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Javani, Blessing

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Strategic Management Process through Project Management as a Vehicle

Blessing Javani
Student Number: 1501946

A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy in Engineering

Faculty of Engineering and the Built Environment
School of Mechanical, Industrial and Aeronautical Engineering
University of the Witwatersrand

Supervisor: Dr B. Emwanu

Johannesburg, 2021

DECLARATIONS

I, Blessing Javani, student number 1501946, declare that the thesis titled "**Strategic Management Process through Project Management as a Vehicle"** is my own work and that all sources consulted have been acknowledged through a complete list in the reference section. It is being submitted for the Degree of Doctor of Philosophy in Engineering to the University of the Witwatersrand in Johannesburg. It has not been submitted before for any degree or examination to any other University.



04 November 2021

ABSTRACT

The thesis recognises that strategy implementation failure is high as per literature and considers a way this could be reduced through improving the approach to the strategy management process. A gap is identified in the literature in that strategy formulation and implementation is not undertaken as a continuous process but rather as two distinct stages where formulation hands over to implementation. The thesis argues that this is a disconnect which contributes to the high failure rate and proposes that strategy management process can be enhanced by facilitating continuity using project management approach as a vehicle so that formulation and implementation phases run seamlessly, aligning resources not only with the goal as has been the traditional practice but also, in a novel sense, with existing capability that can enable implementation. This way, only quality strategic plans that can be implemented with available resources and capability are passed. This is a novel approach, which is underlined primarily by systems theory (for integration of two stages) and secondly resource-based view theory (for working within limitations of available resources).

To undertake the study, a conceptual framework is developed and tested using data obtained from the field. A mixed method approach is used whereby a survey is first undertaken within the services industry in South Africa among volunteering companies, then follow up interviews are done with some of the participants to verify information and obtain explanations required. The study thus uses both quantitative and qualitative approach in sequence to strengthen findings, specifically the explanatory sequential mixed method within the pragmatism research philosophy.

The results are encouraging, following expectations, with quantitative results being significant and mostly explained by the qualitative results, but surprisingly the role of leadership is not fitting the model. This requires further investigation and recommendations are made. Other findings, particularly from the qualitative explanations are also revealing, and provide insight into the processes involved. Significant contribution is made by the thesis through advancing the concept, with support of empirical data, that the strategy management process be driven by project management approach as a vehicle leading to enhanced strategy implementation success and ultimately to perceived business success. It is recommended that practitioners (project managers and strategists) embrace the enhanced strategy management process which would then be expected to have far reaching benefits for strategy implementation success and perceived business success.

DEDICATION

In memory of my parents

David Herbert Javani

and

Ennie Javani

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''I can do all things through Christ who strengths me"
Philippians 4:13

First and foremost, I would like to thank God, through the Lord Jesus, for providing me with the ability, strength and determination to complete my studies.

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LIST OF ACRONYMS

AGFI	Adjusted Goodness of Fit Index
AMOS	Analysis of Moment Structures
ANOVA	Analysis of Variance
AVE	Average Variance Extracted
CEO	Chief Executive Officer
CFA	Confirmatory Factor Analysis
CFI	Comparative Factor Index
CR	Convergent Reliability
GAAP	Generally Accepted Accounting Principles
GFI	Goodness of Fit Index
IFI	Incremental Fit Index
JSE	Johannesburg Stock Exchange
KMO	Kaiser-Meyer-Olkin
MLE	Maximum Likelihood Estimator
MSV	Maximum of Shared Variance
NFI	Normal Fit Index
PERT	Program Evaluation Review Technique
PMBOK	Project Management Body of Knowledge
PRINCE 2	Project in Controlled Environments 2
RMSEA	Root Mean Square Error of Approximation
RNI	Relative Non-centrally Index
SEM	Structural Equation Modeling
SIC	Squared Inter-construct Correlation
SPSS	Statistical Package for Social Sciences
SRMR	Standardized Root Mean Residual
SWOT	Strength Weakness Opportunity Threat
TLI	Tucker Lewis Index

CHAPTER 1 INTRODUCTION

1.1 Introduction and Background

In order to be better positioned in the future whilst planning on the current situation, strategy is the key driver (Pugh & Bourgeois III, 2011). Traditionally, organisations implement strategy through splitting the general strategy into functional strategies (financial, production, human resources etc.) or business unit strategies (Pajares & López, 2014). It goes without saying that several strategic tools available as extrapolated by Vuorinen et al. (2017) need to be utilised to ensure organisations are better prepared to sustain superior performance.

In the business environment with ever-increasing technological, economic and politically enabled change (Schmitt et al. 2018), and extreme competition, sustainable strategy formulation and implementation is vital for survival (Mišanková & Kočišová, 2014; Rajasekar, 2014; Speculand, 2011). As such, carrying out timely strategic responses becomes vital as opposed to the ability to see where markets are moving (Hrebiniak, 2013). In other words, implementation of strategy is crucial to realisation of strategic goals. The notion that strategy will be as good as the implementation behind it is vital to the whole process (Speculand, 2011). According to Hrebiniak (2013) developing strategy with an expectation that it works is not key, but strategy needs to be developed following a logical plan through to its attainment, a plan driven by a proper process.

A somewhat contrary view is provided by Bell et al. (2010) who establishes that, the most time-consuming part of strategy management is the implementation whilst formulation involves synthesis and analysis which can be seen as an intellectual and creative act. Notwithstanding the foregoing, several authors (Jooste & Fourie, 2009: 51; Yang et al. 2010) assert “that strategy implementation is more important than formulation”. This is supported by Noble (1999) and Čater and Pučko (2010) who contend that strategy implementation is critical to the attainment of superior performance even on best-formulated strategies. Jooste and Fourie (2009) establish that there is increased recognition that critical issues in the strategic management field are related to strategy implementation and not formulation. Nevertheless, Speculand (2011) highlights that it is the whole strategy management process that is important in

attainment of sustainable superior business solutions. The next section provides the purpose of the study.

1.2 Purpose of Study

Pugh and Bourgeois III (2011) are of the view that strategy is a way of thinking about a business, of evaluating strengths, identifying weaknesses (conception issues) and envisioning the opportunities presented. This presents strategy as mainly a planning exercise and is silent on implementation. The notion of strategy as a comprehensive plan aimed at achieving the organisation's mission and objectives is supported by authors including Hunger and Wheelen (2010). Other authors bring in the aspect of implementation in strategy e.g. Munive-Hernandez et al. (2004) who mention that there are two views on this, one by rationalists and the other by incrementalists. Munive-Hernandez et al. (2004: 693) assert that rationalists believe "strategy should be planned and implemented (deliberate) whilst incrementalists think of strategy as emergent", that is, strategy is developed in attempting to bring change.

In as much as Noble (1999) indicates that formulating a novel and inimitable strategy is critical, which is in consonance with a resource-based viewpoint (Fahy, 2000), Rajasekar (2014) argues that ensuring it works is equally important in order that an organisation is successful in today's business. As a result, executives should focus on both strategy formulation and implementation (strategy management process) holistically as explained by the systems theory, to avoid cases that result in failure. This seemingly is not happening given the abounding literature indicating strategy implementation failure rates of between 40% and 80% (Atkinson, 2006; Cândido & Santos, 2015; Jonk & Ungerath, 2006). In addition, Cocks (2010) and Speculand (2011) indicate that formulation and implementation have to be linked, no clear evidence could be found in the literature on the essential processes of doing that.

This raises the question whether strategy should be approached as a continuous process when considering formulation and implementation as distinct events. Research on whether strategy should be approached as a continuous process from planning to implementation rather than an event have not been fully explored in literature. This study underpinned by the systems theory and complimented by the resource based view theory, positions itself by considering the strategy management

as a continuous process from planning to implementation and aims to explore how both can work together as stated in the purpose statement which follows next.

1.2.2 Purpose statement

The purpose of the study is to determine how strategy formulation and implementation can be managed as a continuous strategy management process that can be made robust and sustainable in such a way that the likelihood of success in strategy implementation and perceived business success is enhanced. The next section introduces the problem statement.

1.3 Problem Statement

1.3.1 Background to problem

Several studies (Scott et al. 2015; Tawse et al. 2019; Yang et al. 2010) concede that strategy regularly fails due to insufficient implementation; however, such research has received less attention than strategy formulation. The authors highlight that strategy implementation unlike formulation is noted as a craft rather than science with spatial and varied research history (Scott et al. 2015; Tawse et al. 2019; Yang et al. 2010). This is supported by Dandira (2011) who contends that strategy implementation is a challenging task, but minimal evidence is available of the true implementation rate. This is further echoed by Zaribaf and Bayrami (2010) and Cândido and Santos (2015) when they point out that strategy implementation is difficult in most organisations.

Several managers have indicated that it is difficult and time consuming to implement strategy than formulation (Cândido & Santos, 2015; Gębczyńska, 2016; Hrebiniak, 2006; Thompson et al. 2018). A study by Cândido and Santos (2015: 238) establishes that 73 per cent of managers are of the opinion that “implementation is more difficult than formulation whilst 82 per cent highlight that it is in essence the part of strategic planning process where managers have the slightest control”. High failure rate of strategy implementation is observed by several scholars who claim that the strategy implementation failure rate is between 40% and 80% (Atkinson, 2006; Cândido & Santos, 2015; Jonk & Ungerath, 2006).

Wernham (1985) did an in-depth study on difficulties in implementation of strategy in an organisation and Ansoff and McDonnell (1990) also noted difficulties. The

difficulties were due to emerging doubts around the consequences of the given problem, also noted by Gębczyńska (2016), and the availability of skills and cooperation from the management team, also noted by Thompson et al. (2018).

Whereas there is significant development in much of the field of strategy management, challenges on failure to implement strategy persist. This is concerning for researchers and practitioners (Barney, 2001; Cândido & Santos, 2015; Hickson et al. 2003). Deployment (activities needed for effective strategy implementation), processes and capabilities are often cited as a critical factor resulting in failure during strategy implementation within several organisations (Cocks, 2010; Mintzberg, 2000; Noble, 1999).

Other studies suggest several reasons why strategy fails, including “poor vertical communication and inadequate management development” (Wessel, 1993: 38), coordination and competence (Eisenstat, 1993), coordination and control systems and mechanisms in place (Yang et al. 2010) and lack of strategic leadership (Jooste & Fourie, 2009; Kaplan & Norton, 2004).

Such is a vast array of reasons why strategies fail, none-the-less the thesis posits that underlying these failures is the failure to involve implementers at the onset in the strategy management process. Furthermore, the thesis argues that the failures are caused by strategy formulation and implementation not being approached as a continuous process but rather than as two distinct events.

1.3.2 Statement of the problem

There is a business challenge on how to ensure an enhanced strategy management process that drives successful strategy implementation. Since project managers undertake implementation of strategy, a question is raised whether their approach and activities could be used as consideration for strengthening the linkage with earlier stages of strategy formulation in the strategy management process so as to promote better strategy implementation.

In considering this, some useful insights are obtained from Young et al. (2012) whose study considers project managers as implementers of strategy. Their study indicates

that the prevailing perspective of project managers with regard to strategy is that they see their role as mainly aligning projects with the strategic plan that is already documented. This poses a limitation for project managers in the measure of leeway they have to influence strategy implementation considering that they would have had little or no influence on the formulation. Moreover, project managers in these circumstances are challenged to ensure that they apply a project management approach to successfully support these organisational business strategies, that are deemed to have been successfully formulated and now require only implementation, albeit their lack of involvement in the formulation.

What is at play here is that strategy and projects have different time horizons. On one hand, projects are temporary resource committing activities which are means of enacting strategy in organisations (Englund & Graham, 1999; Pedersen et al. 2020). On the other hand, strategy considers organisational outcomes while projects are manifestations of initiatives that will add up those aggregated organisational outcomes" (Pedersen et al. 2020: 11). The tension between the finite horizon of project management and the long-term commitment, focus and continuity of strategy formulation and implementation is notable. This is further expanded by Hadida et al. (2019) who highlight that projects have implied termination with task completion whilst within strategy, organisational longevity is assumed which Vuorinen et al. (2017) posits as a cyclical nature of strategy.

According to Project Management Institute (2017), project management approach processes include project planning, project implementation, project monitoring and control and project closing (elaborated in chapter 3, section 3.4). However, in order to ease the tension previously highlighted, the cyclical nature of strategy as forwarded by Vuorinen et al. (2017) provided the basis for not including project closing process in this study. This paved a way to apply the project management approach as a vehicle for the strategy management process. As such, project management approach in this study relates to the project manager as actors and their specific expertise as vehicles which takes into account project management tools and techniques.

Based on the above perspectives, it is apparent that there is a gap in the manner project management approach is applied to the strategy management process

(DeFillippi & Arthur, 1998) and a challenge is raised whether the project management approach could play a more significant role. The thesis takes on this challenge and investigates whether and how the project management approach could be adopted as a vehicle for formulating and implementing strategy Figure 1.1 illustrates the key issue described in the problem statement and depicts the anticipated link with key components of the overall study at this stage.

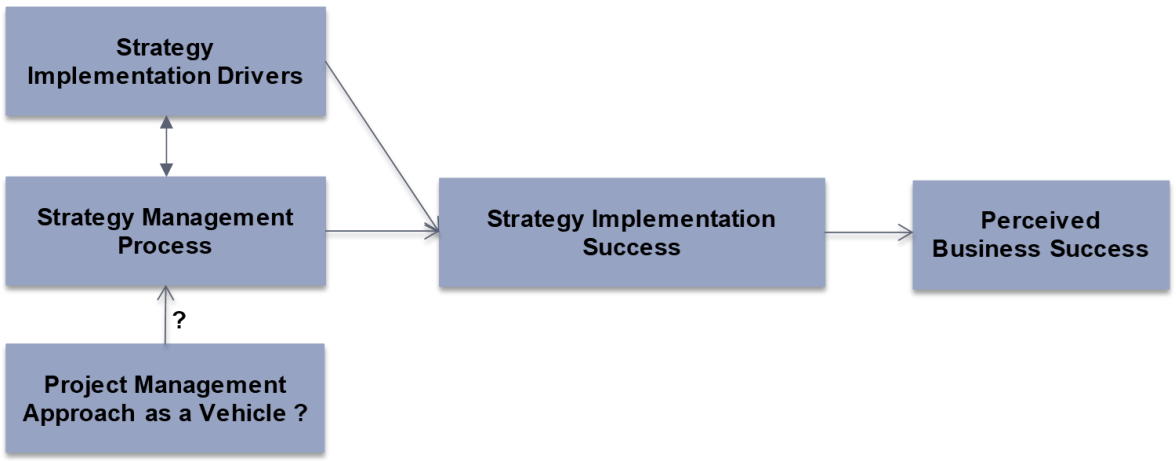


Figure 1.1 : Key issue for the research and anticipated links (Source: Author)

This anticipates the entire process as constituted by steps or parts which are closely interrelated, inter-dependent and have influence on each other. In other words, this constitutes a system. As such systems theory is applied as the primary underlying theory on which the thesis is based. At the same time, since companies customise their strategy to create unique plans according to their resources, this is in line with the resource-based view theory, which is also considered in the thesis as a complementary secondary theory.

1.4 Motivation

Given the high failure rate noted in the literature of strategy implementation in companies, the outcome of this thesis is expected to be a valuable resource for practitioners (strategists and project managers). The motivation of the study lies in the desire to provide better understanding of the strategy management process so as to increase the chances for success in strategy implementation, in turn leading to higher chances for perceived business success. A more robust and sustainable solution to

the apparent misalignment between strategy formulation and implementation is sought in the thesis underpinned by primarily the systems theory and complemented by the resource-based view theory.

1.5 Research Question

The research seeks to answer the following central research question:

Central Research Question

How can the strategy management process be managed with project management approach as a vehicle?

1.6 Research Objectives

- To determine the drivers that enhance strategy implementation success
- To determine the extent to which strategy management process enhances strategy implementation success.
- To determine the extent to which the strategy management process is enhanced with project management approach as a vehicle.
- To determine the extent to which strategy implementation success enhances perceived business success.

1.7 Research Hypotheses

The following hypotheses were developed based on the conceptual framework (elaborated in chapter 3, section 3.7) and the linkages anticipated in Figure 1.1 (section 1.3.2):

Hypotheses 1, 2 and 3 (related to strategy implementation drivers)

H_1: Leadership has a significant and positive relationship with strategy implementation success.

H_2: Communication and change process has a significant and positive relationship with strategy implementation success.

H_3: The use of project management techniques has a significant and positive relationship with strategy implementation success.

Hypothesis 4 (related to strategy management process)

H_4: Enhanced strategy management process has a significant and positive relationship with strategy implementation success.

Hypothesis 5 (related to strategy management as a vehicle)

H_5: Project management approach as a vehicle has a significant and positive relationship with strategy management process.

Hypothesis 6 (related to perceived business success)

H_6: Enhanced strategy implementation success has a significant and positive relationship with perceived business success.

1.8 Research Methodology – A Brief Introduction

The study uses an explanatory sequential mixed method approach and design (quantitative dominant) following a pragmatist philosophy position. This approach allowed the integration of different perspectives from participants which aided in rich data interpretation.

A qualitative approach was used to provide validation and explanation to the quantitative approach outcome. Primary data were gathered initially through a self-administered questionnaire in a survey after which follow-up interviews provided an opportunity for further explanation and validation of the results thus enriching the study. A framework developed for the study was tested using the survey data and structural equation modelling to ascertain the relationships among variables, and study findings were interpreted with the theoretical lenses of the thesis. Ethics considerations were observed throughout the study.

1.9 Assumptions of the Study

The study assumes that external drivers affecting strategy implementation are stable or constant (macro environment and industry stability), and only internal drivers affecting strategy implementation are considered.

It is assumed that survey respondents and interview participants complete and answer the interview questions openly and honestly. In addition, it is assumed that the study results apply to the South African service sector.

1.10 Scope and Delimitation

The following are the scope and delimitations of the study:

Only South African companies are studied.

- The target population includes organizations in the South African service sector, namely the broad categories of organisations that include the South African financial sector which are locally controlled (Janse van Rensburg & Gumata, 2011).
- Organisations considered are organisations adopting either Project Management Body of Knowledge (PMBOK) or Projects in Controlled Environments (PRINCE2) or both.

1.11 Importance of the Study

Grant (2016) indicates that strategy management is still establishing as a field, whose tools and concepts are still inadequate. This provides opportunity for investigating how strategy formulation and implementation (strategy management process) can be made more sustainable and possibly robust, thereby resulting in enhanced business performance. This sentiment is echoed by Steyn (2015) who establishes that the link between strategy and projects is poor, non-existent or too informal. The overarching idea to be addressed in this study is how project management approach can act as a vehicle during formulation and implementation of strategy, for enhanced strategy implementation success and ultimately attainment of perceived business success.

Whilst attempts have been made to link projects with business strategy through portfolio management or project selection (Englund & Graham, 1999; Shenhar et al.

2007), the missing link is how project management acts as an enabler to strategy, managing the entire strategy management process as a project. This realisation is supported by Grundy (1998) who in the exploration of these areas through many tools and techniques from both disciplines stressed the need for cross-fertilisation of the disciplines. While no known study with cross-fertilisation of the two disciplines is done, this study moves to do so. The study falls broadly into the discipline of both strategy management and project management focussing on the South African service sector.

Project management approach as a tool is currently being used during strategy implementation. Previous work on manufacturing strategy formulation had a facilitator who acted as a project manager and had to garner strategy content and solution options for organisational direction through numerous sessions held (Mills et al. (2002). Their work however did not consider strategy formulation and implementation as a continuous process. This thesis goes beyond that approach and seeks to provide empirical evidence for managing strategy as a continuous process from formulation to implementation as a project through the theoretical lenses of systems theory complimented by the resource based view theory. In seeking to find how this can be achieved, the study considers the under explored theme of project management approach as a driver for the strategy management processes with strategy implementation drivers, strategy implementation success and perceived business success as other variables, which it anticipates to culminate into a best fit conceptual framework. The conceptual framework anticipated is envisaged to be widely applicable.

1.12 Thesis Outline

The following is the outline of the thesis.

Chapter One — Introduction - this comprises of the study purpose, problem statement, motivation, central research question, research objectives and hypotheses, brief research methodology, study assumptions, scope and delimitations, and importance of the study.

Chapter Two — Literature – This critically reviews the relevant literature on strategy management process and project management

	approach together with systems theory as underlying theory, complemented by resource base view theory.
Chapter Three	Conceptual Framework (model design) Development – This chapter provides for rationale of the proposed conceptual framework underpinned by systems theory through which project management is approached as a vehicle for strategy management process.
Chapter Four	Research Methodology – this presents various aspects of the research methodology, including research design, research procedure (sampling, data collection and processing), reliability and validity, analysis approach and ethics considerations of the study, among others.
Chapter Five	Results and Analysis – this presents the result and analysis of both the quantitative and qualitative phase data collected and their related findings.
Chapter Six	Discussion – this discusses the results in Chapter 5, providing meaning and interpretation to the findings, against the aim and study objectives, in view of the objectives and research question, in the context of the theories and practices reviewed in Chapter 2 and proposed conceptual framework (model design) in Chapter 3.
Chapter Seven	Conclusion and recommendations of the study - This chapter concludes the study based on the findings of the research and its limitations. The contribution of the study is highlighted and recommendations for future work is also presented.

A flow chart of the thesis outline is presented in Figure 1.2 for a more convenient overview.

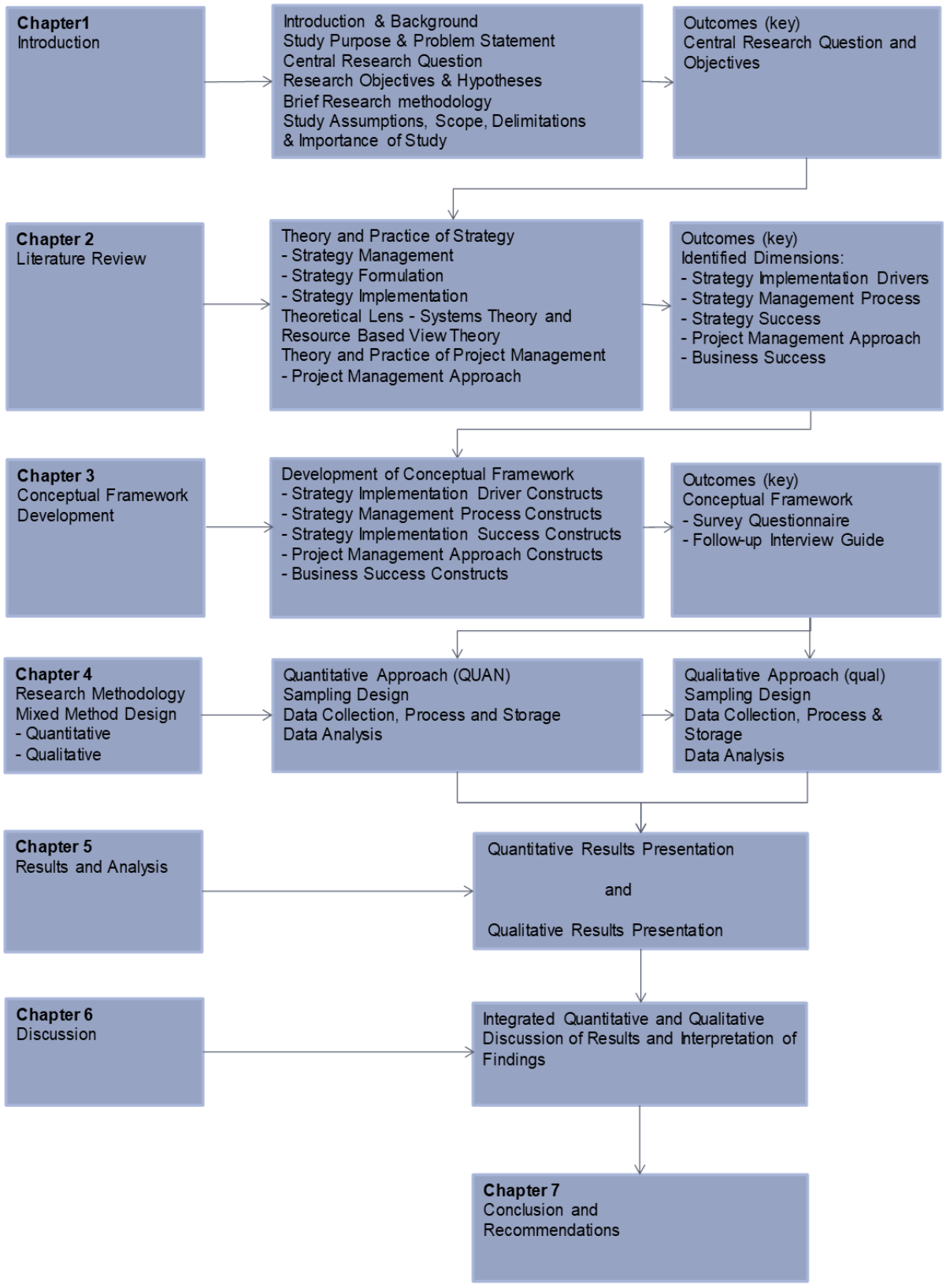


Figure 1.2: Thesis outline (Source: Author)

1.13 Chapter Summary

The chapter provided context and basis for the study. A background description, study purpose and problem statement were provided. In addition, the central research question, research objectives and hypotheses were presented. Research methodology overview, study assumptions, the scope and delimitations and significance of the study were also provided. Lastly, an overview of the organisation of the thesis was provided. The ensuing chapter considers the relevant theories and practices of strategy management process and project management approach which seeks to justify and provide rationale for the study and through which a proposed conceptual framework (model design) is built.

CHAPTER 2 – LITERATURE REVIEW

2.1 Introduction

This chapter provides a theoretical background to the study, whereby the literature on strategy management, drivers of strategy implementation, strategy management process, project management approach and business success is reviewed. The review is done with scholarly critique of the concepts in the study. Several databases were searched on each of the outlined topics using article titles, key words and abstracts. The search was confined to the following words, 'strategy management', 'strategy process', 'strategy management process', 'strategy formulation', 'strategy implementation', 'strategy success', 'project management', 'project management process', 'project management success', 'project management approach' and 'business success'.

Articles were sourced from reputable databases including Emerald, JSTOR, Sage Journals Online, Science Direct, Taylor and Francis Journals, Web of Science and Wiley. Top-tier-journals were also specifically searched including, Academy of Management Journal, Academy of Management Review, Administrative Science Quarterly, International Journal of Project Management, Journal of Management, Long Range Planning, Organisation Science, Organisation Studies, Project Management Journal, Strategic Management Journal and Strategic Organisation and subjected to further scrutiny, wherein abstracts were reviewed in terms of alignment to concepts of the paper previously outlined.

The ensuing literature from the searches, comprising related theories and practices was reviewed then considered in line with the central research question presented in Chapter 1. From the literature, strategy practitioners and scholars divide the field into two main areas, namely *strategy content* which focuses on strategic positioning and competitive advantage and *strategy process* concerned with the shaping and implementation of strategic positions (Chakravarthy & Doz, 1992; Mirabeau et al. 2017; Pettigrew, 1992; Vuorinen et al. 2017). The latter has been extended to *strategy process and practice* by Burgelman et al. (2018). This study uses Burgelman et al.'s (2018) perspective. Figure 2.1 provides a snapshot of how literature was segmented and the ensuing review.



Figure 2.1: Theory and practice of strategy management and project management (Source: Author)

2.2 Theory and Practice of Strategy

This section considers the theory and practice of strategy, the strategy management process and drivers affecting it. This is done through theoretical lenses of systems theory and resource based theory which are expanded more in section 2.3.

2.2.1 Strategy

Definition

Chandler (1962: 13) defines strategy as "determination of basic, long-term goals and objectives of an organisation, the allocation of necessary resources and the adoption of courses of action to attain the goals." This highlights the long-term perspective of strategy and the required courses of action by the organisation to achieve the set goals. Several other scholars have similar definitions (Kvint, 2009; Mintzberg et al. 2002; Rumelt, 2011). On the other hand, there are numerous scholars who have proposed different definitions of strategy but Mintzberg (1987) argues that all these can be categorised into five main categories of definitions namely, plan, pattern position, perspective and ploy, and moreover all are actually interrelated. Mirabeau et al. (2017) weigh in and propose that strategy could evolve in six different but interrelated manifestations, which include the five manifestations suggested by Mintzberg and Waters (1985) namely; intended, deliberate, emergent, realised and

unrealised and one other manifestation, namely ephemeral as suggested by Mirabeau and Maguire (2014).

Further, Mintzberg et al. (2002) indicate strategy as a pattern and plan integrating organisational goals, action sequences and policies into a unified whole. Mintzberg (2000: 23) point out that when strategy is well formulated, organisation's resources are optimally allocated "into a unique and viable posture based on internal competencies or shortcomings, expected changes to environment and possible moves by competitors". In similar terms, Thompson et al. (2018) consider strategy as an action plan for management to compete successfully whilst achieving superior profitably. In the same breadth, Hunger and Wheelen (2010) consider it as a comprehensive plan stating how organisational mission and objectives will be achieved which assists in gaining competitive advantage, according to Hill et al. (2017) and Porter (1985).

The above definitions allude to the fact that strategy is an action plan aimed at matching the internal resources to the direction of the organisation in a profitable manner for the foreseeable future (three to five years) which can be emergent or planned upfront (Thompson et al. 2018). Therefore, this ultimately results in improved performance and competitive advantage through positioning the business to maximise value through distinguishing capabilities from competitors (Munive-Hernandez et al. 2004) with the pinnacle being market success (Gębczyńska, 2016) and enhanced business growth whilst checking progress along the way (O'Brien, 2011).

According to Gębczyńska (2016), efficient functioning of organisations and long-lasting success in demanding markets is hinged on a strategy which reflects the right priorities for an organisation's growth. Thus, "strategy is a specific action model which defines performance standards in alignment to tasks and objectives which are applicable to structures, processes and behaviours" (Gębczyńska, 2016: 1082). Although this view of strategy is traditional, Volberda (2004: 36-37) proposes modern perspectives where strategy is described as "messy, disorderly, and disjointed" with postmodern views on it as strategic schemes allowing the understanding of organisations and the environment by their stakeholders.

The notion that strategy formulation emerges into a plan and not creation of a strategy was raised by French (2009) and Mintzberg et al. (2002). This study adopts the definition highlighted above by Mintzberg et al. (2002) wherein strategy is a plan integrating the organisation's policies, action sequence and major goals into a cohesive whole. This is done in tandem with Ronda-Pupo and Guerras-Martins (2012: 182) who define strategy as "the dynamics of a firm's relation with its environment for which the necessary actions are taken to achieve its goals/or to increase performance by means of the rational use of resources". All in all, the above definitions highlight that strategy entails achieving goals, the allocation of resources, and implies integration and cohesiveness of decisions and actions as propagated by Grant (2016).

