorecard

Business performance management systems have been implemented in organisations, mainly to improve control in various areas within organisations in a manner that traditional accounting systems have failed (Kellen, 2003). Business performance management systems provide management teams with financial and non-financial metrics to aid improved decision making. Traditional financial measures were supplemented with criteria that include the measurement of the customer’s perspective, financial performance, internal business processes, and learning and growth (Kaplan and Norton, 2007). These metrics include employed strategies, strategic goals that have been formulated, internal capabilities of the organisation and resources that the organisation has at its disposal, as well as the causal relationships that exist between these metrics (Rajesh et al., 2012).

The balanced scorecard thus allows managers not to rely solely on short term financial success as the sole indicator of an organisation’s performance. As such, the balanced scorecard provides an effective framework that management could utilise to implement and manage strategy, by linking objectives, initiatives and measures to an organisational strategy, throughout all levels of an organisation.

The scorecard provides management with the ability to link a company’s long term strategy with its short term actions. They are able to do this by using the
balanced scorecard to better communicate the strategy, to prioritise the allocation of resources and to motivate the employees to achieve common and long term goals (Aravamudhan, 2010). The balanced scorecard’s ability to link the outputs of employees to the strategic goals of the organisation makes employees aware of their contribution towards achieving those goals.

To this end, the balanced scorecard’s role is to:

1. explicitly communicate the strategic objectives of the organisation; and
2. determine to what extent these goals are being achieved by the organisation, by measuring the organisational performance against these goals (Martinez, Pavlov and Bourne, 2010).

The balanced scorecard is able to assist the management team in implementing and managing strategy by introducing four new management processes. These processes are:

- Translating the vision;
- Communication and linking;
- Business planning; and
- Provides feedback and learning.

The scorecard also provides a framework for departmental and individual goal setting, business planning, capital allocations, strategic initiatives and feedback and learning of the strategy implementation process (Kaplan and Norton, 2007).

2.3 USEFULNESS OF STRATEGIC MANAGEMENT TOOLS AS STRATEGIC FRAMEWORKS FOR THE FORMULATION OF STRATEGY

“The business model is, … , the managerial equivalent of the scientific method – you start with a hypothesis, which you then test in action and revise when necessary” (Magretta, 2002:5). The business model that an organisation adopts is dependent on various assumptions. The assumptions
could be anything related from customers perception of the value to be created, to distribution and supply chain assumptions. These assumptions are then formulated and the business model could be used to obtain capital from investors, if they perceived the business model will produce significant economic benefits to produce return on their investments.

Once the business starts operating, the underlying assumptions contained in the business model (relating to motivations and economics) will be continually tested in the marketplace (Magretta, 2002). Often, the success of the implemented business plan depends on management’s ability to make any required changes to the existing business plan, or create a new business plan if the need arises. The strength of the business plan is that it takes cognisance of customers, resources, business processes, the supply chain, costs and revenues. It does not, however, take cognisance of competitors and competitive behaviour, which is a significant flaw in the business modeling process.

Value chain analysis, on the other hand, provides a detailed framework against which an organisation could obtain a cost advantage by analysing its cost position against competitors in its industry. Once the value chain analysis has been completed, it allows management to consider options with regard to the implementation of a plan of action. These options may include:

- **“Positioning the company** – match your strengths and weaknesses to the company’s industry, build defences against competitive forces or find a position in the industry where forces are the weakest. You need to know your company’s capabilities and the causes of the competitive forces.
- **Influencing the balance** – take the offensive, for example innovative marketing can raise brand identification or differentiate the product.
- **Exploiting industry change** – an evolution of an industry can bring changes in competition. For example, in an industry life-cycle growth rates change and/or product differentiation declines; anticipate shifts in
the factors underlying these forces and respond to them” (Schein, 2011).

Some of the key limitations of value chain analysis include:

- an assumption exists that all role players are eager to be included in the value chain (Helmsing and Vellema, 2010);
- it fails to take into cognisance the prevailing social and economic relationships within the value chain (Hospes and Claney, 2010);
- the analysis fails to recognise the impact of non-participants and processes on the value chain construction (e.g. changes in legislation) (Gibbon, Blair and Ponte, 2008); and
- the unequal distribution of power amongst the different participants in the value chain (Gereffi, Humphrey and Sturgeon, 2005).

As mentioned earlier, the balanced scorecard is used to align business performance to the vision and strategy of the organisation, monitor business performance against strategic goals and improve internal and external communication in an organisation. “The balanced scorecard retains traditional financial measures, but financial measures tell the story of past events, an adequate story for industrial age companies for which investments in long-term capabilities and customer relationships were not critical for success. These financial measures are inadequate, however, for guiding and evaluating the journey that information age companies must make to create future value through investment in customers, suppliers, employees, processes, technology, and innovation” (Kaplan and Norton, 2007).

The balanced scorecard does not involve competitor analysis. It only reports on the effectiveness of an implemented strategy against the organisational goals that has been set by management. As such, the scorecard brings
together many of the disparate elements of an organisation’s competitive agenda and reproduces them in a single report. The balanced scorecard is easily understood and is able to illustrate the causal relationships that exist between customer and employee expectations, with those of shareholders and other relevant stakeholders.

Some of the limitations of the balanced scorecard, as highlighted by Ahn (2001), include:

- not considering the impact of the contribution by the organisation’s suppliers;
- it does not provide guidelines relevant to assisting in defining the organisation’s structure;
- it takes too much time to record and monitor data; and
- it does not take cognisance of employee acceptance of new strategic initiatives implemented within an organisation.

2.4 **GENERIC BUSINESS STRATEGIES**

Hough et al. (2011) note that the strategic plan that a company employs is tantamount to management’s action plan for how the business should be managed and how operations should be conducted. Conjecture exists among many commentators regarding the particular elements which should be addressed by the strategic plan (De Witt and Meyer, 2010). Consequently, many strategic models exist. These various models are influenced by the prevailing factors prevalent within an organisation when the strategy was devised. This view is supported by Hough et al. (2011), who states: “Managers at different companies always have a slightly different understanding of future market conditions and how to best align their company’s strategy with these conditions; moreover, they have different notions of how they intend to outmanoeuvre rivals and what strategic options make the most sense for their particular company.”
Even against this backdrop, there are some strategies which have been generally accepted as generic strategies within certain frameworks of the vast expanses which govern the strategic management landscape. One area of strategic management in which such generic strategies have been adopted, generally accepted and agreed to is on Porters’ generic competitive strategy approaches (Hough et al., 2011; Srivannaboon and Milosevic, 2006; Srivannaboon, 2006). The two primary reasons why Porter’s generic strategies are so widely accepted are:

1. they are widely operationalised in literature; and

2. they emphasise the “strategic position dimension of the business strategy” (Srivannaboon and Milosevic, 2006).

Porter (1985, as cited in De Witt and Meyer, 2010) proposed four generic strategies to aid organisations to obtain competitive advantage over their industry rivals by “… establish[ing] a profitable and sustainable position against the forces that determine industry competition.” The competitive strategy should be focussed on the long term profitability of the industry, taking into cognisance the factors influencing industry attractiveness and the factors which determine an organisation’s competitive position in relation to its competitors. The three most well-known generic competitive strategies which Porter proposed were:

1. Cost leadership;
2. differentiation; and
3. focus strategy.

### 2.4.1 Cost Leadership

Cost leadership is obtained by producing a comparative product at lower cost than any competitor is able to produce. Hough et al. (2010) states, that an organisations’ overall cumulative cost should be lower than that of its competitors. The obtained cost advantage should also be sustainable over a significant period of time. This is achieved through:
1. managing the organisations value chain in such a manner that value adding activities are produced in a most cost effective manner; or

2. re-organising the organisations’ value chain to eliminate or remove cost producing activities.

In order to achieve cost leadership by managing value adding activities in a cost effective manner, organisations implement world class manufacturing processes like statistical process control, LEAN manufacturing techniques, Kaizen manufacturing techniques. In order to obtain cost advantage through re-organising the value chain, organisations have the option to utilise upstream or downstream integration of suppliers to reduce their cost producing activities.

### 2.4.2 Differentiation

Hough et al. (2010) define the core concept of differentiation as producing a product so unique that it is perceived as valuable by a wide range of consumers. Various types of differentiation strategies are universally in operation and examples of such includes multiple features, product reliability, prestige and distinctiveness and technological leadership, to name a few (Hough et al.; 2010). Differentiation allows organisations to charge a premium for their products or services. This is done by enticing consumers to purchase their products due to the perception that such product is superior to offerings from industry competitors. Differentiations strategy is also dependant on what the consumer perceives to be of value and what premium they are willing to pay for the products uniqueness.

However, implementing a differentiation strategy does not ensure competitive advantage over industry rivals (David, 2009). If consumers are content with a standard version of the product or if competitors are able to replicate the unique aspects of the product offering, differentiation strategy will not provide a sustained competitive advantage. David (2009) comments that differentiation strategy is best applied in industries providing durable products,
which is protected by barriers of entry via copyright law to promote the protection of intellectual property.

2.4.3 **Focus strategy**

The key differences between focus strategy and the preceding two strategies are the intention of the focusing organisation to achieve either a cost advantage or a differentiation advantage over its industry competitors, while serving only a small sector of the total market. Consequently, two types of focus strategies exist in industry, being cost-focus or differentiation-focus (Robbins and Decenzo, 2004). The composition of the segment on which the organisation could base their segmentation, could be based on a variety of factors including, but not limited to, geographic uniqueness, product attributes, difference in cost behaviour of consumers, or by providing and existing service to a new consumer base without and immediate competitive response (Hough et al., 2010; David, 2009; Longenecker et al., 2006; Robbins and Decenzo, 2004).

Focus strategy is best employed within industries of significant size and where the success of major industry players is not dependant on the niche market. In addition, the market should have exceptional growth potential to ensure that the focus strategy remains sustainable (David, 2009). Hough et al. (2010) note, in support of the above comment, that a focussed strategy is most attractive where:

1. It is costly or difficult for competitors to compete in various industry segments;
2. various segments is prevalent in the same industry; and
3. there are limited competitors who are vying to compete in the same target segment as the focussing organisation.

2.4.4 **Criticism of Porter’s generic strategies**

Although Porter’s generic business strategies have been widely accepted and operationalised in many organisations, significant criticism has been levelled
against its limitations. Chadwick and Cappelli (1999:13) suggest that Porter’s generic strategies do not “describe organisational strategies accurately because it’s based on questionable notions of mutually exclusive trade-offs between certain strategic priorities.”

Botten (2007:268) identifies six limitations of Porter’s generic strategies, which are:

1. “the lack of clarity on concept of industry” – Porter fails to identify the definition of the concept industry and as such, competitive advantage cannot be sought if it is dependent on the firm’s position in its industry;

2. “strategic unit is not well defined” – Porter does not specify whether competitive advantage should be sought by the organisation as a whole, or by business units within the organisation;

3. “lack of empirical evidence” – Porter’s generic strategies makes inferential predictions on the financial performance of organisations, which is not supported by empirical evidence;

4. “what is wrong with stuck in the middle” – Porter concludes that the successful implementation of each generic strategy requires a specific culture and philosophy, although research indicates that differentiation and cost leadership can co-exist (Datta, 2009);

5. “competitive prescriptions may be misleading” – Porter’s terms and prescriptions cause a large number of managers great difficulty and results in an inability amongst them to implement these generic strategies in their industries; and

6. “it restricts the firm to its current industry” – no consideration is given to the possibility of an organisation utilising its competitive advantage in new industries.

2.5 HISTORY OF STRATEGIC MANAGEMENT IN ESKOM

Eskom is a South African state owned enterprise which, as a power utility, produces approximately 95% of the electricity used in South Africa and
approximately 45% of all electricity consumed on the entire African continent (Eskom, 2012). The promulgation of the Electricity Act (Act 42 of 1922) laid the foundation for the establishment of an Electricity Supply Commission (affectionately known by its abbreviation Eskom) in the Union of South Africa (Conradie and Messerschmidt, 2000:73) and was given the mandate to “stimulate the provision, wherever required, of a cheap and abundant supply of electricity.” Eskom is segmented into the following functional groups: Generation, Transmission, Distribution, Corporate and Eskom Enterprises, which consist of Rotek, Roshkon and Eskom Telecommunications (the business entity in which this study will be conducted).

Since its establishment in 1922, Eskom has faced several significant environmental factors which have required a change in strategy, or policy, or both, during it 89 years of existence. Least of these factors were the Second World War (1939 – 1945), Apartheid (1449 – 1990), the establishment of the Republic of South Africa (1961), the establishment of a democratic South Africa (1994) and the global economic disintegration of 2008. Figure 2.2 provides an outline of the strategic initiatives which Eskom has embarked upon since the mid 1980’s. The environmental factors that led to three of these strategic directions will briefly be elaborated upon to provide some context. These periods are the Mid 80’s, early 90’s and 2010.

2.5.1 Mid 80’s: Southern African growth

The South African political scenario under Apartheid is well known and well documented. During this period the government of the day subscribed to a policy which promoted separated development amongst the different South African racial groups. The delivery of basic services was only provided to a privileged few. The South African government supported an initiative aimed at providing assistance to South African businesses operating outside its borders in Africa. As a government owned entity, Eskom assisted in this endeavour and as such, Eskom’s strategic intent was centred on the expansion of its infrastructure to supply strategic installations in Africa. The effect of this expansion was that Eskom has transmission capacity in most of
the Southern African Development Community (SADC) countries (DPE, 2012).

Figure 2.2 Strategic initiatives by Eskom from the mid 1980’s onward. Source: Eskom, 2010.

2.5.2 Early 90’s: Electricity for all

Conradie and Messerschmidt (2000:272) note that in 1988 the German shareholders of Volkswagen, who had a production plant in Uitenhage, set about attempting to improve the living conditions of its black employees. After a survey was conducted, it was not surprising that most employees indicated that they would like to have electricity in their homes and in schools. Volkswagen approached Eskom who, after initial apprehension, agreed to join Volkswagen and 13 other employers in the region in a joint venture (known as Kwanolec) to provide electricity to black townships in the area.

The unbanning of opposition political parties in February of 1990, led to South Africa embarking on a process where the last vestiges of Apartheid were being dismantled. With the move towards a democratic dispensation in South Africa on an irreversible path, and with the success of Kwanolec as an
example of how mass electrification programs could be implemented, Eskom petitioned government to continue with a large scale electrification program. Eskom chairman at the time, John Maree, stated: “Electricity is a key factor in spurring economic growth and improving the quality of life of all our people. Eskom’s aim is to ensure that electricity is affordable and, ultimately, available to all” (Conradie and Messerschmidt, 2000: 270).

2.5.3 2010: Back2Basics (B2B)

After the challenging times that Eskom experienced from 2007 – 2009 culminating into the rolling black outs experienced by South African electricity consumers, the Eskom Board resolved to remove the incumbent chief executive officer and appointed Mr Brian Dames as the new chief executive. Mr Dames immediately set about instituting an organisational health index survey, in an effort to deliver on Eskom’s mandate “to provide sustainable electricity solutions to grow the economy and improve the quality of life of the people of South Africa and the region (Eskom, 2010:12).

Based on the results of the organisational health survey (n = 1,584) and utilising various strategic analysis tools like Swot and Porter’s five forces, it was decided that a comprehensive strategic review of Eskom was required. The outcome of this review process was the establishment of the Back2Basics strategic program, which Eskom has adopted. The Back2Basics strategic review was based on the following strategic imperatives:

- Becoming a high performance organisation;
- Leading and partnering to keep the lights on;
- Reducing Eskom’s carbon footprint and pursuing low carbon growth opportunities;
- Securing Eskom’s future resource requirements, mandate and the required enabling environment;
- Ensuring Eskom ‘s financial sustainability; and
- Setting the organisation up for success (Eskom, 2010:23).
Eskom Holdings and all its constituting divisions are currently in the strategy implementation phase of the strategic review process. Successful implementation of the new Eskom strategic vision, will lead to an organisation regarded as:

1. **“Low cost good investment”** – We are a global benchmark for Investment Analysts;
2. **A trusted company globally** - We are ethical, well governed and build a trusted relationship with stakeholders and we are a trusted advisor;
3. **A greener energy company** – We have lower absolute and relative emissions;
4. **Best company to work for** - We are rated as the employer of choice in SA and SADC by employees and prospective employees;
5. **A top 5 performing utility** – We are on the global utility league table and peer benchmarking reports;
6. **Satisfied customers** – Our customers consistently rate us in the top quartile and promote us as a company;
7. **Electricity for all** – It is in our business interest to have electricity for all;
8. **Zero Harm** – Zero harm to people and environmentally responsible; and
9. **A significant regional player** – Driving investment in entire value chain (Generation, Transmission, Distribution) and growing customer base” (Eskom, 2010:14).

### 2.6 CONCLUSION

Business modelling, value chain analysis and the balanced scorecard are all useful strategic management frameworks that should be utilised in competitive and dynamic industries. Integrated effectively, these frameworks provide a basis by which managers in organisations are able to develop and implement long term strategic initiatives. These initiative aims to provide the organisation with a sustainable competitive advantage. They provide a
reference point which managers could use to adjust or amend their strategy in the face of adverse competitive influences.

Although it is important to remember that these three frameworks have their own particular emphasis in an organisation, the literature is conclusive that they are best utilised in harmony. Creating the harmony required between the frameworks to achieve a sustainable competitive advantage is not simple and places a huge responsibility on managers in organisations to consider their strategic choices from a holistic perspective.

Although varied opinion amongst various commentators and thought leaders exists with regard to which elements should be included in the strategic management plan of a business, there are generic business strategies which have been adopted and agreed to. Amongst these, Porter’s generic strategies are been widely implemented in industry and discussed in literature.

Many organisations are finding the process of strategy implementation much more of a challenge than the process of strategy formulation. Consequently, many of these organisations have utilised project management to assist in the project strategy implementation process.
CHAPTER 3

LITERATURE REVIEW – PROJECT MANAGEMENT

3.1 INTRODUCTION

“Over the past 20 years, the number of projects in organisations has grown more than 40-fold while the complexity of such projects has also increased” (Benko and McFarlan, 2004:34). Consequently, project management theory and techniques have improved to ensure that project managers are able to better prepare themselves for any challenges they may encounter. The following section aims to discuss some of these developments in project management and concludes by comparing past and present.

3.2 PROJECT MANAGEMENT DEVELOPMENT

Cleland (1999) states that project management is rarely identified as a functional strategy in many companies. This view is supported by Srivannaboon and Milosevic (2006) who note that researchers have only recently embarked upon a process of exploring the alignment between business strategy and project management strategy. They argue that this shift in strategic view to identify the alignment between business strategy and project management strategy has been fuelled by the need of many companies to develop and execute more innovative business strategies to remain competitive. Morris and Jamieson (2004:32) augment this view by stating that “…, projects are often chosen as vehicles to implement those strategies and PM is [more] commonly considered to be an important business process.”

Kerzner (2001) drew parallels between the past view and the present view of the benefits of project management. He concludes, based on literature and extensive interviews with individuals and sample data from various organisations, that project management provides significant benefits to organisations in all industries. The benefits of project management, containing
both the past and present view as outlined by Kerzner (2001), are provided in table 3.1 below.