Precepts of strategy formulation and implementation

Strategy discipline is divided into three categories of (i) strategy content which entails strategic decisions (O'Brien, 2011) turnaround and entry strategies, integration, diversification, divestments, mergers, product (ii) strategy process which addresses actions leading to and supporting strategy (Elbanna & Younies, 2008: 626), and (iii) strategy practice which focuses on behaviours that are routine and the tools used for strategic work, strategy practitioners who are strategic work actors and strategy praxis which are strategic activities carried out in organisations (Burgelman et al. 2018; Hutzschenreuter & Kleindienst, 2006). This study falls into the strategy process category.

Hutzschenreuter & Kleindienst (2006: 676) view strategy process as consisting of three phases namely "the strategist, the issue and the sequence of actions". In line with this view, this study considers all three phases, the strategist (three drivers of strategy management) the issue (strategy implementation success and perceived business success) and the third aspect which is the sequence of actions (strategy management process) through which sustainability and robustness is limited in reality.

In view of the strategy management process level, on one hand, strategy decision making scholars to include March and Oslen (1976); Mintzberg (1978) and Quinn (1980), used rational analytical schemes of intentional choice and outcome to put across realistic views of choice behaviour within the framework of organisational context, power, influence, trust and chance. On the other hand, several scholars of

strategy change to include Miller and Friesen (1980); Mintzberg (1978); Johnson (1987) and Pettigrew and Whipp (1991), reflected on the continued gap between strategy formulation and implementation and the discernment of specific periods of change and continuity during organisational strategy development. The next sections discuss strategy formulation and implementation in the business context.

2.2.1.1 Strategy formulation

Strategy formulation entails two parts being (i) strategic analysis developing the vision and mission and current state assessment and long term organisational direction establishment with target setting at different levels and (ii) strategic choice - developing strategic alternatives aimed at reaching those targets and choosing the alternative after valuation and comparison (David, 2011; Gavrilova et al. 2018; Grant 2016; Pasha & Poister, 2017). It can be considered as a process wherein different decisions at different levels are established (Grant, 2016). Kazmi (2008) indicate that strategy formulation uses well known frameworks and tools which include strategic planning, strength, weaknesses, opportunities and threats (SWOT) analysis, Porter's generic strategies, industry analysis and competitive analysis. Such tools have been classified as tools shaping strategy architecture, strategy adaptation and strategy action by Vuorinen et al. (2017).

Literature is abounding with scholars who highlight that strategy formulation is a privilege for the executives as it rewards creativity - the esteemed of all intellectual pursuits (Adobor, 2019; Cocks, 2010; Raffoni, 2008; Speculand, 2011) whilst Dandira (2011) highlights that it is a sign of power. Hubbard et al. (1996) on the other hand contend that operational people might be less enthusiastic about implementing something they had no input in. It can be argued that formulation and implementation are interlinked but this is not demonstrated in literature. Using the systems theory lens, the premise of this study is to find whether a solution which integrates the strategy formulation and implementation can be established.

Rajesekar (2014) postulates that strategy formulation is performed by executive management, whilst implementation is left for middle management. In the same notion it can be argued that there is need for effective communication between executives and middle management for strategy implementation be realised, which

communication Gębczyńska (2016) indicates is not happening. The next section considers strategy implementation.

2.2.1.2 Strategy implementation

Håkonsson et al. (2012: 182) define "strategy implementation as the realisation of strategy and what the organisation does". Čater and Pučko (2010) position strategy implementation as a systematic process whose activities are connected logically thereby enabling an organisation's strategy to work. Such activities entail organisational structure design, objective setting, at operational level and the design of the requisite operational structures, with ultimate control mechanisms and proper incentives in support of implementation (Čater & Pučko, 2010). In doing so, organisations are constantly switching between planning and organisational design in a top down approach at the different levels (Čater & Pučko, 2010). This is done through different implementation frameworks or models which Vuorinen et al. (2017) indicate as tools for shaping strategic action. However, Thompson et al. (2018) indicate that strategy implementation can be considered successful if the targeted strategic and financial performance are achieved thus posing as a reality for the vision. They further point out that, in so doing, organisations need to perform value chain activities in a way conducive to organisation-wide operating excellence.

There are numerous frameworks for strategy implementation including, among others, those developed by Galbraith and Kazanjian (1986), Hrebiniak and Joyce (1984), Judson (1995), Miller and Dess, (1996), Reed and Buckely (1988), Stonich (1982), Thompson et al. (2018), and Waterman et al. (1980) which comprise of distinct and critical implementation drivers. Such drivers include organisational culture and commitment, people, financial and information technology (Pella et al. 2013), structure, communication people, control and outcome (Kazmi, 2008) either based on empirical or conceptual work. In addition, levers for strategy implementation include goals, communication, organisational structure, incentives and leadership (Madhavan & Rathi, 2015; Noble, 1999). Further, Thompson et al. (2018: 334) indicate that, "strategic implementation is an integral part of the strategy management process which is primarily operations-driven, revolving around the management of people, business process and organisational structure".

Ideally strategic implementation turns “formulated strategy into a series of actions and results that warrants attainment of vision, mission strategic objectives as planned” (Jooste & Fourie, 2009: 52). This is supported by Carpenter and Sanders (2009) who highlight the iterative nature of the strategy implementation process wherein policies, programs and strategies are implemented through resource utilisation whilst opportunities in the competitive environment are constantly explored. David (2011) further indicates that through strategy implementation, yearly objectives, programs and budgets are built to facilitate strategies. Whilst the foregoing is a process view, another view based on behaviour considers strategy implementation as executive leadership behaviours and activities aimed at transforming a working plan into a tangible reality (Schaap, 2006).

With different viewpoints in the literature, Yang et al. (2010) concede that strategy implementation has no universally accepted definition. Nevertheless, they identify three distinct views of strategy implementation in literature, namely process view, behavioural view and hybrid view. These are presented abridged in Table 2.1.

Table 2.1: Strategy implementation definitions (Adapted from Yang et al., 2010)

Perspective	**Definition (Selected)**
Process Perspective	Strategy implementation is a process that: a) Turn plans to action which are executed to achieve stated objectives (Kotler, 1984). b) Is complex and interacts with several variables (Wernham, 1985). c) Is used by organisations to identify future opportunities (Reid, 1989). d) Implements programs and their respective strategies thereby enabling organisations to use their resources (Harrington, 2006). e) Takes more time than formulation (Hrebiniak, 2006).
Behavioural Perspective	Strategy implementation entails: a) Interventions by management aimed at aligning activities in the organisation whose intent is strategic (Wooldridge & Floyd, 1982). b) Practices and leadership behaviours aimed at transforming working plans into reality (Schaap, 2006).

Perspective	Definition (Selected)
Hybrid Perspective	a) The implementation of various activities in a formulated decision-making strategy on a step by step basis (Singh, 1998).

Yang et al. (2010: 170) then suggest a more comprehensive definition of strategic implementation stating that “strategic implementation (is) a dynamic, iterative and complex process, which is comprised of a series of decisions and activities by managers and employees – affected by a number of interrelated internal and external drivers - to turn strategic plan into reality so as to achieve strategic objectives”. This study adopts this definition wherein strategy implementation entails, activities, processes, decisions, internal and external drivers and achievement of strategic objectives. In addition, this study follows the idea presented by Okumus (2003) that formulation and implementation are intertwined and not stand-alone. In so doing this study positions itself to fill a gap in literature by exploring how strategy formulation and implementation can be undertaken as a continuous process.

Various authors bring the notion of project management in strategy implementation. Cocks (2010) suggests that effective strategy implementation requires systematic and organised meetings counterbalanced with communication similar to project management. Another view by Cocks (2010) is that strategic management can be likened to project management by breaking strategic implementation into manageable tasks. This is coined with the understanding that project offices today have been formulated to support the strategy management process. Longman and Mullins (2004: 57) indicate that “an organisation’s strategy should provide boundaries for projects”. Longman and Mullins (2004: 204) further highlight that organisations that have a well clearly communicated strategy and the link with the respective projects are bound to succeed. In which case this is managing by projects where effective project management includes putting in place a mechanism to evaluate every project for its fit with strategy before implementation. Knights and Mueller (2004: 56) also bring the notion of viewing “strategy as a perennially unfinished project (allowing it to be seen) in a continuous process of self-formation and reconstruction”. Similarly, Pedersen et al. (2020: 2) bring a “project-based perspective to analyse how strategic renewal evolves in organisations over time.” However, while noting authors’ views in the

literature on project management in strategy implementation, this thesis through the systems theory lens, differentiates from all these studies by considering the possibility of project management approach as an enabler to the strategy management process. The next section considers strategy implementation drivers.

2.2.2 Strategy implementation drivers

Strategy literature describes both external and internal drivers of strategy implementation success. External drivers are well established in several studies (Bennet & Bennet, 2004; Grant, 2003; O'Brien, 2011) that consider complexity in strategy formulation and implementation processes brought about by constant change in external environment and ever-changing organisational structures. Some of the external drivers mentioned in the literature are "competition, economic conditions and industry forces determining the attractiveness of a given market" (Salih & Doll, 2013: 37). However, this study focusses on internal drivers and assumes external drivers to be stable or constant.

For internal drivers of strategy implementation, Yang et al.'s (2010) approach is followed. Yang et al. (2010) attempt to split the literature by type of organisation namely private or public sector. They next subdivide the drivers into a hybrid of those that advocate individual drivers and those that advocate a holistic view (multiple drivers within a single framework). They then discuss the drivers under three headings namely: (i) leadership, (ii) communication and change process and (iii) use of project management techniques based on Cocks (2010). This approach has been adopted in this study as it offers a holistic definition of strategy implementation drivers which is espoused by the systems theory. These themes are considered in the sections that follow.

2.2.2.1 Leadership

Leadership as a driver in the literature encompasses a broad view. Based on Amoo et al. (2019), Cocks (2010), Hitt et al. (2017) and Yang et al. (2010) a holistic definition of leadership which has been adopted in this study, it entails (i) management levels and leadership style, (ii) organisational structure, (iii) organisational culture, (iv) strategy formulation and coherent planning and (v) financial resources and accountability. Each of these sub-themes is discussed in more detail below:

Management levels and leadership style

This includes all management levels and non-management levels, that is, all employees on all hierarchical levels (Engberg et al. 2015). Their skills, attitudes, capabilities and experiences as pointed out by several scholars (Al Darmaki, 2016; Harrington, 2006) provide a basis for strategy implementation success. The quality of people involved (namely skills, personality and capabilities) affects the effectiveness of strategy implementation (Engberg et al. 2015; Hutzschenreuter & Kleindienst, 2006; Slocum et al. 2014; Yang et al. 2010) with the inclusion of controls and rewards (Kazmi, 2008). Interestingly, there is little evidence pertaining to the level of involvement at each level although several researchers (Čater & Pučko, 2010; Cocks, 2010; Gębczyńska, 2016) highlight that one problem is that involvement is never cascaded to lower levels in organisations. In other words, there is need for cascading down by matching strategy to individual levels. Such matching which triggers synergy between different management levels and the organisation's strategy creates an internal environment which aids in achievement of strategic objectives (Nadler & Tushman, 1980). On the contrary Speculand (2014) highlights that once leaders craft a strategy, they delegate its implementation as a matter of course to middle managers and take their attention off it, hence performing the brokerage role (Moran, 2005).

Typically, middle managers manage conflicting multiple goals between different management levels. As such, their actions move upwards (championing a new strategic initiative, information synthesising, advocacy and improving operational performance) and downwards (implementing strategy, facilitating adaptability, managing performance and driving compliance) in organisations (Balogun & Rouleau, 2017; Obeidat, et al. 2017; Shi et al. 2009; Ukil & Akkas, 2017; Van Rensburg et al. 2014; Wooldridge et al. 2008). They will have been given strategy to implement without prior involvement during the formulation stage resulting in frustrations and poor outcomes (Hart, 1992; Jarzabkowski & Spee, 2009; O'Shannassy, 2014). Although there is emphasis on middle manager playing a 'boundary spanning' role organisational bureaucracies still bring frustrations (Beck & Plowman, 2009; O'Shannassy, 2014). As such, a robust approach for such managerial and administrative talent to be executed effectively and efficiently with monitoring and control mechanisms is a challenge which requires further study that this thesis undertakes.

On leadership style, Salih and Doll (2013) indicate that participative style of leadership that involves employees from the onset of strategy planning is critical in the success of strategy implementation. They assert that strategy is likely to be implemented successfully if it is designed for top management, middlemen and frontline as one participant. In addition, they assert that, resistance would be minimal should early inclusion of employees be adopted and that openness to new ideas is important.

Another study by Schaap (2006) indicates the impact senior leadership has on strategy implementation, although the results were inconclusive as the hypothesis had mixed support. In their study in South Africa, Jooste and Fourie (2009: 51) find "that strategic leadership contributes to effective strategy implementation", although this is against a low response rate of 7.6% (71 of the 930), their finding is supported by Gurowitz (2012). This study as explained by the resource based theory seeks to establish if senior-leadership support, among others as a driver, affects strategy implementation.

Organisational structure

Olson et al. (1995: 49) define organisational structure as "the formal design of roles and administrative mechanisms to control and integrate work activities and resource flows". According to Boschken (1990), Chandler (1962), Hill et al. (2017) and Rumelt (1964) structure must follow strategy although this is contested by Bobbitt and Ford (1980) and Hedberg et al. (1976) while Fredrickson (1986) surmise that the relationship must be reciprocal. The structure is developed based on the organisational strategy and their match drives strategy implementation success (Kavale, 2012). Getz and Lee (2011) are of the view that an organisational structure that brings about the envisaged strategy needs to be created. Schaap (2006) suggests that the adjustment of organisational structure (architecture and design) based on a particular strategy assists in strategy implementation success. Thompson et al. (2018), go further and establish that competitive environment changes require organisational structure adjustments, hence a strategy-supportive organisational structure. It is noted that notwithstanding the different schools of thought on the subject, authors are generally in agreement that the alignment of the organisational structure to the necessities of the strategy is crucial. However, recognition that organisational structure

is critical in strategy implementation through involvement of each level in the organisation is not well described in literature.

Organisational culture

Hofstede (2011: 3) defines culture as “the collective programming of the mind which distinguishes the members of one group or category of people from another”. Weick (1995) define organisational culture the perceptions beliefs and norms that unite members in an organisation. Several scholars (Al Darmaki, 2016; Cocks, 2010; Kash et al. 2014) highlight that culture improves the strategy implementation success rate. Dandira (2011) further suggests that an organisational culture where the vision, mission and values are espoused and known by every employee in an organisation provides impetus for strategic implementation success. This is supported by Slocum et al. (2014) who point out that it is imperative to create both an organisational culture and a network of relationships that support strategy implementation if success is to be realised. Such an organisational culture entails the ability and capacity to implement objectives based on shared values, beliefs and principles whose premise has to be driven at organisational level through strategic leadership (Slocum et al. 2014).

Strategy formulation and coherent planning

Hrebiniak (2006) points out that, impressive strategy implementation cannot overcome the inadequacies instilled during strategy planning. As such, coherent strategy planning is a panacea to drive a successful implementation process (Kash et al. 2014). Several authors support this notion that the strategy developed and the process of strategy formulation influence implementation e.g. Allio (2005) and Singh (1998). From authors therefore, it is apparent that strategy formulation affects the whole strategy management process. Salih and Doll (2013) go further and consider the level of involvement in strategy formulation. They find that a sense of ownership is enhanced when top and middle management is involved during strategy formulation. However, what is not clear is whether senior leadership supports strategy formulation through to implementation or the implementation phase needs to be nurtured until business success is realised. This study considers this aspect.

Financial resources

According to Kash et al. (2014) who consider the financial and accounting perspective, drivers of strategy implementation include the cost, income, margin, funding, collection, bond rating and budget which are essential ingredients in the process for strategy success to be attained.

With the leadership aspects above considered it still remains to establish the influence of leadership on strategy implementation success resulting in the hypothesis below:

H_1: Leadership has a significant and positive relationship with strategy implementation success.

2.2.2.2 Communication and change process

From the literature (Amoo et al. 2019; Cocks, 2010) and in line with the systems theory, this driver encompasses a broad view covering the aspects of effective communication, commitment, consensus, visible management systems, business processes / feedback, business unit relationships, employee engagement, access to information and change management. This has been adopted in this study and detailed below:

Effective communication, commitment and consensus

Communication during strategy implementation is a mechanism sending formal and informal messages relating to the new strategy (Okumus, 2003). Effective communication (internal) is a key driver and central during strategy implementation and reputation building (Amoo et al. 2019; Dandira, 2011; de Salas & Huxley, 2014; Forman & Argenti, 2005; Gurowitz, 2012; Martin, 2010; Obeidat et al. 2017; Schaap, 2006). Nevertheless, Schaap (2006) finds that thirty-eight per cent of senior leadership failed to communicate the organisational strategy.

Rapert et al. (2002) indicate in their study that, the understanding of strategic priorities (consensus) enhances strategy implementation if communication is effective. If organisational members are not aware of the same information, or should it pass through different levels, the resultant level of consensus may be low (Cocks, 2010; Yang et al. 2010) and by implication become a hindrance to strategy implementation.

This is echoed by Getz and Lee (2011) who highlight that continued dialogue between leaders and the rest of the organisation clarifies the strategy and drives its implementation. Such continued dialogue brings about shared meaning and sense of ownership (Kash et al. 2014; Salih & Doll, 2013). However, it is not clear whether shared understanding without commitment negatively affects strategy implementation, as no empirical evidence was found in the literature.

Visible management systems and business processes / feedback

Cocks (2010) and Kash et al. (2014) contend that robust systems provide a platform through which strategy implementation success is enhanced. They further highlight that, such systems include operation, decision making, reward systems, information systems, technology and innovation. Hence authors imply it is critical that core systems deliver value to customers in order to avoid failure. However, literature is not explicit on measurement systems in place during strategy implementation.

Getz and Lee (2011) raise the need to create workflows during strategic implementation that glues the strategic milestones and outputs. Several scholars (Kash et al. 2014; De Salas & Huxley, 2014) support this view and emphasise that the link between the elements of strategy and organisational processes is of paramount importance to the organisational strategy. This study builds on these viewpoints and considers a vehicle to create such links.

Business unit relationships and employee engagement

One of the critical drivers for strategy implementation is the relationships among different business units (Chimhanzi & Morgan, 2005). Chimhanzi (2004) pints out that cross-unit working relationships are critical in successful strategy implementation. Getz and Lee (2011) point out that without sustained commitment by employees enhanced through continued engagement, strategy implementation is bound to fail. This is supported by Thompson et al. (2018: 77) who found that engaging different functions in the organisation helped “improve the prospects of successful strategy implementation”.

Access to information

This entails retrieval of information and its use in decision-making which according to Kash et al. (2014) is critical in strategy delivery process. If follows that focus is placed on reports and reporting which drive accountability and transparency and these should be driven through a foundation of access to information. As to whether this is the practice and if so whether it is built in a coherent manner in organisations is not clear in the literature.

Change management

Salih and Doll (2013) note that ineffective change management is an obstacle in strategy implementation. Change here relates to organisational processes, systems and structures, and organisational culture (Saunders et al. 2008). These are discussed separately in this study (see sections 2.2.2.1 and 2.2.2.2). Change is difficult when managed at organisational level than at individual level "because of the interconnectedness of causes and consequences" (Salih & Doll, 2013: 36). Interrelated with change is the issue of supportive discipline which leadership needs to carry through the strategy implementation process (Salih & Doll, 2013).

The considerations given in this section lead to the hypothesis below:

H_2: Communication and change process have a significant and positive relationship with strategy implementation success.

2.2.2.3 Use of project management techniques / people

Although the topic of project management will be discussed again (see section 2.4) in the context of the research question namely how project management can be a vehicle for strategy implementation, the literature here reviews authors views on managing strategy implementation by projects. According to Cocks (2010: 264) strategy implementation "can be viewed as a programme consisting of a series of related projects, each requiring planning and resource allocation for delivery of results on time and budget". Meredith et al. (2018) highlight that project managers define goals and work backwards to plan through breaking the project into discrete parts, the work breakdown structure, whilst managing the constraints of time, quality and cost. Cocks (2010) points out that similarly during strategy execution, the strategic plan can be

broken down into activities and tasks which can be displayed on the Gantt chart and through which a network diagram can assist in managing task dependencies.

Authors in the literature on managing by projects address the question whether strategy can be broken down into activities and tasks (Cocks, 2010; Getz & Lee, 2011) and whether a work breakdown structure can be formulated and measured against a Gantt chart to ascertain strategy implementation (Cocks, 2010; Mišanková & Kočišová, 2014) in other words, their work leads to the question whether strategy execution can be translated into concrete projects. Cocks (2010) indicates that this ought to be possible as strategic implementation, similar to project management, also needs regular and structured management and communication. A contrary view is whether project management approach can be a vehicle of strategy formulation and implementation so that they become a continuous process. Such a question has received less attention in research and is the pinnacle of this study.

Getz and Lee (2011) together with Mišanková and Kočišová, (2014) highlight that cascading strategy through the creation of nested strategies which would be executed through the use of project management techniques is of paramount importance. Such links and synergies between these nested strategies would have to be carried out through migration maps defining step-by-step objectives. With these considerations, this study seeks to establish the use of project management techniques as a driver to strategy implementation success which leads to the following hypothesis:

H_3: The use of project management techniques has a significant and positive relationship with strategy implementation success.

Table 2.2 summarises the strategy management drivers obtained from the literature (indicated in the table as summarised variables) and decomposed to indicate their component variables.

Table 2.2: Strategy implementation drivers as variables (Source: Compiled by author)

Strategy Implementation Drivers		
Author(s)	**Variable(s)**	**Summarised Variable**
Amoo et al. 2019; Cocks, 2010; Hill et al. 2017; Yang et al. 2010.	Management Level and Leadership Style	Leadership
Engberg et al. 2015.		
Al Darmaki, 2016; Harrington, 2006.		
Engberg et al. 2015; Hutzschenreuter & Kleindienst, 2006; Slocum et al. 2014; Yang et al. 2010.		
Kazmin, 2008.		
Čater & Pučko, 2010; Gębczyńska, 2016.		
Nadler and Tushman, 1980.		
Speculand, 2014.		
Moran, 2005.		
Balogun & Rouleau, 2017; Shi et al. 2009; Ukil & Akkas, 2017; Van Rensburg et al. 2014; Wooldridge et al. 2008.		
Hart, 1992; Jarzabkowski & Spee, 2009; O'Shannassy, 2014.		
Beck & Plowman, 2009; O'Shannassy, 2014.		
Salih and Doll, 2013.		
Schaap, 2006.		
Jooste and Fourie, 2009.		
Gurowitz, 2012.		
Hill et al. 2017; Olson et al. 1995	Organisational Structure	
Boschken, 1990; Chandler, 1962; Rumelt, 1964.		
Bobbitt and Ford, 1980; Hedberg et al. (1976; Fredrickson, 1986.		
Kavale, 2012.		
Getz and Lee, 2011.		
Schaap, 2006.		
Thompson et al. 2018.		
Hofstede, 2011.	Organisational culture	
Weick, 1995		
Al Darmaki, 2016; Cocks, 2010; Kash et al. 2014.		
Dandira, 2011.		
Slocum et al. 2014.		
Slocum et al. 2014.		

Strategy Implementation Drivers		
Author(s)	**Variable(s)**	**Summarised Variable**
Hrebiniak, 2006;	Strategy Formulation & Coherent Planning	
Kash et al. 2014.		
Allio, 2005; Singh, 1998.		
Salih and Doll, 2013.		
Kash et al. 2014.	Financial Resources	
Okumus, 2003.	Effective Communication, Commitment and Consensus	Communication and Change Process
Dandira, 2011; de Salas & Huxley, 2014; Forman & Argenti, 2005; Gurowitz, 2012; Martin 2010; Schaap, 2006.		
Schaap 2006.		
Rapert et al. 2002.		
Cocks, 2010; Yang et al. 2010.		
Getz and Lee (2011).		
Kash, 2014; Salih & Doll, 2013.		
Cocks, 2010; Kash et al. 2014.	Visible management Systems & Business Process / Feedback	
Getz and Lee, 2011.		
Kash et al. 2014; De Salas & Huxley, 2014.		
Chimhanzi & Morgan 2005.	Business Unit Relationships and Employee Engagement	
Chimhanzi, 2004.		
Getz and Lee, 2011.		
Thompson et al. (2018)		
Kash et al. 2014.	Access to Information	
Salih and Doll, 2013.	Change Management	
Saunders et al. 2008.		
Salih & Doll, 2013.		
Salih & Doll, 2013.		
Cocks, 2010.		Use of Project Management Techniques / People
Meredith et al. 2018.		
Cocks, 2010		
Cocks, 2010; Getz & Lee, 2011		
Getz and Lee (2011); Mišanková and Kočišová, (2014)		
Cocks, 2010		
Getz and Lee (2011); Mišanková and Kočišová, (2014)		

Having highlighted the strategy implementation drivers, the next section considers the strategy management process.

2.2.3 Strategy management and strategy management process

This section considers the theory and practice of strategy management and strategy management process.

2.2.3.1 Strategy management

Pearce II and Robinson (2009: 3) contend that "strategic management is defined as a set of decisions and actions that result in the formulation and implementation of plans designed to achieve an organisation's objectives". A set of actions and the decisions ensuing from the formulation and implementation of plans intended to achieve organisational objectives is strategic management according to Hansen (2011) and relates to business performance (McAdam & Bailie, 2002; Mintzberg, 2000). In as much as strategic management defines the long-term goals of the organisation, there is also a need to match and align "internal activities to environmental change and resource alignment to those activities" (Munive-Hernandez et al. 2004: 692).

Effective strategy management is necessary and essential and a success factor (Zeps & Ribickis, 2015) as organisations are faced with increasing competition and business complexity (Munive-Hernandez et al. 2004). As such, there is need to redefine strategies to effectively reflect different customer requirements and business environment changes. This enables organisations to stay competitive through being better positioned for superior performance (Zeps & Ribickis, 2015) in the future.

Interlinked to strategy management is the strategy management process which consists of "strategic analysis (vision formulation, information analysis, objective setting), strategy formulation, strategy implementation" and strategy control (performance evaluation), (Gilbert & Behnam, 2009; Macmillan & Tampoe, 2000; Nuntamanop et al. 2013: 263; Pearce & Robinson, 2000; Saloner et al. 2001). The next section considers the precincts of the strategy management process.

2.2.3.2 Strategy management process

In the strategy perspective, process is defined by Van de Ven (1992: 69) as “having three meanings namely (i) a logical explanation of causal relationship between dependant and independent variables (ii) a category of concepts or variables referring to actions of individuals or organisations, and (iii) events describing how things change over time in a sequence”.

The strategy management process entails building capabilities for organisations to create business value for customers, shareholders and the society at large (Nag et al. 2007), which is the goal-oriented nature of strategic management (Gilbert & Behnam, 2009). Based on their normative model, Ginter et al. (1985: 582) point out that strategy management process has the following elements: “vision and mission; objectives; external environmental scanning; internal environmental scanning; strategic alternatives; strategy selection, implementation and control”. A study by McDonald (1996) points out four phases of the strategy management process as follows; phase 1 – goal setting (mission and corporate objectives), phase 2 – situation review (marketplace audit, SWOT (strengths, weakness, opportunities and threats) analysis, and assumptions), phase 3 – strategy formulation (function objectives and strategies, estimated expected results and identified alternative plans and mixes) and lastly phase 4 – resource allocation and monitoring (budget, detailed implementation programme and measurement and review). They highlight that the phases are not a reflection that one step must be finished before any other is initiated, in other words it is iterative in nature.

Another view is that the strategy management process involves sturdy linkages among mission, goals, objectives formulation and implementation (Larson & Gray 2017, Rwelamila, 2007). Alternatively, Thompson et al. (2018:62) posit that the process entails “development of a strategic vision; setting objectives; crafting a strategy; executing the chosen strategy and monitoring developments, evaluating performance, and initiating corrective adjustments.”

The strategy management process attests to how strategy should be formulated and implemented whilst being communicated and also describes the flow of strategic activities (Wilson & Jarzabkowski, 2004). This provides the goal-oriented nature of

strategy. Irrespective of the fact that strategy management process models differ in complexity with some being prescriptive (processual) (Farjoun, 2002; Tapinos et al. 2011) whilst others are descriptive (Lovas & Ghoshal, 2000; Tapinos et al. 2011), Table 2.3 below adapted from Gilbert and Behnam (2009) illustrates and provides for consensus among the most important stages of the strategy management process through a deductive approach based on the literature and authors insights on strategy management process. The resultant proposed strategy process variables have been adopted in this study.

Table 2.3: Strategy management process consistence matrix (Adapted from Gilbert and Behnam, 2009)

Author	**Method/ Approach**	**Phase/ Variable**	**Activity**	**Proposed Strategy Process Variable**
Ginter et al.1985	Questionnaire sent to organisations in 12 different industries. 1031 returned with 956 competed in usable format.	Vision and Mission		Vision Formation
		Objective Setting		Objective Setting
		External Environment Scanning		Information Analysis
		Internal Environment Scanning		
		Strategic Alternatives		Strategy Formulation
		Strategy Selection		
		Implementation		Strategy Implementation
		Control		Strategy Control
McDonald, 1996	A historical approach including four case studies of the strategy planning process from 1960 - 1995.	Goal Setting	Mission	Vision Formation
			Corporate Objectives	Objective Setting
		Situation Review	Marketplace Audit	Information Analysis
			SWOT Analysis	
			Assumptions	
		Strategy Formulation	Function Objectives A Strategies	Strategy Formulation
			Estimated Expected Results	
			Identify Alternate Plans and Mixes	
			Budget	

Author	Method/ Approach	Phase/ Variable	Activity	Proposed Strategy Process Variable
		Resource Allocation and Monitoring	Detailed Implementation Programme	Strategy Implementation and Control
			Measurement and Review	
Pritchard, 2001	The study used action research method to build and reduce models into a general framework called Coherent Strategic Simulation	Environmental Performance and Monitoring	Environmental Scanning	Information Analysis
			Balanced Scorecard	
			Budget	
		Situation Analysis	Swot Analysis	
			Critical Factor Gap) Analysis	
			Product Costing	
			Customer Portfolio Analysis	
			Business Modelling	
		Strategic Planning	Mission Statement	Strategy Formulation
			Objectives	
		Business Intervention	Initiatives	Strategy Implementation and Control
			Procedures	
			Resources	
Munive-Hernandez et al. 2004	A systematic literature review of different strategy models which culminates into a proposed strategy model using business process modelling (BPM).	Establishing Main Strategic Objective and Performance Target		Objective Setting
		Formulating the Strategy	Analysis of The Organisation's Environment	Strategy Formulation
			Analysis of Internal Capabilities	
			Selection of Adequate Strategy	
		Implementing the Strategy		Strategy Implementation
		Establishing Strategic Control and Evaluation (Strategic Feedback)		Strategy Control
		Setting Direction	Vision and Mission	Vision Formulation

Author	Method/ Approach	Phase/ Variable	Activity	Proposed Strategy Process Variable
O'Brien and Dyson, 2007	A peer reviewed book on strategy process frameworks, methods and models.	Setting Strategic Goals / Objectives / Targets / Priorities		Objective Setting
		Assessing the External Environment	Social, Political, Economic, Competitive Issues	Information Analysis
		Appraising the Internal Environment	Resources, Capabilities	Information Analysis
		Generating Ideas for Strategic Initiatives / Options		Strategy Formulation
		Evaluating Strategic Initiatives / Options		
		Selecting Strategic Initiatives / Options		
		Implementing Strategic Decisions / Strategic Change		Strategy Implementation
		Measuring / Evaluating Organisational Performance		Strategy Control
Arasa and K'Obonyo, 2012	A survey design for 31 companies with secondary data from Kenya's Commissioner of Insurance and Association of Kenya's insurance.	Defining Organisation's Corporate Direction		Vision Formulation
		Appraisal of Business Environment		Information Analysis
		Identification and Analysis of Organisation's Strategic Issues		
		Strategy Generation, Evaluation and Selection		Strategy Formulation
		Development of Implementation, Evaluation and Control Systems		Strategy Implementation and Control
Nuntamanop et al. 2013	Data collected using multiple techniques. Primary source was12 interviews across 11 different industries supported by observations and related published information.	Vision Formation		Vision Formation
		Information Analysis	Internal Information (Organisation Resources)	Information Analysis
			External Information (Industry and Competition)	Information Analysis
		Objective Setting		Objective Setting
		Strategy Formulation		Strategy Formulation
		Strategy Implementation and Evaluation	Business Performance Evaluation	Strategy Implementation and Control

Author	Method/ Approach	Phase/ Variable	Activity	Proposed Strategy Process Variable
Hill et al. 2014	A peer reviewed book on an integrated strategy management approach.	Select Goals	Vision and Mission	Objective Setting
		Analyse External Opportunities	SWOT analysis	Information Analysis
		Analyse Internal Strengths and Weaknesses		
		Select Strategy		Strategy Formulation
		Implement	Governance and Ethics	Strategy Implementation and Control
			Designing Organisation structure	
			Designing Organisation Culture	
			Designing Organisation Controls	
Vuorinen et al. 2017	A systematic literature review of 88 strategy tools published between 1990 and 2015	Architecture	Strategic Analysis	Vision Formulation and Objective Setting
			Strategy Formulation	Strategy formulation
			Analysis History or Current Situation	Information Analysis
		Action	Translating Strategy to Operations	Strategy Implementation
			Organising Activities	
		Adaptation	Monitoring	Strategy Control

Several scholars (Gilbert & Behnam, 2009; McDonald, 1996; Munive-Hernandez et al. 2004) propose four strategy management processes namely (i) strategic analysis, (ii) strategy formulation, (iii) strategy implementation and (iv) strategy control. Nuntamanop et al. (2013) further split strategy analysis into three processes namely vision formulation, objective setting and information analysis. Adding these three and replacing strategy analysis above yields six processes discussed below.

The strategic analysis phase entails “an investigation of the internal resources, capabilities, core competencies, external environmental circumstances as well as

strategic threats and opportunities" (Gilbert & Behnam, 2009: 72) all of which are classified in this study as information analysis based on Nuntamanop et al. (2013) who adds vision formation and objective setting in the same process which provides additional insight into the process. The evaluation and determination of strategic alternative decisions is contained in the strategy formulation stage. During implementation stage is where a translation of the strategies into concrete actions happens whilst being linked to financial budget (Gilbert & Behnam, 2009). Strategic control phase based on Schreyögg and Steinmann (1987: 94) entails "a counterbalancing activity to the other three steps as an autonomous management function".

Based on the mentioned scholarly insights and Table 2.3 on strategy management process consistency matrix which was formulated in tandem with analysis from several scholars, six processes are adopted and used in this study as the basis for the strategy management process. The processes are (i) vision formulation, (ii) objective setting, (iii) information analysis, (iv) strategy formulation, (v) strategy implementation and (vi) strategy control. As such, the six stages are intertwined with one another and continuously on-going (De Wit and Meyer, 2010). Although this is a simplification, cognisance of the real-life complexities, dynamism and dependence on situation as highlighted by MacKay and McKiernan (2004) needs to be considered in reality.

Limited robust frameworks on strategy formulation and implementation have been found in the literature for purposes of this thesis. In particular, although Cocks (2010) and Speculand (2011) indicate that formulation and implementation have to be linked, no clear evidence could be found in the literature on the essential processes of doing that. This is a gap that requires attention given that there is an enormous failure of strategies recorded in literature. This study considers the gap mentioned and through the systems theory, attempts to create a suitable framework to address this need.

2.2.4 Strategy success and failure

This section considers the theory and practice of strategy failure and success.

2.2.4.1 Strategy failure

Limited capabilities, activities and processes often result in breakdown in strategy implementation (Cocks, 2010). This is echoed by Getz and Lee (2011) that failure of implementation is as a result of leadership not orchestrating the requisite strategy management process given that current processes will not drive the required transformation. In addition, strategic implementation fails given that leaders are investing minimal resources and energy to include time when compared to formulating the same strategy (Getz & Lee, 2011). Another view by de Salas and Huxley (2014) is that there is limited understanding by organisation's personnel of the importance of the different strategy elements, namely content and their context. In addition, de Salas and Huxley (2014) highlight that drivers critical to the success of strategy implementation include creative skills that are unique in terms of leadership that pay meticulous attention to detail and simplify complex issues whilst communicating effectively. Further, they indicate that, included are control and feedback mechanisms which align operations to business strategy for effective implementation.

Strategy implementation often goes off target due to leadership failure by executives to hold themselves or employees accountable (Cocks, 2010). Cândido and Santos (2015) highlight that the figures of strategy failure quoted in literature are variable and not easily comparable as criteria used are different together with the different research strategies used. What is also pertinent is that "failed strategies impact the organisation and lead to imbalance between expected outcomes and resources spent" (Madhavan & Rathi, 2015: 2301). Figure 2.2 adopted from Cândido and Santos (2015) highlights the studies and the respective strategy implementation failure rates they established.

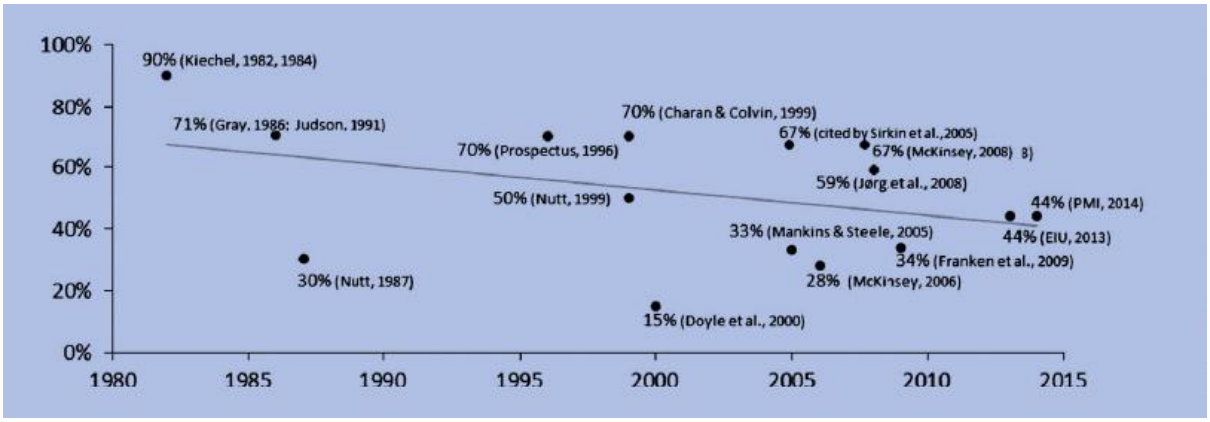


Figure 2.2: Strategy implementation failure rates (Cândido & Santos, 2015)

Consistent in the literature as demonstrated in Figure 2.2 is the reality that, strategy implementation is failing with a failure rate varying from 15% to 90%, with 44% being dominant for studies between 2013 and 2014. Gottschalk (2008) notes that studies aimed at ensuring failure rates are reduced have received less academic attention. Yet attention may need to shift more from formulation to implementation in line with Čater and Pučko (2010) postulation that the momentum disappears from formulation through to implementation. This study through the systems theory lens considers how the relationship between formulation and implementation can be harnessed into a continuous process to ensure continued successful strategy management process.

2.2.4.2 Strategy success

Strategy success in this study has been based on the model created by Kokfai et al. (2013) which entails innovation, creativity, excellence and competitiveness. Innovation according to Durst et al. (2015) takes place either as introduction of new service or product or incremental improvement of existing service or product. As such new technologies, organisational forms, methods, systems and new business models are established (Edvardsson & Enquist, 2011).

Creativity relates to development of a unique model based on research initiatives and trials (Kokfai et al. 2013). Zhou and Shalley (2003) indicate that this yield both the strategy implementation process and the results thereof. Internally this, according to Kokfai et al. (2013), creates improved operational efficiencies. The same finding was echoed in a study of Korean companies by Lee et al. (2004) who determine a positive effect of creativity on organisational core competencies and innovation. In addition, Guenzi and Troili (2007) establish that innovation is important for competitive advantage and strategy success.

Excellence entails new business opportunities, and performance that exceeds customer expectations consistently (Edvardsson & Enquist, 2011). The development, implementation and maintenance of excellence has been demonstrated to have positive influence on strategy success Kokfai et al. (2013)

Competitiveness has been defined by Kokfai et al. (2013) and Porter (1985) as the ability to gain, improve, and maintain profitable market share by one form over another

in related industries. In so doing, companies need to improve “speed, knowledge, dynamic capabilities to competitive positioning” (Argyres & McGahan, 2020: 41) and quality management in alignment to business processes and cooperative networks (Álvarez et al. 2009). Such core internal processes relating to information and communication interfacing with customers for sustainability is key to competitiveness (Kokfai et al. 2013) with Porter (1980) having added the three strategic approaches to outperform other organisations in an industry as being cost leadership, differentiation and focus.

Given the high failure in strategy implementation as indicated in the preceding section (see 2.2.4.1) and the loss in momentum between formulation and implementation noted by authors (see section 2.2.4.1), this study considers an innovative process through which strategy could be managed that offers enhanced strategy implementation success, continuity, sustainability and robustness. Considerations in this section lead to the following hypothesis:

H_4: Enhanced strategy management process has a significant and positive relationship with strategy implementation success.

While the literature is abounding with different models to explore, this thesis considers systems theory and the resource-based view theory as the most appropriate for the study. They are considered next.

2.3 Theoretical Perspective

This section considers the theoretical perspective of the study which are the systems theory and resource-based view theory.

2.3.1 Systems Theory

According to Fabrycky (2014: 3) “a system is an assemblage or combination of elements or parts forming a complex or unitary whole has a functional relationship and a useful purpose”. Systems theory is a theoretical perspective for analysing phenomenon in a holistic approach instead of the summation of the elementary parts (Mele et al. 2010). The focus of system theory is on how parts interact and relate to each other in order to understand how entities are organised, their function and

outcomes (Mele et al. 2010). Systems thinking is how the Systems theory is put into motion which becomes the prime mover across all disciplines in the systems movement (Adams & Mun, 2005). Below is a discussion on the prime mover, systems thinking.

2.3.1.1 Systems thinking

Definitions

Different scholars consider systems thinking in different ways (e.g. Senge, 1990; Richmond, 1994; Godfrey, 2010; Mingers and White, 2010; Monat and Gannon, 2015; Arnold and Wade, 2015) but fundamentals of "dealing with complexity, seeing interconnectedness, systems structure as a cause of that behaviour, identifying emergence, and working in an interdisciplinary way" (Freeman et al. 2014: 1; Arnold & Wade, 2015: 6) underpinned by structure and behaviour are reflected in most of the definitions. For example, Senge (1990: 72) provides a business management definition saying "systems thinking is a discipline of seeing wholes. It is the framework of seeing interrelationships rather than things, for seeing patterns of change rather than snapshots. It is a set of general principles spanning fields as diverse as physical and social sciences, engineering and management". In essence, systems thinking encompasses a holistic consideration of our actions, which is aimed at addressing complex problems and designs (Senge, 1990). On the other hand, Mingers and White (2010) highlight systems thinking as a way of thinking about, and a process of understanding how individual parts of a system interrelate with each other as a part of the whole. The motivation for using systems theory in this study derives from the notion forwarded by Mingers and White (2010) that systems theory emphasises more on the relationship and interactions between elements rather than system elements themselves.

Developmental history

Mingers and White (2010: 1147) indicate that "the fundamental concepts of systems thinking were developed (in modern times) in the early part of the 20th Century in disciplines such as organismic biology, ecology, psychology and cybernetics" with Senge (1990) adding physical and social sciences, engineering and management. In addition, the panacea to systems thinking which is the general systems theory (GST) by von Bertalanffy (1950) recognises the applicability of systems thinking concepts to

many different disciplines including management science and operations research (Beer, 1967), systems approach (Churchman, 1971; Klir, 1969; Weinberg, 1975), systems dynamics (Forester, 1968) and systems engineering (Hall, 1962). Mingers and White (2010: 1148) further highlight that the concepts for systems thinking include: "parts/whole/sub-systems, systems/boundary/environment, structure, process, emergent properties, hierarchy of systems, positive and negative feedback, information and control, open systems, holism and the observe".

There have not been any significant changes in systems thinking over the years, however, Mingers and White (2010: 1148) highlight that systems thinking include the following: "(i) viewing the situation holistically, as opposed to reductionistically, as a set of diverse interacting elements within an environment, (ii) recognising that the relationships or interactions between elements are more important than the elements themselves in determining the behaviour of the system, (iii) recognising a hierarchy of levels of systems and the consequent ideas of properties emerging at different levels, and mutual causality both within and between levels, and (iv) accepting, especially in social systems, that people will act in accordance with differing purposes or rationalities".

Recent scholars on systems thinking include Gharajedaghi (1999) who focuses on Ackoff's interactive design, strategy orientation level from Haines (2000), complex adaptive systems (Dooley, 1997; Gell-Mann, 1994; Holland, 1995), how systems work and fail from Gall (2002), management systems perspectives from Daellenbach and McNickel (2004), thinking in systems (Meadows, 2009) and viable systems approach (Barile & Polese, 2010).

Benefits of systems theory

Godfrey (2010: 2) indicates that "systems thinking provides a rigorous way of integrating: people, purpose, process and performance and (i) relating systems to the environment, (ii) understanding complex problem situations, (iii) maximising the outcomes achieved, (iv) avoiding or minimising the impact of unintended consequences, (vi) aligning teams, disciplines, specialisms and interest groups and (vii) managing uncertainty, risk and opportunity".

2.3.1.2 Systems theory and strategy management

Prominent systems thinkers have been involved in strategy for long with early scholarly works on strategy planning written by Ackoff (1970), Ansoff (1965) and Churchman (1971). Such early works point out that systems thinking and strategic thinking were synonymous (Mingers and White, 2010). Ackoff (1970) was the first to propose systems thinking to strategy planning through arguing that strategic decisions consist of interactive systems based on related issues. More recently, systems thinking in strategy brings forth ideas from complexity theory with strategy decision making involving different complex issues and several interacting factors and stakeholders (Aligica, 2005; Houchin & MacLean, 2005; Mason, 2007). Strategy making has been referred to as two modes, the emergent and planned mode (Pidd, 2004). The latter is a rational view of strategy based on systems thinkers such as Ansoff (1965) and Ackoff (1970). The rational- view scholars' intent to demonstrate use of analytical approaches underpinned by systems perspective aid in strategy development (Fowler, 2003; O'Brien & Dyson, 2007), scenario analysis and visioning techniques (O'Brien & Meadows, 2001; Powell & Powell, 2004). On the other hand, incremental and emergent approaches contributions from systems thinking have basis in Ackoff's (1993) work relating to interactive planning wherein strategy making is participative whilst reflecting learning (Jackson, 2001; Mingers, 2000).

Similarity between strategy and systems thinking is noted as strategy deals with situations with multiple variables based on differing practitioner perspectives, an aspect also observed in systems thinking by authors (e.g. Jackson, 2001; Mingers, 2000). This study adopts the same approach and considers several strategy related variables with resources including different practitioner perspectives relating within a system, comprising strategy implementation drivers, strategy management process, strategy implementation success and perceived business success, all working together towards a common goal. Systems thinking is required to look at all these aspects holistically contributing to a common goal rather than as individual parts with narrow goals.

2.3.1.3 Systems theory and project management

Systems theory advocates looking at the whole instead of the parts, which is applicable to a project when considering the effectiveness of "how each unit (work

package) fits into the whole and the effectiveness of the whole depends on the way each unit functions" (Pourdehnad, 2007: 431). In line with this approach, systems thinking is used in this study to consider project management taking on a strategy driver role, whereby strategy management process is considered a project. By doing so, everything is brought together, that is, everything in the strategy management process is considered a project, underpinned by systems theory rather than taking them as individual parts as underscored by Pourdehnad (2007).

2.3.1.4 Why systems theory for this study

Systems theory emphasises the interrelationships between individual system parts as part of the whole. In this study, the ability to formulate and implement a successful strategy and ultimately perceived business success depends on the understanding and interactions of the following elements as a system, namely (i) strategy implementation drivers, (ii) strategy management process, (iii) project management approach, (iv) strategy implementation success and (v) perceived business success. The application of systems thinking approach in solving complex business problems similarly to how engineering problems are solved, is according to Mingers and White (2010) based on the understanding of the system variables, perspectives and its boundaries by those involved in the process. This spans the full ambit of rigorous way of integrating: people, purpose, process and performance as espoused by Godfrey (2010). This requires a deep understanding of the underlying principles of the different constructs mentioned above as espoused in the corresponding literature review.

The thesis problem presents uncertainty and complexity, a domain for systems theory, in that strategy implementation success and perceived business success are currently being achieved minimally and the challenge is how they can improve their success rate using project management approach. Such a premise is underpinned by systems theory which advocates a fully integrated problem view with the requisite understanding of each component of the system in the broader system context. In addition, the approach in systems thinking allows the organisation of this problem with its uncertainty and complexity into a coherent story that illuminates problem causes and the remedies in enduring ways (Senge, 1990). Further, organisations are complex systems operating in a complex ecosystem (Checkland, 2012; Senge, 1990) and thus it is instructive to apply systems thinking to understudy them.

2.3.2 Resource-Based View Theory

The importance of organisational specific resources was established by Chamberlin and Robinson (Chamberlin, 1933; Robinson, 1933) and developed afterwards by Penrose (1959). Key capabilities of organisations identified by Chamberlin (1933) include patents and trademarks, technical know-how and brand awareness. Internal appraisal of capabilities during strategy decision making was further developed by Ansoff (1965). Several scholars (Andrews, 1971; Hofer & Schendel, 1978; Snow & Hrebinik, 1980) have acknowledge competitive success being driven centrally by distinctive competencies which become "barriers to imitation" (Rumelt, 1984). The resource-based view (RBV) of an organisation emerged in 1984 (Wernerfelt, 1984) who linked resource positions to market product position. Thereafter, literature became abounding with examples of organisations outperforming others on the basis of their specific skills and capabilities (Coyne, 1986; Ghemawat, 1986; Grant, 1991; Kraaijenbrink, 2010; Williams, 1992). The resource-based view contributes to sustainable competitive advantage for organisations through advocating that if an organisation deploys certain key inimitable, rare, valuable resources and capabilities which are non-substitutable, it will earn above average returns (Hart, 1995; Fahy, 2000). In addition, Fahy (2000: 96) highlights the essential elements of resource-based view as being "sustainable competitive advantage and superior performance; the characteristics and types of advantage-generating resources; and strategic choices by management".

One notable aspect is that resources are non-imitable due to their tacit or socially complex nature (Teece, 1987; Winter 1987). Tacit resources are skill based and accumulated through experience and refined by practice (Hart, 1995). Socially complex resources are dependent on teams engaged in coordinated action such that few individuals have sufficient breadth of knowledge to grasp the overall phenomena (Barney, 1991; Reed & DeFillippi, 1990). This phenomenon complements work in the thesis whereby the ability or skill of applying project management approach to drive strategy management process is viewed as a socially complex resource for an organisation.

Whilst the resource-based view theory has been criticised for being static (Priem & Butler, 2001) and the fact that it does not take into account the influence of the external

environment (Hitt et al. 2017) this thesis embraces the RBV and in defence from critics, considers it as applicable to the study in the following way: The ability or skill of applying project management approach as a resource driver for strategy management process does not need to be dynamic but rather adaptive to the unique strategy content the organisation is implementing; The ability or skill of applying project management approach as a resource driver does not need to be externally focused but rather the unique strategy content driven by a strategy process must have facets of external appeal.

2.3.2.1 Why resource-based view theory for this study

Paiva et al. (2008: 117) posit that "strategy management process may be analysed under a resource-based view approach", and in this thesis project management approach is seen as a resource to increase the chances for success in strategy implementation, leading to enhanced perceived business success. The drive of focusing resource-based view theory on process within organisations as pointed out by Hill et al. (2016) is that it can collectively create competitive advantage.

The consideration of project management approach as a resource in driving the strategy management process is supported by the resource-based view theory which advocates for working within limitations of available resources (Barney, 1991). For this study, the drive to ultimately achieve strategy implementation success and perceived business success can only be realised within the limitations of the organisation resources and capabilities, and in particular its ability to undertake implementation which is expertise project management approach can provide. This ultimately drives the notion advocated by the resource-based theory that for "strategy to be sustainable it needs to be embedded in the firm's resources and capabilities" (Hooley 1998: 98).

2.4 Theory and Practice of Project Management

This section will bring to the fore the project management approach, project management methodology, project success, y perceived business success and ultimately the relationship between strategy implementation success and perceived business success before a conceptual framework for the study in proposed in Chapter 3.

2.4.1 Project, project management and project management approach

Project Management Institute (2017:4) defines a project as “a temporary endeavour undertaken to create a unique product, service or result”. Projects in organisations are aimed at attaining specific objectives through driving change thus moving organisations from one state to another resulting in business value creation. In order to meet project requirements, Project Management Institute (2017: 10) proposes the use of project management which is “the application of knowledge, skills, tools, and techniques to project activities”. Organisations have embraced project management in a bid to deliver business value consistently and to stay abreast in a dynamic business environment with ever increasing rate of change.

According to Špundak (2014) project management approach defines tailoring of a set of principles and guidelines aimed at defining the way in which a unique project is managed whilst the project management methodology according to Project Management Institute (2017:28) is a “system of practices, techniques, procedures, and rules used by those who work in a discipline”. Project management approaches aim at efficiency improvement and optimisation during project delivery through following the detailed project plan (Shenhar & Dvir, 2007; Shenhar & Holzmann, 2018). In addition, robustness (Špundak, 2014) is another key advantage. Although Špundak (2014) splits project management approaches into traditional and agile, this study does not focus on that, but rather considers the project management approach and its use as a vehicle in the strategy management process. In this study, the project management approach which is made reference to in the research question and objectives, is a tailored project management methodology which relates to the project manager as actors and their specific expertise as vehicles which takes into account project management tools and techniques. As such, the project management methodology forms the basis of the project management approach in this study and is disaggregated in the subsequent sections below.

Project management methodology

A method is defined in the Merriam-Webster (2016) dictionary as a “systematic procedure, technique, or mode of inquiry employed by or proper to a particular discipline”. In other words, it is applicable in a particular situation, whilst summation of methods and their related understanding is methodology. Methodologies, according

to Anderson and Merna (2003) can be categorised into baseline models, process models, knowledge models and practice models.

Charvat (2003) contends that, project management methodology is a set of principles that include guidelines which can be tailored depending on the situation. Turner (2008) defines a project management methodology as being a structured approach for project delivery whilst utilising a set of processes containing well-defined resources and activities. A knowledge-based view is provided by Špundak (2014) who perceives project management methodology as a knowledge set comprising tasks, techniques, deliverables and roles which are required in a specific project. The Project Management Institute (2017: 28) defines a project management methodology as a "system of practices, techniques, procedures, and rules used by those who work in a discipline" e.g. project management discipline.

Although project management methodology contains templates, forms and checklist, they are not merely this (Chin & Spowage, 2010). Project management methodologies according to Clarke (1999) are best practices in improving inter-organisational communication whilst reducing duplication of effort through having common resources, training and documentation. Chin and Spowage (2010) highlight that the methodologies function across different project types and provide means through which risk and opportunities aligned to projects are identified. In other words, this provides processes through which projects are managed in their entire lifecycles, through project design, development and delivery (Davies & Hobday, 2005; Wells, 2012). As such, the project team is able to establish the scope of work, and how their work fits to the whole project (Chin & Spowage, 2010). This indicates that project management methodology is any principle the team relies on to successfully deliver projects results thereby project success (Špundak, 2014). All these definitions are highlighting the fact that a project management methodology is systematic, structured and formal approach which hinges on the how-to-do dimension (prescriptive approach) of accomplishing a project successfully. This study uses the same approach, adopting a project management methodology point of view.

Although there is variability across project management methodologies, Kerzner (2013) asserts that adopting such with flexibility to support all projects helps to improve

project success, while a detailed view highlights that the methodology goals include reaching high quality project results, simplification, control and process improvements and improved team efficiency (Nelson et al. 1998).

Based on the foregoing, this study adopts the definition by Chin and Spowage (2010: 108) that project management methodology is "a comprehensive set of best practices, tools and techniques that are dynamic, flexible, adaptive and customisable to different projects within a specific environment". Whilst the blocks of methodology are not defined and agreed upon to an extent that is commonly accepted (Joslin & Müller, 2016), it is evident that the project methodology has elements covering (i) processes in project management to include initiating, planning, implementation, monitoring and control and closing (Chin & Spowage, 2010; Joslin & Müller, 2016) (ii) selection of tools and techniques for communicating delivery to satisfaction of stakeholders (Chin & Spowage, 2010) (iii) set of best practices which are consolidated and integrated (Chin & Spowage, 2010), (iv) capability profiles and knowledge areas (Joslin & Müller, 2016). In essence, scholars (Chin & Spowage, 2010; Milosevic & Patanakul, 2005) indicate that project management methodologies enhance project success. Chin and Spowage (2010) point out that this is achieved as project management methodologies are concerned with planning and coordination of projects from cradle to grave[1]. Fortune et al. (2011) go further and categorise the various project management methodologies, software, tools and decision-making techniques as follows: 1. Project management methodology, namely Project Management Institute Body of Knowledge (PMBOK) and Projects in Controlled Environments (PRINCE 2); 2. Project management software, namely Microsoft Project, Primavera and Excel; 3. Project management tools, namely Gantt charts, critical path method, strength, weaknesses, opportunities and threats (SWOT), program evaluation and review technique (PERT) and; 4. Decision making techniques: decision analysis, cost benefit analysis, decision trees and sensitivity analysis.

Project management methodologies and project success

Vaskimo (2011) highlights that, project management methodologies are meant to improve project effectiveness thereby increasing the chances of success. As such, the

[1] This refers to initiation through to closing

development of project management methodology assists in achievement of more predictable success rates. Garcia (2005) stressed that the deployment of project management methodology can impact the organisation positively, as among others, time to deploy new practices. On the other hand, Abbasi and Al-Mharmah (2000) highlight that lack of use of project management methodology leads to poor performance and lack of organisation on the project. Despite this assertion, what is profound is that project management methodologies bring structure and increase the probability of project success. In essence project management methodologies offer the use of standardised planning, time management and cost controlling techniques, standardised reporting, and flexibility for usage on all projects and quick development and use of standardised lifecycle phases whilst the basis is good governance business ethics. Can such not be adopted as a vehicle on the strategy management process in order to reap the said benefits, this still need to be answered in literature and will be attempted through this study? What then are the benefits of project management methodology is discussed next.

Benefits of project management methodology

The benefits of using project management methodology include among others, improved budget and resource control, improved planning, controlling and monitoring of the project (Wells, 2012), a consistent method of project reporting across all projects, standardised and unified language (Wells, 2012), improved inter-organisational communication (McHugh & Hogan, 2010), mobility of resources across different projects without relearning the management approach and minimisation of duplication of effort (Clarke, 1999) and improved project efficiency and effectiveness (Wells, 2012). Kerzner (2013) highlights that project management methodologies assist through effective change management by providing tools and techniques and enhancing the probability of successful project delivery. In addition, team efficiency is enhanced by project management methodologies since they offer consistency and flexibility (Kezner, 2013). Another view for the Office of Government Commerce (2009) is that a good project management methodology would guide the project manager through controlled, managed and visible set of activities to achieve project results. In essence, Wells (2012) summarises this by indicating that project management methodologies are employed in order that effectiveness and efficiency of projects be improved significantly.

Despite the benefits mentioned above, project management methodologies have some disadvantages which include the amount of documentation required which can be very time consuming and poses as a drawback, through tailoring and modification complexities, leadership and strategy required, rigid policies and procedures which require extensive tracking and sign-off (Shenhir & Dvir, 2007; Wells, 2012; White & Fortune, 2002). Nevertheless, it can be argued that irrespective of the aforesaid, advantages outweigh the disadvantages should ultimate customer satisfaction be taken into account.

As indicated earlier, the project management methodology elements proposed by Chin and Spowage (2010) and extended by the Project Management Institute (2017) regarding project management process, practices techniques, policies, tools, common terminology, and templates guiding how projects are run in organisations will be adopted in this study as the project management approach. This is done through the understanding of the building blocks of project management methodology. The definition of the building blocks by Joslin and Müller (2016: 365) will be adopted in the study which indicates that methodology elements "include processes, tools, techniques, methods, capability profiles and knowledge areas".

Classification of project management methodologies

It is evident in project management literature that there are standardised and customised project management methodologies (Crawford & Pollack, 2007; Curlee, 2008; Joslin & Müller, 2016; Shenhar et al. 2002), with division based on whether it is customised or standardised or essentially both thereby enhancing chances of project success. Standardisation per se implies minimal environmental context, whilst customisation brings out the environmental context whereas the combination entails some context and a higher propensity for success. In light of the aforesaid, it needs to be noted that should there be missing methodology elements, project efficiency (time, cost and quality) and project success probability will be compromised.