Table 3.1: The benefits of Project Management

<table>
<thead>
<tr>
<th>Past View</th>
<th>Present View</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Project management will require more people and add to the overhead costs.</td>
<td>• Project management allows us to accomplish more work in less time and with less people.</td>
</tr>
<tr>
<td>• Profitability may decrease</td>
<td>• Profitability will increase.</td>
</tr>
<tr>
<td>• Project management will decrease the amount of scope changes.</td>
<td>• Project management will provide better control of scope changes.</td>
</tr>
<tr>
<td>• Project management creates organisational instability and increases conflict.</td>
<td>• Project management makes the organisation more efficient and effective through better organisational behaviour principles.</td>
</tr>
<tr>
<td>• Project management is really ‘eye wash’ for the customers benefit.</td>
<td>• Project management will allow us to work more closely with our customers.</td>
</tr>
<tr>
<td>• Project management will create problems.</td>
<td>• Project management provides a means for solving problems.</td>
</tr>
<tr>
<td>• Only large projects will need project management.</td>
<td>• All projects will benefit from project management.</td>
</tr>
<tr>
<td>• Project management will increase quality problems.</td>
<td>• Projects management increases quality.</td>
</tr>
<tr>
<td>• Project management will increase power and authority problems.</td>
<td>• Project management will reduce power struggles.</td>
</tr>
<tr>
<td>• Project management focuses on sub optimisation by looking at only the project.</td>
<td>• Project management allows people to make good company decisions.</td>
</tr>
<tr>
<td>• Project management delivers products to a customer.</td>
<td>• Project management delivers solutions.</td>
</tr>
<tr>
<td>• The cost of project management may make us non-competitive.</td>
<td>• Project management will increase our business.</td>
</tr>
</tbody>
</table>


3.3 WHY IS PROJECT MANAGEMENT GAINING MOMENTUM?

Steyn et al. (2011) identify the following factors as the main contributors to the rapid development and growth of project management in business today:
The advent of globalisation is forcing organisations to improve their internal efficiencies, to enable competition with international counterparts;

due to the reduced life lifecycles of modern products (e.g. technology based accessories like computers, cell phones, televisions, etc.), new products have to be developed at an increased rate;

fierce competition and the drive for customer satisfaction leads to customers becoming more demanding and effective project management is seen as a tool to improve client satisfaction;

organisations are forced to implement rapid and radical changes as knowledge on products and process development is obtainable from the internet and project management can be used to effectively and efficiently facilitate these changes; and

from a South African perspective, there is a significant increase in the number of projects as government's intent "to deliver" services to their electorate uses projects as the vehicle to drive the intended service delivery.

With an increase in the number of projects globally, it would not be unrealistic to conclude that many of these projects are aligned with the goals, strategies and plans of a parent organisation (e.g. the South African government will be the parent organisation for the service delivery projects as discussed above). Artto et al. (2008) argue that it would not always be appropriate for such a parent organisation to define the criteria for success for projects from outside of the project itself. It is further argued that copying the business strategy and calling it a project strategy, may lead to the project becoming the obedient servant of the parent organisation.

As such, the project may fail to deliver the benefit realisation which it was created to achieve. “The existing literature uses a much too narrow perspective when assuming that project strategies consist of plans or plan-like descriptions. Such strategies are created at the beginning of the project and
are always dictated from outside of the project rather than allowing the project itself to take a position in its environment. Such strategies are static rather than dynamic in their nature” (Artto et al., 2008). It thus becomes crucial that the project is not only managed by evaluating the traditional measures of time, cost and quality, which traditional project management literature supports (Naaranoja, Haapalainen and Lonka, 2007).

3.4 WHY DO WE DO PROJECTS?

Regardless of the industry in which any project is performed, it is crucial that the end product of the project (or project outcome) has an influence on the achievement of some form of tangible benefit for the organisation performing the project (Ward, 2010). This is particularly relevant for projects requiring significant capital investment. In many organisations, these projects are aligned to the business strategy of the organisation.

Projects are useful agents of change to drive innovation and change in organisations (Shenhar, 2007). Projects could be initiated for a variety of reasons, but it is essential that the organisation is clear on what contribution these projects provide to the goals that the organisation is attempting to achieve. Projects can be grouped into two fundamental areas of business:

1. assisting in the running of the organisation; and
2. to bring about fundamental change in the manner in which the organisation operates (Ward, 2010; Shenhar, 2007).

Projects which assist in the running of the business can be projects which contribute to functional areas of the business, such as:

1. refurbishment of assets which have reached the end of its life cycle;
2. research and development of new products for introduction to the market; and
3. operational efficiency projects to improve or streamline production capacity.
In order to bring about fundamental change in organisations, senior managers spend a significant amount of time planning the strategic change to be implemented. Examples of these changes could be:

- utilising projects to derive competitive or cost advantage in their industry (Poli and Shenhar, 2007);
- implementing organisational change management processes and procedures which is aimed at serving the needs of each developed product and those of customers more effectively (Poli, Cosic and Lalic, 2010; Artto et al., 2008);
- to align projects with the organisation’s strategic objectives; or
- to create leverage for an organisation (Benko and McFarlane, 2004).

Various commentators agree that the second group of projects cannot merely be managed tacitly or operationally (Poli, Cosic and Lalic, 2010; Poli and Shenhar, 2007), or by means of the triple constraint (time, cost and achieved performance) (Shenhar, 2007). These projects have to be managed strategically in order to ensure that the opportunities that they present are harnessed by the organisation (Yang, 2011; Poli, Cosic and Lalic, 2010).

### 3.5 STRATEGIC CHANGE UTILISING PROJECT MANAGEMENT

In Chapter 2 it was argued that the primary objective of strategic management was to create an environment where an organisation is able to create a sustained competitive advantage over its rivals. Many organisations are continually pursuing and implementing strategies aimed at improving their operational effectiveness and efficiency. Examples of these strategies include a litany of methodologies contained in operations management, such as Lean Manufacturing, Supply Chain Management, Continuous Improvement, Business Process Re-engineering, Just In Time and Six Sigma.

With globalisation facilitating the movement of human resources across continents and the internet increasing access to information, it is conceivable to conclude, at least conceptually, that all organisations in any given industry
could develop the same or similar levels of competency (Shenhar, 2007). Consequently, continued investment in the improvement of operational efficiencies may not yield the long term benefits that organisations may seek. Although organisations would be able to achieve short term gains, these gains would not create sustained competitive advantage. In addition, Franken, Edwards and Lambert (2009:50) comment that literature has identified the five key reasons for the difficulty organisations experience in achieving successful strategy execution:

1. Shareholders exert relentless pressure on management teams to increase the profitability of organisations, leading to more frequent changes in strategy;
2. The complexity of strategic change programs increase as the complexity of organisations increase, consequently increasing the risk of failure due to lack of sufficient oversight;
3. To ensure the successful implementation of strategic initiatives, managers need to effectively manage the balance between the daily business operations and creating the business of tomorrow;
4. Insufficient involvement of operational (lower level) management at the initial implementation stages of strategy execution; and
5. The resources required to execute the strategy may be difficult to secure.

Sustained competitive advantage provides the organisation with the ability to achieve profits above the industry average and in doing so, contribute to shareholder satisfaction (Vainio, 2012; Barney and Hesterly, 2008:4; Carpenter and Sanders, 2007:8; Johnson, Scholes and Whittington, 2005:7). This is evident in organisations where projects are used to “drive innovations from idea to commercialisation [and] … make organisations better, stronger and more efficient” (Shenhar, 2007:2). Strategically managed projects aim to achieve an improvement, or enhancement of business performance (Shenhar, Poli and Lechter, 2000), which produce the sustained competitive advantage that organisations desire.
These types of projects require managers to take a long term approach to improving business results, taking customer expectations, future market success and creating competitive advantage into consideration (Shenhar et al., 2001). Managers constantly evaluate the outcomes of the operationalised strategy and make changes which could provide improved business outcomes as and when required, to enhance the organisations ability to achieve project success.

3.6 PROJECT SUCCESS FOR STRATEGIC CHANGE PROJECTS

A common misconception exists that all projects are similar and that generic tools can be used to manage all project related activities (Shenhar et al., 2002). Although great strides have been made in producing software based tools to aid decision making in the various project management aspects, the use of these tools cannot replace the ability of the project manager to apply sound judgement in any given situation (Longman and Mullis, 2004). The application of this judgement, allows the project manager with the ability to discern, not only how, but also how much of each individual tool he or she is required to utilise during any given stage of the project life cycle. This is a crucial prerequisite for project success. All team members need to agree, at the initiation of the project (Srivannaboon and Milosevic, 2006), as to which methodology will be used and which measures will be used to define project success during the various phases of the implementation of the project.

Srivannaboon and Milosevic (2006) proposed that project success for projects aimed at implementing strategic change could be defined in terms of the project management elements identified in the Strategic Project Leadership approach (SPL) initially proposed by Shenhar (2004). These success factors are based on the competitive elements of Porter’s generic strategies as proposed in chapter 2; being Differentiation strategy, Cost Leadership strategy and Best Cost strategy. Utilising content analysis, Srivannaboon and Milosevic (2006) developed six topology free propositions to test project success in organisations. These propositions are based on the following project management elements, each of which will briefly be discussed:
3.6.1 Project strategy (Strategy formulation)

Project strategy is defined by Artto et al. (2008:8) as “… the direction in a project that contributes to success of the project in its environment.” The project strategy selected to implement strategic change projects in organisations should be aligned (direction) with the proposed source of competitive advantage (success) that the organisation seeks to gain by implementing the strategy in its industry (environment). The strategic intent driving strategic change projects (with reference to Porters generic strategies) can be viewed in Table 3.2 under the competitive strategy attributes for each generic strategy.

3.6.2 Project organisation (Organisational structure)

Poli, Cosic and Lalic (2010:31) noted that “form must fit function.” Organisations must select a project structure which is compatible with the strategic intent of the project. As a result, the level of flexibility of the organisation implementing the strategic change project will have a significant impact on the success of the project. Each of Porter’s generic strategies requires a different level of flexibility of the project organisation, to achieve the strategic intent of the desired strategy. The competitive attributes of each generic strategy are listed in table 3.2 under organisation.

3.6.3 Project process (Process definition)

Non-appropriate project processes are implemented in organisations due to insufficient support to create or develop generic process for different project types, taking into cognisance the characteristics of the projects and context within which the project is required to be implemented (Kaufman and Münch, 2005). Consequently, it can be concluded that project implementation success for each of the different types of generic strategies, requires different process types to ensure project success. These process types are based on the
competitive attributes of each generic strategy and is can be found in table 3.2 under the process competitive attributes.

Table 3.2: Summary of project management configuration as per Porter’s generic strategies

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Example</th>
<th>Competitive attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiation</td>
<td>• Fast time to market</td>
<td>• (Strategy) Schedule or quality success measures</td>
</tr>
<tr>
<td></td>
<td>• Superior product quality</td>
<td>• (Organisation) A flexible structure to facilitate project speed or product quality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• (Process) A flexible process to speed up projects or maximise product quality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• (Tools and Metrics) Schedule or quality orientated tools and metrics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• (Culture) Rewarding time to market and speed or quality</td>
</tr>
<tr>
<td>Cost Leadership</td>
<td>• Process Improvement</td>
<td>• (Strategy) Cost efficiency project success measures</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• (Organisation) A flexible structure to adapt to changes in process improvements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• (Process) A highly standardised and built-on template process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• (Tools and Metrics) Cost and schedule-driven tools and metrics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• (Culture) Cost conscious culture</td>
</tr>
<tr>
<td>Focus strategy</td>
<td>• Quality</td>
<td>• (Strategy) Quality and cost project success measures</td>
</tr>
<tr>
<td></td>
<td>• Cost</td>
<td>• (Organisation) A flexible structure to ensure the best product quality at the minimum cost</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• (Process) A standardised but flexible process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• (Tools and Metrics) Cost/quality-orientated tools and metrics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• (Culture) Rewarding time quality/cost culture</td>
</tr>
</tbody>
</table>

Source: Adapted from Srivannaboon and Milosevic, 2006.
3.6.4  **Project tools (Implementation tools)**

It is clear that competitive elements of the strategy to be employed should determine what project tools should be utilised during the life cycle of the project. The selected project tools should take cognisance of the all relevant factors influencing the project, both internal and external to the organisation. The balanced scorecard is one such tool, providing both financial and operational measures (Amarasuriya and Jayawardane, 2011) and has the ability to include strategic metrics crucial to organisational success as well.

3.6.5  **Project metrics (Implementation metrics)**

Concrete and measurable objectives need to be developed for every stage of the project life cycle (Naaranoja, Haapalainen and Lonka, 2007). This is to ensure that appropriate projects are selected for implementation, as well as to ensure that the project outcomes deliver the strategic intent to which it aims to contribute. It is thus imperative that the metrics are aligned to the competitive attributes of the organisation’s selected strategy. Table 3.2 is provided to outline the differences between the reasons for implementation of the various generic strategies.

3.6.6  **Project culture (Organisational Culture)**

The implementation of strategic change projects aims to develop an organisational culture which can effectively and efficiently adapt to the ever evolving markets in which organisations compete (Benko and McFarlan, 2004). An effective and efficient project culture provides project organisations with the ability to align continually to both internal and external market forces, in an ever evolving market (Benko and McFarlan, 2004). Table 3.2 is provided to outline the differences between the reasons for implementation of the various generic strategies.
The effect of culture on project success has relevance when it is considered that it encompasses areas such as Reward and Recognition policies for exhibiting performance aligned to achieving project success; facilitating innovation within the organisation; attitude to risk; and enhancing the organisation’s ability to improve project delivery.

### 3.7 THE STRATEGIC PROJECT MANAGEMENT PROPOSITIONS

The content of the six generic and topology free propositions, based on the six project elements listed above, are constructed as follows:

**“Proposition 1:** The competitive attributes of the business strategy drive the focus and content of project strategy;

**Proposition 2:** The competitive attributes of the business strategy drive the focus and content of project organisation;

**Proposition 3:** The competitive attributes of the business strategy drive the focus and content of project process;

**Proposition 4:** The competitive attributes of the business strategy drive the focus and content of project tools;

**Proposition 5:** The competitive attributes of the business strategy drive the focus and content of project metrics;

**Proposition 6:** The competitive attributes of the business strategy drive the focus and content of project culture” (Srivannaboon and Milosevic, 2006).

This study aims to empirically test these propositions, to determine the perceived level of success of the “Back to Basics” strategic change project in Eskom.
3.8 CONCLUSION

Project management, as an academic science has undergone various developments in the last 20 years due to a significant increase in the number and complexity of projects within organisations. Consequently, project management has been gaining momentum in recent years and a significant difference in perception has developed between past and present views of project management.

Projects are increasingly seen as vehicles to implement strategic change in organisations. Organisations implement this type of change in the hope of achieving competitive advantage over their rivals in their industries. This competitive advantage may be over a short period of time, or in the case of industry leaders, may be sustained over an extended period. Theoretically, at least, all organisations have the ability to achieve similar levels of operational performance, thus, organisations are continually seeking new ways (strategies) to improve competitiveness, or sustain their competitive advantage.

Project success is defined by a similar set of metrics for all projects, as all projects are not similar. It is proposed that project success for strategic change projects are evaluated in accordance with Shehar’s (2004) Strategic Project Leadership (SPL) framework. This framework considers project strategy, project organisation, project process, project tools, project metrics and project culture as important factors in determining the success of strategic change projects.
CHAPTER 4

RESEARCH METHODOLOGY

4.1 INTRODUCTION

The Literature reviews conducted in the previous chapters provide the theoretical foundation of the research topic. This theoretical foundation is a synthesis of the research knowledge gained by various academics over an extensive period of time. It allows new researchers to create new hypotheses or research models, grounded in the theoretical foundations of the subject matter under investigation.

A requirement exists to have these theoretical hypotheses, or models, tested in practice to determine their validity and reliability, in addition to strengthening their inclusion or acceptance into mainstream academic knowledge. Research methodology provides the researcher with a roadmap that guides the how, when, where and why the practical testing of the hypothesis will take place.

Additionally, it provides researchers with a framework in which similar tests could be conducted in future to determine to what extent the knowledge produced by a specific study is still relevant in any particular period in which the future study will be conducted. The primary research paradigms will be discussed and the relevant research design will be presented in this chapter.

Prior to the above being presented and elaborated upon, it is crucial to introduce the hypothesised model presented in this study to improve strategic change project implementation. The proposed model is presented in graphical form in figure 4.1 below.
4.2 IMPROVING STRATEGIC MANAGEMENT IMPLEMENTATION THROUGH THE UTILISATION OF PROJECT MANAGEMENT ELEMENTS

The following null hypotheses will be investigated during this study:

**Organisational structure**

H1: Organisational structure exerts a positive influence on strategic management implementation.

**Process definition**

H2: Process definition exerts a positive influence on strategic management implementation.

**Implementation metrics**

H3: Implementation metrics exert a positive influence on strategic management implementation.

**Implementation tools**

H4: Implementation tools exert a positive influence on strategic management implementation.

**Organisational culture**

H5: Organisational culture exerts a positive influence on strategic management implementation.

The stated null hypotheses above provide an overview of the hypothesised relationships among the variables to be investigated in this study. These relationships are graphically represented in figure 4.1.
4.3 RESEARCH PARADIGMS AND DESIGN
Literature identifies two primary research paradigms, being the positivistic research paradigm and the phenomenological research paradigm, also referred to as interpretivism. A brief description of these paradigms will now be discussed.

### 4.3.1 Positivistic Research Paradigm

The positivistic research paradigm is also known as quantitative, objective, scientific, experimentalist or traditionalist research (Collis and Hussey, 2009). Positivistic research has as its aim the investigation of causal relationships between variables. These variables are determined before the study commences. This allows the researcher to adopt a very objective approach to the research topic. As a consequence, it is a fair assessment to conclude that the researcher is independent from the research being conducted. Knowledge is enhanced by the information obtained because “every rationally justifiable assertion can be scientifically verified or is capable of logical or mathematical proof” (Walliman, 2001:15, as cited by Collis and Hussey, 2009).

### 4.3.2 Phenomenological Research Paradigm

Phenomenological research evolved from the inability of positivistic research to answer the why questions that quantitative research data is unable to explain (Jandagh and Matin, 2010). This type of research is also referred to as qualitative, subjectivist, humanistic, interpretivist or new mindset research. Collis and Hussey (2009:57) stated that “interpretivism is underpinned by the belief that social reality is not objective but highly subjective because it is shaped by our perceptions.” Consequently, phenomenological research requires the researcher to be more involved on a personal level during the research process and as such the researcher is not allowed to be an objective and impartial observer (Spector, 2005).

### 4.4 RESEARCH METHODOLOGY
The two paradigms discussed above are the paradigms that can be described as the extremities of a continuum of paradigms according to Morgan and Smircich (1980, as cited by Collis and Hussey, 2009). This study will utilise the quantitative paradigm by describing the research results obtained from the surveys using descriptive and inferential statistics.

4.4.1 Data Collection Strategy

Descriptive and inferential analysis will be conducted in the following ways:

- **Primary research data**
  - Surveys
  - Questionnaires (via e-mail and intranet) will be distributed to Eskom Telecommunication’s staff members.

- **Secondary research data**
  - A literature review of all relevant material will be conducted including, but not limited to:
    - Journal articles;
    - Text books;
    - Grey literature;
    - Related theses, dissertations and treatises previously conducted.

4.4.2 The Sample

4.4.2.1 The population

The primary objective of the proposed study is to create a framework for the improvement of strategic change projects utilising project management elements at Eskom Telecommunications. In an attempt to obtain a holistic view of the perception of individuals within the organisation, it would be
prudent to consult all relevant stakeholders within Eskom Telecommunications. As a result the sample will be drawn from all 438 Eskom Telecommunications’ personnel.

4.4.2.2 The sample size

A conscious decision was made to distribute the primary research tool to 46% of the available population. As the population consisted of 434 employees, 200 employees constituted 46% of the available population. As such the sample size was determined at 200.

4.4.2.3 Sample composition

A sample of 200 employees was selected from the Eskom Telecommunications Alpha List of human resources (dated July 2012) as provided by the Eskom Telecommunications human resources department. All employees in Task grades T04 to T06 were excluded from the study and in total this accounted for four (4) exclusions.