In relation to this study and based on the systems theory, it is of interest to find out whether project management methodologies can be adopted and whether strategy can be approached in the same limelight wherein the project management

methodology can enable its successful formulation and implementation. Such is the premise of this study.

2.4.1.1 Standardisation

Curlee (2008) highlights that based on the fact that project management methodologies and their process are known as organisational processes this implies that they have degrees of standardisation. Such standardised methodologies include, Project Management Body of Knowledge (PMBOK), Association of Project Managers Body of Knowledge (APMBOK) and Projects in Controlled Environments (PRINCE 2).

2.4.1.2 Customisation

Shenhar and Dvir (1996) establish that projects reveal considerable variation. Wysocki (2011) agrees and adds that one-size fits-all does not work in project management. Payne and Turner (1999) go further and posit that tailoring the methodology based on the type and size of project achieves improved results. In addition, Payne and Turner (1999) find that industry specific project management methodologies showed success given their alignment to context factors.[2] Against this background, Chin and Spowage (2010) point out that effective project management methodology requires tailoring to specific environment with levels of adaptability to the dynamic nature of projects and the respective stakeholder demands. Best practice and past experience need to constitute the core of the methodology should project goals be achieved (Chin & Spowage, 2010). The next section considers a mixed approach.

2.4.1.3 Mixed approach – customisation and standardisation

Milosevic and Patanakul (2005) suggest that only parts of the project management methodology needs to be standardised. Nonetheless, whether the project management methodology is standardised, customised or both, there will be impact on the project efficiency, should it be incomplete or limited. This is supported by Chin and Spowage (2010) who highlight that methodology use and adoption should be customisable to any project within a given environment and level of understanding for

[2] Examples of customised methodologies include (i) sector specific methodologies like Agile, Scrum and Rapid Application Development (RAD) in software development (ii) organisation specific for example the Microsoft Solution Framework (MSF) and IBM's Rational Unified Process (RUP) and Ericsson' PROPS.

adoption by the organisation. The following sections consider two standardised methodologies, namely PRINCE 2 and PMBOK.

2.4.1.4 Projects in controlled environment (PRINCE 2)

PRINCE 2 as a project management methodology covers the management, organisation and control of projects and was developed in the United Kingdom (Office of Government Commerce, 2009). It is a process based-approach which brings out a tailored[3] and scalable method for the management of all types of projects (Sarantis et al. 2010). Sarantis et al. (2010) highlight that the methodology offers a description of how a project is subdivided into manageable stages thus enabling the efficient control of resources and regular monitoring of progress throughout the project. A comprehensive description of the different roles and responsibilities is described which allows for adaptability depending on the complexity of the project. Office of Government Commerce (2009) indicates that the benefits of PRINCE 2 include efficient resource control, provision of common language for all participants in the projects, monitoring the project in an organised and controlled manner and the description of management roles and responsibilities. This study takes into consideration the attributes and benefits of the PRINCE2 project management methodology.

2.4.1.5 Project management body of knowledge (PMBOK)

PMBOK was first published by the Project Management Institute in 1987 as a white paper describing the sum of professional knowledge whilst documenting and standardising generally accepted project management information and practices (Sarantis et al. 2010). According to Project Management Institute (2017) and Schwalbe (2017) PMBOK contains several knowledge areas which include: 1. Project integration management – an all-encompassing function aimed at synchronizing work of all other knowledge areas; 2. Project scope management – entails working with all relevant stakeholders and obtaining the requisite written agreement which assist the management and completion of the project successfully; 3. Project schedule management – time to complete the work is estimated and developed into a schedule in line with cost effective resource utilisation whilst ensuring timely project completion;

[3] Tailoring takes into account the organisational context and project characteristics.

4. Project cost management - the prepetition and management of the project budget; 5. Project quality management – this demand for meeting and satisfying the specified or implied need to which the project is intended; 6. Project resources management – people and physical resources as required by the project have to be effectively utilised; 7. Project communication management – this involves the generation, collection, dissemination and storage of information for the project; 8. Project risk management – this call for the identification analysis and response to project related risks; 9. Project procurement management - this involves, outside the performing organisation, the acquisition and procurement of services to include goods for the project and; 10. Project stakeholder management – engagement of the identified stakeholders suitably throughout the project taking into account their needs and expectations.

Project Management Institute (2017) defines project management process as driving the effective flow of projects during its lifecycle and splits the project process into five distinct processes (Sarantis et al. 2010; Stoshikj et al. 2014: 27) namely: 1. Project initiating (selection and justification) comprising identification of project purpose and benefits, assignment of project manager assignment and preparation of documentation; 2. Project planning comprising “scope, work requirements, quality and quantity of work, activity schedule and resources are defined” and performance of risk analysis; 3. Project executing comprising performance and team management; 4. Project monitoring and controlling comprising progress check, gap analysis and corrective action and; 5. Project closure comprising checking “if all scheduled work is done, contractual, financial, and administrative closure”.

Sarantis et al. (2010) highlight that although the five PMBOK processes are sequential, it does not imply that a project has to go through each one of them in that order. Whitaker (2014) provides an alternative process which is illustrated in Figure 2.3 with the respective outputs. This study adopts the process demonstrated by Whitaker (2014).

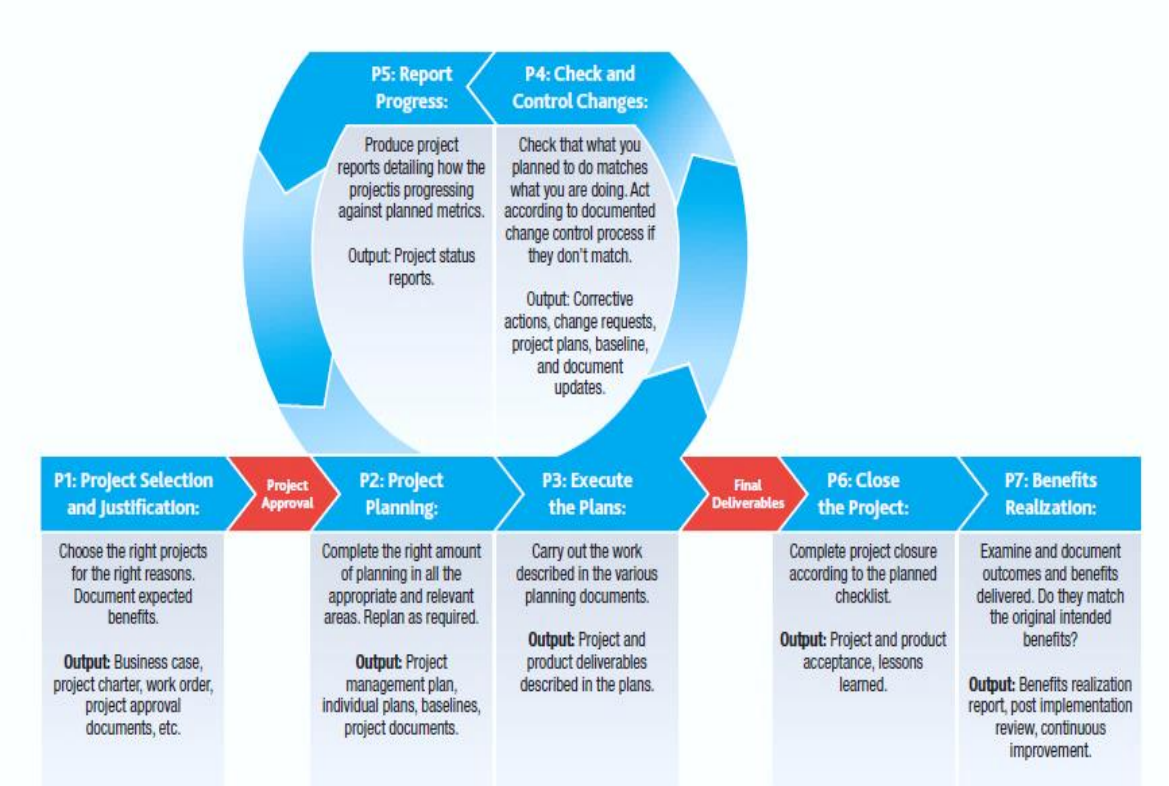


Figure 2.3: Project management processes (Adopted from Whitaker, 2014)

In summary, given the structured nature of the PMBOK and alternative Whitaker (2014) process and outcomes observed by authors, the application of either process is expected to lead to realisation of the following benefits namely, reduced risk of project failure, improved quality and communication, a better process, a standard approach, consistency managing complexity and a set of guidelines that can be tailored and applied to different situations (Project Management Institute, 2017; Wells, 2012; Whitaker, 2014). This study considers using the approach.

2.4.1.5 Project management approach for the study

McHugh and Hogan (2010) highlight that two internationally-recognised project management methodologies supported by accreditation are the PMBOK, developed by the Project Management Institute and PRINCE2 developed by the Office of Government Commerce in UK. These are external standards which have been adopted by many organisations with tailoring as project lifecycles and management structures are different (McHugh & Hogan, 2010). This research considers various service organisations in South Africa that have adopted either of these two project management methodologies. It was mentioned earlier that project management

methodologies are to a large extent a precursor to project success. The next section considers project success.

2.4.2 Project success

The narrow view of project success entails specification, time and budget also known as the short-term view or tactical (operational) view (Malach-Pines et al., 2009). Nguyen et al. (2004) expand this view and define project success as having better results than expected in terms of schedule, safety, quality, cost and participant satisfaction. Baccarini (1999) adopts a different approach in that project success is assessed both in terms of project management success (meeting the project sponsor's strategic organisational objectives and stakeholder satisfaction) and product success (satisfaction of user's need). To reduce subjectivity in project success, Joslin & Müller (2016) highlight that a common understanding is required as it was previously described that "project success is predominantly in the eyes of the beholder" (Müller & Jugdev, 2012: 768), wherein stakeholders may have conflicting views on a particular project.

It is noteworthy that project success is divided into two components (Jugdev et al. 2013; Turner, 2008; Wateridge 1998) namely (i) project success factors which are analogous to independent variables contributing to the likelihood of success and (ii) project success criteria which are measures for determining if a project was successful or failed, and which according to Müller and Jugdev (2012) are akin to dependent variables.

In their study Nguyen et al. (2004) highlight that the six criteria for project success are client satisfaction, schedule performance, budget performance, project manager/team satisfaction, functionality and contractor satisfaction whilst Andersen et al. (2006) add business achievements and knowledge gained from project work. Andersen et al. (2006) point out better project implementation as a driver of motivation and sustainable organisations. In addition, Müller and Jugdev (2012) highlight that the strategic value of project management can be gained if there is concise relationship between the effectiveness and efficiency of managing a project vis-à-vis how the project's products and services provide business value.

In a somewhat similar but alternative view, several scholars (Shenhar et al. 2001; Shenhar & Holzmann, 2018) proposed a definition of project success which includes: (i) efficiency, namely meeting schedule, time and budget goals or project management success (Alsuduri et al. 2013); (ii) impact on customers, namely customer benefits in relation to end product; (iii) business success, namely organisational benefits as a result of the project and (iv) preparing for the future, namely new market opportunities and the creation of operational and technological infrastructure. According to Rolstadås et al. (2014) the first dimension of efficiency is linked to the fulfilment of project objectives namely project management success which is measured against traditional measure of performance against cost, time, quality and scope, whilst the last three dimensions are linked to business objectives, namely project success which is measured against overall objectives of the project. Shenhar and Dvir (2007) added a fifth dimension which is team satisfaction. This is supported by Khan et al. (2013) who developed a model highlighting project success factors based on a review of literature in the previous 40 years and five dimensions of project success as proposed by Shenhar and Dvir (2007). Similarly, in their study, Serrador and Turner (2014) conclude that projects success is more than the achievement of project efficiency measures. Carvalho and Rabechini Junior (2015) add sustainability as a sixth dimension for project success which relates to the impact of project on environmental and social aspects in relation to triple bottom line. The forgoing bears testimony to the fact that project success is a networked and multi-faceted construct influenced by teamwork capabilities and quality whilst impacted through the collaboration of team personnel and organisational success (Müller & Jugdev 2012). This was also highlighted by Pinto and Slevin (1987) when they proposed that project success is a multidimensional and networked concept as opposed to a single measure.

In support of the second and third project success dimensions from Shenhar et al. (2001), Andersen et al. (2006) propose that if projects are to be used as means of implementing strategic goals, project success should be measured on long term impacts and benefits. Andersen et al. (2006) further propose a stakeholder orientation

by project managers through extensive communication both within the project and towards the project environment as an approach to achieve this endeavour.[4]

Based on the foregoing discussion, project management approach can be expected to assist in driving the strategy management process. This leads to the following hypothesis:

H_5: Project management approach as a vehicle has a significant and positive relationship with strategy management process.

The next section considers business success.

2.4.3 Perceived Business success

Meskendahl (2010) views business success as comprising economic success and preparing for the future, this has been adopted in this study as perceived business success. These are expanded upon.

2.4.3.1 Economic success

Attainment of business success is hinged on a continuous adaptation of organisations to the prevailing environments (Fuertes et al. 2020). Financial measures are mostly used for evaluation and assessment of business success according to Cameron (1986) and Kokfai et al. (2013). However, these have been shown in literature to be insufficient indicators for an organisation's long-term success (Manion & Cherion, 2009) thus there have been proposals for multidimensional success measurement tools such as The Balanced Scorecard (Kaplan & Norton, 1996) and Intellectual Capital (Edvinsson & Malone, 1997).

In the context of projects, Heising (2012) highlights that economic success focuses on how the organisation's performance is impacted by the project whereas Shenhar et al. (2001) point out that it is based on market performance and commercial performance. The market share and sales volumes attained which are measured against

[4] The aforesaid highlight the robust metrics for projects success although neither PRINCE 2 nor a Guide to project management body of knowledge PMBOK® – (6th ed.) (Project Management Institute, 2017) define the term project success factors, even though both methodologies make use of the term (Joslin & Müller, 2016).

competitors' performance are described by the market share (Kokfai et al. 2013; Shenhar et al. 2001).

In the business context, Fuertes et al. (2020) point out that competitiveness is a criterion upon which an organisation's performance internally and externally is evaluated for excellence. Fuertes et al. (2020: 15) further indicate that "the business success depends in great measure on the kind of strategy adopted by the organisation; the companies are required to define strategies that allow the access to the actual competitive world, and if these strategies are not accompanied of the management tools that guarantee their materialization, the efforts are useless".

Profit and return on investment which are part of financial management measures constitute commercial success (Manion and Cherion, 2009) and are generally compared to project objectives. It is noteworthy that there is no agreed project or project portfolio standard measures aligned to market and commercial measures (Shenhar et al. 2001). This study adopts economic success measures for projects, based on the share of revenue of new products in comparison to competitors and the share of overall revenue of new products with or without precursor products. According to Meskendahl (2010) this addresses the impact the project has on the organisation. This study adopts this view as perceived business success.

2.4.3.2 Preparing for the future

Shenhar et al. (2001) highlight that this dimension is aligned to the preparation of the organisation and its technological infrastructure for future business prospects. The opportunities and benefits realised after projects have been completed are examined under this dimension. The following perspectives are highlighted by several scholars (Shenhar et al. 2001; Shenhar & Holzmann, 2018) under this dimension, namely new market creation, improved or new process, technology development and competency building, and the agility to react to market or technology changes. The construct covers new competencies and technology, all developed within the project. In addition, Heising (2012) proposes that under this dimension an organisation can determine how it positions itself in the face of competitors. It is a dimension this study takes into consideration.

2.4.4 Strategy implementation success and perceived business success

Given the growing recognition of problems in strategy management being related strategy implementation rather than formulation (Flood et al. 2002; Friesl et al. 2021), the quality of the strategy content is also at play in the strategy management process in order to minimise opportunities lost (Obeidat et al. 2017; Slater et al. 2020). On one hand, Cocks (2010: 260) highlights that “experienced executives know that the most creative and well-crafted strategy is useless if it cannot be translated into action”. On the other hand, Čater and Pučko (2010), Hill et al. (2017), Hrebiniak (2006) and Tawse and Tabesh (2021) posit that a This implies that care is required during strategy formulation to establish and develop strategy content of the highest quality for organisations to realise potential gains and competitive advantage (Chen, 1996; Hill et al. 2017). Based on the foregoing, developing quality strategy content and its proper application is critical for strategy implementation success to be realised and let alone business success. If done properly, according to Tawse and Tabesh (2021), it is a potential source of competitive advantage. This is the position the thesis takes in that strategy implementation success hinges on quality strategy content and enhanced strategy management process.

From the deliberations in this section, it is to be expected that chances of perceived business success are improved through strategy implementation success, leading to the following hypothesis:

H_6: Enhanced strategy implementation success has a significant and positive relationship with perceived business success.

2.5 Current Views between Project Management and Strategy Management Process

Literature is abounding in wide ranging disciplines illustrating the relationship that projects are used to implement strategy (Artto & Dietrich, 2004; Artto et al. 2008; Meskendahl, 2010; Shenhar et al. 2001). The area pertaining to managing the strategy management process as a project with project management methodology as enablers is still missing in literature. What many scholars agree on is the rigour and robustness of project management approaches and its ensuing methodologies as a practice for management.

The structured nature of project management methodologies allows for planning, implementation, monitoring and control with metrics being measured along the project continuum is that, can such rigor be applied in a view of strategy management process as a project. Major research still needs to be conducted as such. This is aligned to the view by Killen et al. (2012) that project management is young field. Based on the aforesaid, this study seeks to establish is that can project management methodologies be applied during the strategy management process. This is aimed at advancing the success of strategy formulation and implementation which as alluded to earlier is realised minimally to fruition today in business.

Alsudiri et al. (2013) highlights that strategic objectives are translated into project objectives and ultimately a project-start-up process. This is in alignment with Shenhar et al. (2007) who indicate the existence of the gap between strategy and project plan, which they indicate as project strategy. This is thought as resulting in the project manager planning without linking to business strategy. Such a gap has been partially closed based on findings and recommendations from Alsudiri et al. (2013) who propagated for the involvement of project managers during strategy formulation through to implementation. However, what falls short is a robust approach encompassing strategy formulation through to implementation which could be achieved by considering such a process as advocated through project management approach as a vehicle. This is what this study seeks to propose and validate.

2.6 Chapter Summary and the Knowledge Gap

The chapter reviewed previous research and theories on strategy management process, project management approach and perceived business success. Following an extensive search of the literature, limited research was found on drivers of strategy implementation, in particular, the role of project management approach in aiding the strategy management process as an overarching methodology was dearth. The literature provides debate around the high failure rate of strategy implementation and the apparent gap in that strategy formulation and implementation is not undertaken as a continuous process but rather as two distinct stages where formulation hands over to implementation The literature lacks a robust approach to this strategy management process issue underpinned by systems theory to incorporate project management in a systemic approach, and more specifically using this systemic approach as a vehicle

for enhancing perceived business success. In so doing, project management approach becomes a resource, in line with RBV theory, leading to enhanced strategy processes and eventually to perceived business success. Systems theory is considered as the primary underlying theory of the thesis, complemented by the RBV theory as a secondary theory.

In the next chapter 3, a conceptual model to address the research gaps is developed.

CHAPTER 3 - CONCEPTUAL FRAMEWORK

3.1 Introduction

Given the gaps outlined in the literature, chapter 2, this chapter proposes a conceptual framework for the study. In addition to the literature previously reviewed, more detail is provided in the sections below whereby variables for strategy management process and project management approach are identified. Finally, the conceptual framework is presented and related hypotheses.

3.2 Conceptual Framework

Jabareen (2009: 51) defines a conceptual framework as “a plane of interlinked concepts that together provide a comprehensive understanding of a phenomena”. This is extended by Weideman and Kritzinger (2003) who indicate that untested theory which explains key variables, concepts and factors and the presumed relationship among them can have their elements visually presented as conceptual model or framework. Jonassen et al. (2005) regard this as formalised expression of theory which is a symbolic representation of phenomenon.

Given that conceptual models are a simplification of reality, it needs to be noted that a better match of them to reality means they either become less simple or in becoming simpler the model loses some of its match to reality (Rodgers, 2010). Based on the foregoing it implies that balancing between too simple or too complex conceptual framework is required, and such a principle was adopted in this study.

3.3 Strategy Management Process Variables

Guiding principles

Pettigrew (1992: 8) argues that “the purpose of process analysis does not only dwell on sequence of events or telling a story but goes beyond to identifying patterns across numerous carefully chosen cases and scenarios”. In essence there is a dynamism and munificence (Hutzschenreuter & Kleindienst, 2006) given shifting context in business and this builds a riddle of establishing patterns amongst diversity and unpredictability (Pettigrew, 1992; Vuorinen et al. 2017) also termed complexity and uncertainty (Frost, 2003; Jarzabkowski & Kaplan 2015; Stenfors et al. 2007). This has brought the perspective wherein a network of intertwined processes and holistic and systemic

approach (Tapinos et al. 2011) is the fundamental building blocks of the conceptual framework. These describe tenets encapsulated in systems theory which underpins the thesis, whereby using the lens of systems theory the thesis recognises strategy process as interlinked activities comprising formulation and implementation of plans within a system of diverse agents, resources and unpredictability, interacting systemically in an intertwined complex process towards a holistic and competitively superior goal that seeks to achieve perceived business success in the face of uncertainty of future changes in business environment.

Identification of strategy management process variables

The research broadly classifies the literature review around the strategy management process into six broad categories. Whilst the processes based on Gilbert and Behnam (2009) framework entail strategy analysis, strategy formulation, strategy implementation and strategy control, strategy analysis has been further subdivided based on the different variables as alluded to in section 2.2.3.2. This has been done with additional considerations from Nuntamanop et al. (2013) and Thompson et al. (2018).

Such categories with the inclusion of the last three entail: vision formulation (D1), information analysis (D2), objective setting (D3), strategy formulation (D4), strategy implementation (D5) and strategy control (D6) which are being discussed in detail below with their respective subcategories.

3.3.1 Vision formulation (D1)

This is envisaged as a statement of aspirations, hopes and wishes for the organisation (Dandira, 2011).

The sub-activities of D1 can be generalised as follows from literature study:

D1.1 Define the organisation’s corporate long-term direction (Thompson et al. 2018).

D1.2 Link the vision, mission and organisational values (Thompson et al. 2018).

D1.3 Establish the product-customer-market-technology mix that is optimal for the organisation (Thompson et al. 2018).

D1.4 Build commitment for the organisation's future course of action whilst providing a reference point in making strategic decisions (Thompson et al. 2018).

D1.5 Communicate and win the organisation's support for the vision (Obeidat et al. 2017; Thompson et al. 2018).
D1.6 Steer the organisation's personnel in a common direction (Thompson et al. 2018).

3.3.2 Information analysis (D2)

The sub-activities of D2 can be generalised as follows from literature study:

D2.7 Assess information about the forces at play in the internal and external business environments (Munive-Hernandez et al. 2004).

D2.8 Identify important information which helps understanding the business environment (Nuntamanop et al. 2013).

D2.9 Provide agility between analysing external environments whilst adapting internal processes, systems, products, competencies and services leads to success (Cocks, 2010).

D2.10 Integrate both internal and external business environment information.

D2.11 Manage and engage in complex information processing.

D2.12 Forecast potential trends whilst re-evaluating their impact, thus considering the probability of future events and concentrating resources on most probable (Sanderson & Luffman, 1998).

3.3.2 Objective setting (D3)

This is done in tandem with the organisational mission; such is then converted into specific objectives (Dandira, 2011).

The sub-activities of D3 can be generalised as follows from literature study:
D3.13 Convert the organisation's vision and mission into specific performance targets (Nuntamanop et al. 2013; Thompson et al. 2018).

D3.14 Articulate the performance target and what is intended to be achieved successfully (Munive-Hernandez et al. 2004).

D3.15 Focus efforts and aligning actions throughout the organisation (Thompson et al. 2018).

D3.16 Provide motivation and inspiration to the organisation geared at providing central purpose and direction (Arasa & K'Obonyo, 2012).

D3.17 Identify, recognise and develop business opportunities (Nuntamanop et al. 2013).

3.3.4 Strategy formulation (D4)

The strategic plan is expected to guide the organisation in moving forward whilst its different components will be implemented (Dandira, 2011).

The sub-activities of D4 can be generalised as follows from literature study:
D4.18 Cascade corporate objectives into business and function objectives (Munive-Hernandez et al. 2004).

D4.19 Develop the necessary priorities, procedures and operations to achieve the vision during implementation (Dandira, 2011) thus translating the vision into measurable strategic objectives (Nuntamanop et al. 2013).

D4.20 Build employee participation through mechanisms to allow for their contribution

D4.21 Encourage communities of interest around topics that support strategy (Getz & Lee, 2011).

D4.22 Generate, evaluate and select the most appropriate strategy (Arasa & K'Obonyo, 2012; Gallagher et al. 2015; Munive-Hernandez et al. 2004; Nuntamanop et al. 2013).

D4.23 Facilitate the efficient allocation of resources, sustainable competitive advantage, and improved innovation (Arasa & K'Obonyo, 2012).

D4.24 Formulate performance targets and measurement criteria (Nuntamanop et al. 2013).

3.3.5 Strategy implementation (D5)

The successful implementation of strategy is crucial to the success and sustainability of any organisation (Madhavan & Rathi, 2015). Implementation tends to be complex, requiring dynamic interplay of people with the needed skills and expertise (Thompson et al. 2018) whilst ensuring sustained commitment, resources and market forces (Allio, 2005). It turns vision, mission, strategy and the respective strategic objectives into the right actions (Speculand, 2014) thus ensuring that there is success as planned requiring dynamic interplay of people with the needed skills and expertise (Thompson et al. 2018).

The subdivision of D5 can be generalised as follows from the literature study:

D5.25 Ensure that there is a clear shared understanding (Rapert et al. 2002) of who does what, when and at what cost (Allio, 2005).

D5.26 Lead the development of action plans and taking actions (Nuntamanop et al. 2013).

D5.27 Create conducive organisational culture and work climate (Thompson et al. 2018).

D5.28 Instil a strategy supportive organisational structure (Thompson et al. 2018).

D5.29 Collaborate among strategy managers given that they will be competing for the same resources and accommodate trade-offs (Allio, 2005)

D5.30 Exercise strong leadership to propel strategy execution (Thompson et al. 2018)

D5.31 Exert internal leadership (Jooste & Fourie, 2009), focused leadership (Cocks, 2010), in order that implementation is driven forward whilst improving how strategy is executed (Thompson et al. 2018) and managing change (Alamsjah, 2011).

D5.32 Ensure both ownership and accountability from senior leadership given that it is critical for successful strategy implementation (Kuyvenhoven & Buss, 2011; Rose & Cray, 2013).

D5.33 Ensure that the language and format used during communication exerts discipline during implementation (Allio, 2005; Cocks, 2010)

D5.34 Ensure frequency communication as it enhances consensus and organisation performance (Schaap, 2006)

D5.35 Build visible management systems which are essential during communication (Cocks, 2010).

D5.36 Install both Information and operating systems thus enabling better strategic roles to be carried out (Thompson et al. 2018).

D5.37 Create processes, policies and procedures in alignment to the organisation in order to facilitate rather than impede strategy implementation (Thompson et al. 2018).

D5.38 Tie reward systems and incentives directly tied to achievement of performance objectives and good strategy implementation (Thompson et al. 2018),

D5.39 Provide additional rewards for impetus to go an extra mile to accomplish tasks (Madhavan & Rathi, 2015).

3.3.6 Strategy control (D6)

The sub-activities of D6 can be generalised as follows from literature study:

D6.40 Build specific metrics that managers will beseech to monitor success (Allio, 2005) through evaluating the organisation's progress and making corrective adjustments (Thompson et al. 2018).

D6.41 Ensure intricate feedback and control mechanisms to hone alignment between strategy and operations are provided (Cocks, 2010).

D6.42 Create an environment for success through constant review of the connection between strategy formulation and implementation whilst monitoring new developments (Munive-Hernandez et al. 2004; Thompson et al. 2018).

D6.43 Visit the organisation's direction; objectives anytime external or internal conditions warrants (Thompson et al. 2018).

The above strategy management process activities are linked to the four project management variables which are discussed below. It is worth noting that the fifth variable, namely project closure has been dropped and the reason is given later further below. Ultimately this is aimed at providing a robust and sustainable solution aimed at enhancing success for the strategy management process.

3.4 Identification of Project Management Approach Variables

Of the five project management process groups from Project Management Institute (2017) four will be used in this study namely, project initiation, project planning, project implementation and project monitoring and control.

Project Initiation: Newton (2015) indicates that the project initiation process is concerned with defining, clarifying and obtaining authorisation on a project, be it new or a new phase in existing project but not starting work on creating any products of the

project. During this process, there is definition of success criteria, outcomes and objectives whilst concurrently the assignment of project manager, funding and resources takes place (Newton, 2015; Project Management Institute, 2017; Stoshikj et al. 2014). Importantly to this study is that some outputs to the process include contact where applicable, the project statement of work, details of organisational culture, guidelines, policies and procedures (Newton, 2015; Project Management Institute, 2017). Based on the foregoing, this study seeks to establish if such a robust process can be a vehicle for the strategy management process of vision formulation. In addition, will the strategy management process not be improved from such a robust process?

Project planning: There is a common delusion that this process must finish before the project starts; in essence, it is a continuous active process throughout the project life cycle (Newton, 2015; Project Management Institute, 2017). The process is both iterative and proactive and takes into account changing circumstances during the life of the project. Newton (2015) defines a project plan as a planning document which covers all project phases given that it captures the entire project.

The project planning process group according to Newton (2015: 27) and Project Management Institute (2017) involves: defining project scope, design actions to achieve project objectives, defining products and work required, schedule creation, cost estimation and budget creation, and estimating resource and effort and resource requirements.

Key outputs from this process group include a project plan, budget, work breakdown structure, schedule and other subordinate plans (Project Management Institute, 2017). Can this not be juxtaposed against the strategy management process to offer robustness and sustainability with ultimate success is the premise of the study.

Project implementation: This includes processes required to complete the core work defined in the project plan required for accomplishing project deliverables through resource coordination and integration and performing the requisite activities (Project Management Institute, 2017).

The following activities are being performed during this process: establishing and managing the project team and other resources, monitoring team performance, collecting and analysing performance data and status reporting, change control and management, establishment and management of project communication channels and collecting and documenting lesson learnt, quality assurance and information distribution (Project Management Institute, 2017). Regular meetings and structured communication used in project management is essential for effective strategy implementation.

Outputs of such a process include: change request, negotiation and influence to ensure assignment of appropriate staff, risk management, deliverables and work performance information, strategic sourcing and contact management, resolution of conflict whilst solving problems and asset management (Newton, 2015; Project Management Institute, 2017). In the same breath as other project management processes can this not offer highlights and support for robustness and success in the strategy management process?

Project monitoring and control: this process is active from the beginning to the end of a project and entails monitoring project implementation in order that there is timely identification of potential problems so that corrective action is taken as necessary. It entails measuring the on-going project activities and project efficiency measures (cost, time, quality, scope, etc.) against project performance baseline and project plan (Larson & Gary 2017). The activities for monitoring and control include: status reporting, progress measurement and forecasting, tracking and regulating project progress, report and control on schedule, scope, cost, resources, quality and risk, controlling project and project document changes, supplier administration and implementation of risk treatment and action plans (Newton, 2015).

The outputs of this process entail: plan updates, change request, risk registers, progress and status reports and work or product deliverables (Project Management Institute, 2017). Can this aid the success and robustness of the strategy management process?

Whilst the fifth process is project closing it will not be adopted in the study for the following reason. Several authors highlight that the strategy process is continuous, flexible and cyclical (Johnson et al. 2011) whilst Kaplan and Norton (2008) highlight the cyclical nature with following stages 1. strategy development, 2. strategy translation, 3. strategy execution, 4. monitoring and learning and 5. testing and adaptation which leads back to stage 1. The cyclical nature of strategy as also adopted by Vuorinen et al. (2017) has been the basis for not including project closing process in this study.

Project closing: the process entails formal project deliverable completion with transfer to final beneficiaries who are either internally or external customers.

Activities in this process include: releasing the people and resources, acceptance obtained from customer or sponsor (closure approval) Larson and Gary (2017), retrospectives of lessons learnt and team performance reporting, finalising and document updates, project records and results and procurement finalisation, information storage and archiving and performance of quality assurance activities (Larson & Gary, 2017; Newton, 2015). Closure can be done at different levels according to Larson and Gary (2017) which include normal (completed project), premature (completed early with parts of project eliminated), perpetual (bring closure to poorly conceived project scope), failed project and change priority (due to change or strategic shift directions).

Key outputs based on Project Management Institute (2017) include close-out report and or certificate of completion, plan updates, final work products or services (deliverables).

3.5 Strategy Implementation Success and Perceived Business Success

The literature for strategy implementation success as a basis for perceived business success is covered in section 2.2.4.2 whilst perceived business success itself is articulated in section 2.3.3 and constitute part of the conceptual model for the study.

3.6 Strategy Implementation Drivers

The strategy implementation drivers which entail leadership, communication and change process and use of project management tools have been reviewed in section 2.2.2 and constitute part of the conceptual model for the study.

It is against the background of literature review that a conceptual framework below was developed and was tested and results presented in the proceeding chapters.

3.7 Proposed Conceptual Framework

With the background of literature reviewed on strategy implementation drivers, strategy management process, project management approach, strategy implementation success and perceived business success, and the additional detail provided in sections 3.3 and 3.4 that elaborates further and introduces six strategy management processes and four-project management approach variables, abductive reasoning (logic of discovery rather than logic of reasoning based on Hanson, 1958) is used (Vuorinen et al. 2017) to propose a conceptual framework for the study, which underpinned by systems theory that considers all the activities, stages and interrelations, as systemically linked, holistically working towards achieving perceived business success. The linkages are of particular interest and are hypothesised as follows.

The conceptual framework presents the hypothesised link between strategy management drivers, strategy management process, project management approach, strategy implementation success and perceived business success. The model is in tandem with Vuorinen et al. (2017) who indicate that the strategy management process phases are intertwined and that it is far more abductive in practice as opposed to being in neat chronological order. The model consists of the five dimensions outlined in Figure 3.1 namely, strategy implementation drivers, strategy management process, project management approach, strategy implementation success and perceived business success and the corresponding variables.

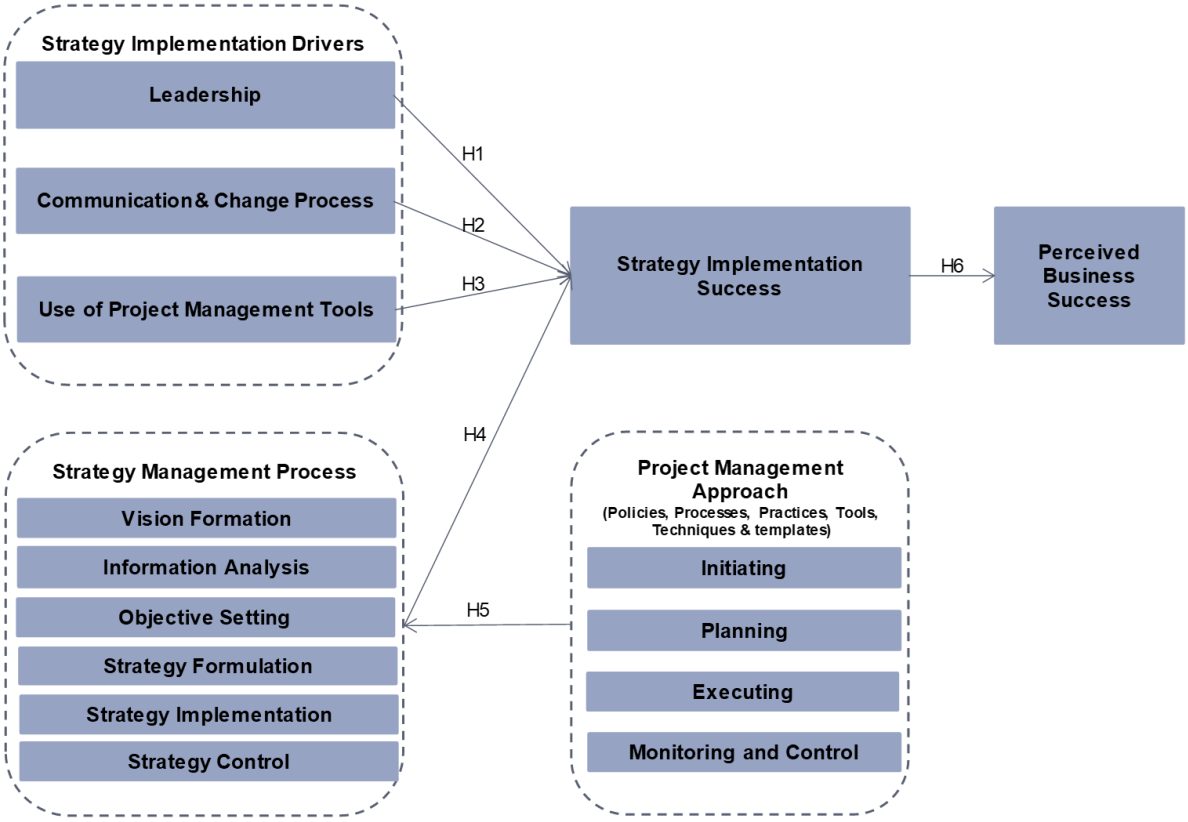


Figure 3.1: The conceptual framework for the study (Source: Author)

There are at least three suggestions proposed in this thesis that are interlinked, described by the framework in Figure 3.1

- The framework proposes a significant relationship between strategy management drivers, strategy management process, project management approach, strategy implementation success and perceived business success.
- The framework proposes that the project management approach can be used as a vehicle in the strategy management process.
- The framework proposes a way of making the strategy management process robust and successful with potential for ultimate perceived business success.

Overall, the framework proposes that if the linkages between the strategy management process and project management approach are well established, a basis is provided for a robust, systemic and sustainable strategy formulation and implementation process which ultimately leads to strategy success and perceived business success.

3.8 Basis for Confidence in Conceptual Framework and Research Hypothesis

Zikmund et al. (2013: 42) define hypothesis as a "formal statement of an unproven proposition that can be tested empirically" thus, it can be judged as being true or false (Schindler, 2019). Zikmund et al. (2013) and Saunders et al. (2019) assert that it is a testable proposition, wherein the latter is statements linking concepts logically through asserting a relationship between such concepts or variables. Schindler (2019) further highlights that the hypothesis assists with mapping the study direction, and provides a basis upon which the appropriate research design is chosen. Based on these definitions, and the conceptual framework in Figure 3.1, the hypotheses are outlined below.

H_1: Leadership has a significant and positive relationship with strategy implementation success.
H_2: Communication and change process has a significant and positive relationship with strategy implementation success.

H_3: The use of project management techniques has a significant and positive relationship with strategy implementation success.

H_4: Enhanced strategy management process has a significant and positive relationship with strategy implementation success.

H_5: Project management approach as a vehicle has a significant and positive relationship with strategy management process. .

H_6: Enhanced strategy implementation success has a significant and positive relationship with perceived business success.

3.9 Chapter Summary

This chapter introduced relevant detail from literature and examined the six-strategy management process variables (vision formulation, information analysis, objective setting, strategy formulation, strategy implementation and strategy evaluation) and four project management approach variables (project initiation, project planning, project execution and project monitoring and control) for use in the study. These

together with other constructs from Chapter 2 pertaining to drivers of strategy implementation (leadership, communication and change process, and use of project management tools), strategy implementation success and perceived business success, were considered holistically as a system, and underpinned by systems theory, resulting in a rationalised conceptual framework for the study. The hypotheses were also established in this Chapter. The conceptual framework is instrumental in developing the research design for the study and is a basis for also developing the instruments applied, this is presented in the next chapter. Chapter 4 which is next, addresses the research method followed to evaluate the proposed conceptual framework.

CHAPTER 4 - RESEARCH METHODOLOGY

4.1 Introduction

Several scholars underscore that matching the nature of research to the corresponding methods used to answer research questions is required for the research questions to be addressed effectively (Crossan, 2003; Schindler, 2019; Yin, 2008). This chapter details the research methodology applied. Specifically, it outlines the research strategy, research design, research procedure and instruments. The research procedure and instruments provide detail around the data collection instruments, process followed, analysis and storage of data, target population, sampling and ethical considerations in the study. The rationale for all choices made is elaborated.

4.2 Research Philosophy

According to Saunders et al. (2019: 130) research philosophy is “a system of beliefs and assumptions about the development of knowledge”. These include assumptions about human knowledge (epistemological assumptions), about the realities one encounters in “their research (ontological assumptions) and the extent and ways one’s own values influence the research process (axiological assumptions)” (Saunders et al. 2019: 129). These assumptions shape how one understands their research questions, the methods used and interpretation of findings. Schiffman and Kanuk (2004) also use the term paradigm to refer to research philosophy despite the fact that this may mean different things to different researchers.

The different philosophies are critical in that they delineate fundamentally the different ways of undertaking research and seeing the world (Bryman & Bell, 2015; Saunders et al. 2019), as such, these are the cornerstone for researchers in terms of choice of strategy, methodological considerations and data collection. Given that no one philosophy is superior over others but the nature of questions to be answered dictates the researcher’s choice (Bryman & Bell, 2015; Saunders et al. 2019). The issue of suitability of the research philosophy to a particular research question is critical as Saunders et al. (2019) and Tsoukas and Knudsen (2003) indicate that it is rare to have one best philosophy where a particular research question fits properly.

Saunders et al. (2019) establish that five major research philosophies are used by researchers namely, positivism, critical realism, interpretivism, postmodernism and pragmatism that are based on four dimensions namely, ontology, epistemology, axiology and typical methods. Ontology relates to assumptions about the nature of reality which shapes how researchers view their study and research objects comprising of two aspects of subjectivism and objectivism (Saunders et al. 2019). Objectivism highlights that social entities are external thus exist independently of social actors whilst subjectivism dictates that social reality is "made from the perceptions and consequences of actions of actors (people)" Saunders et al. (2019: 137). Epistemology as a branch of philosophy considers what knowledge is acceptable to a discipline whilst axiology as a branch of philosophy considers the role played by a researcher's values and ethics in the melee of research choices (Saunders et al. 2019; Creswell & Plano-Clark, 2018).

In making a choice for the epistemology to use in this thesis, consideration was taken of the research question, objectives and hypothesis. The considerations are loosely represented in the conceptual framework (see Figure 3.1). It is apparent that the outcomes sought are of a practical nature, whereby an enhanced tool for strategy management process is sought that is robust and adaptable to organisation requirements, considers the effect of the tool on implementation of the plans and how this affects perceived business success. This calls for sourcing of appropriate information from experiences of practitioner while also incorporating metrics from business performance. As such there is need for both subjective (experiences) information and objective data (organisation records). Among the research philosophies, the pragmatism meets these needs of the study as it addresses practical outcomes from ideas, need for successful action, consideration of practices and relevance, and need to use more than one data source. The attributes of pragmatism are summarised in Table 4.1.

Table 4.1: Research philosophies

Research Philosophy	Ontology (nature of reality or being)	Epistemology (what constitutes acceptable knowledge	Axiology (role of values)	Typical methods
PRAGMATISM	• Reality is complex, rich and external. 'Reality' is the practical consequences of ideas. Flux of processes, experiences and practices.	• There is practical meaning of knowledge in specific contexts and that 'true' theories and knowledge are those that enable successful action. A deep focus on problems, practices and relevance. Recognition of problem solving and informed future practice as contribution.	• Value-driven research and the research is initiated and sustained by researcher's doubts and beliefs. The researcher is reflexive.	• The method used typically follow the research problem and research question. A range of methods are used namely: mixed, multiple, qualitative, quantitative, action research. The emphasis is on practical solutions and outcomes.

Source: Adapted from Bryman and Bell (2015: 26) and Saunders et al. (2019: 137/145)"

Pragmatism was therefore adopted in this study among the five research philosophies listed by Saunders et al (2019) as it met the needs of the study. Saunders et al. (2019) and Bryman and Bell (2015) posit that pragmatism is practical and provides a balanced view in comparison to other research philosophies. Creswell and Plano-Clark (2018: 69) further highlight that "pragmatism, is typically associated with mixed methods research as an overarching philosophy and that the focus is on the consequences of research, on the primary importance of the question asked rather than the methods, and on the use of multiple methods of data collection to inform the problems under study".

Adopting a pragmatic view for this study was motivated by the fact that it enables the researcher to make use of deductive approach “theory verification”, inductive approach “theory generated out of research” and abductive “theory generation or modification; incorporating existing theory where appropriate, to build new theory or modify existing” (Bryman & Bell, 2015: 14-15; Saunders at al. 2019: 155). As such, pragmatism as a “problem-formulating and problem-solving approach” (Drnevich et al. 2020: 3) allowed the study to use mixed methods by collecting data using both quantitative and qualitative means. This provided flexibility to study the phenomena in different ways to better understanding it (Saunders et al. 2019) and also allowed for integrating different perspectives aimed at improving data interpretation resulting in “innovative, dynamic research that is flexible, adaptable and relevant” (Bryman & Bell, 2015: 15).

4.3 Research Strategy and Design

4.3.1 Research strategy

Creswell and Creswell (2018) indicates that the main research strategy approaches are qualitative, quantitative and mixed method strategies. Creswell and Creswell (2018) highlights that the nature of research and the general orientation of the researcher “worldview” are precincts for the choice of the approach / strategy. These approaches are described as follows.

4.3.1.1 Qualitative research

According to Schindler (2019: 145), “qualitative research includes an array of interpretive techniques which seek to describe, decode, translate, and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world”. It is a more subjective form of research wherein unstructured measurement techniques that allow a possible range of responses are used. In the same breadth Johnson and Onwuegbuzie (2004:14) highlight that qualitative research “contend that multiple-constructed realities abound, that time-and context-free generalisations are neither desirable nor possible, that research is value bound, that it is impossible to differentiate fully causes and effects, that logic flows from specific to general and that knower and known cannot be separated because the subjective knower is the only source of reality”. Some of the advantages include the fact that it is used to explore new research areas (Creswell &

Creswell, 2018) and provides for in-depth examination of phenomena (Creswell & Creswell, 2018); Saunders et al. 2019).

4.3.1.2 Quantitative research

Zikmund et al. (2013) define quantitative research as an approach that addresses objectives through empirical assessment that involves numerical measurement and analysis. In other words, it involves quantification in the collection and analysis of data (Bryman & Bell, 2015). In addition, Johnson and Onwuegbuzie (2004:14) highlight that quantitative research calls for researchers to "eliminate their biases, remain emotionally detached and uninvolved with the objects of the study and test or empirically justify their stated objectives". Its advantages among others include, statistically reliable results, definitive and standardised precision, and it allows for statistical comparison between groups.

4.3.1.3 Mixed method

Mixed methods research according to Johnson et al. (2007: 123) is "the type of research where the researcher or team of researchers combines qualitative and quantitative research strategy (e.g. use of quantitative and qualitative viewpoints techniques, data collection, analysis and inference techniques) into a single study for the purpose of breadth and depth of understanding and corroboration".

Another definition by Tashakkori and Teddlie (2010) is that mixed methods is "a type of research strategy in which QUAL [qualitative] and QUAN [quantitative] strategies are used in types of questions, research methods, data collection and analysis procedures and or inferences". In essence mixed methods utilises both qualitative and quantitative data. Tashakkori and Teddlie (2010: 803-804) further state that "in the process of developing a distinct identity, as compared with other major research communities of researchers in the social and human sciences, mixed method (research) has been adopted as the de facto third alternative or third methodological movement".

Creswell and Plano-Clark (2018) highlight the mixed method approach as being useful if either of the two approaches alone, namely quantitative or qualitative, cannot provide adequate answerers to a research question whilst the strength of both can provide

better understanding. Based on the foregoing, a quantitative approach makes the study more objective through hypothesis testing whilst a qualitative approach is used to investigate phenomena in depth. These methods are complementary given the limitation of each approach. As such, in this study, a mixed method approach wherein quantitative and qualitative approaches integrate in support of each other was used" (Creswell & Creswell, 2018). In this way, the weakness of one method is counterbalanced by the other (Molina-Azorı´n, 2011; Tashakkori & Teddlie, 2010) with qualitative findings assisting in explaining the quantitative results thus enhancing the reliability and validity of the study (Jogulu & Pansiri 2011).

According to Creswell and Plano-Clark (2018) there are three core mixed methods designs namely convergent, exploratory sequential and explanatory sequential. Convergent design is when the researcher implements equally, both quantitative and qualitative strands with convergence of the results from the separate strands at the end. During "exploratory sequential design the researcher applies the two strands in sequence with qualitative methods occurring first to explore phenomenon and greater emphasis in addressing the purpose of the study" and then a follow-up quantitative method aim at assessing the extent of generalisability of the initial qualitative results to the population (Creswell & Plano-Clark, 2018: 94; Saunders et al. 2019). Creswell and Plano-Clark (2018) highlight that the explanatory sequential design also has the two strands implemented in sequence, the quantitative methods occur first whose greater emphasis is on addressing the purpose of the research, whilst the qualitative methods follow to explain the quantitative results. For this study the explanatory sequential method was adopted.

4.3.1.4 Rationale for adopting explanatory sequential mixed method

Considering the research question of this study, an approach and design was required that both (i) describe general relationships between variables and (ii) detailed experiences of people. The mixed method research approach with an explanatory design was found suitable as it incorporates multiple methods (different instruments with one method) and mixed method (triangulation), complete and corroborated results (Creswell & Plano-Clark, 2018) and thus, was adopted for this research.

Creswell and Plano-Clark, (2018) indicate that an explanatory sequential mixed method approach and design (Figure 4.1) allows for the researcher to first conduct quantitative (QUAN) research analyses and then build on the results to explain in more detail with qualitative (qual) research which aids the explanation of the reasons behind and connotation of the quantitative survey results thereby elucidating according to Eckert (2013: 79) “nuance, context and understanding”. In other words, interpretation of the entire analysis is done lastly.

Figure 4.1 explains the approach taken in the study wherein there was quantitative data collection and analysis through which a connection and explanation was done through quantitative data collection and analysis. Thereafter was the interpretation of the entire analysis.

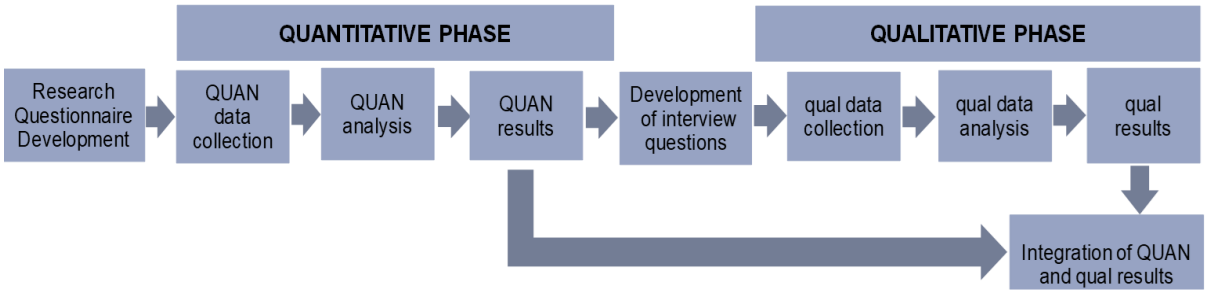


Figure 4.1: Explanatory sequential mixed method used for the study (Adapted from Hayes et al. 2015)

Mixed methods research in management according to Cameron et al. 2015 provides insight into the research problem investigation and phenomena which are complex. Cameron and Sankaran (2013: 398) agree noting that it provides for “more in-depth investigation and broader perspective of phenomenon being researched”. Both in-depth information and breadth are required for this study given its nature which seeks to establish real world experience with regard to strategy management process and project management approach. An explanatory sequential mixed method approach provides not only the required depth and breadth but also a pragmatic view allowing consideration of both empirical and practical consequences. The approach suggests proceeding by defining questions in advance of data collection and identifying specific quantitative results that call for explanation (Creswell & Plano-Clark, 2018).

Creswell and Plano-Clark (2018) and Harrison III (2013) indicate that explanatory design in mixed methods strategy is used under the following conditions (i) testing theory or hypothesis (ii) when new questions are developed based on quantitative data that cannot be answered as such (iii) when researchers can return to interview participants for second round on qualitative data collection and (iv) the researcher has time to conduct research in two phases. In this explanatory study design, data were collected sequentially with qualitative data gathering preceded by quantitative data gathering (Jogulu & Pansiri, 2011) thereby allowing elucidation of strategy management process vis-à-vis project management approach as a vehicle. The qualitative aspect which is a follow-up explanation model (Harrison III, 2013), assisted in explaining and verifying the interpretation from the statistical analysis carried out (Jogulu & Pansiri, 2011).

4.3.2 Research design

According to Zikmund et al. (2013), research design is a master plan that lays down procedures and methods for data collection, analysis and interpretation. This is supported by Creswell and Creswell (2018) who highlights that research design provides a plan of action for the research rendering it critical to the success of the research. In addition, Rowley (2002: 18) states that “research design provides the link between the data to be collected and conclusions drawn based on the preliminary questions of the study thus ensuring consistency”. Based on the foregoing, it can be noted that care needs to be taken during research design selection to allow the researcher to derive a conclusion that is valid and reliable for the research question.

Bryman and Bell (2015: 40) indicate that there are five prominent research designs namely: “experimental and related designs (such a quasi-experiment); cross sectional design (most common is survey research); longitudinal design and its various forms such as panel study and cohort study; case study design and comparative design”.

The study made use of the cross-sectional survey design given that it allows one to use a large sample and the use of two or more cases which provides for variability in respect of organisations or individuals under study (Bryman & Bell, 2015). Saunders et al. (2019) highlight that it is a study of a phenomenon and a particular point in time which gives the research a picture of a story taking place at a particular time. Similarly,

the study asked survey respondents to provide answers to questions at a point in time. The cost effectiveness of cross-sectional research and time boundedness was advantageous to the study for completion within the prescribed time given that the study employed two phases of data collection in the mixed method approach. The ensuing sections look into the quantitative approach and its precincts which are then followed by a similar consideration of the qualitative approach.

4.4 Phase 1 - Quantitative Approach

This section considers the quantitative approach for the study.

4.4.1 Quantitative sampling design

The quantitative sampling design is detailed in this section.

4.4.1.1 Target population and sampling frame

The population for the study was the service sector of the 200 top performing organisations in South Africa as published in the Financial Mail survey of 2015. The ranking for the Top 200 is “over a five-year period to ensure consistency in their performance” (Financial Mail, 2015: 2). These organisations are publicly listed on the Johannesburg Stock Exchange (JSE) and conform to the generally accepted accounting principles (GAAP) and are financially successful. Financial success on the basis that the criteria used by the Financial Mail in selecting the Top 200 includes turnover, total assets, market capitalisation, equity funds, net profit, pre-tax profit, earnings per share, dividends per share and debt, return on assets and return on equity (Financial Mail, 2015).

Other sampling frames were considered but were rejected for this research as they fell short in one way or another of the criteria used. The criteria were that the organisations need to be within the South African financial sector and are locally controlled, publicly listed and financially successful. For example, The Decision Maker Database was considered but due to its prohibitive costs and given that it is used for commercial purposes, the database was rejected for the reason that it might not provide a representative picture of the study population. Similarly, the normal published lists of JSE companies were considered but were rejected with the argument

that some of the public listed companies may be more risk averse than others even though they comply with JSE rules and regulations.

All organisations considered are reputable organisations. Notably, the organisations considered by Financial Mail may be regarded as financially successful and competitive (doing their best in the competition) given that the Financial Mail criteria for selecting Top 200 includes turnover, total assets, market capitalisation, equity funds and net profit. The companies were represented by the practitioners within strategy management and project management for the respective service organisations. Additional criteria for selecting companies from the sampling frame included, service organisations that have a locally based strategy and whose operations (to a large extent) are locally implemented. The broad categories of organisations fitting this profile included publicly listed South African financial services and insurance services which are locally controlled (Janse van Rensburg & Gumata, 2011).

Two large publicly listed South African service sector organisations from financial services and insurance services were part of the study. These organisations are core and unique to the study in that they are locally controlled service sector organisations who have adopted the project management methodology in either Project Management Body of Knowledge (PMBOK) or Projects in Controlled Environments (PRINCE2) or both. It was critical to have such organisations as project management approach was core to the study in a quest to establish how it could be used as a vehicle for the strategy management process.

Studying two organisations is aligned to the cross-sectional survey design principles put forward by Bryman and Bell (2015) in that, two or more cases effectively provide variation for the researcher in respect of individuals or organisations. The unit of analysis was the strategy management and project management professionals and practitioners in the respective organisations.

4.4.1.2 Sampling method and sample size

Schindler (2019) highlight that, a sample has to be of appropriate size in order to accurately represent the target population. This is supported by Laxton (2004) who

indicates that larger sample sizes improve accuracy and precision. In other words, as the sample size increases, representation of the target population is enhanced. Doing so reduces the random sampling error which is a function of sample size (Zikmund et al. 2013). The survey respondents were strategists and project professionals and practitioners which included all management levels, team members of these categories and consultants thus going beyond managerial elites as advocated by Paroutis and Heracleous (2013).

Given that the information pertaining to the different strata per organisation is not readily available, the Human Resources Executives for each service sector organisation included in the study were contacted to gather such information.
The sample size was calculated as follows

$$n_0 = \frac{Z^2 p(1-p)}{e^2}$$

Where:
n_0 = minimum sample size required
p = sample proportion or proportion of the population having characteristic
Z = z score separating an area of α/2 in the right tail of the standard normal distribution
e^2 = desired margin of error

Since p is unknown, Rose et al. (2015) recommends it to be 0.5, whilst Z at 95% confidence level is 1.96 and the desired margin of error is 0.05 to give a required sample of 384. The population sample for strategy management and project management was less than 384, thus an adjustment was required.

$$n_a = \frac{n_0}{1 + \frac{n_0}{N}}$$

Where:
n_a = adjusted minimum sample size required
n_0 = minimum sample size required (as calculated above)
N = total population

The adjusted population sample became 198 of which at 35.7 percent average response rate (Baruch & Holtom, 2008), 555 questionnaires needed to be distributed.

However, due to limited target population sample only 300 questionnaires were distributed. As highlighted above, if the population is large a sample size of 384 is ideal at 5% margin of error. In this study, 238 questionnaires were returned giving a response rate of 62% against the target of 384. In a similar study, Schaap (2006) had 120 questionnaires returned in his study on Nevada casinos, a service industry in the United States of America. According to Salkind (2018) if the population is heterogeneous and contains several different groups some of which are related to the topics for example strategists and project managers, such sampling is stratified random sampling which was adopted in the study.

4.4.2 Quantitative data collection instrument

The data collection procedure was guided by the research question of which access, time and financial resources were constraints as alluded to earlier. Schindler (2019) points out that the most appropriate methods of data collection is the questionnaire. As such, quantitative data were collected using a questionnaire based on mostly a Likert scale 1 - 5 which is recommended by Krosnick and Fabrigar, (1997) and Schindler (2019) for its validity and reliability. A closed-ended questionnaire was chosen as a premise for the study as it provides for "cheaper and quicker to administer, absence of interviewer effects, no interviewer variability and convenience for respondents" (Bryman & Bell, 2015: 233). Studies with a similar approach include, for example, Schaap (2006) on his study on Nevada casinos and Jooste and Fourie (2009) in their quest to establish whether strategy leadership can be effective to strategy implementation in South Africa.

4.4.2.1 Questionnaire design

The process below was followed during questionnaire design.