4.4.2.4 Sample design

The proposed sampling method was non probability sampling, as the respondents that will participate in the sample are based on the Alpha List as described above. The researcher ensured that 25% of all task grades between T07 and M/P/S 16 were represented in the sample. Senior management in the M/P/S 17 – 18 (11 employees in total) and executive level E-Band employees (1 in total) were all included in the sample, as they are the primary actors in the development and implementation of the Eskom Telecommunications strategy. Some of the respondents are known to the researcher and have already indicated their willingness to participate in the research study.

4.5 THE MEASURING INSTRUMENT
The measuring instrument will be constructed in three sections. During section one a literature review will be conducted where secondary research data will be overviewsed to critically assess the knowledge already produced on related topics. The information obtained from the literature review is to be utilized to construct an effective measuring instrument in which positive statements will be coded and presented in the form of a survey questionnaire.

The questionnaire will be constructed in the form of a 5-point Likert scale to which the research sample will respond to scales ranging from 1 (strongly agree) to 5 (strongly disagree). It is proposed that 5 independent variables (i.e. organisational structure, process definition, implementation tools, implementation metrics and organisational culture) relating to the utilization of project management tools be tested against strategic management implementation as the dependent variable. Each variable will be represented by seven questions on the questionnaire, resulting in a questionnaire with 42 questions in total.

During section 2 the validity of the survey questionnaire, prior to the survey being distributed to the research sample. The reliability (or internal consistency) of the survey will be tested using Cronbach’s alpha.

Upon the confirmation of the reliability and validity of the questionnaire, the survey questionnaires will be distributed to the research sample at the commencement of section 3. The research data will be analyzed with a statistical program (STATISTICA 10). Conclusions based on the results of the research data will be drawn and recommendations for the implementation of strategic management initiatives will be presented.

4.5.1 Validity of the measuring instrument

The essential contribution of validity in research is to determine to what extent the research findings represents the phenomena being researched (Collis and Hussey, 2009). Freeze and Raschke (2007), intimate that misleading
empirical findings have been reported in the literature in recent years. This has occurred as a result of the misspecification of the measurement model of the hypothesis being tested (MacKenzie et al., 2005; Jarvis et al., 2003). The misspecification results as a consequence of researchers not considering the direction of causality between the elements (measures) that constitute the dependent or independent variable (or construct).

4.5.1.1 Reflective latent variables (RLV)

An example can be drawn utilising the independent variable called Organisational Structure (OS), which is one of the variables under investigation in this study. OS is an independent variable which has been included in the measuring instrument. In the measuring instrument OS is represented by seven (7) items (or measures) coded OS1 to OS7. In figure 4.2 (a) below the direction of causality, as indicated by the direction of the arrows, is from the independent variable to the items. This indicates that a change in the independent variable will be reflected in the measurement of all the individual items (Freeze and Raschke, 2007).

This type of causality is imparted on variables referred to as Reflected Latent Variables (RLV). Jarvis et al. (2003) note that the items which constitute such RLV’s are required to be highly correlated and interchangeable. They also indicate that removing any of the items will not drastically change the meaning of the variable. The validity of RLV’s is determined by conducting confirmatory factor analysis to determine convergent and discriminant validity (MacKenzie et al., 2005). This is the basis of classical test theory (Freeze and Raschke, 2007; MacKenzie et al., 2005; Jarvis et al., 2003).

4.5.1.2 Formative composite variables (FCV)

In figure 4.2 (b) above the direction of causality, as indicated by the direction of the arrows, is from the items to the independent variable. This indicates that a change in the independent variable will not automatically be reflected in the measurement of all the individual items. This type of causality is imparted
on variables referred to as Formative Composite Variables (FCV). In practical terms, this means that positive changes in any of the items constituting OS will improve OS, but the improvement in OS will not be reflected in all its constituting items. “Due to the direction of causality with formative models, high correlation between the indicators is not expected, required or a cause for concern” (Freeze and Raschke, 2007).

4.5.1.3 Validity of this study

In figure 4.1 it should be noted that the direction of causality tends towards the independent variable. In other words, the indirect variable is a formative composite variable. Consequently, classical test theory measures of validity, like exploratory or confirmatory factor analysis to determine convergent and discriminant validity, would not be appropriate to determine the validity of the construct model.

The only relevant type of validity test that could be used to verify the validity of the construct is content validity. Content validity is assumed if the validity of the measures has been validated in previous studies (Collis and Hussey, 2009). The measures used in this study have been verified in a study by Srivannaboon and Milosevic (2006).

4.5.2 Reliability of the measuring instrument
The reliability (or internal consistency) of the survey was tested using Cronbach’s alpha. Feng (2006:12) notes that reliability is a measure indicating whether similar results for two similar studies will be obtained, if both studies are conducted in similar conditions. STATISTICA Version 10 was utilised to compute the reliability figures of the various independent and dependent variables.

Table 4.1: Cronbach alpha results for reliability of the measuring instrument

<table>
<thead>
<tr>
<th>Factor</th>
<th>Elements</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic management</td>
<td>SM1, SM2, SM3, SM4, SM5, SM6, SM7</td>
<td>Cronbach alpha: 0.86</td>
</tr>
<tr>
<td>Organisational structure</td>
<td>OS1, OS2, OS3, OS4, OS5, OS6, OS7</td>
<td>Cronbach alpha: 0.86</td>
</tr>
<tr>
<td>Process definition</td>
<td>PD1, PD2, PD3, PD4, PD5, PD6, PD7</td>
<td>Cronbach alpha: 0.88</td>
</tr>
<tr>
<td>Implementation metrics</td>
<td>IM1, IM2, IM3, IM4, IM5, IM6, IM7</td>
<td>Cronbach alpha: 0.87</td>
</tr>
<tr>
<td>Implementation Tools</td>
<td>IT1, IT2, IT3, IT4, IT5, IT6, IT7</td>
<td>Cronbach alpha: 0.87</td>
</tr>
<tr>
<td>Organisational Culture</td>
<td>OC1, OC2, OC3, OC4, OC5, OC6, OC7</td>
<td>Cronbach alpha: 0.85</td>
</tr>
</tbody>
</table>

Table 4.1 provides the results of the reliability assessment of the measuring instrument used during this study. The results show that elements used to measure strategic management produced an alpha coefficient of 0.86, organisational structure produced an alpha coefficient of 0.86, process definition produced an alpha coefficient of 0.88, implementation metrics produced an alpha coefficient of 0.87, implementation tools produced an alpha coefficient of 0.87, and organisational culture produced an alpha coefficient of 0.85.

Krishnan and Ramasamy (2011:2) comment that the threshold for Cronbach’s alpha indicates the reliability of the measuring instrument improves for higher values of alpha, with alpha valid between 0 and 1. This view is augmented by Sekeran (2000) who stated that a measuring instrument has internal consistency reliability if its alpha value is above 0.70. The results for the alphas obtained indicate a high level of reliability of the measuring instrument used in this study.

4.6 **SUMMARY**
This chapter provided an overview of the research methods used to perform the study. The hypothesized model was presented and indications were provided as to how, where and from whom data is to be collected. The primary and secondary research data collection methods were reported and the validity and reliability of the measuring instrument was discussed. In the following chapter the empirical results obtained from the compilation of the research data will be reported.
CHAPTER 5

EMPIRICAL RESULTS

5.1 INTRODUCTION

Chapter 4 provided an outline of how the research was conducted. In this chapter the results of the research obtained from the research survey are presented. This chapter will commence with an overview of the biographical information obtained, a presentation of the descriptive statistics obtained from the study and conclude with a discussion of the results of the inferential analysis completed.

The primary objective of this research is to improve the implementation of strategic management initiatives within organisations. This will be achieved by investigating if:

- organisational structure exerts an influence on the successful implementation of strategic management initiatives;
- process definition exerts an influence on the successful implementation of strategic management initiatives;
- implementation tools exerts an influence on the successful implementation of strategic management initiatives;
- implementation metrics exerts an influence on the successful implementation of strategic management initiatives; and
- organisational culture exerts an influence on the successful implementation of strategic management initiatives.

In order to achieve the primary objective of the study, additional secondary objectives of the research will be pursued. These secondary objectives are to determine whether:

- age has an influence on the perception of the variables under study;
• gender has an influence on the perception of the variables under study;
• race has an influence on the perception of the variables under study;
• designation has an influence on the perception of the variables under study;
• education has an influence on the perception of the variables under study;
• industry experience has an influence on the perception of the variables under study; and
• tenure at Eskom Telecommunications has an influence on the perception of the variables under study.

5.2 BIOGRAPHICAL INFORMATION

5.2.1 Population, sample and response rates

The composition of the sample is comprehensively discussed in section 4.4.2 of this document. Table 5.1 provides an overview of the total composition of the population, the composition of the sample and the response rates for each of the population’s constituent designations. Out of the 200 questionnaires which were distributed to the selected sample, 74 respondents returned their questionnaires in a timeous and complete manner. This represents an overall response rate of 37.0%.

The E-Band (Executive Band) and managerial levels (M/P/S) 17 – 18 are tasked to provide the strategic direction for Eskom Telecommunications. For these two designated groups, the sample percentage compared to the total population was 100% for both designations. Response rates of 1 of 1 (100.0% for E-Band) and 5 of 11 (45.6 % for M/P/S 17 – 18) where achieved for these designated groups respectively. Individuals who occupy positions in these designated groups are considered senior managers whose primary role is to provide the strategic planning direction to the various line groups which they head.
Managerial levels 14 – 16 (M/P/S 14 – 16) are considered as operational level management, whose primary responsibility is the implementation of the strategic planning and direction which is provided by the senior management team, consisting of the E-Band and M/P/S 17 – 18 groups. The sample percentage of the total population amounted to 71.7% (33 respondents sampled from a total population of 46). This group provided a response rate of 18 respondents out of a sample of 33, equating to 54.6%. It was important to gauge the perception of individuals within this band. The reason for this is that it would provide an indication of how well the strategic plan, as defined by the senior management team, is outlined and understood by the operational level managers who is required to implement those strategies.

Table 5.1: Number and percentage of population, sample and response rates by designation of Eskom Telecommunications’ staff

<table>
<thead>
<tr>
<th>Designation</th>
<th>Population* Number</th>
<th>Sample Number</th>
<th>Sample Percentage**</th>
<th>Responses Number</th>
<th>Responses Percentage***</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Band</td>
<td>1</td>
<td>1</td>
<td>100.0%</td>
<td>1</td>
<td>100.0%</td>
</tr>
<tr>
<td>M/P/S 17 - 18</td>
<td>11</td>
<td>11</td>
<td>100.0%</td>
<td>5</td>
<td>45.5%</td>
</tr>
<tr>
<td>M/P/S 14 - 16</td>
<td>46</td>
<td>33</td>
<td>71.7%</td>
<td>18</td>
<td>54.6%</td>
</tr>
<tr>
<td>T 12 - 13</td>
<td>161</td>
<td>46</td>
<td>28.6%</td>
<td>28</td>
<td>60.9%</td>
</tr>
<tr>
<td>T 10 - 11</td>
<td>108</td>
<td>56</td>
<td>51.9%</td>
<td>15</td>
<td>26.8%</td>
</tr>
<tr>
<td>T 7 - 9</td>
<td>107</td>
<td>54</td>
<td>51.9%</td>
<td>7</td>
<td>13.0%</td>
</tr>
<tr>
<td>Total</td>
<td>434</td>
<td>200</td>
<td>46.1%</td>
<td>74</td>
<td>37.0%</td>
</tr>
</tbody>
</table>

* Compiled from the Eskom telecommunications Human Resources Alpha List as at 30 July 2012
** Percentage of the total population
*** Percentage of the sample population

Designated group T 12 – 13 was represented by a sample of 46 individuals from a total population of 161 employees, or 28.6%. This designated group provided a response rate of 60.9% (28 respondents out of a sample of 46).
These individuals are mostly senior supervisors, senior technicians and engineers.

Designated group T 10 – 11 was represented by a sample of 56 individuals from a total population of 108 employees, or 51.9%. This designated group provided a response rate of 26.8% (15 respondents out of a sample of 56). This designated group consists of individuals who are mostly technicians, assistant officers, senior controllers and senior engineering assistants.

Designated group T 7– 9 was represented by a sample of 54 individuals from a total population of 107 employees, or 51.9%. This designated group provided a response rate of 13.0% (7 respondents out of a sample of 54). This designated group consists of individuals who are senior technical officials, office administrators, secretaries, assistant contact centre officers, assistant project management officers, assistant officers in general administration and customer care service centre principle clerks.

5.2.2 Age distribution of respondents by designated group

The questionnaire aimed to obtain information from respondents to determine the age distribution of the selected sample. This information has been collected in section A–1 of the questionnaire, collated and presented in Table 5.2 below. From the table below it can be observed that 8 out of 74 (10.8 percent) of respondents are between the ages of 18 and 29 years old. This entire portion of the sample population is employed in the T 10 – 11 designated group. The 18 – 29 year old respondents constitute 8 of 15 (53.3 percent) of the total T 10 – 11 designated group.

Respondents between the ages of 30 and 39 years old constitute 21 out of 74 (28.4 percent) of the sample population. This portion of the sample population is employed across various designated groups. The 30 - 39 year old respondents are represented amongst the various designated groups as follows:

- 2 of 5 (40.0 percent) of the M/P/S 17 – 18 designated group;
6 of 18 (33.3 percent) of the M/P/S 14 – 16 designated group;
5 of 28 (17.9 percent) of the T 12 - 13 designated group;
4 of 15 (26.7 percent) of the T 10 - 11 designated group; and
4 of 7 (57.1 percent) of the T 7 - 9 designated group.

Table 5.2: Age distribution of the selected sample referenced to the designated groups surveyed

<table>
<thead>
<tr>
<th>Age</th>
<th>E-Band</th>
<th>%</th>
<th>M/P/S 17-18</th>
<th>%</th>
<th>M/P/S 14-16</th>
<th>%</th>
<th>T 12 - 13</th>
<th>%</th>
<th>T 10 - 11</th>
<th>%</th>
<th>T 7 - 9</th>
<th>%</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-29</td>
<td>-</td>
<td>0.0%</td>
<td>-</td>
<td>0.0%</td>
<td>-</td>
<td>0.0%</td>
<td>8</td>
<td>53.3%</td>
<td>-</td>
<td>0.0%</td>
<td>8</td>
<td>10.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-39</td>
<td>-</td>
<td>0.0%</td>
<td>2</td>
<td>40.0%</td>
<td>6</td>
<td>33.3%</td>
<td>5</td>
<td>17.9%</td>
<td>4</td>
<td>26.7%</td>
<td>4</td>
<td>57.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40-49</td>
<td>-</td>
<td>0.0%</td>
<td>-</td>
<td>0.0%</td>
<td>12</td>
<td>66.7%</td>
<td>13</td>
<td>46.4%</td>
<td>2</td>
<td>13.3%</td>
<td>3</td>
<td>42.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50-59</td>
<td>1</td>
<td>100.0%</td>
<td>2</td>
<td>40.0%</td>
<td>-</td>
<td>0.0%</td>
<td>7</td>
<td>25.0%</td>
<td>1</td>
<td>6.7%</td>
<td>-</td>
<td>0.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over</td>
<td>-</td>
<td>0.0%</td>
<td>1</td>
<td>20.0%</td>
<td>-</td>
<td>0.0%</td>
<td>3</td>
<td>10.7%</td>
<td>-</td>
<td>0.0%</td>
<td>-</td>
<td>0.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>100%</td>
<td>5</td>
<td>100%</td>
<td>18</td>
<td>100%</td>
<td>28</td>
<td>100%</td>
<td>15</td>
<td>100%</td>
<td>7</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Respondents between the ages of 40 and 49 years old constitute 30 out of 74 (40.5 percent) of the sample population. This portion of the sample population is also employed across various designated groups. Of significance in addition to the finding outlined below, is that no individuals in this age group which represented the sample population held a senior management position. The 40 - 49 year old respondents are represented amongst the various designated groups as follows:

- 12 of 18 (66.7 percent) of the M/P/S 14 – 16 designated group;
- 13 of 28 (46.4 percent) of the T 12 - 13 designated group;
- 2 of 15 (13.3 percent) of the T 10 - 11 designated group; and
- 3 of 7 (42.9 percent) of the T 7 - 9 designated group.

Respondents between the ages of 50 and 59 years old constitute 11 out of 74 (14.9 percent) of the sample population. Of significance in addition to the finding outlined below, is that no individuals in this age group who represented the sample population held an operational management position (M/P/S 14 – 16). This is especially significant as individuals in this age group would generally have obtained in excess of 20 years’ industry experience. The 50 - 59 year old respondents are represented amongst the various designated groups as follows:
- 1 of 1 (100.0 percent) of the E-Band designated group;
- 2 of 5 (40.0 percent) of the M/P/S 17 – 18 designated group
- 7 of 28 (25.0 percent) of the T 12 - 13 designated group; and
- 1 of 15 (6.7 percent) of the T 10 - 11 designated group.

Respondents in the age group over 60 years old constitute 4 out of 74 (5.4 percent) of the sample population. The over 60 year old respondents constitute 1 of 5 (20.0 percent) of the M/P/S 17 – 18 designated group and 3 of 28 (10.7 percent) of the T 12 - 13 designated group.

### 5.2.3 Gender distribution of respondents by designated groups

The questionnaire aimed to obtain information from respondents to determine the gender distribution of the selected sample. The information has been collected in section A-2 of the questionnaire, collated and presented in Table 5.3 below. From the sample data it can be observed that 62 of 74 (83.8 percent) of respondents were male and 12 of 74 (16.2 percent) of respondents were female. The obtained statistics compare favourably to the actual gender distribution of the total population of Eskom Telecommunications employees. Females constitute 90 of 434 (20.7 percent)
employees in the population, with males accounting for 344 of 434 (79.3 percent).

Table 5.3: Gender distribution of the selected sample referenced to the designated groups surveyed

<table>
<thead>
<tr>
<th>Designation</th>
<th>Male</th>
<th>Male %</th>
<th>Female</th>
<th>Female %</th>
<th>Total</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Band</td>
<td>1</td>
<td>100.0%</td>
<td>-</td>
<td>0.0%</td>
<td>1</td>
<td>100.0%</td>
</tr>
<tr>
<td>M/P/S 17 - 18</td>
<td>5</td>
<td>100.0%</td>
<td>-</td>
<td>0.0%</td>
<td>5</td>
<td>100.0%</td>
</tr>
<tr>
<td>M/P/S 14 - 16</td>
<td>15</td>
<td>83.3%</td>
<td>3</td>
<td>16.7%</td>
<td>18</td>
<td>100.0%</td>
</tr>
<tr>
<td>T 12 - 13</td>
<td>24</td>
<td>85.7%</td>
<td>4</td>
<td>14.3%</td>
<td>28</td>
<td>100.0%</td>
</tr>
<tr>
<td>T 10 - 11</td>
<td>14</td>
<td>93.3%</td>
<td>1</td>
<td>6.7%</td>
<td>15</td>
<td>100.0%</td>
</tr>
<tr>
<td>T 7 - 9</td>
<td>3</td>
<td>42.9%</td>
<td>4</td>
<td>57.1%</td>
<td>7</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>83.8%</td>
<td>12</td>
<td>16.2%</td>
<td>74</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

The distribution of male respondents is represented amongst the various designated groups as follows:

- 1 of 1 (100.0 percent) of the E-Band designated group;
- 5 of 5 (100.0 percent) of the M/P/S 17 – 18 designated group;
- 15 of 18 (83.3 percent) of the M/P/S 14 – 16 designated group;
- 24 of 28 (85.7 percent) of the T 12 - 13 designated group;
- 14 of 15 (93.3 percent) of the T 10 - 11 designated group; and
- 3 of 7 (42.9 percent) of the T 7 - 9 designated group.