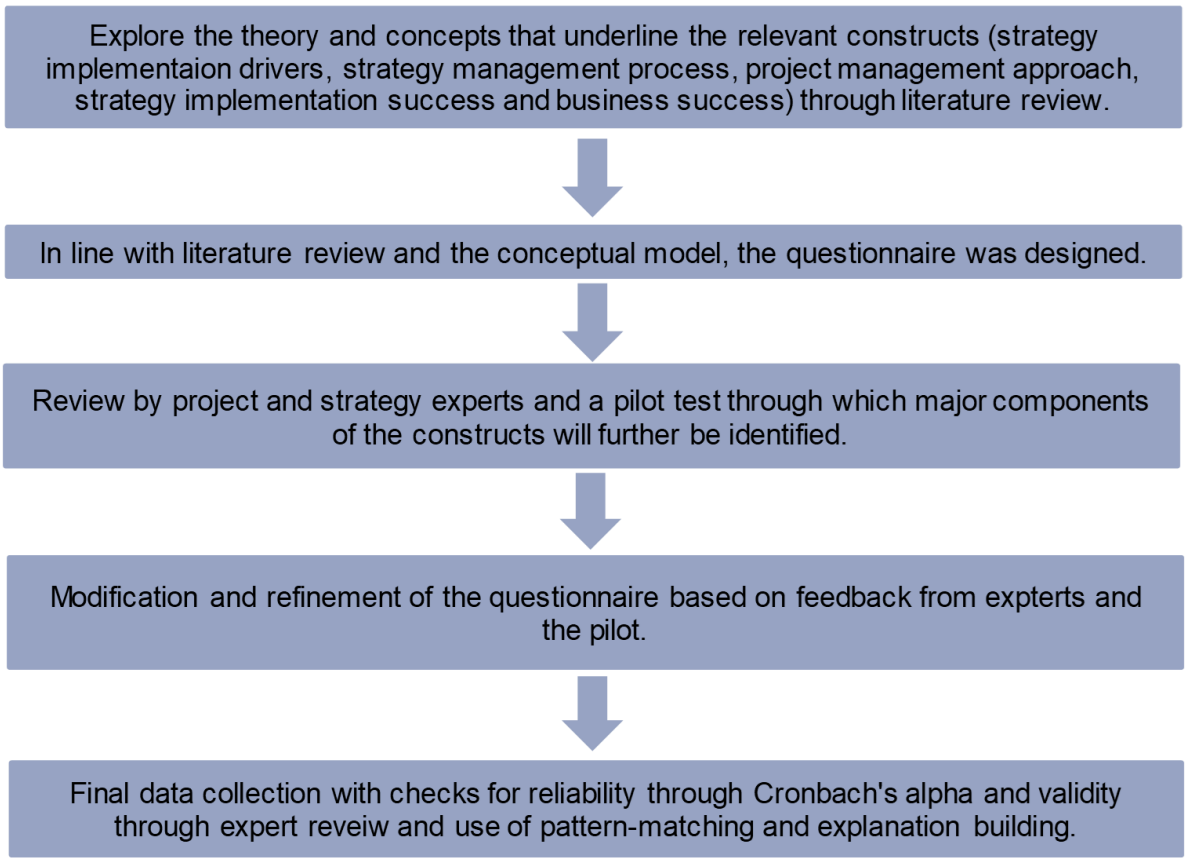


Figure 4.2: Development and validation of questionnaire (Source: Adapted from Tull and Hawkins, 1990)

A questionnaire in Appendix A was developed with six subheadings:

A. Section A with questions 1 to 8 is on demographics pertaining to background of survey respondents and their work experience in strategy management and project management.
B. Section B of the questionnaire is used to establish strategy implementation drivers in alignment with research question 1. The first part, question 9 pertains to the leadership variable as a driver with question 10 pertaining to communication and change process. Use of project management tools is assessed in questions 11. As highlighted in Chapter 2, the topics used on the questionnaire are based on Cocks (2010) drivers of strategy implementation.
C. Section C of the questionnaire is used to establish issues that enhance strategy implementation success with question 12.

D. Section D of the questionnaire is used to establish the extent to which the strategy management process can be managed with project management approach as a vehicle and subdivided into two parts as follows:
    - Question 13 was aimed at establishing the level of extent on each statement pre-training to one's organisation.
    - Question 14 was aimed at establishing the project management approach from which the statement belonged.
E. Section E of the questionnaire is used to establish the extent to which the identified issues enhance perceived business success with question 15.
F. Section F with questions 16 and 17 is a declaration by the survey respondent that the responses accurately reflect the views and that none in the organisation interfered during their completion of the questionnaire.

As indicated earlier, the quantitative part of the study involved hypothesis testing to understand the relationship of variables being investigated, similar to studies by Schaap (2006) in his study on strategy implementation success in Nevada Gaming Industry and Gilbert and Behnam (2009) in their study on strategy management process in multinationals.

4.4.2.2 Scale

DeVellis (2012: 11) defines scale as "a collection of items combined into a composite score and intended to reveal levels of theoretical variables not readily observable by direct means". Of the four types of scale, namely nominal, ordinal, interval and ratio (Schindler, 2019) the research used the ordinal scale in the form of a five-point Likert scale. The respondents were expected to indicate the level of extent with statement(s) concerning a particular object (Hair et al. 2018). The scale comprises of a number of items related to a particular construct being measured.

In most sections, the five-point Likert scale with a requirement of one answer was used and preferred based on its proven reliability (Schindler, 2019) and also given that it provides more data than many other scales. There were six sections (see section 4.4.2.1.), one section namely, section D had a combination between matrix of dropdowns and a five-point Likert scale. For that section, each question required two

answers thus a multiple-item rating grid, one based on the five-point Likert scale and the other being a rating of the project management approach either correctly specified or not correctly specified. The items were rated on a five-point Likert scale (1: not to any extent at all … 5: to a very large extent), this same rating was used for sections B, D and E. During analysis items within a construct were ranked based on the mean score (Boone & Boone, 2012).

4.4.2.3 Measurement

This section considers the development of items for the measurement scales used in the survey instrument in appendix A. In order to achieve the goals of the study, items of existing measurement instruments were adapted, expanded or reduced taking into account the prerequisites of validity and reliability into account.

Measurement of strategy implementation drivers

Using Cocks (2010) and Yang et al. (2010) models the three interrelated constructs that emerged were leadership (15 items); communication and change process (8 items) and use of project management tools (12 items). All scales measuring these three constructs have published indicators or reliability drawn from previous studies. The scale items developed for all three constructs are supported by a significant amount of literature as highlighted below.

Leadership

Additional literature is as follows: Adabor (2019); Alamsjah (2011); Čater and Pučko (2010); Gębczyńska (2016); Hill et al. (2017); Jooste and Fourie (2009); Leah (2012); Obeidat et al. (2017) and Schaap, (2006). Respondents were asked "To what extent are the following leadership issues enhancing the strategy implementation success within your organisation".

Communication and change process

Additional literature was as follows: Čater and Pučko (2010); Fuertes et al. (2020); Jooste and Fourie (2009); Labovitz and Rosansky (1997) and Obeidat et al. (2017). Respondents were asked "To what extent are the following issues on communication and change process enhancing the strategy implementation success within your organisation".

Use of project management tools

Additional literature is as follows: Gilbert and Behnam (2009); Jooste and Fourie (2009); Joslin and Müller (2016); Kopmann et al. (2017); Meredith et al. (2018); Serra and Kunc (2015) and Serrador and Turner (2014). Respondents were asked “To what extent are the following issues used as project management tools in your organisation to enhance the strategy implementation success”.

Measurement of enhanced strategy implementation success

Enhanced strategy implementation success was measured using a modified version of the scale developed by Jooste and Fourie (2009); Hill et al. (2017) and Leah (2012). The scale had 10 items with additional supporting literature considered as follows: Gębczyńska (2016); Kopmann et al. (2017); Nuntamanop (2013) and Su et al. 2019. Respondents were asked “To what extent are the following issues enhancing strategy implementation success within your organisation”.

Measurement of strategy management process and project management approach

The strategy management process measurement scale was based on the model by Gilbert and Behnam (2009); Nuntamanop (2013) and Thompson et al. (2018), while the project management approach was based on the Project Management Institute (2017) model. As discussed in the previous chapter within sections 3.3 and 3.4, six strategy management process variables and four project management approach variables have been identified and utilised in the measurement scale development. A new scale with 43 items was developed to measure the constructs. Several scales and insights from various authors were considered in order to establish a holistic scale for the two constructs. Additional literature per construct is as highlighted below.

Strategy management process

Additional literature is as follows: Alamsjah (2011); Allio (2005); Arasa and K’Obonyo, (2012); Čater and Pučko (2010); Cocks (2010); Dandira (2011); Fuertes et al. (2020); Gallagher et al. (2015); Gębczyńska (2016); Getz and Lee (2011); Jooste and Fourie, (2009); Kopmann et al. (2017); Madhavan and Rathi (2015); Munive-Hernandez et al. (2004); Obeidat et al. (2017); Rapert et al. (2002); Sanderson and Luffman (1998) and

Schaap (2006). Respondents were asked to “Indicate the level of extent on each statement pertaining to your organisation”.

Project Management Approach

Additional literature is as follows: Newton (2015) and Stoshikj et al. (2014). Respondents were asked about “The project management approach(es) from which the statement belongs”.

Measurement of perceived business success

The scale items used to measure perceived business success were developed based on the model by Heising (2012) and Meskendahl (2010). All scales items for this construct have published indicators or reliability drawn from previous studies. The scale had 8 items with additional supporting literature considered as follows: Serrador and Turner (2014) and Su et al. (2019). Respondents were asked “To what extent can the following issues enhance perceived business success within your organisation”.

Summary

Table 4.2 below provides a summary of the scale and corresponding supporting literature.

Table 4.2 Summary of scale and supporting literature

Scale	**Literature Support**
Leadership (15 items)	Adabor, 2019; Alamsjah, 2011; Čater and Pučko, 2010; Cocks, 2010; Gębczyńska, 2016; Hill et al. 2017; Jooste and Fourie, 2009; Leah, 2012; Obeidat et al. 2017; Schaap, 2006 and Yang et al. 2010
Communication and Change Process (8 items)	Čater and Pučko, 2010; Cocks, 2010; Fuertes et al. 2020; Jooste and Fourie, 2009; Labovitz and Rosansky 1997; Obeidat et al. 2017 and Yang et al. 2010.

Scale	Literature Support
Use of Project Management Tools (12 items)	Cocks, 2010; Gilbert and Behnam, 2009; Joslin and Müller, 2016; Jooste and Fourie, 2009; Kopmann et al. 2017; Meredith et al. (2018); Serra and Kunc, 2015 and Serrador and Turner, 2014 and Yang et al. 2010.
Enhanced Strategy Implementation Success (10 items)	Jooste and Fourie, 2009; Gębczyńska, 2016; Hill et al. 2017; Kopmann et al. 2017; Leah, 2012; Nuntamanop, 2013 and Su et al. 2019.
Strategy Management Process and Project Management Approach (43 items)	Alamsjah, 2011; Allio, 2005; Arasa and K'Obonyo, 2012; Čater and Pučko, 2010; Cocks, 2010; Dandira, 2011; Fuertes et al. 2020; Gallagher et al. 2015; Gębczyńska, 2016; Getz and Lee, 2011; Gilbert and Behnam, 2009; Jooste and Fourie, 2009; Kopmann et al. 2017; Madhavan and Rathi, 2015; Munive-Hernandez et al. 2004; Newton, 2015; Nuntamanop, 2013; Obeidat et al. 2017; Project Management Institute, 2017; Rapert et al. 2002; Sanderson and Luffman, 1998; Schaap, 2006; Stoshikj et al. 2014 and Thompson et al. 2018.
Perceived Business Success (8 items)	Heising (2012).; Meskendahl (2010); Serrador and Turner, 2014 and Su et al. 2019

4.4.2.4 Pilot testing of questionnaire

A pilot study to collect data from survey respondents similar to those for the full study (Creswell & Creswell, 2018; Zikmund et al. 2013) was done on twenty-eight experts. The layout, sequence and questions of the questionnaire was pretested across a panel of twenty-eight experts selected from strategy practitioners, project managers and academics to assess the validity, applicability, comprehensibility and content validity as recommended in literature by Schindler (2019). This technique provides for those individuals familiar with the aspects under study to evaluate the items as presented in

the questionnaire and provide critique which assists in improvement of the instrument. Although there was no significant difference between the questionnaire used for the pilot and the modified final questionnaire, the minimal feedback obtained was incorporated into the questionnaire. The feedback assisted in refining the questions on the questionnaire thereby improving the content whilst also enhancing the quality. In terms of question 14, the same experts assisted in identifying which project management approach(es) the statements likely belonged to, thus supporting the initial associations given from the literature review. The recommendations were used in Section 5.8 with survey respondents' answers being referred to as either correctly specified or not correctly specified. Further enhancement to reliability involved test-retest (Drost, 2011) wherein the same questions were administered to the same twenty-eight experts at a later stage with a correlation on the scores done to attest reliability. The result of this test-retest is given in also Appendix C. In addition, to increase reliability, the questions were written clearly and the scoring rules were made as explicit as possible (Creswell & Creswell 2018; Drost, 2011).

4.4.2.5 Questionnaire data collection and response bias

The first step was a telephonic conversation with the Office of the Chief Executive Officer (CEO) to explain the nature of the study. A follow-up email detailed the objectives, scope of study and questionnaire. Commitment by the CEO was considered critical to secure employee participation in the study. The CEO assigned a senior person in the different organisations to assist with the data collection. Employees belonging to the different strata of project management professionals and strategy professionals were selected to participate in the study.

Questionnaire data collection

The survey monkey link (including anonymity guarantee) for the questionnaire was administered via email with a web link through the senior employee of the organisations under study and required indications of consent from potential survey respondent. Such was preferred as it is rapid, convenient and spans across different organisations in different geographic locations which according to (Creswell & Creswell, 2018; Schindler, 2019; Sue and Ritter, 2012) saves costs and time. Due to consistent survey respondent follow-ups through the assigned senior employee in the organisations the response rate was high at 62% and also noting the convenience in

that the questionnaire was designed to be finished through survey monkey at a later time or date for the same survey respondent and the software allowed one survey respondent per workstation thus preventing multiple completions (Suanders & Bezzina, 2015).

Questionnaire survey respondent error or response bias

Apart from the respondent screening process wherein strategists and project managers were targeted as per the brief in the telephonic discussions, the last two questions ascertained the response accurately reflect views about the organisation and that no one interfered with survey respondents during the survey completion. Ultimately the questions transitioned from simple items into more complex ones with interesting target questions provided early as per provisions by Schindler (2019).

4.4.3 Quantitative validity and reliability

Establishing rigour is a crucial element of all research in general (Yin, 2008) whilst effective measuring instruments should be accurate indicators of what is being measured. Generally, reliability and validity are used to evaluate the measurement instrument and for this study considerations were done for both quantitative and qualitative issues. Reliability is a necessary but not sufficient condition for validity (Drost, 2011).

4.4.3.1 Validity

This is the extent to which an instrument measures what it is intended to measure, (Schindler, 2019). The study took into consideration construct, content, face, internal and external validity.

Construct, content and face validity

Construct validity determines the degree to which similar items in a measuring instrument assess some underlying construct (Salkind, 2018), are quantitatively related (Schumacker & Lomax, 2010) and the establishment of correct operational measures for the studied concepts (Rowley, 2002:20). This was embraced in the study given the multiple sources of data that were gathered. The literature review on strategy management and project management enabled determine underlying constructs, the model building process that followed hypothesised the relationships among the

constructs, and the questionnaire building process took care to determine construct validity in a bid to ensure the measures were correct, which measures were later presented to a panel of twenty-eight experts during pretesting for confirmation. In addition, content and face validity were assessed on the instruments as below.

Content validity according to Bollen (1989: 185) is “a qualitative type of validity where the domain of the concept is made clear and the analyst judges whether the measures fully represent the domain”. Salkind (2018: 105) posits that it is a “measure of how well the items represent the entire universe of items”. To ascertain content validity, the instruments were developed based on a detailed review and analysis of a panel of experts and literature review. Based on the panel of experts, evaluation during pre-testing the questionnaire was ascertained to be of high content validity as it covered all the subjects under study.

Face validity according to Kaplan and Saccuzzo (2012) is a relationship of the instrument to perceived purpose of measure. To ascertain face validity twenty-eight experts on strategy management and project management scrutinised the questionnaire giving their impressions and feedback regarding relevance of the contents of the questionnaire. This was done after they were briefed on the purpose and scope of the study. Feedback on rewording and supplementing items was used in modifying the questionnaire).

Internal validity

The relationship between dependent and independent variables according to Drost (2011) is internal validity which entails that the instrument measures the anticipated characteristics. To achieve this, the study used several steps to ensure respondent validation. Anonymity guarantee and removal of all identifiers from transcripts sought to encourage respondents to answer fully and truthfully.

External validity

Creswell & Creswell (2018) and Drost (2011) refers to external validity as the extent to which research findings can be generalised or extrapolated across different settings, time and patterns. Given that two large, publicly listed organisations participated in the study, the findings cannot be generalised to the whole South African service sector.

This is because they are not fully representative as small and medium organisations were not included in the study sample, thus eternal validity became a study limitation.

4.4.3.2 Reliability

Reliability contributes to validity but is not sufficient according to Schindler (2019). It focuses and involves precision and accuracy of measurement, thus obtaining same results under same conditions or circumstances (Bollen, 1989; Carmines & Zeller, 1990; Nunnally, 1978). The internal consistency method which is measured by a reliability coefficient called Cronbach's alpha (α) was used (Cronbach, 1951). This measures the degree of inter-correlation among items in the scale which requires one administration and is most popular in field studies (Nunnally, 1978; Sureshchandar et al. 2001). Cronbach's alpha indicates reliability which is the degree from which measures are free from error and therefore yield consistent results (Schindler, 2019) especially if it is 0.7 and above. The inter-correlatedness of scale items were measured with Cronbach's alpha. The guidelines provided by Manerikar and Manerikar (2015) were used to establish reliability which propose values of Cronbach alpha ≥ .9 as excellent (high-stakes testing), ≥ .7 as good (low-stakes testing), ≥ .6 as acceptable, ≥ .5 as poor and < .5 as unacceptable.

Random errors were minimal as measured through Cronbach alpha which gave an overall score of 0.963 for this study. In addition, the reliability to assess the consistency of the constructs namely leadership; communication and change process; use of project management tools; strategy management process; project management approach; strategy implementation success and perceived business success were tested using Cronbach alpha (α). In line with the definition, repeating data collection procedures and getting the same results is among others a measure of reliability. In this study, procedures were documented thoroughly and repeated for all data collected, unclear items were eliminated, work emails were used which according to Salkind (2018) standardise the conditions under which the survey was done, whilst records were kept appropriately in order that reliability gets achieved. Specifically, the pilot study had in-built reliability building mechanisms that followed the steps mentioned in this section.

4.4.4 Quantitative data analysis

According to Bryman and Bell (2015) quantitative data analysis entails the use of quantitative techniques aimed at breaking down numerical data collected so as to enable testing of relationships between variables whilst mapping out ways of presenting study findings. The steps taken in this study entailed screening data to establish outliers and missing data followed by quality checks such as uncommon variations in the data. Normality was achieved through the application of the central limit theorem which suggest that "as the sample size (the number of values in each sample) gets large enough, the sampling distribution of the mean is approximately normally distributed" (Levine et al. 2016: 255). Ghasemi and Zahediasl (2012: 486) highlight that "in large samples (> 30 or 40), the sampling distribution tends to be normal, regardless of the shape of the data". In order to make inferences to a wider population, O'Leary (2017) recommend that sample size should be at least 30. Statistical analysis in this study was carried out on a final sample of 226, which meets both the condition for inferences to wider a population and normality.

Once collected processed and stored, the quantitative data were analysed as outlined below through descriptive statistics, inferential statistics and a structural equation model using Statistical Package for Social Sciences (SPSS) version 26.0 and Analysis of Moment Structures (AMOS) version 26.0. AMOS is used for structural equation modelling, path analysis and confirmatory factor analysis (Byrne, 2016).

4.4.4.1 Descriptive

According to Keller (2018: 2), "descriptive statistics deals with methods of organising, summarising and presenting data". Salkind (2018: 133) further indicates that such statistics "describe the general characteristics of a set or distribution of scores". In this study, characteristics of survey respondents' variables were summarised using statistical means, standard deviations, frequencies and proportions. Descriptive statistics for the constructs were summarised using the mean and range for continuous variables.

4.4.4.2 Inferential

Keller (2018:4) and Salkind (2018) define inferential statistics as "a body of methods used to draw conclusions or inferences about characteristics of populations based on

sample data". Inferential analysis in the form of independent t-test and ANOVA were used in this study as outlined below.

- The Independent T-test is aimed at testing the "significance of the difference between two means based on two independent, unrelated groups" (Salkind, 2018: 149). The samples are independently selected and normally distributed. In essence, two independent populations exhibit measured values of observed items if one population does not have impact on measured values of items observed in the other population (Davis et al. 2014). In this study, the independent t-tests were used to determine the impact of gender, industry and core function on the constructs. The assumptions of the independent t-tests and ANOVA according to Gravetter et al. (2018: 252) "are that (i) the observations within each sample are independent, (ii) the populations from which the samples are selected are normal and (iii) the populations from which the samples are selected have equal variances (homogeneity of variance)".

  In this study the observations were independent from each other with normality being achieved by application of the central limit theorem. In order to test for equality of variances across groups Levene's test of homogeneity of variance was used. On one hand, should the test be significant, with variances across groups not equal, then statistics under equal variances not assumed is discussed. On the other hand, should the variance across groups be equal, the test becomes non-significant, then statistics under equal variances assumed is discussed. Such a test is significant if the p-value is less than .05 and highly significant if p-value is less than .01. In order to measure the influence that changing the independent variable conditions has on the dependent scores, the effect size is used (Heiman, 2015). In other words, "how much of the variability in the scores is accounted for by the differences between treatments", (Gravetter et al., 2018: 349). The effect size, η^2 (eta-squared) is measured as (Hahs-Vaughn & Lomax, 2020: 237):

$$\eta^2 = \frac{t^2}{t^2 + df} = \frac{\mathrm{t}^2}{\mathrm{t}^2 + (N_1 + N_2 - 2)}$$

  "Where t^2 = t-value squared; df= degrees of freedom; N_1= sample size of first group; N_2 = sample size of second group".

- Analysis of Variance (ANOVA) according to Gravetter et al. (2018: 330) is “a hypothesis-testing procedure that is used to evaluate mean differences between two or more treatments (or populations)”. ANOVA test was used to test for equality of means if the variances across groups were equal, and Tukey HSD was used as a post hoc test. The “Welch robust test for equality of means was used to test for equality of means if homogeneity of variances is not met”, (Denis, 2019: 73), since variances were not equal, and the Games-Howell test was used as the post hoc test. These tests were done at the 5% level of significance. Such a test was significant if the p-value was less than .05 and highly significant if p-value was less than .01.

  For this study, ANOVA was used to determine the impact of job function, years of experience in strategy management, years of experience in project management, functional area and area of involvement on issues regarding the constructs. The effect size, η^2 (eta-squared) was used where variances were equal, and was calculated as follows:

$$\eta^2 = \frac{SS_{between\ treatments}}{SS_{total}}$$

  where “$SS_{between\ treatments}$= sum of squares indicating variability between treatment means and SS_{total} = sum of squares for entire set of N scores”, Gravetter et al. (2018: 340-41).

  The Welch F test was used where variances were unequal, in which case the effect size omega-squared (ω^2) was calculated as below

$$\omega^2 = \frac{df_{bet}(\mathrm{F}-1)}{df_{bet}(\mathrm{F}-1)+N_T}$$

  “where df_{bet} is the degrees of freedom for factor A, that is, the number of levels of factor A – 1, F is the Welch F-test statistic and N_T is the total number of subjects” (Keppel & Wickens, 2004: 164).

Cohen (1988) suggested the following guidelines for interpreting η^2 (eta-squared), and ω^2 (omega-squared):

.01 = small effect

.06 = moderate effect

.14 = large effect

4.4.4.3 Structural equation modelling (SEM)

SPSS AMOS 26 was used for SEM to ascertain a model that sought to explain the variables (Byrne, 2016). Hair et al. (2014: 546) define SEM as a "multivariate technique combining aspects of factor analysis and multiple regression that enables the researcher to simultaneously examine a series of interrelated dependence relationships among the measured variables and latent constructs (variates) as well as between several latent constructs". Byrne (2016: 3) points out that SEM is regarded as the powerful alternative vis-a-vis other multivariate procedures in that: "(i) it takes a confirmatory, rather than an exploratory approach to data analysis (although aspects of the later can be addressed), (ii) whereas traditional multivariate procedures are incapable of either assessing or correcting for measurement error, SEM provides explicit estimates of these error variance parameters, (iii) although data analysis using the former methods are based on observed measurement only, those using SEM procedures can incorporate both unobserved and observed variables and lastly (iv) only SEM provides alternatives for point and/or interval indirect effects".

SEM has a stage for confirming measurement theory through confirmatory factor analysis and the second stage which is the structural model. Hair et al. (2014: 565) propose six stages as outlined below:

- "Stage 1: Defining individual constructs;
- Stage 2: Developing the overall measurement model;
- Stage 3: Designing a study to produce empirical results;
- Stage 4: Assessing the measurement model validity;
- Stage 5: Specifying the structural model; and
- Stage 6: Assessing structural model validity".

Stage 1 for this study entailed questionnaire design wherein items to be used as measured variables were identified.

Stage 2 entailed making measured variables with constructs and drawing the path diagram for the measurement model.

During stage 3 the adequacy of the sample size was assessed in tandem with the selection of the estimation method and missing data approach.

In order to assess "the extent to which the measured items actually reflects theoretical latent construct those items are designed to measure" which according to Hair et al. (2014: 618) is model validity, stage 4 had two levels. Hair et al. (2014: 576) indicate these levels as "(i) establishing acceptable levels of goodness-of-fit for measurement model and (ii) finding specific evidence for construct validity". Whilst Zait and Bertea (2014) indicate three components of construct validity namely, convergent, nomological and discriminant, Hair et al. (2014) adds a fourth one which is face validity.

In this study, the indicator for convergent validity is construct reliability which for variable representing the latent variable measures reliability and internal consistency (Hair et al. 2014) and is calculated as:

$$\mathrm{CR} = \frac{(\sum_{i=1}^{n} L_i)^2}{(\sum_{i=1}^{n} L_i)^2 + (\sum_{i=1}^{n} e_i)}$$

Where $(\sum_{i=1}^{n} L_i)^2$ is the squared sum of factor loadings (L_i) and $\sum_{i=1}^{n} e_i$ is the sum of the error of variance terms of the construct e_i. If CR is .7 or higher, then good reliability has been achieved. For validity to be achieved all construct reliabilities ought to be greater than AVEs, that is, CR > AVE.

In this study, the relative amount of convergent validity was assessed through Average Variance Extracted (AVE) and Construct Reliability (CR). The AVE which according to Hair et al. (2014: 610) is a "measure of convergence among a site of items representing a latent construct" and is calculated as follows:

$$\text{AVE} = \frac{\sum_{i=1}^{n} L_i^2}{n}$$

"Where L_i represents the standardised factor loading the measured i^{th} variable and the number of item indicators for the construct". If AVE is less than .5 or higher, then adequate convergence has been achieved.

To establish if the correlations among the construct in a measurement theory makes sense, Hair et al. (2014) propose a test to examine this which is nomological validity. The question whether the overall model is considered valid is answered through nomological validity in which case the matrix of construct correlations is useful.

Discriminant validity which is the extent to which a construct is truly distinct from other constructs is achieved if the average shared variance is less than AVE, AVE is greater than the squared inter-construct correlations (SICs) and maximum shared variance is less than AVE (Fornell & Larcker, 1981).
It can be summarised as:

- ASV < AVE;
- AVE > SICS; and
- MSV < AVE

Face validity according to Hair et al. (2014: 620) "must be established prior to any theoretical testing when using Confirmatory Factor Analysis".

According to Hair et al. (2014), Confirmatory Factor Analysis (CFA) is an enabler to establish how the measured variables represent the constructs, thereby following the researcher to accept or reject the preconceived theory. Whilst there are several methods that estimate SEM, maximum likelihood estimation (MLE) was used for this study. In order to establish the "most likely" parameter values to achieve the best model fit, the MLE is a flexible approach to parameter estimation (Hair et al. 2014).
The goodness of fit of the model can be determined through the following methods:

- RMSEA (Root Mean Square Error of Approximation);
- Chi-square test;
- AGFI (Adjusted Goodness of Fit Index);

- CFI (Comparative Fit Index);
- GFI (Goodness of Fit Index);
- IFI (Incremental Fit Index);
- NFI (Normed Fit Index) and
- TLI (Tucker Lewis Index).

The RMSEA and Chi-square statistics are fit indices AGFI is a parsimonious index, incremental fit indices include CFI, GFI, IFI, NFI and TLI.

RMSEA represents how well a model fits a population and is most widely used as it attempts to correct the chi-square test statistic to reject models with large observed variable or samples. RMSEA value which are low represent a better fit. Whilst the general agreement for a “good” RMSEA is .05 or 0.08, the absolute cut-off is still debatable with modern research advising against a specific cut-off point (Hair et al. 2014).

Chi-square statistic (X^2) – Is the absolute fit index in SEM to quantify the difference between covariance matrices (Hair et al. 2014). The model fits the data for chi-square test if p value is more than .05, as such, the model is non-significant, however it is affected by sample size (Hair et al. 2014). According to Hair et al. (2018: 578), the chi-square goodness of fit statistic has the following challenges, firstly, as a measure, it “is a mathematical function of the sample size (N) and the difference between the observed and estimated covariance matrices and secondly the chi-square statistic is likely to be greater when the number of observed variables increases”. Achievement of model fitness is made difficult due to addition of indicators, which result in an increase in the chi-square statistics. As such, as sample size increase, it becomes challenging to achieve an insignificant goodness of fit, thus normed chi-square ($X2/df$) is used to minimise the sample size impact with acceptable range for this statistic ranging from 5 to as low as 2. In addition to chi-square Hair et al. (2014) recommend the use of one absolute index and one incremental index of which Tabachnick and Fidell (2014) highlight the most reported of such indices are CFI and RMSEA.

Given that the GFI ranges from 0 to 1, higher numbers imply a good fit. It is an early attempt to produce a fit less sensitive to sample size (Hair et al. 2014) which calculates the proportion of variance based on estimated population covariance (Hooper et al. 2008). The adjusted AGFI has similar interpretation.

CFI is an IFI which is improved NFI (Hair et al. 2014). It takes into account sample size that performs irrespective if the sample size is small (Hooper et al. 2008). Ranges from 0 to 1, higher numbers imply a good fit, with any values above 0.9 being a good fit (Hair et al. 2014).

Stage 5 details the structural model which resulted through conversion from the measurement model.

Stage 6 entails assessment of structural model validity. The fit indices for the measurement model namely “goodness of fit and significance, direction, and size of the structural parameter estimates” (Hair et al. 2014: 566) are assessed and presented in Chapter 5.

4.5 Phase 2 - Qualitative Approach

The section details the qualitative approach for the study in terms of sampling design, interview data collection, validity and reliability and data processing.

4.5.1 Qualitative sampling design

Nonprobability sampling methods include snowball sampling, purposive (judgemental and quota) sampling and convenience sampling (Schindler, 2019). Purposive judgemental sampling was utilised in this study to select the interview participants. According to Kumar (2005:179), purposive sampling is based on “the judgement of the researcher as to who can provide the best information to achieve the objectives of the study”. In order to ascertain relevance to the research question, sampled interview participants were intentionally selected based on their experience on the key concept being explored in the study (Bryman & Bell, 2015; Creswell & Plano-Clark, 2018). This was the case during the qualitative phase of the research, given that the researcher did not seek to randomly select interview participants, but strategically sampled the interview participants so that those sampled could answer the research questions.