The distribution of female respondents is represented amongst the various designated groups as follows:

- 0 of 1 (0.0 percent) of the E-Band designated group;
• 0 of 5 (0.0 percent) of the M/P/S 17 – 18 designated group;
• 3 of 18 (16.7 percent) of the M/P/S 14 – 16 designated group;
• 4 of 28 (14.3 percent) of the T 12 - 13 designated group;
• 1 of 15 (6.7 percent) of the T 10 - 11 designated group; and
• 4 of 7 (57.1 percent) of the T 7 - 9 designated group.

It is significant to note that in the total population there is only one female in a senior management position (combination of E-Band and M/P/S 17 – 18). This represents 1 of 11 (9.1 percent) of all senior management positions in Eskom Telecommunications. Potential thus exists to develop more females in an effort to ensure that senior management in the organisation is more reflective of the demographics prevalent in society and as required by labour legislation in the form of the Employment Equity Act, No.55 of 1998 as promulgated by the Republic of South Africa.

5.2.4 Education distribution of respondents by designated groups

The questionnaire obtained information from respondents to determine the highest educational qualifications of the selected sample. The information has been collected in section A-7 of the questionnaire, collated and presented in Table 4.4 below. From the table below it can be observed that 4 out of 74 (5.4 percent) of respondents listed matric as the highest qualification obtained. Respondents who listed matric as their highest qualification constitute 1 of 15 (6.7 percent) of the T 10 – 11 designated group and 3 of 7 (42.9 percent) of the T 7 - 9 designated group.

3 out of 74 (4.1 percent) of the sample population listed a college certificate as their highest qualification obtained. Respondents who listed a college certificate as their highest qualification constitute 3 of 28 (10.7 percent) of the T 12 – 13 designated group.
Table 5.4: Education distribution of the selected sample referenced to the designated groups surveyed

<table>
<thead>
<tr>
<th>Highest educational qualification</th>
<th>E-Band</th>
<th>M/P/S 17-18</th>
<th>M/P/S 14-16</th>
<th>T12 - 13</th>
<th>T10 - 11</th>
<th>T7 - 9</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matric</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>6.7%</td>
<td>42.9%</td>
<td>5.4%</td>
<td>5.4%</td>
</tr>
<tr>
<td>College certificate</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>10.7%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Technikon diploma</td>
<td>0.0%</td>
<td>20.0%</td>
<td>66.6%</td>
<td>75.0%</td>
<td>53.3%</td>
<td>57.1%</td>
<td>62.2%</td>
</tr>
<tr>
<td>Baccalaureate degree</td>
<td>0.0%</td>
<td>40.0%</td>
<td>16.7%</td>
<td>0.0%</td>
<td>40.0%</td>
<td>0.0%</td>
<td>14.9%</td>
</tr>
<tr>
<td>Honours or Master's degree</td>
<td>0.0%</td>
<td>40.0%</td>
<td>16.7%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Doctorate</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Other</td>
<td>100.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>14.3%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Technikon diplomas constitute 46 of 74 (62.2 percent) of the data obtained from the sample population. Respondents who listed Technikon diplomas as their highest qualification is employed across various designated groups as follows:

- 1 of 5 (20.0 percent) of the M/P/S 17 – 18 designated group;
- 3 of 18 (16.7 percent) of the M/P/S 14 – 16 designated group;
- 21 of 28 (75.0 percent) of the T 12 - 13 designated group;
- 8 of 15 (53.3 percent) of the T 10 - 11 designated group; and
- 4 of 7 (57.1 percent) of the T 7 - 9 designated group.
11 of 74 (14.7 percent) of respondents listed a Baccalaureate degree as their highest obtained qualification amongst the sample population. Respondents who listed Baccalaureate degrees as their highest qualification are employed across various designated groups as follows:

- 2 of 5 (40.0 percent) of the M/P/S 17 – 18 designated group;
- 3 of 18 (16.7 percent) of the M/P/S 14 – 16 designated group; and
- 6 of 15 (40.0 percent) of the T 10 - 11 designated group.

5 out of 74 (6.8 percent) of the sample population listed an Honours or Master’s degree as their highest obtained qualification. Respondents who listed an Honours or Master’s degree as their highest qualification constitute 2 of 5 (40.0 percent) of the M/P/S 17 – 18 designated group and 3 of 18 (16.7 percent) of the M/P/S 14 – 16 designated group.

It is significant that 5 of 74 (6.7 percent) of respondents listed their highest qualification as “other”. This is an indication that the highest qualification obtained by these individuals, as listed by the responses in the questionnaire, is in all probability not one of the traditional qualifications used to enter the employment market. These qualifications could include post graduate certificates and diplomas such as the Management Development Program (MDP) certificate, which many managers and supervisors in Eskom have been exposed to. Respondents who listed other as their highest qualification constitute 1 of 1 (100.0 percent) of the E-Band designated group and 4 of 28 (14.3 percent) of the T 12 – 13 designated group.

5.2.5 Experience distribution of respondents by designated groups

The survey questionnaire contained two sections which aimed to solicit information relating to the experience of respondent in the survey. Section A-8 aimed to determine what the professional post qualification industry experience is that respondents have garnered, while section A-9 was included in the survey to determine what amount of experience respondents have in
service to Eskom Telecommunications. Table 4.5 provides an overview of the professional industry experience that the survey population have obtained.

The survey data indicates that 7 of 74 (9.5 percent) of respondents have between 1 and 5 years of industry experience. Respondents who have indicated that their industry experience is between 1 and 5 years, constitute 6 of 15 (40.0 percent) of the T 10 – 11 designated group and 1 of 28 (3.6 percent) of the T 12 - 13 designated group.

9 of 74 (12.2 percent) of respondents reported that they have obtained between 6 and 10 years post qualification experience. Respondents who have indicated that their industry experience is between 6 and 10 years, constitute 3 of 7 (57.1 percent) of the T 7 - 9 designated group, 2 of 15 (13.3 percent) of the T 10 – 11 designated group and 3 of 28 (10.7 percent) of the T 12 - 13 designated group.

16 of 74 (21.6 percent) of respondents reported that they have obtained between 11 and 15 years post qualification experience. Respondents who listed their industry experience gained as between 11 and 15 years are employed across various designated groups as follows:

- 7 of 18 (38.9 percent) of the M/P/S 14 – 16 designated group;
- 5 of 28 (17.8 percent) of the T 12 - 13 designated group; and
- 4 of 15 (26.7 percent) of the T 10 - 11 designated group.

17 of 74 (23.0 percent) of respondents reported that they have obtained between 16 and 20 years post qualification experience. Respondents who listed their industry experience gained as between 16 and 20 years are employed across various designated groups as follows:

- 2 of 5 (40.0 percent) of the M/P/S 17 – 18 designated group;
- 6 of 18 (33.3 percent) of the M/P/S 14 – 16 designated group;
- 7 of 28 (25.0 percent) of the T 12 - 13 designated group; and
- 2 of 15 (13.3 percent) of the T 10 - 11 designated group.
Table 5.5: Professional industry experience distribution of the selected sample referenced to the designated groups surveyed

<table>
<thead>
<tr>
<th>Professional Experience</th>
<th>E-Band</th>
<th>M/P/S 17-18</th>
<th>M/P/S 14-16</th>
<th>T12-13</th>
<th>T10-11</th>
<th>T7-9</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 5 years</td>
<td>- 0.0%</td>
<td>- 0.0%</td>
<td>- 0.0%</td>
<td>1 3.6%</td>
<td>6 40.0%</td>
<td>- 0.0%</td>
<td>7 9.5%</td>
</tr>
<tr>
<td>6 – 10 years</td>
<td>- 0.0%</td>
<td>- 0.0%</td>
<td>- 0.0%</td>
<td>3 10.7%</td>
<td>2 13.3%</td>
<td>4 57.1%</td>
<td>9 12.2%</td>
</tr>
<tr>
<td>11 – 15 years</td>
<td>- 0.0%</td>
<td>- 0.0%</td>
<td>7 38.9%</td>
<td>5 17.8%</td>
<td>4 26.7%</td>
<td>- 0.0%</td>
<td>16 21.6%</td>
</tr>
<tr>
<td>16 – 20 Years</td>
<td>- 0.0%</td>
<td>2 40.0%</td>
<td>6 33.3%</td>
<td>7 25.0%</td>
<td>2 13.3%</td>
<td>- 0.0%</td>
<td>17 23.0%</td>
</tr>
<tr>
<td>Over 20 years</td>
<td>1 100.0%</td>
<td>3 60.0%</td>
<td>5 27.8%</td>
<td>12 42.9%</td>
<td>1 6.7%</td>
<td>3 42.9%</td>
<td>25 33.8%</td>
</tr>
<tr>
<td>Total</td>
<td>1 100.0%</td>
<td>5 100%</td>
<td>18 100%</td>
<td>28 100%</td>
<td>15 100%</td>
<td>7 100%</td>
<td>74 100%</td>
</tr>
</tbody>
</table>

Respondents with over 20 year's industry experience accounted for 25 of 74 (33.8 percent) respondents in the survey. These respondents are employed across various designated groups as follows:

- 1 of 1 (100.0 percent) of the E-Band designated group;
- 3 of 5 (60.0 percent) of the M/P/S 17 – 18 designated group;
- 5 of 18 (27.8 percent) of the M/P/S 14 – 16 designated group;
- 12 of 28 (42.9 percent) of the T 12 - 13 designated group;
1 of 15 (6.7 percent) of the T 10 - 11 designated group; and
3 of 7 (42.9 percent) of the T 7 - 9 designated group.

Table 5.6 outlines the number of years of experience that respondents have accumulated in the telecommunications environment at Eskom. The survey results show that 18 of 74 (24.3 percent) of respondents have between 1 and 5 years of experience in the telecommunications environment at Eskom. These respondents are employed across various designated groups as follows:

- 1 of 1 (100.0 percent) of the E-Band designated group;
- 4 of 28 (14.3 percent) of the T 12 - 13 designated group;
- 10 of 15 (66.7 percent) of the T 10 - 11 designated group; and
- 3 of 7 (42.9 percent) of the T 7 - 9 designated group.

Respondents with between 6 and 10 years’ experience in Eskom Telecommunications accounted for 10 of 74 (13.5 percent) respondents in the survey. Of significance is that none of the respondents in this category are currently in a management position. These respondents are employed across various designated groups as follows:

- 4 of 28 (14.3 percent) of the T 12 - 13 designated group;
- 2 of 15 (13.3 percent) of the T 10 - 11 designated group; and
- 4 of 7 (57.1 percent) of the T 7 - 9 designated group.

23 of 74 (31.1 percent) of respondents indicated that they have accumulated between 11 and 15 years’ experience at Eskom Telecommunications. These respondents are employed across various designated groups as follows:

- 2 of 5 (40.0 percent) of the M/P/S 17 – 18 designated group;
- 15 of 18 (83.3 percent) of the M/P/S 14 – 16 designated group;
- 5 of 28 (17.9 percent) of the T 12 - 13 designated group; and
- 1 of 15 (6.7 percent) of the T 10 - 11 designated group.
### Table 5.6: Eskom Telecommunications experience distribution of the selected sample referenced to the designated groups surveyed

<table>
<thead>
<tr>
<th>Eskom Telecomms Experience</th>
<th>E-Band</th>
<th>M/P/S-17-18</th>
<th>M/P/S-14-16</th>
<th>T12-13</th>
<th>T10-11</th>
<th>T7-9</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 5 years</td>
<td>1</td>
<td>0.0%</td>
<td>0.0%</td>
<td>4</td>
<td>14.3%</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>6 - 10 years</td>
<td></td>
<td>0.0%</td>
<td>0.0%</td>
<td>4</td>
<td>14.3%</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>11 - 15 years</td>
<td></td>
<td>0.0%</td>
<td>2</td>
<td>40.0%</td>
<td>15</td>
<td>83.3%</td>
<td>5</td>
</tr>
<tr>
<td>16 - 20 Years</td>
<td></td>
<td>0.0%</td>
<td>2</td>
<td>40.0%</td>
<td>-</td>
<td>0.0%</td>
<td>9</td>
</tr>
<tr>
<td>Over 20 years</td>
<td></td>
<td>0.0%</td>
<td>1</td>
<td>20.0%</td>
<td>3</td>
<td>16.7%</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>100.0%</td>
<td>5</td>
<td>100%</td>
<td>18</td>
<td>100%</td>
<td>28</td>
</tr>
</tbody>
</table>

13 of 74 (17.6 percent) of respondents reported that they have obtained between 16 and 20 years’ telecommunications experience at Eskom. Respondents who listed their telecommunications experience gained at Eskom as between 16 and 20 years are employed across various designated groups as follows:

- 2 of 5 (40.0 percent) of the M/P/S 17 – 18 designated group;
- 9 of 28 (31.1 percent) of the T 12 - 13 designated group; and
- 2 of 15 (13.3 percent) of the T 10 - 11 designated group.
Respondents with over 20 year’s Eskom Telecommunications experience accounted for 10 of 74 (13.5 percent) respondents in the survey. These respondents are employed across various designated groups as follows:

- 1 of 5 (20.0 percent) of the M/P/S 17 – 18 designated group;
- 3 of 18 (16.7 percent) of the M/P/S 14 – 16 designated group; and
- 6 of 28 (21.4 percent) of the T 12 - 13 designated group.

5.2.6 Race distribution of respondents by designated groups

Table 5.7 provides an indication of the distribution of race amongst the designated groups, as per the results obtained from the survey. The survey results show that 25 of 74 (33.8 percent) of respondent are listed their race as “White”. These respondents are employed across various designated groups as follows:

- 1 of 1 (100.0 percent) of the E-Band designated group;
- 3 of 5 (60.0 percent) of the M/P/S 17 – 18 designated group;
- 5 of 18 (27.8 percent) of the M/P/S 14 – 16 designated group;
- 15 of 28 (53.6 percent) of the T 12 - 13 designated group; and
- 1 of 15 (6.7 percent) of the T 10 - 11 designated group.

34 of 74 (45.9 percent) of respondents listed their race as “Black” in the surveyed results. These respondents are employed across various designated groups as follows:

- 2 of 5 (40.0 percent) of the M/P/S 17 – 18 designated group;
- 10 of 18 (55.6 percent) of the M/P/S 14 – 16 designated group;
- 5 of 28 (17.9 percent) of the T 12 - 13 designated group;
- 13 of 15 (6.7 percent) of the T 10 - 11 designated group; and
- 4 of 7 (57.1 percent) of the T 7 - 9 designated group.

Respondents who listed their ethnicity as “Coloured” constituted 10 of the 74 respondent employees surveyed. These respondents are employed across various designated groups as follows:
3 of 18 (16.7 percent) of the M/P/S 14 – 16 designated group;
3 of 28 (10.7 percent) of the T 12 - 13 designated group;
1 of 15 (6.7 percent) of the T 10 - 11 designated group; and
3 of 7 (42.9 percent) of the T 7 - 9 designated group.

Table 5.7: Race distribution of the selected sample referenced to the designated groups surveyed

<table>
<thead>
<tr>
<th>Race</th>
<th>E-Band</th>
<th>M/P/S 17-18</th>
<th>M/P/S 14-16</th>
<th>T12-13</th>
<th>T10-11</th>
<th>T7-9</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>-</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Black</td>
<td>-</td>
<td>0.0%</td>
<td>2 40.0%</td>
<td>10 55.6%</td>
<td>5 17.9%</td>
<td>13 86.7%</td>
<td>4 57.1%</td>
</tr>
<tr>
<td>Coloured</td>
<td>-</td>
<td>0.0%</td>
<td>3 16.7%</td>
<td>3 10.7%</td>
<td>1 6.7%</td>
<td>3 42.9%</td>
<td>10 13.5%</td>
</tr>
<tr>
<td>Indian</td>
<td>-</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>3 10.7%</td>
<td>- 0.0%</td>
<td>- 0.0%</td>
</tr>
<tr>
<td>White</td>
<td>1</td>
<td>100.0%</td>
<td>3 60.0%</td>
<td>5 27.8%</td>
<td>15 53.6%</td>
<td>1 6.7%</td>
<td>- 0.0%</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>2 7.1%</td>
<td>- 0.0%</td>
<td>- 0.0%</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>100.0%</td>
<td>5 100%</td>
<td>18 100%</td>
<td>28 100%</td>
<td>15 100%</td>
<td>7 100%</td>
</tr>
</tbody>
</table>

Only 3 of 74 (4.1 percent) respondents listed their ethnicity as “Indian”, 2 of 64 (2.7 percent) of respondents listed their ethnicity as “Other”, while no respondents listed their ethnicity as “Asian”. All respondents who listed their ethnic groups as “Indian” and “Other” are employed in the T 12 – 13 designated group.
5.3 DESCRIPTIVE STATISTICS OF THE QUANTITATIVE DATA

In this section of the study, the descriptive analysis of the dependant and independent variables will be presented. A 5-point Likert scale was utilised to obtain responses from respondents. The ranges of the Likert scale extended from 1 (Strongly agree) to 5 (Strongly disagree). Mean scores were summated based on the responses obtained and the key to interpreting the means are provided below:

- a mean score of 1.5 and below provides an indication that respondents exhibit a high level of satisfaction with the statement provided;
- a mean score between 1.5 and 2.5 provides an indication that respondents exhibit a moderate, but acceptable level of satisfaction with the statement provided;
- a mean score between 2.5 and 3.5 provides an indication that respondents are neutral to the statement, indicating that improvement should be considered;
- a mean score between 3.5 and 4.5 provides an indication that respondents are not satisfied and attention needs to be given to improvement initiatives; and
- a mean score above 4.5 indicates that a serious shortcoming exists and that immediate attention is required to rectify any deficiencies.

5.3.1 Strategic management in Eskom Telecommunications

The results of the data obtained from the questionnaires completed by respondents, with reference to strategic management at Eskom Telecommunications, are presented in Table 5.8. Respondents were asked to indicate to what extent they agreed or disagreed with positively framed statements pertaining to strategic management at Eskom Telecommunication.

The results of the survey indicated the following:

- 54.4% of respondents indicated that senior management at Eskom Telecommunications accept formal responsibility of the organisations
Table 5.8: Questionnaire results on strategic management at Eskom Telecommunications

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>% Agree</th>
<th>% Neutral or disagree</th>
<th>Number of respondents</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1.1</td>
<td>Eskom Telecommunications’ senior management take formal responsibility for the organisation’s strategic business planning.</td>
<td>55.4%</td>
<td>44.6%</td>
<td>74</td>
<td>2.37</td>
</tr>
<tr>
<td>B1.2</td>
<td>Strategic planning is a top priority which is performed on a regular basis, e.g. each year.</td>
<td>47.3%</td>
<td>52.7%</td>
<td>74</td>
<td>2.69</td>
</tr>
<tr>
<td>B1.3</td>
<td>All managers, whose work is affected by strategic planning, participate in the strategic planning process.</td>
<td>39.2%</td>
<td>60.8%</td>
<td>74</td>
<td>2.93</td>
</tr>
<tr>
<td>B1.4</td>
<td>Eskom Telecommunications provides resources specifically earmarked for strategic planning.</td>
<td>40.5%</td>
<td>59.5%</td>
<td>74</td>
<td>2.91</td>
</tr>
<tr>
<td>B1.5</td>
<td>Eskom Telecommunications has a formal written mission statement.</td>
<td>55.4%</td>
<td>44.6%</td>
<td>74</td>
<td>2.54</td>
</tr>
<tr>
<td>B1.6</td>
<td>Eskom Telecommunications have written long-term (3 – 5 years) goals.</td>
<td>40.5%</td>
<td>59.5%</td>
<td>74</td>
<td>2.77</td>
</tr>
<tr>
<td>B1.7</td>
<td>Eskom Telecommunications have written short-term (1 – year) goals.</td>
<td>35.1%</td>
<td>64.9%</td>
<td>74</td>
<td>2.99</td>
</tr>
</tbody>
</table>

strategic business planning, while 45.6% of respondents were neutral or disagreed to some extent (mean = 2.37);

- 47.3% of respondents indicated that strategic planning is a top priority which is performed on a regular basis, while 52.7% of respondents were neutral or disagreed to some extent (mean = 2.69);
- 39.2% of respondents indicated that all managers, whose work is affected by strategic planning, participate in the strategic planning process, while 60.8% of respondents were neutral or disagreed to some extent (mean = 2.93);
- 40.5% of respondents indicated that Eskom Telecommunications provides resources specifically earmarked for strategic planning, while
59.5% of respondents were neutral or disagreed to some extent (mean = 2.91);

- 55.4% of respondents indicated that Eskom Telecommunications has a formal written mission statement, while 44.6% of respondents were neutral or disagreed to some extent (mean = 2.54);

- 40.5% of respondents indicated that Eskom Telecommunications have written long-term (3 – 5 years) goals, while 59.5% of respondents were neutral or disagreed to some extent (mean = 2.77); and

- 35.1% of respondents indicated that Eskom Telecommunications have written short-term (1 – year) goals, while 64.9% of respondents were neutral or disagreed to some extent (mean = 2.99).

The aggregate results for strategic management in Eskom Telecommunications indicate that 44.8% of the total responses obtained indicated some form of agreement with the statements posed in the survey, while 55.2% of responses where either neutral or disagreed to some extent. The aggregated mean score attributed to strategic management in Eskom Telecommunications is 2.74 and a standard deviation of 1.07.

### 5.3.2 Organisational structure at Eskom Telecommunications

The results of the data obtained from the questionnaires completed by respondents, with reference to organisational structure at Eskom Telecommunications, are presented in Table 5.9. Respondents were asked to indicate to what extent they agreed or disagreed with positively framed statements pertaining to organisational structure at Eskom Telecommunications.

The results of the survey indicated the following:

- 56.8% of respondents indicated that Eskom Telecommunications encourages clear communication across divisions and functional
business units within the group, while 43.2% of respondents were neutral or disagreed to some extent (mean = 2.37);

- 37.8% of respondents indicated that Eskom Telecommunications have a guided process for integrating the people, information and technology of the organisation, while 62.2% of respondents were neutral or disagreed to some extent (mean = 2.95);

- 44.6% of respondents indicated that Eskom Telecommunications’ structure is aligned to its strategic imperatives, while 55.4% of respondents were neutral or disagreed to some extent (mean = 2.89);

- 41.9% of respondents indicated that decision making responsibilities and accountabilities are well defined for all levels of the business, while 58.1% of respondents were neutral or disagreed to some extent (mean = 2.91);

- 28.4% of respondents indicated that functional units / departments in Eskom Telecommunications are able to adjust to changes in work practices speedily, while 71.6% of respondents were neutral or disagreed to some extent (mean = 3.18);

- 41.9% of respondents indicated that managers and staff work together to define the needs of the organisation, while 58.1% of respondents were neutral or disagreed to some extent (mean = 2.85); and

- 25.7% of respondents indicated that managers and staff work together to create systems to meet the needs of the organisation most effectively, while 74.3% of respondents were neutral or disagreed to some extent (mean = 3.19).

The aggregate results for organisational structure in Eskom Telecommunications indicate that 39.6% of the total responses obtained indicated some form of agreement with the statements posed in the survey, while 60.4% of responses where either neutral or disagreed to some extent. The aggregated mean score attributed to strategic management in Eskom Telecommunications is 2.93 and a standard deviation of 1.01.
Table 5.9: **Questionnaire results on organisational structure at Eskom Telecommunications**

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>% Agree</th>
<th>% Neutral or disagree</th>
<th>Number of respondents</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS1</td>
<td>Eskom Telecommunications encourages clear communication across divisions and functional business units within the group.</td>
<td>56.8%</td>
<td>43.2%</td>
<td>74</td>
<td>2.51</td>
</tr>
<tr>
<td>OS2</td>
<td>Eskom Telecommunications have a guided process for integrating the people, information and technology of the organisation.</td>
<td>37.8%</td>
<td>62.2%</td>
<td>74</td>
<td>2.95</td>
</tr>
<tr>
<td>OS3</td>
<td>Eskom Telecommunications’ structure is aligned to its strategic imperatives.</td>
<td>44.6%</td>
<td>55.4%</td>
<td>74</td>
<td>2.89</td>
</tr>
<tr>
<td>OS4</td>
<td>Decision making responsibilities and accountabilities are well defined for all levels of the business.</td>
<td>41.9%</td>
<td>58.1%</td>
<td>74</td>
<td>2.91</td>
</tr>
<tr>
<td>OS5</td>
<td>Functional units / departments in Eskom Telecommunications are able to adjust to changes in work practices speedily.</td>
<td>28.4%</td>
<td>71.6%</td>
<td>74</td>
<td>3.18</td>
</tr>
<tr>
<td>OS6</td>
<td>Managers and staff work together to define the needs of the organisation.</td>
<td>41.9%</td>
<td>58.1%</td>
<td>74</td>
<td>2.85</td>
</tr>
<tr>
<td>OS7</td>
<td>Managers and staff work together to create systems to meet the needs of the organisation most effectively</td>
<td>25.7%</td>
<td>74.3%</td>
<td>74</td>
<td>3.19</td>
</tr>
</tbody>
</table>

**Aggregates**

<table>
<thead>
<tr>
<th>% Agree</th>
<th>% Neutral or disagree</th>
<th>Number of respondents</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>39.6%</td>
<td>60.4%</td>
<td>518</td>
<td>2.93</td>
</tr>
</tbody>
</table>

5.3.3 **Process definition at Eskom Telecommunications**

The results of the data obtained from the questionnaires completed by respondents, with reference to process definition at Eskom Telecommunications, are presented in Table 5.10. Respondents were asked to indicate to what extent they agreed or disagreed with positively framed statements pertaining to process definition at Eskom Telecommunications.

The results of the survey indicated the following:

- 39.2% of respondents indicated that Eskom Telecommunications is a very structured and controlled business environment, while 60.8% of respondents were neutral or disagreed to some extent (mean = 2.89);
• 43.2% of respondents indicated that Eskom Telecommunications regularly reviews its processes to determine their applicability in contribution to enhance business performance, information and technology of the organisation, while 60.8% of respondents were neutral or disagreed to some extent (mean = 2.81);

• 33.8% of respondents indicated that business processes in Eskom Telecommunications are aligned to their strategic imperatives, while 66.2% of respondents were neutral or disagreed to some extent (mean = 3.04);

• 43.2% of respondents indicated that Eskom Telecommunications uses business processes to effect strategic and innovative changes in the organisation, while 56.8% of respondents were neutral or disagreed to some extent (mean = 2.89);

• 41.9% of respondents indicated that formal procedures generally govern everything that people do, while 58.1% of respondents were neutral or disagreed to some extent (mean = 2.78);

• 33.8% of respondents indicated that recent changes in policies have brought about significant improvement in organisational performance, while 66.2% of respondents were neutral or disagreed to some extent (mean = 3.05); and

• 32.4% of respondents indicated that policies and procedures are directly related to the needs and objectives of Eskom Telecommunications, while 67.6% of respondents were neutral or disagreed to some extent (mean = 2.92).

The aggregate results for process definition in Eskom Telecommunications indicate that 38.2% of the total responses obtained indicated some form of agreement to the statements posed in the survey, while 61.8% of responses where either neutral or disagreed to some extent. The aggregated mean score attributed to strategic management in Eskom Telecommunications is 2.91 with a standard deviation of 1.01.
Table 5.10: Questionnaire results on process definition at Eskom Telecommunications

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>% Agree</th>
<th>% Neutral or disagree</th>
<th>Number of respondents</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD1</td>
<td>Eskom Telecommunications is a very structured and controlled business environment.</td>
<td>56.8%</td>
<td>43.2%</td>
<td>74</td>
<td>2.89</td>
</tr>
<tr>
<td>PD2</td>
<td>Eskom Telecommunications regularly reviews its processes to determine their applicability in contribution to enhance business performance.</td>
<td>37.8%</td>
<td>62.2%</td>
<td>74</td>
<td>2.81</td>
</tr>
<tr>
<td>PD3</td>
<td>Business processes in Eskom Telecommunications are aligned to their strategic imperatives.</td>
<td>44.6%</td>
<td>55.4%</td>
<td>74</td>
<td>3.04</td>
</tr>
<tr>
<td>PD4</td>
<td>Eskom Telecommunications uses business processes to effect strategic and innovative changes in the organisation.</td>
<td>41.9%</td>
<td>58.1%</td>
<td>74</td>
<td>2.89</td>
</tr>
<tr>
<td>PD5</td>
<td>Formal procedures generally govern everything that people do.</td>
<td>28.4%</td>
<td>71.6%</td>
<td>74</td>
<td>2.78</td>
</tr>
<tr>
<td>PD6</td>
<td>Recent changes in policies have brought about significant improvement in organisational performance.</td>
<td>41.9%</td>
<td>58.1%</td>
<td>74</td>
<td>3.05</td>
</tr>
<tr>
<td>PD7</td>
<td>Policies and procedures are directly related to the needs and objectives of Eskom Telecommunications.</td>
<td>25.7%</td>
<td>74.3%</td>
<td>74</td>
<td>2.92</td>
</tr>
<tr>
<td></td>
<td>Aggregates</td>
<td>39.6%</td>
<td>60.4%</td>
<td>518</td>
<td>2.91</td>
</tr>
</tbody>
</table>

5.3.4 Implementation metrics at Eskom Telecommunications

The results of the data obtained from the questionnaires completed by respondents, with reference to implementation metrics at Eskom Telecommunications, are presented in Table 5.11. Respondents were asked to indicate to what extent they agreed or disagreed with positively framed statements pertaining to implementation metrics at Eskom Telecommunications.
The results of the survey indicated the following:

- 54.1% of respondents indicated that Eskom Telecommunications systematically measures actual performance against strategically aligned goals, while 45.9% of respondents were neutral or disagreed to some extent (mean = 2.55);
- 37.8% of respondents indicated that Eskom Telecommunications have quantified and measurable targets for each of their strategic goals, information and technology of the organisation, while 62.2% of respondents were neutral or disagreed to some extent (mean = 2.99);
- 45.9% of respondents indicated that managers and higher-level staff, whose responsibilities are affected, participate in setting goals and targets, while 54.1% of respondents were neutral or disagreed to some extent (mean = 2.89);

Table 5.11: Questionnaire results on implementation metrics at Eskom Telecommunications

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>% Agree</th>
<th>% Neutral or disagree</th>
<th>Number of respondents</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM1</td>
<td>Eskom Telecommunications systematically measures actual performance against strategically aligned goals.</td>
<td>54.1%</td>
<td>45.9%</td>
<td>74</td>
<td>2.55</td>
</tr>
<tr>
<td>IM2</td>
<td>Eskom Telecommunications have quantified and measurable targets for each of their strategic goals.</td>
<td>37.8%</td>
<td>62.2%</td>
<td>74</td>
<td>2.99</td>
</tr>
<tr>
<td>IM3</td>
<td>Managers and higher-level staff, whose responsibilities are affected, participate in setting goals and targets.</td>
<td>45.9%</td>
<td>54.1%</td>
<td>74</td>
<td>2.89</td>
</tr>
<tr>
<td>IM4</td>
<td>Eskom Telecommunications’ goals appear realistic, yet challenging, based on experience and / or research.</td>
<td>43.2%</td>
<td>56.8%</td>
<td>74</td>
<td>2.88</td>
</tr>
<tr>
<td>IM5</td>
<td>Eskom Telecommunications makes strategic decisions (strategy implementation action plans) based on the strategic plan.</td>
<td>28.4%</td>
<td>71.6%</td>
<td>74</td>
<td>3.22</td>
</tr>
<tr>
<td>IM6</td>
<td>Eskom Telecommunications’ goals are observable and measurable.</td>
<td>40.5%</td>
<td>59.5%</td>
<td>74</td>
<td>2.92</td>
</tr>
<tr>
<td>IM7</td>
<td>Eskom Telecommunications defines success on the basis of the development of human resources, teamwork, employee commitment and concern for people.</td>
<td>23.0%</td>
<td>77.0%</td>
<td>74</td>
<td>3.23</td>
</tr>
<tr>
<td></td>
<td>Aggregates</td>
<td>39.0%</td>
<td>61.0%</td>
<td>518</td>
<td>2.95</td>
</tr>
</tbody>
</table>
• 43.2% of respondents indicated that Eskom Telecommunications’ goals appear realistic, yet challenging, based on experience and / or research, while 56.8% of respondents were neutral or disagreed to some extent (mean = 2.88);
• 28.4% of respondents indicated that Eskom Telecommunications makes strategic decisions (strategy implementation action plans) based on the strategic plan, while 71.6% of respondents were neutral or disagreed to some extent (mean = 3.22);
• 40.5% of respondents indicated that Eskom Telecommunications’ goals are observable and measurable, while 59.5% of respondents were neutral or disagreed to some extent (mean = 2.92); and
• 23.0% of respondents indicated that Eskom Telecommunications defines success on the basis of the development of human resources, teamwork, employee commitment and concern for people, while 77.0% of respondents were neutral or disagreed to some extent (mean = 3.23).

The aggregate results for process definition in Eskom Telecommunications indicate that 39.0% of the total responses obtained indicated some form of agreement to the statements posed in the survey, while 61.0% of responses were neutral or disagreed to some extent. The aggregated mean score attributed to implementation metrics at Eskom Telecommunications is 2.95 and a standard deviation of 1.02.

5.3.5 Implementation tools at Eskom Telecommunications

The results of the data obtained from the questionnaires completed by respondents, with reference to implementation tools at Eskom Telecommunications, are presented in Table 5.12. Respondents were asked to indicate to what extent they agreed or disagreed with positively framed statements pertaining to implementation tools at Eskom Telecommunications.
**Table 5.12: Questionnaire results on implementation tools at Eskom Telecommunications**

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>% Agree</th>
<th>% Neutral or disagree</th>
<th>Number of respondents</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT1</td>
<td>Eskom Telecommunications periodically gather and analyse data about market and other external factors which affect the industry.</td>
<td>39.2%</td>
<td>60.8%</td>
<td>74</td>
<td>2.93</td>
</tr>
<tr>
<td>IT2</td>
<td>Eskom Telecommunications benchmark their business performance and operational characteristics regularly.</td>
<td>43.2%</td>
<td>56.8%</td>
<td>74</td>
<td>2.78</td>
</tr>
<tr>
<td>IT3</td>
<td>Eskom Telecommunications assess best practice methodologies implemented in their industry regularly (e.g. new technologies, new concepts, procurement practices, price trends, labour practices, etc.).</td>
<td>32.4%</td>
<td>67.6%</td>
<td>74</td>
<td>3.05</td>
</tr>
<tr>
<td>IT4</td>
<td>Eskom Telecommunications assesses institutional factors regularly (e.g. cost and availability of capital, government regulations and the economy)</td>
<td>43.2%</td>
<td>56.8%</td>
<td>74</td>
<td>2.88</td>
</tr>
<tr>
<td>IT5</td>
<td>Eskom Telecommunications conduct external analysis which is used to identify key threats to the organisation.</td>
<td>43.2%</td>
<td>56.8%</td>
<td>74</td>
<td>2.74</td>
</tr>
<tr>
<td>IT6</td>
<td>Eskom Telecommunications’ management information system provides relatively easy access to internal data that assists in strategic evaluation.</td>
<td>36.5%</td>
<td>63.5%</td>
<td>74</td>
<td>3.01</td>
</tr>
<tr>
<td>IT7</td>
<td>Eskom Telecommunications periodically reviews its mission and goals in light of the apparent threats/ opportunities and strengths/ weaknesses identified during its internal and external analysis.</td>
<td>35.1%</td>
<td>64.9%</td>
<td>74</td>
<td>2.89</td>
</tr>
<tr>
<td></td>
<td>Aggregates</td>
<td>39.0%</td>
<td>61.0%</td>
<td>518</td>
<td>2.90</td>
</tr>
</tbody>
</table>

The results of the survey indicated the following:

- 39.2% of respondents indicated that Eskom Telecommunications periodically gather and analyse data about market and other external factors which affect the industry, while 60.8% of respondents were neutral or disagreed to some extent (mean = 2.93);
- 43.2% of respondents indicated that Eskom Telecommunications benchmark their business performance and operational characteristics regularly, while 56.8% of respondents were neutral or disagreed to some extent (mean = 2.78);
• 32.4% of respondents indicated that Eskom Telecommunications assesses best practice methodologies implemented in their industry regularly (e.g. new technologies, new concepts, procurement practices, price trends, labour practices, etc.), while 67.6% of respondents were neutral or disagreed to some extent (mean = 3.05);

• 43.2% of respondents indicated that Eskom Telecommunications assesses institutional factors regularly (e.g. cost and availability of capital, government regulations and the economy), while 56.8% of respondents were neutral or disagreed to some extent (mean = 2.88);

• 43.2% of respondents indicated that Eskom Telecommunications conduct external analysis which is used to identify key threats to the organisation, while 56.8% of respondents were neutral or disagreed to some extent (mean = 2.74);

• 36.5% of respondents indicated that Eskom Telecommunications’ management information system provides relatively easy access to internal data that assists in strategic evaluation, while 63.5% of respondents were neutral or disagreed to some extent (mean = 3.01); and

• 35.1% of respondents indicated that Eskom Telecommunications periodically reviews its mission and goals in light of the apparent threats/ opportunities and strengths/ weaknesses identified during its internal and external analysis, while 64.9% of respondents were neutral or disagreed to some extent (mean = 2.89).

The aggregate results for process definition in Eskom Telecommunications indicate that 39.0% of the total responses obtained indicated some form of agreement to the statements posed in the survey, while 61.0% of responses where either neutral or disagreed to some extent. The aggregated mean score attributed to implementation tools at Eskom Telecommunications is 2.90 and a standard deviation of 1.02.
5.3.6 Organisational culture at Eskom Telecommunications

The results of the data obtained from the questionnaires completed by respondents, with reference to organisational culture at Eskom Telecommunications, are presented in Table 5.13. Respondents were asked to indicate to what extent they agreed or disagreed with positively framed statements pertaining to organisational culture at Eskom Telecommunications.

The results of the survey indicated the following:

- 59.5% of respondents indicated that Eskom Telecommunications is currently experiencing significant changes, while 40.5% of respondents were neutral or disagreed to some extent (mean = 2.93);
- 48.6% of respondents indicated that Eskom Telecommunications’ goals and strategies are aligned to help achieve the overall Eskom strategic initiatives, while 51.4% of respondents were neutral or disagreed to some extent (mean = 2.78);
- 43.2% of respondents indicated that Eskom Telecommunications encourages contributions to organisational process development by all employees, while 56.8% of respondents were neutral or disagreed to some extent (mean = 3.05);
- 40.5% of respondents indicated that Eskom Telecommunications is committed to the professional and personal growth of its employees and funds such development, while 59.5% of respondents were neutral or disagreed to some extent (mean = 2.88);
- 58.1% of respondents indicated that Eskom Telecommunications is characterised by teamwork, consensus and participation, while 41.9% of respondents were neutral or disagreed to some extent (mean = 2.74);
- 41.9% of respondents indicated that Rewards and recognition policies are aligned to organisational strategies and goals, while 58.1% of
respondents were neutral or disagreed to some extent (mean = 3.01); and

- 35.1% of respondents indicated that Eskom Telecommunications defines success on the basis of dependable delivery, accurate scheduling and low-cost production, while 64.9% of respondents were neutral or disagreed to some extent (mean = 2.89).