As established by Guest et al. (2006) and Onwuegbuzie and Collins (2007), saturation occurs when no additional insights are offered by additional interview respondents which is normally within the first twelve interviews. In this study twelve participants were interviewed all of whom had participated initially in the quantitative phase as this was a follow up on the quantitative results to explore results in depth (Creswell & Creswell, 2018).

The choice of the twelve participants was also based on the study being more quantitatively-oriented, thus the semi-structured interviews sought to explain and clarify the quantitative results. The researcher chose six strategists and six project managers in order to maintain equal sample representation in the qualitative phase. This is despite the fact that the interview participants had diverse experience both in strategy management and project management.

4.5.2 Interview data collection

To collect qualitative data in-depth personal interviews were applied with the help of an interview guide. The guide was based on additional questions to those already asked survey respondents in the questionnaire during the initial survey, seeking clarity on unexplained aspects that had emanated from the quantitative phase, hence providing sufficient coverage of research questions (Eisenhardt, 1989). The interview guide is provided in Appendix B. Two experts, one on project and the other on strategy, evaluated and provided feedback on the initial interview guide, which was then modified and revised prior to being used for the interview.

It is worth noting that the issue of building trust between the researcher and the interview participants (Schindler, 2019) was necessary during the follow-up phase of the study and this was sought by the researcher through the following as mentioned by Schindler (2019: 129), (i) “probing for detail without making the respondent feel harassed, (ii) remaining neutral while encouraging the participant to talk openly, (iii) listening carefully, (iv) following a participant’s train of thought”.

4.5.2.1 Interview data collection process

Interview sessions entailed booking an appointment with persons involved for one hour[5]. Interviews were conducted at the workplace and questions probed experiences of the respective strategists and project managers for explicit knowledge on what ought to be done and tacit knowledge gained over time on what actually works in their own organisational context.

The interview began with introductions, pleasantries and synopsis of the study, and ended with a thank you statement to acknowledge the time spent with the interviewee. Digital recording was done using digital voice recorder which was transcribed into a text document. Attributes of the interview participants such as experience in either strategy management or project management were noted to be used during analysis. The recordings were transcribed ensuring correct capture of information from interviews.

4.5.2.2 Interview error

Interviewer error was minimised based on precincts from (Schindler, 2019) including the requirement that interview participant cooperation should be ensured through confirmation of times and venue. This was followed. In addition, the interview environment was deemed appropriate and comfortable being the boardrooms at the organisations. Further, presence bias (Miles et al. 2014) was minimised as participants included junior, middle and senior management. Interview participants were informed beforehand through the consent form that they would be recorded which helped in minimising biased outcome of the interview and building rapport and trust. The interviewer, through being conscious of the likely impact of his reactions during an interview, ensured that he did not overreact to responses from interview participants which according to Dudovskiy (2018) helps in minimising bias.

4.5.3 Qualitative validity and reliability

Additional considerations on the follow-up qualitative phase were with regard to validity and reliability and included the following based on Miles et al. (2014):

[5] Actual interview time varied, sometimes less, and sometimes more, as much as one and half hours.

Internal validity/credibility/authenticity

According to Tobin & Begley (2004: 391), this aspect addresses the issues of "fit between respondents' views and researcher's presentation of them". This was managed in this study through providing clear research questions and data quality checks with results showing meaningful parallelism across the different data sources. In addition, the researcher had prolonged engagements with participants.

External validity/transferability/fittingness

This aspect refers to how far the conclusions of the study can be generalised (Miles et al. 2014). Detailed rich descriptions in the methodology, results and discussion sections of the study (Dina, 2012; Tobin & Begley, 2004) provided potential transferability and catered for different settings.

Reliability/dependability/auditability

Miles et al. (2014: 312) indicate that this aspect entails quality and integrity of the research aligned to the study process in terms of consistency, reasonable stability over time and across researchers and methods. The detailed step-by-step description of the research design and processes provides and builds on this aspect in this study. Based on the premise by Tobin and Begley (2004: 392), the process adopted in this study is "logical, traceable and documented clearly", thus auditable.

Objectivity/confirmability

This aspect relates to relative freedom from unacknowledged research biases and relative neutrality (Miles et al. 2014). In addition, Tobin and Begley (2004) point out that study findings and interpretations have to be based on data collected and not the researcher's imagination. In order to cater for this in this study, a complete picture was provided by the researcher given that there was detailed description of the methods and procedures (Miles et al. 2014). The sequence of collection, processing and drawing up of conclusions is clarified whilst interpretations and findings reached in this study were achieved from the data. According to Guba and Lincoln (1989), to reach confirmability there should be credibility, transferability and dependability in place. The study sought to establish all these requirements and therefore provide confirmability.

Utilisation/application

This aspect relates to what the study does "for its participant, both the researchers and researchers and for its consumers" (Mile et al. 2014: 314). The thesis document will be published on Wits University digital space (Wits Digi-space) for potential users.

4.5.4 Qualitative data processing and analysis

Given that the study was a mixed method sequential explanatory design, this entails that results from the quantitative phase guide the requirements of phase two which is the qualitative study. Therefore, based on the quantitative phase results, questions to explore the unexplained aspects were formulated for the interview phase. An interview guide was used to direct the semi-structured interviews that were held as part of qualitative data collection. Subsequently the qualitative data were analysed.

According to Bogdan and Biklen (2011) and Braun and Clarke (2006), qualitative data analysis entails working with, organising and breaking data into manageable units, coding, pattern searching, synthesising and reporting on it. Large volumes of words were obtained by the qualitative data collection methods which were thematically analysed based on Braun and Clarke's (2006) six stages outlined further below.

Data reduction entailed summarising, coding which involved organising the data by bracketing text segments and a word representing a category in the margin according to Marshall and Rossman (2015), categorisation and theme establishment in accordance with predetermined research questions. Such data reduction was required, given that the data were dense and rich and not all information was used in the study (Guest et al. 2012). Comparisons were established on each interview participant with similarities and differences noted for contradictions or confirmations. During data display, the reduced data were presented in a structured and comprehensive manner, allowing the researcher to reach conclusions about the research issues. During conclusion drawing and verification, meaning and sense were inferred through descriptive patterns that evolved. Themes and patterns to include trends were the cornerstone of qualitative data analysis phase as outlined below.

According to Braun and Clarke (2006: 79), "thematic analysis is a method for identifying, analysing, and reporting patterns (themes) within data". They posit that

thematic analysis can be essentialist (realist method), constructionist or contextualist method, which can assist in either reflecting reality or unravelling the surface of reality. The research used an essentialist and deductive thematic approach. Using this approach important aspects from the interviews identified by applicable themes were established. This was done through searching across the dataset for repeated patterns of meaning within the 12 interviews. The six stages of thematic analysis established by Braun and Clarke (2006) were used to accomplish this with the help of a software called Atlas.ti 8. The stages are described as follows.

Stage 1: Familiarising yourself with the data

This entailed the researcher listening to the recordings several times whilst jotting down early impressions generated to familiarise with the data, providing insightful thoughts.

Stage 2: Generating initial codes

Data were organised in a meaningful and systematic way whilst taking cognisance that each coded section of the data was relevant to the research question (Taylor-Powell and Renner, 2003), a deductive thematic analysis approach. Open coding was used in the analysis, which was developed and modified as analysis progressed. Due to the vagueness and personalistic nature of qualitative data analysis Grinnell and Unrau (2004) recommend the use of consistent coding to improve reliability. This was followed during data analysis process to enhance reliability.

Stage 3: Searching for themes

Codes were examined and those that fitted together were grouped into a theme, for example the concepts “employee engagement; management support for strategy; facilitate adaptability; organisational culture and level of involvement” were grouped into a final concept “management and employee engagement” which is part of the subtheme “leadership” which in turn forms part of the theme “drivers enhancing strategy implementation”. The themes were predominantly descriptive as they describe the patterns of data relevant to the research question.

Stage 4: Reviewing themes

The initial themes from stage 3 were reviewed for sense making and then gathering more data relevant to each theme. Questions posed by Maguire and Delahunt (2017: 3 358) formed the basis of this stage, namely: “Do the themes make sense? Does the data support the themes? Am I trying to fit too much into a theme? If themes overlap, are they separate themes? Are the themes within themes (subthemes)? Are there other themes within the data?”.

Stage 5: Defining and naming themes

During this final refinement of themes whose aim is to “… identify the ‘essence’ of what each theme is about” (Braun & Clarke, 2006: 92), subthemes were scrutinised for their relation and interaction to main themes and the main themes in turn were scrutinised for their relation to each other as outlined in Appendix D.

Phase 6: Producing the report

Key findings that emerged from the themes were compiled into interpretable final results in Chapter 5, discussed in Chapter 6, and a conclusion drawn from the study.

4.6 Final Processing and Analysis

Quantitative results were connected to qualitative data collected as part of the first phase on integration in this explanatory sequential study which Creswell and Plano-Clark (2018) call sequential integration approach. Upon finalising the qualitative phase, there was second level integration of the two sets of results wherein integrated conclusions pertaining to the explanation and extension of specific quantitative results provided for by the qualitative results (Creswell & Plano-Clark, 2018) and detailed in Chapter 6.

Data from both the quantitative and qualitative approaches were analysed at three levels indicated below:

- Level 1: quantitative data analysis – descriptive, inferential and structural equation modelling;
- Level 2: Qualitative data from follow-up interviews analysed thematically and

- Level 3: Analysis of how qualitative data explains the qualitative data.

Quantitative data were analysed through statistical tools whereas qualitative data involved thematic analysis. Ultimately such quantitative and qualitative data were integrated as a coherent whole.

The following procedure posited by Creswell and Plano-Clark (2018: 272) was followed:

- Application of "quantitative data analysis whilst noting results that require further explanation;
- Establishing the purposeful sample to provide explanation based on those that participated in the initial quantitative phase;
- Designing of the qualitative data collection instrument to be answered by the purposeful sample;
- Collection and analysis of qualitative data;
- Developing a joint display illustrating how qualitative results enhance quantitative result and
- Interpreting the value added by qualitative explanation".

4.7 Ethical Considerations

The research followed guidelines on Ethics laid down by the University of the Witwatersrand. The guidelines termed 'Guidelines for Human Research Ethics Clearance Application' (University of Witwatersrand, 2018) articulate a description of the research, a list of what has been communicated to survey respondents and interview participants and a clear statement of what the survey respondents and interview participants are consenting to and a statement guaranteeing anonymity in the research report. The research fulfilled all the requirements and was granted ethics clearance number H18/10/13 granting permission to proceed with the research. A few examples of actions taken to fulfil the requirements are the following (not exhaustive). The research was free from procedures causing physical, mental or legal harm to the survey respondents and interview participants (Fowler, 2013; Sarantakos, 2013). Survey respondents and interview participants were provided with a statement explaining the research and asked for their informed consent (written and verbal) prior

to the study (Terrel, 2012) In addition to eliminating deception, no incentives or coercion were used so that participation would be free, voluntary and fully informed (Sarantakos, 2013). Protection prior and post analysis and paper-based records were kept under lock and key accessible only by the researcher. Ultimately, the University of Witwatersrand issued an ethical clearance certificate as all ethical procedures prescribed were met by the researcher.

4.8 Chapter Summary

This chapter presented the various aspects of the research methodology used in the study including research philosophy, research strategy and design, and the rationale for choices made during the study in light of the research objectives. Further, the research procedure and research instruments were explained with detail, and the ethical considerations taken were highlighted. Issues of validity and reliability were also tackled. The next chapter considers results of the study.

CHAPTER 5 - RESULTS AND ANALYSIS

5.1 Introduction

This chapter presents the results for both the quantitative and qualitative aspects. The results are presented in two parts, first (i) quantitative data analysis then (ii) qualitative data analysis. The quantitative data analysis consists of descriptive statistics and inferential statistics. The descriptive statistics entails frequencies, proportions, means and standard deviations while the inferential statistics apply independent t-tests and one-way ANOVA. The last part focuses on qualitative data analysis. The results are presented in the sections below.

5.2 Statistical Analysis

For the quantitative data, a total of 238 questionnaires were submitted on survey monkey. The data were exported into Microsoft Excel and then to IBM SPSS version 25 for analysis. A missing data analysis was done as proposed by Hair at al. (2014) to determine any variables or cases with more than ten percent missing information. This resulted in 12 cases being removed from the analysis and the final sample being 226. The data were cleaned for outliers as described in the methodology chapter. The internal consistency reliability of the instrument was assessed through the Cronbach alpha. The descriptive statistics were presented using summary statistics to determine the trends and pattern in the data set. The independent t-tests were used to determine the impact of gender, industry and core function on the constructs. The univariate analysis of variance (ANOVA) was done to determine the impact of job function, years of experience in strategy management, years of experience in project management, functional area and area of involvement on the constructs. In order to establish how well the measured variables represented the constructs (exact factor model), confirmatory factor analysis was done (Hair et al. 2014; Pituch & Stevens, 2016; Tabachnick & Fidell, 2014). The structural equation modelling is then presented to test the model proposed. The chapter ends with a brief summary of the results.

5.3 Response Rate Analysis

According to Saunders et al. (2019) and Rose et al. (2015), if the population is large, a sample size of 384 is ideal at 5% margin of error, however, due to limited target population sample, only 300 were distributed. The questionnaires returned were 238

giving a response rate of 62% against the targeted sample size. According to Saunders et al. (2019) such a response rate is considered acceptable for studies of this nature. Based on the missing data analysis, 12 cases or variables had more than 10% missing information thus were not included in the statistical analysis. As such, 226 questionnaires were used in the statistical analysis.

5.4 Reliability Analysis

The reliability which assesses the consistency of the entire instrument (Hair et al. 2014) was tested using Cronbach alpha (α) as indicated in section 4.4.3.2. It was mentioned that guidelines by Manerikar and Manerikar (2015) propose values of Cronbach alpha ≥ .9 as excellent (high-stakes testing), ≥ .7 as good (low-stakes testing), ≥ .6 as acceptable, ≥ .5 as poor and < .5 as unacceptable. The reliability indicators of the instrument are shown in Table 5.1.

Table 5.1: Reliability results

Construct	**No. of items**	**Cronbach's alpha**	**Acceptable level**
Leadership	15	.911	Excellent
Communication and change process	8	.845	Good
Use of project management tools	12	.894	Good
Strategy implementation success	10	.865	Good
Strategy management process and project management approach	43	.929	Excellent
Perceived business success	8	.920	Excellent
Total	***96***	***.963***	***Excellent***

From Table 5.1, reliability coefficients across all constructs are more than .8 which is rated as good (low-stakes testing). The instrument had 96 items with an overall reliability of .963 which is rated as excellent (high-stakes testing) thus rendering the questionnaire reliable and allows the data collected to be used for analysis in this research.

5.5 Demographic Profile

The survey respondents provided socio-demographic characteristics which included, "job function or title", "years of experience in strategy management", "years of

experience in project management", "gender", "industry, "function", "functional area" and "area of involvement". The information is shown in Table 5.2.

Table 5.2: Characteristics of the survey respondents

Variable	Category	Frequency	%
Job function or title	Senior manager	10	4.4%
	Middle manager	34	15.0%
	Entry level manager	102	45.1%
	Professional specialist	68	30.1%
	Other (specify)	12	5.3%
	Total	**226**	**100 .0%**
Years of experience in strategy management	Under 2 years	25	11.1%
	3 – 5 years	60	26.5%
	6 – 10 years	82	36.3%
	11 – 15 years	34	15.0%
	More than 15 years	25	11.1%
	Total	**226**	**100 .0%**
Years of experience in project management	Under 2 years	31	13.7%
	3 – 5 years	32	14.2%
	6 – 10 years	56	24.8%
	11 – 15 years	67	29.6%
	More than 15 years	40	17.7%
	Total	**226**	**100 .0%**
Gender	Male	110	48.7%
	Female	116	51.3%
	Total	**226**	**100 .0%**
Industry	Financial services	111	49.1%
	Insurance	115	50.9%
	Total	**226**	**100 .0%**
Function	Core business	93	41.2%
	Support function	133	58.8%
	Total	**226**	**100 .0%**
Functional area	Sales	10	4.4%
	Finance and accounting	21	9.3%
	Operations	54	23.9%
	Marketing	5	2.2%
	ICT	53	23.5%
	General management	65	28.8%

Variable	Category	Frequency	%
	Other support services	18	8.0%
	Total	**226**	**100 .0%**
Area of involvement	Project management	68	30.1%
	Strategy management	39	17.3%
	Both	99	43.8%
	Neither	20	8.8%
	Total	**226**	**100 .0%**

From Table 5.2, about 51% (n=116) of the survey respondents were female while 49% (n=110) were male, hence the ratio of female: male was almost 1:1. This level of gender parity, according to Sinden (2017) is typical of the representation on the South African Financial Services and the Insurance Sectors.

Table 5.2 also indicates that 45.1% (n=102) were entry level managers, 15% (n=34) were manager level whilst 4.4% (n=10) were senior or executive management level. Hence management represented 64.5% (n=146) of the survey respondents.

About half, namely 50.9% (n=115) of the survey respondents are from Insurance Industry while 49.1% (n=111) are from Financial Services. A considerable number of survey respondents had 6 years or more experience in either strategy management or project management, that is 62.4% (n=141) had more than 6 years' experience in strategy management whilst 71.5% (n=163) had more than 6 years' experience in project management. The high level of experience of the respondents in both strategy management and project management vis-à-vis the few number of entry level managers is indicative that, it is difficult to get promoted and retain managerial positions in the South African service sector.

Regarding area of involvement which is part of one's experience, survey respondents involved with both strategy management and project management were 43.8% (n=99). This was followed by those involved with project management alone at 30.1% (n=68) whereas those involved with strategy management alone were 17.3% (n=39). A smaller proportion of 8.8% (n=20) had neither of the two areas of involvement. Interestingly the results show that a substantial majority of respondents, being 91.2%, (n=206) were involved in either project management or strategy management or both.

The results also highlight that 58.8% (n=133) are from support functions as opposed to 41.2% (n=93) who are from core business.

From a functional area point of view Table 5.2 shows that general management had the highest representation with 28.8% (n=65) of the survey respondents followed by operations with 23.9% (n=54) while ICT had 23.5% (n=53) and marketing was least represented with 2.2% (n=5) of the respondents.

5.6 Descriptive Statistics on Strategy Implementation Drivers

The five-point Likert scale provided respondent's personal ratings on the selected constructs of strategy implementation drivers namely leadership, communication and change process, and use of project management tools.

The results are provided below based on frequencies, proportions, means and standard deviations.

5.6.1 Leadership

In terms of the 15 items used for measuring leadership, the mean scores and standard deviations are shown in Table 5.3.

Table 5.3: Leadership

Statement	Level of extent					Mean	SD
	To a very large extent	To a large extent	To some extent	To a little extent	Not to any extent at all		
Q9c. Senior leadership supports strategy formulation and implementation.	7.5% (17)	32.7% (74)	33.2% (75)	23.0% (52)	3.5% (8)	3.18	.99
Q9d. Senior leadership is competent enough to implement strategy.	8.8% (20)	31.4% (71)	30.1% (68)	24.8% (56)	4.9% (11)	3.15	1.05
Q9a. Senior leadership provides strategic direction for the organisation.	5.3% (12)	24.8% (56)	44.2% (100)	24.8% (56)	.9% (2)	3.09	.86
Q9g. Senior leadership ensures that the goals of each division within the	7.1% (16)	26.1% (59)	33.6% (76)	29.2% (66)	4.0% (9)	3.03	1.00

Statement	Level of extent					Mean	SD
	To a very large extent	To a large extent	To some extent	To a little extent	Not to any extent at all		
organisation are aligned to the strategy.							
Q9h. Senior leadership ensures the core competencies are aligned with the strategy of the organisation.	7.1% (16)	22.6% (51)	37.6% (85)	28.8% (65)	4.0% (9)	3.00	.98
Q9f. Senior leadership encourages the workforce to understand organisation's strategy.	7.1% (16)	23.5% (53)	35.4% (80)	29.6% (67)	4.4% (10)	2.99	1.00
Q9l. We have a customer oriented organisational culture.	4.9% (11)	24.8% (56)	33.6% (76)	34.1% (77)	2.7% (6)	2.95	.94
Q9b. Senior leadership provides support during strategy implementation.	5.3% (12)	21.2% (48)	37.6% (85)	34.5% (78)	1.3% (3)	2.95	.91
Q9m. We have training and educational programmes for employees at all organisational levels.	2.7% (6)	29.6% (67)	30.5% (69)	33.6% (76)	3.5% (8)	2.94	.94
Q9n. Change in structure is managed effectively during strategy implementation.	4.4% (10)	23.9% (54)	38.5% (87)	25.7% (58)	7.5% (17)	2.92	.99
Q9e. Senior leadership involves the workforce during early stages of strategy formulation.	4.9% (11)	23.9% (54)	35.0% (79)	31.4% (71)	4.9% (11)	2.92	.97
Q9k. The organisational culture inspires everyone to do their best.	4.0% (9)	22.1% (50)	40.3% (91)	27.9% (63)	5.8% (13)	2.91	.94
Q9i. Senior leadership ensures that the organisational structure evolves as strategy implementation progresses.	5.3% (12)	25.7% (58)	30.1% (68)	32.3% (73)	6.6% (15)	2.91	1.03
Q9j. Senior leadership effectively develops human capital to support strategy implementation.	5.8% (13)	20.4% (46)	34.1% (77)	34.1% (77)	5.8% (13)	2.86	1.00
Q9o. Change in organisational culture is managed effectively during strategy implementation.	3.1% (7)	21.2% (48)	34.1% (77)	36.7% (83)	4.9% (11)	2.81	.93

From the results in Table 5.3, none of the leadership items exceeds the mean level 3.5 indicating that the majority of survey respondents do not agree that the behaviour highlighted by the items is practiced to a large extent by the leadership in their organisations, rather they agree that the behaviour indicated is practiced to some extent.

Items with the highest level of agreement that the occurrence was to some extent only were, *"Senior leadership provides strategic direction for the organisation"* $(M = 3.09, SD = 0.86)$ in first place, followed by *"The organisational culture inspires everyone to do their best"* $(M = 2.91, SD = 0.94)$ in second place and then *"Change in structure is managed effectively during strategy implementation"* $(M = 2.92, SD = 0.99)$ in the third place.

However, when items are viewed according to agreement from respondents that there was occurrence of the item to some extent or substantially more the order becomes, ""*Senior leadership provides strategic direction for the organisation*" $(M = 3.09, SD = 0.86)$ as the highest with 74.3% respondents agreeing, followed by "*Senior leadership supports strategy formulation and implementation*" $(M = 3.18, SD = 0.99)$ as second with 73.4% respondents agreeing and then "*Senior leadership is competent enough to implement strategy"* $(M = 3.15, SD = 1.05)$ as third with 70.3% respondents agreeing.

On the other hand, items with the highest agreement that they occur to a little extent or not at all in the organisation are namely first, "*Change in organisational culture is managed effectively during strategy implementation*" which is indicated by results as the least occurring with 41.6% respondents agreeing. Notably, this item was also rated the lowest with a mean of 2.81. The next item is namely "*Senior leadership effectively develops human capital to support strategy implementation*" which is indicated by results as second least occurring with 39.9% respondents agreeing and rated the second lowest mean at 2.86. The third item is namely "*Senior leadership ensures that the organisational structure evolves as strategy implementation progresses*" which is indicated by results as third least occurring with 38.9% respondents agreeing, and the third lowest mean at 2.91.

5.6.2 Communication and change process

The communication and change process constructs were assessed using 8 scale items and the results are provided in Table 5.4.

Table 5.4: Communication and change process

Statement	Level of extent					Mean	SD
	To a very large extent	To a large extent	To some extent	To a little extent	Not to any extent at all		
Q10e. We are organised according to main customer segments.	5.8% (13)	27.9% (63)	39.4% (89)	24.3% (55)	2.7% (6)	3.10	.92
Q10d. Communication enhances shared understanding of the organisational strategy.	8.4% (19)	26.1% (59)	32.7% (74)	29.2% (66)	3.5% (8)	3.07	1.02
Q10c. Change processes, and systems are managed effectively during strategy implementation.	4.9% (11)	27.9% (63)	34.5% (78)	27.4% (62)	5.3% (12)	3.00	.98
Q10a.Senior leadership effectively communicate the organisational strategy to the workforce.	3.5% (8)	19.9% (45)	43.8% (99)	31.0% (70)	1.8% (4)	2.92	.85
Q10h. Processes are reviewed regularly to ensure that they contribute to attainment of customer satisfaction.	4.4% (10)	24.3% (55)	34.5% (78)	32.3% (73)	4.4% (10)	2.92	.96
Q10g. Processes are reviewed to ensure they contribute to the achievement of strategic goals.	5.8% (13)	20.4% (46)	36.3% (82)	30.1% (68)	7.5% (17)	2.87	1.01
Q10f. The impact on employee satisfaction is measured when processes are changed.	3.5% (8)	24.3% (55)	31.9% (72)	35.0% (79)	5.3% (12)	2.86	.97
Q10b. There is continuous workforce engagement during strategy implementation.	4.0% (9)	15.5% (35)	35.8% (81)	38.5% (87)	6.2% (14)	2.73	.94

From the results shown in Table 5.4, no item had a mean above 3.5 indicating that most survey respondents did not agree that the communication and change process items were present to a large extent in their organisations, but rather that they were present to some extent. It can be noted from the above results that for each item,

survey respondents indicated that it mainly occurs to some extent. For each item the standard deviation is close to 1.

Items with the highest level of agreement that the occurrence was to some extent only were, "*Senior leadership effectively communicate the organisational strategy to the workforce*" $(M = 2.92, SD = 0.85)$ in first place, followed by "*We are organised according to main customer segments"* $(M = 3.10, SD = 0.92)$ in second place and then "*Processes are reviewed to ensure they contribute to the achievement of strategic goals*" $(M = 2.87, SD = 1.01)$ in the third place.

However, when items are viewed according to agreement from respondents that there was occurrence of the item to some extent or substantially more the order becomes, "*We are organised according to main customer segments*" $(M = 3.10, SD = 0.92)$ as the highest with 73.1% respondents agreeing, followed by "*Change processes, and systems are managed effectively during strategy implementation"* $(M = 3.00, SD = 0.98)$ as second with 67.3% respondents agreeing and then "*Communication enhances shared understanding of the organisational strategy*" $(M = 3.07, SD = 1.02)$ as third with 67.2% respondents agreeing.

On the other hand, items with the highest agreement that they occur to a little extent or not at all in the organisation are namely first, "*There is continuous workforce engagement during strategy implementation*" which is indicated by results as the least occurring with 44.7% respondents agreeing. Notably, this item was also rated the lowest with a mean of 2.73. The next item is namely "*The impact on employee satisfaction is measured when processes are changed*" which is indicated by results as second least occurring with 40.3% respondents agreeing and rated the second lowest mean at 2.86. The third item is namely "*Processes are reviewed to ensure they contribute to the achievement of strategic goals*" which is indicated by results as third least occurring with 37.6% respondents agreeing, and rated with almost same mean as the previous but is third lowest mean at 2.87.

5.6.3 Use of project management tools

The use of project management tools was measured with twelve scale items and the results are provided in Table 5.5:

Table 5.5: Use of management tools

Statement	Level of extent					Mean	SD
	To a very large extent	To a large extent	To some extent	To a little extent	Not to any extent at all		
Q11d. During strategy implementation, activities are broken down into activities which can be displayed on a Gantt Chart.	12.4% (28)	27.0% (61)	34.1% (77)	19.9% (45)	6.6% (15)	3.19	1.10
Q11c. We monitor strategy implementation continuously.	8.0% (18)	31.0% (70)	33.2% (75)	22.1% (50)	5.8% (13)	3.13	1.03
Q11i. Tools and techniques to help make strategy process successful.	6.6% (15)	26.5% (60)	35.0% (79)	26.1% (59)	5.8% (13)	3.02	1.01
Q11k. Operating within budget and available resources.	10.2% (23)	19.5% (44)	36.3% (82)	29.6% (67)	4.4% (10)	3.01	1.04
Q11e. Project management is used as a monitoring and control mechanism during strategy implementation.	7.5% (17)	27.0% (61)	28.8% (65)	31.9% (72)	4.9% (11)	3.00	1.04
Q11j. Meeting the requirements of stakeholders.	6.6% (15)	25.7% (58)	31.4% (71)	30.5% (69)	5.8% (13)	2.97	1.03
Q11h. How each team's work contributes to the strategy process as a whole?	6.6% (15)	23.5% (53)	37.2% (84)	25.2% (57)	7.5% (17)	2.96	1.03
Q11b. The allocation of resources is aligned to the strategy of the organisation.	5.3% (12)	23.0% (52)	35.4% (80)	31.9% (72)	4.4% (10)	2.93	.97
Q11f. The understanding of the strategy.	4.4% (10)	21.2% (48)	39.8% (90)	29.6% (67)	4.9% (11)	2.91	.94
Q11l. Minimise duplication of effort.	5.3% (12)	23.0% (52)	33.6% (76)	30.5% (69)	7.5% (17)	2.88	1.02
Q11a. Project management is used during strategy implementation.	4.4% (10)	15.5% (35)	45.6% (103)	31.9% (72)	2.7% (6)	2.87	.86
Q11g. What each team must accomplish.	5.8% (13)	20.8% (47)	29.2% (66)	36.3% (82)	8.0% (18)	2.80	1.04

From the results shown in Table 5.5, no item had a mean above 3.5 indicating that most survey respondents did not agree that the use of project management tools items were present to a large extent in their organisations, but rather that they were present to some extent. It can be noted from the above results that for each item, survey respondents indicated that it mainly occurs to some extent. For each item the standard deviation is close to 1.

Items with the highest level of agreement that the occurrence was to some extent only were, "*Project management is used during strategy implementation*" $(M = 2.87, SD = 0.86)$ in first place, followed by "*The understanding of the strategy"* $(M = 2.91, SD = 0.94)$ in second place and then "*How each team's work contributes to the strategy process as a whole*" $(M = 2.96, SD = 1.03)$ in the third place.

However, when items are viewed according to agreement from respondents that there was occurrence of the item to some extent or substantially more the order becomes, "*During strategy implementation, activities are broken down into activities which can be displayed on a Gantt Chart*" $(M = 3.19, SD = 1.10)$ as the highest with 73.5% respondents agreeing, followed by "*We monitor strategy implementation continuously"* $(M = 3.13, SD = 1.03)$ as second with 72.2% respondents agreeing and then "*Tools and techniques to help make strategy process successful*" $(M = 3.02, SD = 1.01)$ as third with 68.1% respondents agreeing.