Table 5.13: Questionnaire results on organisational culture at Eskom Telecommunications

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>% Agree</th>
<th>% Neutral or disagree</th>
<th>Number of respondents</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>OC1</td>
<td>Eskom Telecommunications is currently experiencing significant changes.</td>
<td>59.5%</td>
<td>40.5%</td>
<td>74</td>
<td>2.93</td>
</tr>
<tr>
<td>OC2</td>
<td>Eskom Telecommunications' goals and strategies are aligned to help achieve the overall Eskom strategic initiatives.</td>
<td>48.6%</td>
<td>51.4%</td>
<td>74</td>
<td>2.78</td>
</tr>
<tr>
<td>OC3</td>
<td>Eskom Telecommunications encourages contributions to organisational process development by all employees.</td>
<td>43.2%</td>
<td>56.8%</td>
<td>74</td>
<td>3.05</td>
</tr>
<tr>
<td>OC4</td>
<td>Eskom Telecommunications is committed to the professional and personal growth of its employees and funds such development.</td>
<td>40.5%</td>
<td>59.5%</td>
<td>74</td>
<td>2.88</td>
</tr>
<tr>
<td>OC5</td>
<td>Eskom Telecommunications is characterised by teamwork, consensus and participation.</td>
<td>58.1%</td>
<td>41.9%</td>
<td>74</td>
<td>2.74</td>
</tr>
<tr>
<td>OC6</td>
<td>Rewards and recognition policies are aligned to organisational strategies and goals.</td>
<td>41.9%</td>
<td>58.1%</td>
<td>74</td>
<td>3.01</td>
</tr>
<tr>
<td>OC7</td>
<td>Eskom Telecommunications defines success on the basis of dependable delivery, accurate scheduling and low-cost production.</td>
<td>35.1%</td>
<td>64.9%</td>
<td>74</td>
<td>2.89</td>
</tr>
<tr>
<td></td>
<td>Aggregates</td>
<td>46.7%</td>
<td>53.3%</td>
<td>518</td>
<td>2.90</td>
</tr>
</tbody>
</table>

The aggregate results for process definition in Eskom Telecommunications indicate that 39.0% of the total responses obtained indicated some form of agreement to the statements posed in the survey, while 61.0% of responses where either neutral or disagreed to some extent. The aggregated mean
score attributed to organisational culture at Eskom Telecommunications is 2.90 and a standard deviation of 1.02.

5.4 **STATISTICAL ANALYSIS OF THE SECONDARY RESEARCH QUESTIONS**

The biographical data obtained in the survey and reported on in section 5.2 will now be utilised to answer the secondary research questions which this study aimed to analyse. The secondary research questions were listed in Chapters 1 and 4 as follows:

Do the following categories have an impact on the perception of the dependant (Strategic management implementation) and independent variables (Organisation structure, Process definition, Implementation metrics, Implementation tools and Organisational culture) under scrutiny in this study?

Category 1: Age;
Category 2: Gender;
Category 3: Race;
Category 4: Designation;
Category 5: Education;
Category 6: Industry experience; and
Category 7: Eskom Telecommunications experience.

5.4.1 **Category 1: Age**

The first secondary research question was to determine whether age has an influence in the manner in which the sample population perceives the dependant and independent variables under investigation in this study. The assumption is that age does have an influence on how the sample population perceives the variables under study. Due to the relatively small sample, the age groups 18 – 29 and 29 – 39 were combined to form a new grouping of respondents aged 18 – 39, with a cumulative sum of 29 respondents. The same exercise where performed for the age groups 50 – 59 and over 60.
These two age groups were combined to form an age grouping called over 50, with 15 respondents.

Analysis of Variance (ANOVA) tests were performed to determine if any statistically significant differences in perception existed between the three age groupings (18 – 39, 40 – 49 and over 50). The means of the various variables were calculated and compared using STATISTICA VERSION 10. The key results are presented in Table 5.14.

ANOVA analysis was performed on the three age groups for each of the variables under study, where all effects are significant at p<0.0500. The null hypothesis assumed that the means of all three age groups are equal, thus:

\[ H_0: \mu_{(18-39)} = \mu_{(40-49)} = \mu_{(over 50)} \]

The alternative hypothesis assumes that at least one of the three means of the above age groups differs, thus:

\[ H_1: \text{At least one } \mu_i \text{ differs (}i = 18 – 39; 40 – 49, over 50) \]

Table 5.14: Analysis of variance results for the effect of age on the perception of the variables under study

<table>
<thead>
<tr>
<th>Effect</th>
<th>SS Effect</th>
<th>df Effect</th>
<th>MS Effect</th>
<th>SS Error</th>
<th>df 2 Error</th>
<th>MS Error</th>
<th>F</th>
<th>p*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Management</td>
<td>0.521761</td>
<td>2</td>
<td>0.26088055</td>
<td>44.03643</td>
<td>71</td>
<td>0.6202314</td>
<td>0.420618</td>
<td>0.658266</td>
</tr>
<tr>
<td>Organisational structure</td>
<td>0.248088</td>
<td>2</td>
<td>0.12404378</td>
<td>38.985503</td>
<td>71</td>
<td>0.5490916</td>
<td>0.225907</td>
<td>0.798363</td>
</tr>
<tr>
<td>Process definition</td>
<td>1.26478</td>
<td>2</td>
<td>0.63238996</td>
<td>42.156345</td>
<td>71</td>
<td>0.5937513</td>
<td>1.065075</td>
<td>0.350144</td>
</tr>
<tr>
<td>Implementation Metrics</td>
<td>0.268241</td>
<td>2</td>
<td>0.13412043</td>
<td>41.246376</td>
<td>71</td>
<td>0.5809349</td>
<td>0.23087</td>
<td>0.794436</td>
</tr>
<tr>
<td>Implementation Tools</td>
<td>0.152797</td>
<td>2</td>
<td>0.07639843</td>
<td>43.509641</td>
<td>71</td>
<td>0.6128118</td>
<td>0.124669</td>
<td>0.882982</td>
</tr>
<tr>
<td>Organisational Culture</td>
<td>0.074501</td>
<td>2</td>
<td>0.03725045</td>
<td>41.026437</td>
<td>71</td>
<td>0.5778371</td>
<td>0.064465</td>
<td>0.937623</td>
</tr>
</tbody>
</table>

* Marked effects are significant at p<0.0500
The results of the analysis of variance in Table 5.14 indicate that the sample test statistic for each of the variables under investigation in this study is within the area of acceptance of the null hypothesis. Since the null hypothesis is supported at the 5% significance level (p<0.0500), and the management claim resides in the alternative hypothesis (H₁: At least one µᵢ differs), the statistical evidence does not support the view that there age has an influence on how the sample population perceives the variables under study. The conclusion is that age has no impact on how the variables under study are perceived by the sample population.

5.4.2 Category 2: Gender

The second secondary research question was to determine whether gender has an influence in the manner in which the sample population perceives the dependant and independent variables under investigation in this study. The assumption is that gender has no influence on how the sample population perceives the variables under study.

A sample t-test was conducted to determine the difference between the means of male and female responses for each of the variables under investigation in this study. The means of the various variables were calculated and compared using STATISTICA VERSION 10. The key results are presented in Table 5.15.

The sample t-test analysis was performed on the means of the responses of males and females for each of the variables under study, where all effects are significant at p<0.0500. The null hypothesis assumed that the difference in the mean responses of males and females are equal, thus:

\[ H₀: \mu_{(males)} - \mu_{(females)} = 0 \]

The alternative hypothesis assumes that the difference in the mean responses of males and females are not equal, thus:

\[ H₁: \mu_{(males)} - \mu_{(females)} \neq 0 \]
The results of the analysis of variance in Table 5.15 indicate that the sample test statistic for five of the variables under investigation in this study is within the area of acceptance of the null hypothesis. Since the null hypothesis is supported at the 5% significance level (p<0.0500), and the management claim resides in the null hypothesis (H₀: μ( males) - μ( females) = 0), the statistical evidence supports the view that gender has no influence on how the sample population perceives Organisational structure, Process definition, Implementation tools, Implementation metrics and organisational culture.

Table 5.15: Results of the sample t-test to determine the differences in means between males and females

<table>
<thead>
<tr>
<th></th>
<th>Mean Male</th>
<th>Mean2 Female</th>
<th>t-value</th>
<th>df</th>
<th>p</th>
<th>Valid N Male</th>
<th>Valid N Female</th>
<th>Std.De Male</th>
<th>Std.Dev. Female</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategic Management</strong></td>
<td>2.66</td>
<td>3.15</td>
<td>-2.05</td>
<td>72</td>
<td>0.044409</td>
<td>62</td>
<td>12</td>
<td>0.75</td>
<td>0.83</td>
</tr>
<tr>
<td>Organisational structure</td>
<td>2.87</td>
<td>3.20</td>
<td>-1.44</td>
<td>72</td>
<td>0.153067</td>
<td>62</td>
<td>12</td>
<td>0.69</td>
<td>0.93</td>
</tr>
<tr>
<td>Process definition</td>
<td>2.88</td>
<td>3.11</td>
<td>-0.95</td>
<td>72</td>
<td>0.34457</td>
<td>62</td>
<td>12</td>
<td>0.73</td>
<td>0.97</td>
</tr>
<tr>
<td>Implementation metrics</td>
<td>2.93</td>
<td>3.07</td>
<td>-0.59</td>
<td>72</td>
<td>0.558155</td>
<td>62</td>
<td>12</td>
<td>0.71</td>
<td>0.98</td>
</tr>
<tr>
<td>Implementation Tools</td>
<td>2.86</td>
<td>3.12</td>
<td>-1.07</td>
<td>72</td>
<td>0.285992</td>
<td>62</td>
<td>12</td>
<td>0.71</td>
<td>1.07</td>
</tr>
<tr>
<td>Organisational Culture</td>
<td>2.66</td>
<td>2.96</td>
<td>-1.29</td>
<td>72</td>
<td>0.202524</td>
<td>62</td>
<td>12</td>
<td>0.71</td>
<td>0.93</td>
</tr>
</tbody>
</table>

* Marked effects are significant at p<0.0500

The sample t-test results do indicate that a statistically significant difference exists between the sample means of males and females with regards to their perception of strategic management implementation. The difference in the means of the groups are significant at t(72) = -2.05, p = 0.0444. Since the null hypothesis is rejected at the 5% significance level (p<0.0500), and the management claim resides in the null hypothesis (H₀: μ( males) - μ( females) = 0),
the statistical evidence supports the view that gender has an influence on how the sample population perceives strategic management implementation.

5.4.3 Category 3: Race

The third secondary research question was to determine whether race has an influence in the manner in which the sample population perceives the dependant and independent variables under investigation in this study. The assumption is that race does have an influence on how the sample population perceives the variables under study. Due to the relatively small sample, the ethnic groups “Coloured”, “Indian”, “Asian” and “Other” were combined to form a new grouping of respondents listed as “Other”, with a cumulative sum of 15 respondents. The additional groupings under race were “White” (representing 25 respondents) and “Black” (representing 34 respondents).

Analysis of Variance (ANOVA) tests were performed to determine if any statistically significant differences in perception existed between the three racial groupings (“White”, “Black” and “Other”). The means of the various variables were calculated and compared using STATISTICA VERSION 10. The key results are presented in Table 5.16.

ANOVA analysis was performed on the three ethnic groupings for each of the variables under study, where all effects are significant at p<0.0500. The null hypothesis assumed that the means of all three age groups are equal, thus:

\[ H_0 : \mu_{(White)} = \mu_{(Black)} = \mu_{(Other)} \]

The alternative hypothesis assumes that at least one of the three means of the above age groups differs, thus:

\[ H_1 : \text{At least one } \mu_i \text{ differs (i = “White”; “Black”, “Other”) } \]

The results of the analysis of variance in Table 5.16 indicate that the sample test statistic for the variables strategic management implementation, organisational structure, Implementation tools and organisational culture is within the area of acceptance of the null hypothesis. Since the null hypothesis
is supported at the 5% significance level (p<0.0500) and the management claim resides in the alternative hypothesis (H₁: At least one μᵢ differs), the statistical evidence does not support the view that race has an influence on how the sample population perceives strategic management implementation, organisational structure, Implementation metrics and organisational culture.

Table 5.16: Analysis of variance results for the effect of race on the perception of the variables under study

<table>
<thead>
<tr>
<th></th>
<th>SS Effect</th>
<th>df Effect</th>
<th>MS Effect</th>
<th>SS Error</th>
<th>df Error</th>
<th>MS Error</th>
<th>F</th>
<th>p*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Management</td>
<td>1.39626</td>
<td>2</td>
<td>0.69813</td>
<td>43.16193</td>
<td>71</td>
<td>0.60791</td>
<td>1.14840</td>
<td>0.32296</td>
</tr>
<tr>
<td>Organisational structure</td>
<td>1.11205</td>
<td>2</td>
<td>0.55602</td>
<td>38.12154</td>
<td>71</td>
<td>0.53692</td>
<td>1.03557</td>
<td>0.36032</td>
</tr>
<tr>
<td>Process definition</td>
<td>3.99598</td>
<td>2</td>
<td>1.99799</td>
<td>39.42515</td>
<td>71</td>
<td>0.55528</td>
<td>3.59814</td>
<td>0.03248</td>
</tr>
<tr>
<td>Implementation Metrics</td>
<td>2.47314</td>
<td>2</td>
<td>1.23657</td>
<td>39.04147</td>
<td>71</td>
<td>0.54988</td>
<td>2.24880</td>
<td>0.11299</td>
</tr>
<tr>
<td>Implementation Tools</td>
<td>3.70512</td>
<td>2</td>
<td>1.85256</td>
<td>39.95732</td>
<td>71</td>
<td>0.56278</td>
<td>3.29181</td>
<td>0.04294</td>
</tr>
<tr>
<td>Organisational Culture</td>
<td>2.49786</td>
<td>2</td>
<td>1.24893</td>
<td>38.60308</td>
<td>71</td>
<td>0.54371</td>
<td>2.29707</td>
<td>0.10798</td>
</tr>
</tbody>
</table>

* Marked effects are significant at p<0.0500

The ANOVA results do indicate that a statistically significant difference exists in the manner in which the various racial ethnic groups perceive Process definition and Implementation tools. For process definition, F(2,71) = 3.5981, MSE = 0.5553, p = 0.03248, a Scheffe post hoc test was not powerful enough to detect any pairwise differences. For implementation metrics, F(2,71) = 3.2918, MSE = 0.5628, p = 0.04293, a Scheffe post hoc test indicated that the only significant difference existed between the racial groups “Black” and “Other” (p = 0.0443).

Since the null hypothesis is rejected at the 5% significance level (p<0.0500), and the management claim resides in the alternative hypothesis (H₁: At least one μᵢ differs), the statistical evidence supports the view that race has an
influence on how the sample population perceives process definition and implementation tools.

5.4.4 Category 4: Designation

The fourth secondary research question was to determine whether designation has an influence in the manner in which the sample population perceives the dependant and independent variables under investigation in this study. The assumption is that designation has no influence on how the sample population perceives the variables under study. Due to the relatively small sample, the designated groups T 7 – 9, T 10 - 11 and T 12 – 13 were combined to form a new grouping of respondents referred to as the Bargaining Unit, with a cumulative sum of 50 respondents. The same exercise was performed for the designated groups M/P/S 14 – 16, M/P/S 17 - 18 and E-Band. These three designation groups were combined to form grouping called Management, with 24 respondents.

A sample t-test was conducted to determine the difference between the means of employees in the Bargaining Unit and Management responses for each of the variables under investigation in this study. The means of the various variables were calculated and compared using STATISTICA VERSION 10. The key results are presented in Table 5.17.

The sample t-test analysis was performed on the means of the responses of employees in the Bargaining Unit and Management for each of the variables under study, where all effects are significant at $p<0.0500$. The null hypothesis assumed that the difference in the mean responses of employees in the Bargaining Unit and Management are equal, thus:

$$H_0: \mu_{(Bargaining\ Unit)} - \mu_{(Management)} = 0$$

The alternative hypothesis assumes that the difference in the mean responses of employees in the Bargaining Unit and Management are not equal, thus:

$$H_1: \mu_{(Bargaining\ Unit)} - \mu_{(Management)} \neq 0$$
The results of the analysis of variance in Table 5.17 indicate that the sample test statistic for five of the variables (i.e. strategic management implementation, organisational structure, process definition, implementation tools and organisational culture) under investigation in this study is within the area of acceptance of the null hypothesis. Since the null hypothesis is supported at the 5% significance level (p<0.0500), and the management claim resides in the null hypothesis (H₀: µ(Bargaining Unit) - µ(Management) = 0), the statistical evidence supports the view that designation has no influence on how the sample population perceives strategic management implementation, organisational structure, process definition, implementation metrics and organisational culture.

Table 5.17: Results of the sample t-test to determine the differences in means between employees in the Bargaining Unit and Management

<table>
<thead>
<tr>
<th></th>
<th>Mean Management</th>
<th>Mean2 BU</th>
<th>t-value</th>
<th>df</th>
<th>p</th>
<th>Valid N Management</th>
<th>Valid N BU</th>
<th>Std.Dev. Management</th>
<th>Std.Dev. BU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Management</td>
<td>2.93</td>
<td>2.65</td>
<td>1.44</td>
<td>72</td>
<td>0.15450578</td>
<td>24</td>
<td>50</td>
<td>0.89</td>
<td>0.72</td>
</tr>
<tr>
<td>Organisational structure</td>
<td>3.08</td>
<td>2.85</td>
<td>1.30</td>
<td>72</td>
<td>0.19927992</td>
<td>24</td>
<td>50</td>
<td>0.69</td>
<td>0.75</td>
</tr>
<tr>
<td>Process definition</td>
<td>3.09</td>
<td>2.83</td>
<td>1.37</td>
<td>72</td>
<td>0.17512232</td>
<td>24</td>
<td>50</td>
<td>0.71</td>
<td>0.79</td>
</tr>
<tr>
<td>Implementation Metrics</td>
<td>3.02</td>
<td>2.92</td>
<td>0.55</td>
<td>72</td>
<td>0.58287027</td>
<td>24</td>
<td>50</td>
<td>0.84</td>
<td>0.72</td>
</tr>
<tr>
<td>Implementation Tools</td>
<td>3.17</td>
<td>2.77</td>
<td>2.16</td>
<td>72</td>
<td>0.0344445</td>
<td>24</td>
<td>50</td>
<td>0.86</td>
<td>0.70</td>
</tr>
<tr>
<td>Organisational Culture</td>
<td>2.72</td>
<td>2.71</td>
<td>0.08</td>
<td>72</td>
<td>0.93850974</td>
<td>24</td>
<td>50</td>
<td>0.71</td>
<td>0.78</td>
</tr>
</tbody>
</table>

The sample t-test results do indicate that a statistically significant difference exists between the sample means of employees in the Bargaining Unit and Management with regards to their perception of implementation tools. The difference in the means of the groups are significant at t(72) = 2.16, p = 0.034445. Since the null hypothesis is rejected at the 5% significance level (p<0.0500) and the management claim resides in the null hypothesis (H₀: µ(Bargaining Unit) - µ(Management) = 0), the statistical evidence supports the view that designation has no influence on how the sample population perceives strategic management implementation, organisational structure, process definition, implementation metrics and organisational culture.
\( \mu_{\text{Bargaining Unit}} - \mu_{\text{Management}} = 0 \), the statistical evidence supports the view that designation has an influence on how the sample population perceives the implementation tools.

### 5.4.5 Category 5: Education

The fourth secondary research question was to determine whether education has an influence in the manner in which the sample population perceives the dependant and independent variables under investigation in this study. The assumption is that education has no influence on how the sample population perceives the variables under study. Due to the relatively small sample, the designated groups Matric, college certificate, Technikon diploma and other were combined to form a new grouping of respondents referred to as no degree, with a cumulative sum of 58 respondents. The same exercise where performed for the designated groups’ bachelor’s degree, honours or master’s degree and doctoral degree. These three designation groups were combined to form grouping called degree, with 16 respondents.

A sample t-test was conducted to determine the difference between the means of employees with degrees and employees with no degrees for each of the variables under investigation in this study. The means of the various variables were calculated and compared using STATISTICA VERSION 10. The key results are presented in Table 5.18.

The sample t-test analysis was performed on the means of the responses of employees with degrees and employees with no degrees for each of the variables under study, where all effects are significant at \( p<0.0500 \). The null hypothesis assumed that the difference in the mean responses of employees with degrees and employees with no degrees are equal, thus:

\[
H_0: \quad \mu_{\text{Degrees}} - \mu_{\text{No degrees}} = 0
\]

The alternative hypothesis assumes that the difference in the mean responses of employees with degrees and employees with no degrees are not equal, thus:

\[
H_1: \quad \mu_{\text{Degrees}} - \mu_{\text{No degrees}} \neq 0
\]
The results of the analysis of variance in Table 5.18 indicate that the sample test statistic for two of the variables, i.e. organisational structure and organisational culture, is within the area of acceptance of the null hypothesis. Since the null hypothesis is supported at the 5% significance level (p<0.0500) and the management claim resides in the null hypothesis ($H_0$: $\mu_{(Degrees)} - \mu_{(No\ degrees)} = 0$), the statistical evidence supports the view that education has no influence on how the sample population perceives organisational structure and organisational culture.

Table 5.18: Results of the sample t-test to determine the differences in means between employees with degrees and employees with no degrees

<table>
<thead>
<tr>
<th></th>
<th>Mean No Degree</th>
<th>Mean2 Degree</th>
<th>t-value</th>
<th>df</th>
<th>p</th>
<th>Valid N No Degree</th>
<th>Valid N Degree</th>
<th>Std. Dev. No Degree</th>
<th>Std. Dev. Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Management</td>
<td>2.64</td>
<td>3.11</td>
<td>-2.17</td>
<td>72</td>
<td>0.03341601</td>
<td>58</td>
<td>16</td>
<td>0.75</td>
<td>0.80</td>
</tr>
<tr>
<td>Organisational structure</td>
<td>2.86</td>
<td>3.17</td>
<td>-1.52</td>
<td>72</td>
<td>0.13211124</td>
<td>58</td>
<td>16</td>
<td>0.73</td>
<td>0.73</td>
</tr>
<tr>
<td>Process definition</td>
<td>2.82</td>
<td>3.25</td>
<td>-2.01</td>
<td>72</td>
<td>0.0477021</td>
<td>58</td>
<td>16</td>
<td>0.74</td>
<td>0.81</td>
</tr>
<tr>
<td>Implementation Metrics</td>
<td>2.82</td>
<td>3.45</td>
<td>-3.12</td>
<td>72</td>
<td>0.00056725</td>
<td>58</td>
<td>16</td>
<td>0.66</td>
<td>0.89</td>
</tr>
<tr>
<td>Implementation Tools</td>
<td>2.74</td>
<td>3.47</td>
<td>-3.62</td>
<td>72</td>
<td>0.00054816</td>
<td>58</td>
<td>16</td>
<td>0.67</td>
<td>0.87</td>
</tr>
<tr>
<td>Organisational Culture</td>
<td>2.65</td>
<td>2.95</td>
<td>-1.43</td>
<td>72</td>
<td>0.15668723</td>
<td>58</td>
<td>16</td>
<td>0.72</td>
<td>0.83</td>
</tr>
</tbody>
</table>

The sample t-test results do indicate that a statistically significant difference exists between the sample means of employees with degrees and employees with no degrees with regard to their perception of strategic management implementation, process definition, implementation tools and implementation metrics. The differences in the means of the groups are significant at the following levels:

- Strategic management: \( t(72) = -2.17, p = 0.033416; \)
- Process definition: \( t(72) = -2.01, p = 0.047702; \)
- Implementation metrics: \( t(72) = -3.12, p = 0.02567; \) and
- Implementation tools: \( t(72) = -3.62, p = 0.000548. \)

Since the null hypothesis is rejected at the 5% significance level \((p<0.0500)\) and the management claim resides in the null hypothesis \((H_0: \mu(\text{Degrees}) - \mu(\text{No degrees}) = 0)\), the statistical evidence supports the view that education has an influence on how the sample population perceives the strategic management implementation, process definition, implementation tools and implementation metrics.

### 5.4.6 Category 6: Professional industry experience

The sixth secondary research question was to determine whether post qualification industry experience has an influence in the manner in which the sample population perceives the dependent and independent variables under investigation in this study. The assumption is that post qualification industry experience does have an influence on how the sample population perceives the variables under study. The post qualification industry experience groupings, as listed in the Table 5.5, were retained. The post qualification industry experience groupings and sample sizes used in the analysis was as follows:

- 1 – 5 years (7 respondents);
- 6 – 10 years (9 respondents);
- 11 – 15 years (16 respondents);
- 16 – 20 years (17 respondents); and
- Over 20 years (25 respondents).

Analysis of Variance (ANOVA) tests were performed to determine if any statistically significant differences in perception existed between the post qualification industry experience groupings. The means of the various variables were calculated and compared using STATISTICA VERSION 10. The key results are presented in Table 5.19.
ANOVA analysis was performed on the five post qualification industry experience groupings for each of the variables under study, where all effects are significant at $p<0.0500$. The null hypothesis assumed that the means of all five experience groups are equal, thus:

$$H_0: \mu_{(1-5 \text{ years})} = \mu_{(6-10 \text{ years})} = \mu_{(11-15 \text{ years})} = \mu_{(16-20 \text{ years})} = \mu_{(\text{over 20 years})}$$

The alternative hypothesis assumes that at least one of the five means of the above experience groups differs, thus:

$$H_1: \text{At least one } \mu_i \text{ differs (i = 1 – 5 years, 6 – 10 years; 11 – 15 years; 16 – 20 years and over 20 years)}$$

Table 5.19: Analysis of variance results for the effect of post qualification industry experience on the perception of the variables under study

<table>
<thead>
<tr>
<th>Variable</th>
<th>SS Effect</th>
<th>df Effect</th>
<th>SS Error</th>
<th>df Error</th>
<th>F</th>
<th>p*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Management</td>
<td>2.553028</td>
<td>4</td>
<td>42.00516</td>
<td>69</td>
<td>1.048436</td>
<td>0.388759</td>
</tr>
<tr>
<td>Organisational structure</td>
<td>3.342552</td>
<td>4</td>
<td>35.89104</td>
<td>69</td>
<td>1.606502</td>
<td>0.182486</td>
</tr>
<tr>
<td>Process definition</td>
<td>3.204181</td>
<td>4</td>
<td>40.21694</td>
<td>69</td>
<td>1.374349</td>
<td>0.251853</td>
</tr>
<tr>
<td>Implementation Metrics</td>
<td>2.166633</td>
<td>4</td>
<td>39.34798</td>
<td>69</td>
<td>1.324506</td>
<td>0.269568</td>
</tr>
<tr>
<td>Implementation Tools</td>
<td>6.88631</td>
<td>4</td>
<td>36.77613</td>
<td>69</td>
<td>3.230053</td>
<td>0.017269</td>
</tr>
<tr>
<td>Organisational Culture</td>
<td>2.930816</td>
<td>4</td>
<td>38.17012</td>
<td>69</td>
<td>1.324506</td>
<td>0.269568</td>
</tr>
</tbody>
</table>

* Marked effects are significant at $p<0.0500$

The results of the analysis of variance in Table 5.19 indicate that the sample test statistic for the variables strategic management implementation, organisational structure, process definition, implementation tools and organisational culture is within the area of acceptance of the null hypothesis. Since the null hypothesis is supported at the 5% significance level ($p<0.0500$) and the management claim resides in the alternative hypothesis ($H_1$: At least one $\mu_i$ differs), the statistical evidence does not support the view that post
qualification industry experience has an influence on how the sample population perceives strategic management implementation, organisational structure, process definition, implementation metrics and organisational culture.

The ANOVA results do indicate that a statistically significant difference exists in the manner in which the various post qualification industry experience groups perceive the implementation tools required for successful strategic management implementation interventions. For implementation metrics, \( F(4,69) = 3.23005, \text{MSE} = 0.53299, p = 0.017269 \), a Scheffe post hoc test was not powerful enough to detect any pairwise differences.

Since the null hypothesis is rejected at the 5% significance level (\( p<0.0500 \)), and the management claim resides in the alternative hypothesis (\( H_1: \text{At least one } \mu_i \text{ differs} \)), the statistical evidence supports the view that post qualification industry experience has an influence on how the sample population perceives the implementation tools required for successful strategic management implementation interventions.

5.4.7 Category 7: Tenure at Eskom Telecommunications

The seventh and final secondary research question was to determine whether differences in tenure at Eskom Telecommunications have an influence in the manner in which the sample population perceives the dependant and independent variables under investigation in this study. The assumption is that tenure at Eskom Telecommunications does have an influence on how the sample population perceives the variables under study. The tenure at Eskom Telecommunications’ groupings, as listed in the Table 5.6, was retained. The tenure groupings and sample sizes used in the analysis was as follows:

- 1 – 5 years (18 respondents);
- 6 – 10 years (10 respondents);
- 11 – 15 years (23 respondents);
- 16 – 20 years (13 respondents); and
Over 20 years (10 respondents).

Analysis of Variance (ANOVA) tests were performed to determine if any statistically significant differences in perception existed between the post qualification industry experience groupings. The means of the various variables were calculated and compared using STATISTICA VERSION 10. The key results are presented in Table 5.20.

ANOVA analysis was performed on the five tenure groupings for each of the variables under study, where all effects are significant at p<0.0500. The null hypothesis assumed that the means of all five tenure groups are equal, thus:

\[ H_0: \mu_{(1-5 \text{ years})} = \mu_{(6-10 \text{ years})} = \mu_{(11-15 \text{ years})} = \mu_{(16-20 \text{ years})} = \mu_{(\text{over 20 years})} \]

The alternative hypothesis assumes that at least one of the five means of the above age groups differs, thus:

\[ H_1: \text{At least one } \mu_i \text{ differs (} i = 1 \text{ -- } 5 \text{ years, } 6 \text{ -- } 10 \text{ years; } 11 \text{ -- } 15 \text{ years; } 16 \text{ -- } 20 \text{ years and over 20 years)} \]

Table 5.20: Analysis of variance results for the effect of tenure at Eskom Telecommunications on the perception of the variables under study

<table>
<thead>
<tr>
<th>Effect</th>
<th>SS Effect</th>
<th>df Effect</th>
<th>MS Effect</th>
<th>SS Error</th>
<th>df Error</th>
<th>MS Error</th>
<th>F</th>
<th>p*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Management</td>
<td>3.625659</td>
<td>4</td>
<td>0.906415</td>
<td>40.93253</td>
<td>69</td>
<td>0.593225</td>
<td>1.527944</td>
<td>0.203693</td>
</tr>
<tr>
<td>Organisational structure</td>
<td>2.83148</td>
<td>4</td>
<td>0.70787</td>
<td>36.40211</td>
<td>69</td>
<td>0.527567</td>
<td>1.341764</td>
<td>0.263312</td>
</tr>
<tr>
<td>Process definition</td>
<td>5.067189</td>
<td>4</td>
<td>1.266797</td>
<td>38.35394</td>
<td>69</td>
<td>0.555854</td>
<td>2.27901</td>
<td>0.0695</td>
</tr>
<tr>
<td>Implementation Metrics</td>
<td>5.703656</td>
<td>4</td>
<td>1.425914</td>
<td>35.81096</td>
<td>69</td>
<td>0.518999</td>
<td>2.747429</td>
<td>0.035037</td>
</tr>
<tr>
<td>Implementation Tools</td>
<td>2.768454</td>
<td>4</td>
<td>0.692114</td>
<td>40.89398</td>
<td>69</td>
<td>0.592666</td>
<td>1.167796</td>
<td>0.33264</td>
</tr>
<tr>
<td>Organisational Culture</td>
<td>1.940472</td>
<td>4</td>
<td>0.485118</td>
<td>39.16047</td>
<td>69</td>
<td>0.567543</td>
<td>0.854769</td>
<td>0.495596</td>
</tr>
</tbody>
</table>

* Marked effects are significant at p<0.0500
The results of the analysis of variance in Table 5.20 indicate that the sample test statistic for the variables strategic management implementation, organisational structure, process definition, implementation tools and organisational culture is within the area of acceptance of the null hypothesis. Since the null hypothesis is supported at the 5% significance level \((p<0.0500)\), and the management claim resides in the alternative hypothesis \((H_1: \text{At least one } \mu_i \text{ differs})\), the statistical evidence does not support the view that tenure at Eskom Telecommunications has an influence on how the sample population perceives strategic management implementation, organisational structure, process definition, implementation tools and organisational culture.

The ANOVA results do indicate that a statistically significant difference exists in the manner in which the various tenure groups perceive the implementation metrics required for successful strategic management implementation interventions. For implementation tools, \(F(4,69) = 2.74743, \text{MSE} = 0.51899, p = 0.035037\), a Scheffe post hoc test was not powerful enough to detect any pairwise differences.

Since the null hypothesis is rejected at the 5% significance level \((p<0.0500)\), and the management claim resides in the alternative hypothesis \((H_1: \text{At least one } \mu_i \text{ differs})\), the statistical evidence supports the view that tenure at Eskom Telecommunications does have an influence on how the sample population perceives the implementation metrics required for successful strategic management implementation interventions.

### 5.5 Statistical analysis of the hypothesised model

#### 5.5.1 Multiple regression analysis

The hypothesised model presented in figure 4.1 to improve was statistically analysed by performing multiple regression analysis with STATISTICA version 10. The results of the multiple regression analysis are presented in Table 5.22, while the results of the correlation between the dependant variable
(strategic management implementation) and the independent variables (i.e. organisational structure, process definition, implementation tools, implementation metrics and organisational culture) are documented in Table 5.21. “Regression analysis defines the structural relationship between two numeric random variables as a mathematical equation…, while correlation analysis measures the strength of this identified association between the variables” (Wegner, 2010).

Table 5.21: Correlation between the dependent variable (Strategic management implementation) and the independent variables

<table>
<thead>
<tr>
<th></th>
<th>Organisational Structure</th>
<th>Process Definition</th>
<th>Implementation Metrics</th>
<th>Implementation Tools</th>
<th>Organisational Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic management implementation</td>
<td>0.73</td>
<td>0.70</td>
<td>0.67</td>
<td>0.72</td>
<td>0.70</td>
</tr>
</tbody>
</table>

Red indicates statistical significant correlations (p<0.05)

Table 5.22: Regression summary for dependent variable: Strategic management implementation

<table>
<thead>
<tr>
<th></th>
<th>b*</th>
<th>Std.Err. of b*</th>
<th>b</th>
<th>Std.Err. of b</th>
<th>t(68)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-0.25</td>
<td>0.25</td>
<td>-1.01</td>
<td>0.3152</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisational structure</td>
<td>0.40</td>
<td>0.11</td>
<td>0.43</td>
<td>0.12</td>
<td>3.71</td>
<td>0.0004</td>
</tr>
<tr>
<td>Process definition</td>
<td>0.11</td>
<td>0.12</td>
<td>0.11</td>
<td>0.13</td>
<td>0.87</td>
<td>0.3849</td>
</tr>
<tr>
<td>Implementation Metrics</td>
<td>0.29</td>
<td>0.12</td>
<td>0.30</td>
<td>0.12</td>
<td>2.58</td>
<td>0.0120</td>
</tr>
<tr>
<td>Implementation Tools</td>
<td>0.15</td>
<td>0.12</td>
<td>0.15</td>
<td>0.12</td>
<td>1.25</td>
<td>0.2172</td>
</tr>
<tr>
<td>Organisational Culture</td>
<td>0.03</td>
<td>0.13</td>
<td>0.04</td>
<td>0.13</td>
<td>0.27</td>
<td>0.7863</td>
</tr>
</tbody>
</table>

R = 0.83; R² = 0.70; Adjusted R² = 0.67; p<0.0500

* Marked effects are significant at p<0.0500
5.5.1.1 The influence of organisational structure (OS) on strategic management implementation

Hypothesis 1 postulated that organisational structure exerts a positive influence on strategic management implementation. Hence, the null hypothesis formulated is as follows:

\[ H_{10} \]: Organisational structure exerts no influence on strategic management implementation

Table 5.16 indicates that organisational culture ($\beta = 0.43, p = 0.0004$) was a significant predictor of strategic management implementation. Table 5.15 provides empirical evidence that a correlation exists between organisational structure and strategic management implementation. $R = 0.73$ indicates that the relationship between these variables are strong and positive at the 5% significance level.

Consequently, the empirical evidence does not support the null hypothesis and as such, the null hypothesis is rejected at the 5% significance level in favour of the alternative hypothesis. Thus, organisational structure is a significant predictor of the successful implementation of strategic management initiatives and it exerts a positive influence on strategic management implementation.

5.5.1.2 The influence of process definition (PD) on strategic management implementation

Hypothesis 2 postulated that process definition exerts a positive influence on strategic management implementation. Hence, the null hypothesis formulated is as follows:

\[ H_{20} \]: Process definition exerts no influence on strategic management implementation.
Table 5.22 indicates that process definition ($\beta = 0.11$, $p = 0.3849$) was not a significant predictor of strategic management implementation. Table 5.21 provides empirical evidence that a correlation exists between process definition and strategic management implementation. $R = 0.70$ indicates that the relationship between these variables are strong and positive at the 5% significance level.

Consequently, the empirical evidence does not support the null hypothesis and as such, the null hypothesis is rejected at the 5% significance level in favour of the alternative hypothesis. Thus, process definition exerts a positive influence on strategic management implementation even though it is not a significant predictor of strategic management implementation.

5.5.1.3 The influence of implementation metrics (IM) on strategic management implementation

Hypothesis 3 postulated that implementation metrics exert a positive influence on strategic management implementation. Hence, the null hypothesis formulated is as follows:

$H_3^0$: Implementation metrics exerts no influence on strategic management implementation

Table 5.22 indicates that implementation metrics ($\beta = 0.30$, $p = 0.0120$) was a significant predictor of strategic management implementation. Table 5.21 provides empirical evidence that a correlation exists between implementation metrics and strategic management implementation. $R = 0.67$ indicates that the relationship between these variables are relatively strong and positive at the 5% significance level.

Consequently, the empirical evidence does not support the null hypothesis and as such, the null hypothesis is rejected at the 5% significance level in favour of the alternative hypothesis. Thus, implementation metrics is a significant predictor of the successful implementation of strategic
management initiatives and it exerts a positive influence on the successful implementation of strategic management initiatives.

5.5.1.4 The influence of implementation tools (IT) on strategic management implementation

Hypothesis 4 postulated that implementation tools exert a positive influence on strategic management implementation. Hence, the null hypothesis formulated is as follows:

H4₀: Implementation tools exert no influence on strategic management implementation

Table 5.22 indicates that implementation tools (β = 0.15, p = 0.2172) was not a significant predictor of strategic management implementation. Table 5.21 provides empirical evidence that a correlation exists between implementation tools and strategic management implementation. R = 0.72 indicates that the relationship between these variables are strong and positive at the 5% significance level.

Consequently, the empirical evidence does not support the null hypothesis and as such, the null hypothesis is rejected at the 5% significance level in favour of the alternative hypothesis. Thus, implementation tools exert a positive influence on strategic management implementation even though it is not a significant predictor of strategic management implementation.

5.5.1.5 The influence of organisational culture (OC) on strategic management implementation

Hypothesis 5 postulated that organisational culture exerts a positive influence on strategic management implementation. Hence, the null hypothesis formulated is as follows:
$H_0$: Organisational culture exerts no influence on strategic management implementation

Table 5.22 indicates that organisational culture ($\beta = 0.04, p = 0.7863$) was not a significant predictor of strategic management implementation. Table 5.21 provides empirical evidence that a correlation exists between organisational culture and strategic management implementation. $R = 0.70$ indicates that the relationship between these variables are strong and positive at the 5% significance level.

Consequently, the empirical evidence does not support the null hypothesis and as such, the null hypothesis is rejected at the 5% significance level in favour of the alternative hypothesis. Thus, organisational culture exerts a positive influence on strategic management implementation even though it is not a significant predictor of strategic management implementation.

5.5.1.6 Testing the overall regression model for statistical significance

The coefficient of multiple determinations ($R^2$) is reported in Table 5.22.

$$R^2 = 0.70$$

This result indicates that 70.0 % of the variation in strategic management implementation can be explained by the five independent variables (i.e. organisational structure, process definition, implementation metrics and organisational culture). The coefficient of multiple determinations, in this instance, provides a high percentage of explained variation in the dependant variable. Consequently, it can be concluded that the overall regression model is statistically significant.

5.6 CONCLUSION

The results presented in this chapter provide intriguing insight into the perceptions of the sample of 74 respondents from Eskom Telecommunications regarding the variables under investigation in this study.
The empirical results of the survey questionnaires were subjected to multiple regression, analysis of variance (ANOVA) and sample t-test analysis to determine the causal relationships between the dependant variable (strategic management implementation) and the independent variables (organisational structure, process definition, implementation tools, implementation metrics and organisational culture).

The empirical analyses of the various analytical techniques were presented in comprehensive detail in the above chapter and the implications of the analysis will be discussed in chapter 6. These implications will be discussed in relation to the primary and secondary objectives of the study as set out in chapters 1 and 5.
CHAPTER 6

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

In chapter 5 the empirical results of the research study were presented. This final chapter (chapter 6) aims to discuss the key findings of the research, relative to the primary and secondary research questions. The key research findings will be followed by recommendations for improving the implementation of strategic management initiatives at Eskom Telecommunications. In addition, the limitations associated with this research study will be presented and in conclusion, recommendations for future research will be provided.

6.2 OBJECTIVES OF THE STUDY AND SUMMARY OF RESULTS

6.2.1 Secondary research objectives

The secondary research objectives of the study were listed in Chapters 1 and 5, aimed to determine whether:

- age has an influence on the perception of the variables under study;
- gender has an influence on the perception of the variables under study;
- race has an influence on the perception of the variables under study;
- designation has an influence on the perception of the variables under study;
- education has an influence on the perception of the variables under study;
- industry experience has an influence on the perception of the variables under study; and
- tenure at Eskom Telecommunications has an influence on the perception of the variables under study.
Table 6.1: Results for the effect of categories 1 - 7 on the perception of the variables under study

<table>
<thead>
<tr>
<th>Variables under study</th>
<th>Categories 1 - 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic management</td>
<td>No</td>
</tr>
<tr>
<td>Organisational structure</td>
<td>No</td>
</tr>
<tr>
<td>Process definition</td>
<td>No</td>
</tr>
<tr>
<td>Implementation metrics</td>
<td>No</td>
</tr>
<tr>
<td>Implementation tools</td>
<td>No</td>
</tr>
<tr>
<td>Organisational culture</td>
<td>No</td>
</tr>
</tbody>
</table>

*Marked significance at $p < 0.0500$.

The empirical results yielded the following significant findings:

- The manner in which employees at Eskom Telecommunications perceive strategic management is influenced by gender and education;
- the perception of organisational structure amongst employees at Eskom Telecommunications is not influenced by any of the seven categories;
• the manner in which employees at Eskom Telecommunications perceive process definition is influenced by race and education;
• the manner in which employees at Eskom Telecommunications perceive the implementation tools is influenced by education and tenure at Eskom Telecommunications;
• the manner in which employees at Eskom Telecommunications perceive the implementation metrics is influenced by race, education, designation and industry experience; and
• the perception of organisational culture amongst employees at Eskom Telecommunications is not influenced by any of the seven categories.

6.2.2 Primary research objective

The primary objective of this research is to improve the implementation of strategic management initiatives within organisations. This will be achieved by investigating if:

• organisational structure exerts an influence on the successful implementation of strategic management initiatives;
• process definition exerts an influence on the successful implementation of strategic management initiatives;
• implementation tools exerts an influence on the successful implementation of strategic management initiatives;
• implementation metrics exerts an influence on the successful implementation of strategic management initiatives; and
• organisational culture exerts an influence on the successful implementation of strategic management initiatives.

In an effort to answer the above question, multiple regression analysis was conducted to determine the causal relationships between strategic management and each of the independent variables (organisational structure, process definition, implementation tools, implementation metrics and organisational culture).
The empirical results yielded the following significant findings:

- Organisational structure ($\beta = 0.43, p = 0.0004, R = 0.73, p < 0.0500$) is a significant predictor of the successful implementation strategic management initiatives and it exerts a positive influence on strategic management implementation;

- Process definition ($\beta = 0.11, p = 0.3849, R = 0.70, p < 0.0500$) is not a significant predictor of the success of strategic management interventions, even though it exerts a positive influence on strategic management implementation;

- Implementation metrics ($\beta = 0.30, p = 0.0120, R = 0.67, p < 0.0500$) is a significant predictor of the successful implementation strategic management initiatives and it exerts a positive influence on strategic management implementation;

- Implementation tools ($\beta = 0.15, p = 0.2172, R = 0.72, p < 0.0500$) is not a significant predictor of the success of strategic management interventions, even though it exerts a positive influence on strategic management implementation; and

- Organisational culture ($\beta = 0.04, p = 0.7863, R = 0.70, p < 0.0500$) is not a significant predictor of the success of strategic management interventions, even though it exerts a positive influence on strategic management implementation.

The regression analysis also provided evidence that the overall regression model was statistically significant. This was achieved by calculating the coefficient of multiple determinations ($R^2$). The coefficient of multiple determinations was calculated to be 0.70, which provided an indication that 70.0% of the variation in strategic management implementation can be explained by the variables organisational structure, process definition, implementation tools, implementation metrics and organisational culture. The coefficient of multiple determinations, in this instance, provides a high percentage of explained variation in strategic management implementation.
6.3 CONCLUSIONS AND RECOMMENDATIONS

“Sometimes, a mistake, even one that changes history, comes from ignorance, not stupidity or bad judgement. But even with that said, in this case, the difference between intent and ignorance does not make the consequences less disastrous” (Fawcett, 2010:61).

Analysis of the findings has led to the following conclusions:

1. The results indicate that the methodologies used to perform strategic planning and management within Eskom Telecommunications require revision.
2. Human and capital resources should be availed for the establishment of a strategic planning and management function, specifically accountable for the formulation and managing the implementation and monitoring of the strategic plan.
3. To facilitate the effective implementation of strategy, the organisational structure at Eskom Telecommunications needs to be aligned to the strategic imperatives of the organisation.
4. The current organisational structure of the organisation is inefficient and is not flexible enough to adjust speedily to any environmental stimulus which requires a change in work practice or poses an immediate threat.
5. Although Eskom Telecommunications does have a Balanced Scorecard system in place to monitor performance, the results indicate that metrics used to determine organisational performance is not aligned to the strategic imperatives of the organisation.
6. Strategy implementation action plans, which should guide strategic decision making, are not in place.
7. An overwhelming majority of respondents believe that Eskom Telecommunications do not consider best practice methodology implemented in the electricity and telecommunications industry, either in the formulation of the strategic plan, during the compilation of the
strategic implementation plan or in deciding which implementation metrics to include in the Balanced Scorecard.

8. The mission and goals of the organisation are not reviewed when significant change in the environment in which the organisation operates occurs, as is currently experienced by the organisation.

6.4 CONTRIBUTION TO THEORY

The main findings of the research provide support to the six generic and topology free propositions that Srivannaboon and Milosevic (2006) formulated. Srivannaboon and Milosevic (2006) proposed that project success for projects aimed at implementing strategic change could be defined in terms of the project management elements identified in the Strategic Project Leadership approach (SPL) initially proposed by Shenhar (2004).

The findings indicate that all of the SPL elements investigated in this study (i.e. organisational structure, process definition, implementation tools, implementation metrics and organisational culture, exerts a positive influence on the success of strategic management implementation. In addition, the findings also indicate that the perception of each of the SPL elements, as well as strategic management implementation, are influenced by one, or a combination of, the following moderating variables, i.e. gender, race, education, designation, industry experience and tenure (in this case at Eskom Telecommunications).

6.4 LIMITATIONS OF THE STUDY

The scope of this study was limited to be conducted in Eskom Telecommunications only. The limitations of this study have provided opportunities for future research, some of which will be discussed below.
6.5 RECOMMENDATIONS FOR FUTURE RESEARCH

Although this study has been able to produce significant findings, a few research opportunities that may be considered for future research may include the following:

1. A quantitative study to determine to what extent the underlying benefits of effective implementation metrics contribute to the successful implementation of strategic management implementation projects.

2. It would be of interest to extend this study to the entire population of all line groups within Eskom Holdings, to determine if the views held by the sample respondents in Eskom Telecommunications is isolated, or representative of the employees and management in Eskom as a whole.

3. A quantitative study to determine if organisational culture could influence the speed of implementation of strategic change initiatives, even though it has not been found to be a significant predictor of successful strategic management implementation.
LIST OF SOURCES


Fawcett, B. 2010. 100 Mistakes that changed history – Backfires and blunders that collapsed empires, crashed economies and altered the course of our world. New York, New York, United States of America: Berkley Publishing.


APPENDIX A: RESEARCH QUESTIONNAIRE

Dear Respondent,

Thank you for your willingness to participate in this study. All information collected will be treated in the strictest confidentiality and will be utilised for educational purposes only. Please complete all the questions in Section A and Section B.

There are no correct or incorrect answers. Please answer the questions as accurately as possible. For each statement in Section B, tick the number which best describes your experience or perception. For example, if you strongly agree with the statement, tick the number 1. If you strongly disagree with the statement, tick the number 5. Tick only one answer for each statement.

Thank you once again.

SECTION A: BIOGRAPHICAL INFORMATION

For each question in this section, please indicate with an “X” in the appropriate open space below, your biographical information.

1. Age

<table>
<thead>
<tr>
<th>Age</th>
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</tr>
</thead>
<tbody>
<tr>
<td>18 – 29</td>
<td>1</td>
</tr>
<tr>
<td>30 – 39</td>
<td>2</td>
</tr>
<tr>
<td>40 – 49</td>
<td>3</td>
</tr>
<tr>
<td>50 – 59</td>
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<tr>
<td>60 and above</td>
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2. Gender

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Female</td>
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<tr>
<td>Male</td>
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3. Race

<table>
<thead>
<tr>
<th>Race</th>
<th>Count</th>
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<tbody>
<tr>
<td>White</td>
<td>1</td>
</tr>
<tr>
<td>Black</td>
<td>2</td>
</tr>
<tr>
<td>Coloured</td>
<td>3</td>
</tr>
<tr>
<td>Indian</td>
<td>4</td>
</tr>
<tr>
<td>Asian</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
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</table>

If other, please specify:

______________________________

4. Designation

<table>
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<th>Designation</th>
<th>Count</th>
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<tbody>
<tr>
<td>E-Band</td>
<td>1</td>
</tr>
<tr>
<td>M/P/S 17-18</td>
<td>2</td>
</tr>
<tr>
<td>M/P/S 14-16</td>
<td>3</td>
</tr>
<tr>
<td>T 12-13</td>
<td>4</td>
</tr>
<tr>
<td>T 10-11</td>
<td>5</td>
</tr>
<tr>
<td>T 7-9</td>
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5. Functional Unit

<table>
<thead>
<tr>
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<th>Count</th>
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<tbody>
<tr>
<td>Project Management</td>
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<tr>
<td>Operations and Field Services</td>
<td>2</td>
</tr>
<tr>
<td>Engineering</td>
<td>3</td>
</tr>
<tr>
<td>Technology</td>
<td>4</td>
</tr>
<tr>
<td>Procurement</td>
<td>5</td>
</tr>
<tr>
<td>Finance</td>
<td>6</td>
</tr>
<tr>
<td>Business Architecture</td>
<td>7</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
</tr>
</tbody>
</table>

If other, please specify:

______________________________

6. Geographic Location

<table>
<thead>
<tr>
<th>Geographic Location</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Cape</td>
<td>1</td>
</tr>
<tr>
<td>Free State</td>
<td>2</td>
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<tr>
<td>Gauteng</td>
<td>3</td>
</tr>
<tr>
<td>Kwazulu Natal</td>
<td>4</td>
</tr>
<tr>
<td>Limpopo</td>
<td>5</td>
</tr>
<tr>
<td>Mpumalanga</td>
<td>6</td>
</tr>
<tr>
<td>Northern Cape</td>
<td>7</td>
</tr>
<tr>
<td>North West</td>
<td>8</td>
</tr>
<tr>
<td>Western Cape</td>
<td>9</td>
</tr>
</tbody>
</table>
### 7. Highest Qualification

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matric</td>
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</tr>
<tr>
<td>College certificate</td>
<td>2</td>
</tr>
<tr>
<td>Technikon Diploma</td>
<td>3</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>4</td>
</tr>
<tr>
<td>Honours or Master’s Degree</td>
<td>5</td>
</tr>
<tr>
<td>Doctoral Degree</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
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</tr>
</tbody>
</table>

### 8. Professional Experience

<table>
<thead>
<tr>
<th>Experience</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 5 years</td>
<td>1</td>
</tr>
<tr>
<td>6 – 10 years</td>
<td>2</td>
</tr>
<tr>
<td>11 – 15 years</td>
<td>3</td>
</tr>
<tr>
<td>16 – 20 years</td>
<td>4</td>
</tr>
<tr>
<td>Over 20 years</td>
<td>5</td>
</tr>
</tbody>
</table>

### 9. Eskom Telecommunications Experience

<table>
<thead>
<tr>
<th>Experience</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 5 years</td>
<td>1</td>
</tr>
<tr>
<td>6 – 10 years</td>
<td>2</td>
</tr>
<tr>
<td>11 – 15 years</td>
<td>3</td>
</tr>
<tr>
<td>16 – 20 years</td>
<td>4</td>
</tr>
<tr>
<td>Over 20 years</td>
<td>5</td>
</tr>
</tbody>
</table>
SECTION B:

For each question in this section, please indicate with an “X” in the appropriate space below to what extent you agree or disagree with the following statements.

B1: STRATEGY FORMULATION IN ESKOM TELECOMMUNICATIONS

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1.1</td>
<td>Eskom Telecommunications’ senior management take formal responsibility for the organisation’s strategic business planning.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B1.2</td>
<td>Strategic planning is a top priority which is performed on a regular basis, e.g. each year.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B1.3</td>
<td>All managers, whose work is affected by strategic planning, participate in the strategic planning process.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B1.4</td>
<td>Eskom Telecommunications provides resources specifically earmarked for strategic planning.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B1.5</td>
<td>Eskom Telecommunications has a formal written mission statement.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B1.6</td>
<td>Eskom Telecommunications have written long-term (3 – 5 years) goals.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B1.7</td>
<td>Eskom Telecommunications have written short-term (1 – year) goals.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</tbody>
</table>

B2: ORGANISATIONAL STRUCTURE

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2.1</td>
<td>Eskom Telecommunications encourages clear communication across divisions and functional business units within the group.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B2.2</td>
<td>Eskom Telecommunications have a guided process for integrating the people, information and technology of the organisation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B2.3</td>
<td>Eskom Telecommunications’ structure is aligned to its strategic imperatives.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B2.4</td>
<td>Decision making responsibilities and accountabilities are well defined for all levels of the business.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B2.5</td>
<td>Functional units / departments in Eskom Telecommunications are able to adjust to changes in work practices speedily.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B2.6</td>
<td>Managers and staff work together to define the needs of the organisation. two questions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B2.7</td>
<td>Managers and staff work together to create systems to meet the needs of the organisation most effectively</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</tbody>
</table>
# B3: Process Definition

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>B3.1</td>
<td>Eskom Telecommunications is a very structured and controlled business environment.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B3.2</td>
<td>Eskom Telecommunications regularly reviews its processes to determine their applicability in contribution to enhance business performance.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B3.3</td>
<td>Business processes in Eskom Telecommunications are aligned to their strategic imperatives.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B3.4</td>
<td>Eskom Telecommunications uses business processes to effect strategic and innovative changes in the organisation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B3.5</td>
<td>Formal procedures generally govern everything that people do.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B3.6</td>
<td>Recent changes in policies have brought about significant improvement in organisational performance.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B3.7</td>
<td>Policies and procedures are directly related to the needs and objectives of Eskom Telecommunications.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
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</table>

# B4: Implementation Metrics

<table>
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<tr>
<th>No.</th>
<th>Question</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>B4.1</td>
<td>Eskom Telecommunications systematically measures actual performance against strategically aligned goals.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B4.2</td>
<td>Eskom Telecommunications have quantified and measurable targets for each of their strategic goals.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B4.3</td>
<td>Managers and higher-level staff, whose responsibilities are affected, participate in setting goals and targets.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B4.4</td>
<td>Eskom Telecommunications’ goals appear realistic, yet challenging, based on experience and/or research.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B4.5</td>
<td>Eskom Telecommunications makes strategic decisions (strategy implementation action plans) based on the strategic plan.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B4.6</td>
<td>Eskom Telecommunications’ goals are observable and measurable.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B4.7</td>
<td>Eskom Telecommunications defines success on the basis of the development of human resources, teamwork, employee commitment and concern for people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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**B5: IMPLEMENTATION TOOLS**

<table>
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<tr>
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<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>B5.1</td>
<td>Eskom Telecommunications periodically gather and analyse data about market and other external factors which affect the industry.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B5.2</td>
<td>Eskom Telecommunications benchmark their business performance and operational characteristics regularly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B5.3</td>
<td>Eskom Telecommunications assess best practice methodologies implemented in their industry regularly (e.g. new technologies, new concepts, procurement practices, price trends, labour practices, etc.)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B5.4</td>
<td>Eskom Telecommunications assesses institutional factors regularly (e.g. cost and availability of capital, government regulations and the economy)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B5.5</td>
<td>Eskom Telecommunications conduct external analysis which is used to identify key threats to the organisation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B5.6</td>
<td>Eskom Telecommunications’ management information system provides relatively easy access to internal data that assists in strategic evaluation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B5.7</td>
<td>Eskom Telecommunications periodically reviews its mission and goals in light of the apparent threats/ opportunities and strengths/ weaknesses identified during its internal and external analysis.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
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</table>

**B6: ORGANISATIONAL CULTURE**

<table>
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<th>No.</th>
<th>Question</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>B6.1</td>
<td>Eskom Telecommunications is currently experiencing significant changes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B6.2</td>
<td>Eskom Telecommunications’ goals and strategies are aligned to help achieve the overall Eskom strategic initiatives.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B6.3</td>
<td>Eskom Telecommunications encourages contributions to organisational process development by all employees.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B6.4</td>
<td>Eskom Telecommunications is committed to the professional and personal growth of its employees and funds such development.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B6.5</td>
<td>Eskom Telecommunications is characterised by teamwork, consensus and participation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B6.6</td>
<td>Rewards and recognition policies are aligned to organisational strategies and goals.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B6.7</td>
<td>Eskom Telecommunications defines success on the basis of dependable delivery, accurate scheduling and low-cost production.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Thank you for participating.

Upon completion, please mail to Nevin.Nel@eskom.co.za or fax to 086 537 9438.