On the other hand, items with the highest agreement that they occur to a little extent or not at all in the organisation are namely first, "*What each team must accomplish*" which is indicated by results as the least occurring with 44.3% respondents agreeing. Notably, this item was also rated the lowest with a mean of 2.80. The next item is namely "*Minimise duplication of effort*" which is indicated by results as second least occurring with 38.0% respondents agreeing and mean at 2.88. The third item is namely "*Project management is used as a monitoring and control mechanism during strategy implementation*" which is indicated by results as third least occurring with 36.8% respondents agreeing, and mean at 3.00.

5.7 Descriptive Statistics on Strategy Implementation Success

The strategy implementation success construct was evaluated using ten items as shown in Table 5.6 below:

Table 5.6: Strategy implementation success

Statement	Level of extent					Mean	SD
	To a very large extent	To a large extent	To some extent	To a little extent	Not to any extent at all		
Q12d. There is a gap between formulation and the effective implementation of strategy in our organisation.	6.6% (15)	32.7% (74)	31.4% (71)	26.1% (59)	3.1% (7)	3.14	.98
Q12e. There is a strong relationship between our vision, mission, and corporate strategy.	7.1% (16)	27.0% (61)	37.6% (85)	22.6% (51)	5.8% (13)	3.07	1.00
Q12c. The organisation is better at formulating than at implementing strategy.	7.1% (16)	27.0% (61)	35.4% (80)	25.2% (57)	5.3% (12)	3.05	1.01
Q12f. Our organisation is capable of doing business despite market conditions.	6.2% (14)	21.2% (48)	37.2% (84)	31.4% (71)	4.0% (9)	2.94	.97
Q12h. The gap between realised and planned innovations has diminished.	4.0% (9)	23.5% (53)	39.8% (90)	27.0% (61)	5.8% (13)	2.93	.95
Q12g. Our innovation is customer driven.	4.4% (10)	24.3% (55)	35.4% (80)	30.1% (68)	5.8% (13	2.92	.97
Q12a. Our organisation is effective at implementing strategy.	2.7% (6)	21.7% (49)	39.8% (90)	32.3% (73)	3.5% (8)	2.88	.88
Q12i. Our organisation's products exceed customer expectations.	4.0% (9)	20.8% (47)	37.2% (84)	31.9% (72)	6.2% (14)	2.85	.96
Q12j. Our organisation maintains the market share.	5.3% (12)	14.6% (33)	42.0% (95)	31.4% (71)	6.6% (15)	2.81	.95
Q12b. Ethical practices are evident in strategy implementation.	3.5% (8)	17.7% (40)	32.7% (74)	35.0% (79)	11.1% (25)	2.68	1.01

From the results shown in Table 5.6, no item had a mean above 3.5 indicating that most survey respondents did not agree that strategy implementation success items

were present to a large extent in their organisations, but rather that they were present to some extent. It can be noted from the above results that for each item, survey respondents indicated that it mainly occurs to some extent. For each item the standard deviation is close to 1.

Items with the highest level of agreement that the occurrence was to some extent only were, "*Our organisation maintains the market share*" $(M = 2.81, SD = 0.95)$ in first place, followed by "*Our organisation is effective at implementing strategy"* $(M = 2.88, SD = 0.88)$ in second place and then "*The gap between realised and planned innovations has diminished*" $(M = 2.93, SD = 0.95)$ in the third place.

However, when items are viewed according to agreement from respondents that there was occurrence of the item to some extent or substantially more the order becomes, "*There is a strong relationship between our vision, mission, and corporate strategy"* $(M = 3.07, SD = 1.00)$ as the highest with 71.1% respondents agreeing, followed by "*There is a gap between formulation and the effective implementation of strategy in our organisation*" $(M = 3.14, SD = 0.98)$ as second with 70.7% respondents agreeing and then "*The organisation is better at formulating than at implementing strategy*" $(M = 3.05, SD = 1.01)$ as third with 69.5% respondents agreeing.

On the other hand, items with the highest agreement that they occur to a little extent or not at all in the organisation are namely first, "*Ethical practices are evident in strategy implementation*" which is indicated by results as the least occurring with 46.1% respondents agreeing. Notably, this item was also rated the lowest with a mean of 2.68. The next item is namely "*Our organisation's products exceed customer expectations*" which is indicated by results as second least occurring with 38.10% respondents agreeing and mean at 2.85. The third item is namely "*Our organisation maintains the market share*" which is indicated by results as third least occurring with 38.0% respondents agreeing, and mean at 2.81.

5.8 Descriptive Statistics on Strategy Management Process and Project Management as a Vehicle

The survey respondents were asked to indicate for each statement two things, namely (i) the level of extent on each statement and (ii) the project management approach(es) from which the statement belongs. The constructs were: vision formulation, information analysis, objective setting, strategy formulation, strategy implementation and strategy control.

The constructs were measured and the results presented in terms of frequencies, proportions, means and standard deviations. The basis of analysis and statements used is described in Section 4.4.2.3. The categories namely, 'correctly classified' and 'not correctly classified', were applied, being derived from experts during the pilot testing as indicated in Section 4.4.2.3.

5.8.1 Vision formulation

Six items were used to measure vision formulation and the results in terms of mean scores and standard deviations are presented in Table 5.7.

Table 5.7: Vision formulation

Statement	Strategy management							Project management approach	
	Level of extent					Mean	SD	Correctly Classified	Not Correctly Classified
	To a very large extent	To a large extent	To some extent	To a little extent	Not to any extent at all				
Q13c. Establishing the product-customer-market-technology mix that is optimal for the organisation.	2.2% (5)	32.3% (73)	41.2% (93)	21.2% (48)	3.1% (7)	3.09	.86	71.2% (161)	28.8% (65)
Q13b. Linking the vision, mission and organisational values.	2.2% (5)	19.9% (45)	51.8% (117)	20.8% (47)	5.3% (12)	2.93	.84	54.4% (123)	45.6% (103)
Q13f. Steering the organisation's personnel in a common direction.	2.2% (5)	24.8% (56)	41.2% (93)	26.5% (60)	5.3% (12)	2.92	.90	7.5% (17)	92.5% (209)
Q13e. Communicating the organisation's support for the vision.	3.1% (7)	18.1% (41)	45.6% (103)	27.4% (62)	5.8% (13)	2.85	.89	7.1% (16)	92.9% (210)
Q13d. Building commitment for the organisation's future course of action whilst providing a reference point in making strategic decisions.	3.1% (7)	17.7% (40)	43.8% (99)	30.1% (68)	5.3% (12)	2.83	.89	19% (43)	81.0% (183)

Statement	Strategy management							Project management approach	
	Level of extent					Mean	SD	Correctly Classified	Not Correctly Classified
	To a very large extent	To a large extent	To some extent	To a little extent	Not to any extent at all				
Q13a. Defining the organisation's corporate long-term direction.	2.7% (6)	7.1% (16)	31.4% (71)	54.9% (124)	4.0% (9)	2.50	.80	8.4% (19)	91.6% (207)

From the results shown in Table 5.7, no item had a mean above 3.5 indicating that most survey respondents did not agree that vision formulation items were present to a large extent in their organisations, but rather that they were present to some extent. It can be noted from the above results that for each item, survey respondents indicated that it mainly occurs to some extent. For each item the standard deviation is close to 1.

Items with the highest level of agreement that the occurrence was to some extent only were, "*Linking the vision, mission and organisational values*" $(M = 2.93, SD = 0.84)$ in first place, followed by "*Communicating the organisation's support for the vision"* $(M = 2.85, SD = 0.89)$ in second place and then "*Building commitment for the organisation's future course of action whilst providing a reference point in making strategic decisions*" $(M = 2.83, SD = 0.89)$ in the third place.

However, when items are viewed according to agreement from respondents that there was occurrence of the item to some extent or substantially more the order becomes, "*Establishing the product-customer-market-technology mix that is optimal for the organisation"* $(M = 3.09, SD = 0.86)$ as the highest with 75.7% respondents agreeing, followed by "*Linking the vision, mission and*

organisational values" $(M = 2.93, SD = 0.84)$ as second with 73.9% respondents agreeing and then "*Steering the organisation's personnel in a common direction*" $(M = 2.92, SD = 0.90)$ as third with 68.2% respondents agreeing.

On the other hand, items with the highest agreement that they occur to a little extent or not at all in the organisation are namely first, "*Defining the organisation's corporate long-term direction*" which is indicated by results as the least occurring with 58.9% respondents agreeing. Notably, this item was also rated the lowest with a mean of 2.50. The next item is namely "*Building commitment for the organisation's future course of action whilst providing a reference point in making strategic decisions*" which is indicated by results as second least occurring with 35.4% respondents agreeing and mean at 2.83. The third item is namely "*Communicating the organisation's support for the vision*" which is indicated by results as third least occurring with 33.2% respondents agreeing, and mean at 2.85.

For two out of six scale items of the vision formulation construct, the majority of respondents correctly classified where each respective item belongs, namely in the vision formulation phase of the project management approach. The two items are:

- Establishing the product-customer-market-technology mix that is optimal for the organisation (71.2% of respondents).
- Linking the vision, mission and organisational values (54.4% of respondents).

5.8.2 Information analysis

Six items were used to measure information analysis and the results of mean scores and standard deviations are shown in Table 5.8.

Table 5.8: Information analysis

Statement	Strategy management							Project management approach	
	Level of extent					Mean	SD	Correctly Classified	Not Correctly Classified
	To a very large extent	To a large extent	To some extent	To a little extent	Not to any extent at all				
Q13g. Assessing information about the forces at play in the internal and external business environments.	4.4% (10)	29.2% (66)	34.5% (78)	25.2% (57)	6.6% (15)	3.00	1.00	3.5% (8)	96.5% (218)
Q13i. Providing agility between analysing external environments whilst adapting internal processes and systems, leads to success.	3.5% (8)	20.4% (46)	46.0% (104)	27.4% (62)	2.7% (6)	2.95	.85	4.9% (11)	95.1% (215)
Q13h. Identifying important information which helps understanding the business environment.	2.7% (6)	24.3% (55)	42.5% (96)	25.7% (58)	4.9% (11)	2.94	.90	73.5% (166)	26.5% (60)
Q13l. Forecasting potential trends whilst re-evaluating their impact.	4.9% (11)	17.3% (39)	46.5% (105)	25.2% (57)	6.2% (14)	2.89	.93	6.2% (14)	93.8% (212)
Q13j. Integrating information for both internal and external business environment.	.9% (2)	24.3% (55)	40.3% (91)	31.0% (70)	3.5% (8)	2.88	.85	91.6% (207)	8.4% (19)
Q13k. Managing complex information processing.	2.2% (5)	19.9% (45)	39.8% (90)	32.3% (73)	5.8% (13)	2.81	.90	5.8% (13)	94.2% (213)

From the results shown in Table 5.8, no item had a mean above 3.5 indicating that most survey respondents did not agree that information analysis items were present to a large extent in their organisations, but rather that they were present to some extent. It can be noted from the above results that for each item, survey respondents indicated that it mainly occurs to some extent. For each item the standard deviation is close to 1.

Items with the highest level of agreement that the occurrence was to some extent only were, "*Forecasting potential trends whilst re-evaluating their impact*" $(M = 2.89, SD = 0.93)$ in first place, followed by "*Providing agility between analysing external environments whilst adapting internal processes and systems, leads to success"* $(M = 2.95, SD = 0.85)$ in second place and then "*Identifying important information which helps understanding the business environment*" $(M = 2.94, SD = 0.90)$ in the third place.

However, when items are viewed according to agreement from respondents that there was occurrence of the item to some extent or substantially more the order becomes, "*Providing agility between analysing external environments whilst adapting internal processes and systems, leads to success"* $(M = 2.95, SD = 0.85)$ as the highest with 69.9% respondents agreeing, followed by "*Identifying important information which helps understanding the business environment*" $(M = 2.94, SD = 0.90)$ as second with 69.5% respondents agreeing and then "*Forecasting potential trends whilst re-evaluating their impact*" $(M = 2.89, SD = 0.93)$as third with 68.7% respondents agreeing.

On the other hand, items with the highest agreement that they occur to a little extent or not at all in the organisation are namely first, "*Managing complex information processing*" which is indicated by results as the least occurring with 38.1% respondents agreeing. Notably, this item was also rated the lowest with a mean of 2.81. The next item is namely "*Integrating information for both internal and external business environment*" which is indicated by results as second least occurring with 34.5% respondents agreeing and mean at 2.88. The third item is namely "*Assessing information about the forces at play in the internal and external business*

environments" which is indicated by results as third least occurring with 31.8% respondents agreeing, and mean at 3.00.

For two out of six scale items of the information analysis construct, the majority of respondents correctly classified where each respective item belongs, namely in the information analysis phase of the project management approach. The two items are:

- Integrating information for both internal and external business environment (91.6% of respondents).
- Identifying important information which helps understanding the business environment (73.5% of respondents).

5.8.3 Objective setting

The objective setting construct was measured using five scale items and the results are shown in Table 5.9:

Table 5.9: Objective setting

Statement	Strategy management							Project management approach	
	Level of extent					Mean	SD	Correctly Classified	Not Correctly Classified
	To a very large extent	To a large extent	To some extent	To a little extent	Not to any extent at all				
Q13m. Converting the organisation's vision and mission into specific performance targets.	3.5% (8)	27.4% (62)	47.8% (108)	18.1% (41)	3.1% (7)	3.10	.85	86.3% (195)	13.7% (13)
Q13n. Articulating the performance target and what is intended to be achieved successfully.	4.4% (10)	25.2% (57)	37.6% (85)	29.2% (66)	3.5% (8)	2.98	.93	85.8% (194)	14.2% (32)
Q13p. Providing motivation and inspiration to the organisation geared at providing central purpose and direction.	3.1% (7)	26.5% (60)	38.5% (87)	28.3% (64)	3.5% (8)	2.97	.90	10.6% (24)	89.4% (202)
Q13o. Focus efforts and aligning actions throughout the organisation.	2.7% (6)	24.8% (56)	41.2% (93)	28.8% (65)	2.7% (6)	2.96	.87	8.0% (18)	92.0% (208)
Q13q. Identifying, recognising and developing business opportunities.	3.5% (8)	22.1% (50)	43.8% (99)	26.1% (59)	4.4% (10)	2.94	.90	95.1% (215)	4.9% (11)

From the results shown in Table 5.9, no item had a mean above 3.5 indicating that most survey respondents did not agree that objective setting items were present to a large extent in their organisations, but rather that they were present to some extent. It can be noted from the above results that for each item, survey respondents indicated that it mainly occurs to some extent. For each item the standard deviation is close to 1.

Items with the highest level of agreement that the occurrence was to some extent only were, "*Converting the organisation's vision and mission into specific performance targets*" $(M = 3.10, SD = 0.85)$ in first place, followed by "*Identifying, recognising and developing business opportunities"* $(M = 2.94, SD = 0.90)$ in second place and then "*Focus efforts and aligning actions throughout the organisation*" $(M = 2.96, SD = 0.87)$ in the third place.

However, when items are viewed according to agreement from respondents that there was occurrence of the item to some extent or substantially more the order becomes, "*Converting the organisation's vision and mission into specific performance targets*" $(M = 3.10, SD = 0.85)$ as the highest with 78.7% respondents agreeing, followed by "*Identifying, recognising and developing business opportunities"* $(M = 2.94, SD = 0.90)$ as second with 69.4% respondents agreeing and then "*Focus efforts and aligning actions throughout the organisation*" $(M = 2.96, SD = 0.87)$ as third with 68.7% respondents agreeing.

On the other hand, items with the highest agreement that they occur to a little extent or not at all in the organisation are namely first, "*Articulating the performance target and what is intended to be achieved successfully*" which is indicated by results as the least occurring with 32.7% respondents agreeing. Notably, this item was also rated the lowest with a mean of 2.98. The next item is namely "*Providing motivation and inspiration to the organisation geared at providing central purpose and direction"* which is indicated by results as second least occurring with 31.8% respondents agreeing and mean at 2.97. The third item is namely "*Focus efforts and aligning actions throughout the organisation*" which is indicated by results as third least occurring with 31.5% respondents agreeing, and mean at 2.96.

For three out of five scale items of the objective setting construct, the majority of respondents correctly classified where each respective item belongs, namely in the objective setting phase of the project management approach. The three items are:

- Identifying, recognising and developing business opportunities (95.1% of respondents).
- Converting the organisation's vision and mission into specific performance targets (86.3% of respondents).
- Articulating the performance target and what is intended to be achieved successfully (85.8% of respondents).

5.8.4 Strategy formulation

Seven items were used to measure strategy formulation and the results are shown in Table 5.10.

Table 5.10: Strategy formulation

Statement	Strategy management							Project management approach	
	Level of extent					Mean	SD	Correctly Classified	Not Correctly Classified
	To a very large extent	To a large extent	To some extent	To a little extent	Not to any extent at all				
Q13s. Developing the necessary priorities, procedures and operations to achieve the vision during implementation.	4.9% (11)	25.7% (58)	44.2% (100)	23.5% (53)	1.8% (4)	3.08	.87	89.4% (202)	10.6% (24)
Q13r. Cascading corporate objectives into business and function objectives.	3.1% (7)	22.6% (51)	49.6% (112)	23.0% (52)	1.8% (4)	3.02	.81	87.6% (198)	12.4% (28)
Q13w. Facilitating the efficient allocation of resources.	4.9% (11)	21.2% (48)	43.4% (98)	27.9% (63)	2.7% (6)	2.98	.89	89.8% (203)	10.2% (23)
Q13t. Building employee participation through mechanisms to allow for their contribution.	4.0% (9)	22.1% (50)	38.9% (88)	32.3% (73)	2.7% (6)	2.92	.90	90.3% (204)	9.7% (22)
Q13x. Formulating performance targets and their requisite measurement criteria.	1.8% (4)	22.6% (51)	42.0% (95)	32.7% (74)	.9% (2)	2.92	.81	88.9% (201)	11.1% (25)
Q13v. Generating, evaluating and selecting the most appropriate strategy.	2.7% (6)	20.4% (46)	45.1% (102)	27.4% (62)	4.4% (10)	2.89	.87	87.6% (198)	12.4% (28)
Q13u. Encouraging communities of interest around topics that support strategy.	2.7% (6)	18.1% (41)	40.7% (92)	33.6% (76)	4.9% (11)	2.80	.89	94.7% (214)	5.3% (12)

From the results shown in Table 5.10, no item had a mean above 3.5 indicating that most survey respondents did not agree that strategy formulation items were present to a large extent in their organisations, but rather that they were present to some extent. It can be noted from the above results that for each item, survey respondents indicated that it mainly occurs to some extent. For each item the standard deviation is close to 1.

Items with the highest level of agreement that the occurrence was to some extent only were, "*Cascading corporate objectives into business and function objectives*" $(M = 3.02, SD = 0.81)$ in first place, followed by "*Generating, evaluating and selecting the most appropriate strategy"* $(M = 2.89, SD = 0.87)$ in second place and then "*Developing the necessary priorities, procedures and operations to achieve the vision during implementation*" $(M = 3.08, SD = 0.87)$ in the third place.

However, when items are viewed according to agreement from respondents that there was occurrence of the item to some extent or substantially more the order becomes, "*Cascading corporate objectives into business and function objectives*" $(M = 3.02, SD = 0.81)$ as the highest with 75.3% respondents agreeing, followed by "*Developing the necessary priorities, procedures and operations*

to achieve the vision during implementation" $(M = 3.08, SD = 0.87)$ as second with 74.8% respondents agreeing and then "*Facilitating the efficient allocation of resources*" $(M = 2.98, SD = 0.89)$ as third with 69.5% respondents agreeing.

On the other hand, items with the highest agreement that they occur to a little extent or not at all in the organisation are namely first, "*Encouraging communities of interest around topics that support strategy*" which is indicated by results as the least occurring with 38.5% respondents agreeing. Notably, this item was also rated the lowest with a mean of 2.80. The next item is namely "*Building employee participation through mechanisms to allow for their contribution"* which is indicated by results as second least occurring with 35.0% respondents agreeing and mean at 2.92. The third item is namely "*Formulating performance targets and their requisite measurement criteria*" which is indicated by results as third least occurring with 33.6% respondents agreeing, and mean at 2.92.

The results indicate that the majority of respondents correctly classified all the items where they belong, namely in the strategy formulation phase of the project management approach.

5.8.5 Strategy implementation

Fifteen scale items were used to measure strategy implementation and the results are shown in Table 5.11.

Table 5.11: Strategy implementation

Statement	Strategy management							Project management approach	
	Level of extent					Mean	SD	Correctly Classified	Not Correctly Classified
	To a very large extent	To a large extent	To some extent	To a little extent	Not to any extent at all				
Q13ad. Exercising strong leadership to propel strategy execution.	8.0% (18)	22.1% (50)	43.8% (99)	23.9% (54)	2.2% (5)	3.10	.93	96.0% (217)	4.0% (9)
Q13ak. Creating processes, policies and procedures in alignment to the organisation in order to facilitate rather than impede strategy implementation.	5.3% (12)	24.8% (56)	45.6% (103)	22.6% (51)	1.8% (4)	3.09	.87	51.8% (117)	48.2% (190)
Q13ac. Collaborating among strategy managers given that they will be competing for the same resources and accommodate trade-offs.	4.4% (10)	25.7% (58)	44.7% (101)	22.6% (51)	2.7% (6)	3.07	.87	92.9% (210)	7.1% (16)
Q13z. Leading the development of action plans and taking actions.	5.8% (13)	25.2% (57)	41.2% (93)	25.2% (57)	2.7% (6)	3.06	.92	7.5% (17)	92.5% (209)
Q13ae. Exerting internal leadership, focused leadership in order that implementation is driven forward whilst improving how strategy is executed.	4.4% (10)	23.9% (54)	46.0% (104)	22.6% (51)	3.1% (7)	3.04	.88	97.8% (221)	2.2% (5)

Statement	Strategy management							Project management approach	
	Level of extent					Mean	SD	Correctly Classified	Not Correctly Classified
	To a very large extent	To a large extent	To some extent	To a little extent	Not to any extent at all				
Q13af. Ensuing accountability from senior leadership given that it is critical for successful strategy implementation.	4.4% (10)	26.5% (60)	37.6% (85)	29.2% (66)	2.2% (5)	3.02	.91	98.7% (223)	1.3% (3)
Q13ai. Building visible management systems which are essential during communication.	3.1% (7)	25.2% (57)	43.8% (99)	26.5% (60)	1.3% (3)	3.02	.84	96.9% (219)	3.1% (7)
Q13am. Providing additional rewards for impetus to go an extra mile to accomplish tasks.	3.5% (8)	24.8% (56)	43.8% (99)	23.5% (53)	4.4% (10)	3	.90	84.5% (191)	15.5% (35)
Q13y. Ensuring that there is a clear shared understanding of who does what, when and at what cost.	5.3% (12)	19.5% (44)	45.1% (102)	25.7% (58)	4.4% (10)	2.96	.92	87.6% (198)	12.4% (28)
Q13al. Tying reward systems and incentives directly tied to achievement of performance objectives and good strategy implementation.	3.1% (7)	19.5% (44)	50.9% (115)	23.0% (52)	3.5% (8)	2.96	.83	75.2% (170)	24.8% (56)
Q13ab. Instilling a strategy supportive organisational structure.	4.0% (9)	23.9% (54)	40.7% (92)	25.7% (58)	5.8% (13)	2.95	.94	94.7% (214)	5.3% (12)
Q13ah. Ensuring frequent communication as it enhances consensus and organisation performance.	3.1% (7)	19.0% (43)	48.7% (110)	28.3% (64)	.9% (2)	2.95	.80	97.8% (221)	2.2% (5)

Statement	Strategy management							Project management approach	
	Level of extent					Mean	SD	Correctly Classified	Not Correctly Classified
	To a very large extent	To a large extent	To some extent	To a little extent	Not to any extent at all				
Q13aj. Installing both Information systems thus enabling better strategic roles to be carried out.	.9% (2)	26.1% (59)	43.8% (99)	25.7% (58)	3.5% (8)	2.95	.83	79.2% (179)	20.8% (47)
Q13ag. Ensuring that the language and format used during communication exerts discipline during implementation.	2.7 (6)	19.5% (44)	50.0% (113)	23.9% (54)	4.0% (9)	2.93	.84	97.8% (221)	2.2% (5)
Q13aa. Creating conducive organisational culture and work climate.	1.8% (4)	20.8% (47)	42.5% (96)	30.5% (69)	4.4% (10)	2.85	.86	96.9% (219)	3.1% (7)

From the results shown in Table 5.11, no item had a mean above 3.5 indicating that most survey respondents did not agree that strategy implementation items were present to a large extent in their organisations, but rather that they were present to some extent. It can be noted from the above results that for each item, survey respondents indicated that it mainly occurs to some extent. For each item the standard deviation is close to 1.

Items with the highest level of agreement that the occurrence was to some extent only were, "*Tying reward systems and incentives directly tied to achievement of performance objectives and good strategy implementation*" $(M = 2.96, SD = 0.83)$ in first place, followed by "*Ensuring that the language and format used during communication exerts discipline during implementation"* $(M = 2.93, SD = 0.84)$ in second place and then "*Ensuring frequent communication as it enhances consensus and organisation performance*" $(M = 2.95, SD = 0.80)$ in the third place.

However, when items are viewed according to agreement from respondents that there was occurrence of the item to some extent or substantially more the order becomes, "*Creating processes, policies and procedures in alignment to the organisation in order to facilitate rather than impede strategy implementation*" $(M = 3.09, SD = 0.87)$ as the highest with 75.7% respondents agreeing, followed by "*Collaborating among strategy managers given that they will be competing for the same resources and accommodate trade-offs*" $(M = 3.07, SD = 0.87)$ as second with 74.8% respondents agreeing and then "*Exercising strong leadership to propel strategy execution*" $(M = 3.10, SD = 0.93)$ as third with 73.9% respondents agreeing.

On the other hand, items with the highest agreement that they occur to a little extent or not at all in the organisation are namely first, "*Creating conducive organisational culture and work climate*" which is indicated by results as the least occurring with 34.9% respondents agreeing. Notably, this item was also rated the lowest with a mean of 2.85. The next item is namely "*Instilling a strategy supportive organisational structure"* which is indicated by results as second least occurring with 31.5% respondents agreeing and mean at 2.95. The third item is namely "*Ensuing accountability from senior leadership given that it is critical for successful strategy*

implementation" which is indicated by results as third least occurring with 31.4% respondents agreeing, and mean at 3.02.

The results indicate that apart from one scale item, namely "*Leading the development of action plans and taking actions",* for the rest of the items, that is fourteen out of fifteen scale items, the majority of respondents correctly classified where each respective item belongs, namely in the strategy implementation phase of the project management approach.

5.8.6 Strategy control

Four items were used to measure strategy control and the results are shown in Table 5.12.

Table 5.12: Strategy control

Statement	Strategy management							Project management approach	
	Level of extent					Mean	SD	Correctly Classified	Not Correctly Classified
	To a very large extent	To a large extent	To some extent	To a little extent	Not to any extent at all				
Q13an. Building specific metrics that managers will beseech to monitor success through evaluating the organisation's progress and making corrective adjustments.	4.0% (9)	24.3% (55)	49.1% (111)	17.7% (40)	4.9% (11)	3.05	.88	87.2% (197)	12.8% (29)
Q13ao. Ensuring intricate feedback and control mechanisms to hone alignment between strategy and operations are provided.	3.5% (8)	23.5% (53)	41.6% (94)	29.6% (67)	1.8% (4)	2.97	.86	89.4% (202)	10.6% (24)
Q13ap. Creating an environment for success through constant review of the connection between strategy formulation and implementation whilst monitoring new developments.	3.5% (8)	25.7% (58)	41.2% (93)	23.0% (52)	6.6% (15)	2.96	.95	94.7% (214)	5.3% (12)
Q13aq. Visiting the organisation's direction, objectives anytime external or internal conditions warrants.	2.7% (6)	13.3% (30)	49.1% (111)	31.4% (71)	3.5% (8)	2.8	0.81	92.5% (209)	7.5% (17)

From the results shown in Table 5.12, no item had a mean above 3.5 indicating that most survey respondents did not agree that strategy control items were present to a large extent in their organisations, but rather that they were present to some extent. It can be noted from the above results that for each item, survey respondents indicated that it mainly occurs to some extent. For each item the standard deviation is close to 1.

Items with the highest level of agreement that the occurrence was to some extent only were, "*Building specific metrics that managers will beseech to monitor success through evaluating the organisation's progress and making corrective adjustments*" $(M = 3.05, SD = 0.88)$ in first place, followed by "*Visiting the organisation's direction, objectives anytime external or internal conditions warrants"* $(M = 2.80, SD = 0.81)$ in second place.

However, when items are viewed according to agreement from respondents that there was occurrence of the item to some extent or substantially more the order becomes, "*Building specific metrics that managers will beseech to monitor success through evaluating the organisation's progress and making corrective adjustments*" $(M = 3.05, SD = 0.88)$ as the highest with 77.4% respondents agreeing, followed by "*Creating an environment for success through constant review of the connection between strategy formulation and implementation whilst monitoring new developments*" $(M = 2.96, SD = 0.95)$ as second with 70.4% respondents agreeing.

On the other hand, items with the highest agreement that they occur to a little extent or not at all in the organisation are namely first, "*Visiting the organisation's direction, objectives anytime external or internal conditions warrants*" which is indicated by results as the least occurring with 34.9% respondents agreeing. Notably, this item was also rated the lowest with a mean of 2.8. The next item is namely "*Ensuring intricate feedback and control mechanisms to hone alignment between strategy and operations are provided"* which is indicated by results as second least occurring with 31.4% respondents agreeing and mean at 2.97.

The results indicate that the majority of respondents correctly classified all the items where they belong, namely in the monitoring and control phase of the project management approach.

5.9 Descriptive Statistics on Perceived Business Success

Eight scale items were used to measure perceived business success construct and the results in terms of mean scores and standard deviations are shown in Table 5.13.

Table 5.13: Perceived business success

Statement	Level of extent					Mean	SD
	To a very large extent	To a large extent	To some extent	To a little extent	Not to any extent at all		
Q15a. Our organisation constantly builds on market share.	0.9% (2)	37.6% (85)	40.7% (92)	17.7% (40)	3.1% (7)	3.15	.83
Q15d. Our organisation constantly improves business processes.	4.0% (9)	24.8% (56)	36.7% (83)	30.1% (68)	4.4% (10)	2.94	.94
Q15f. Our organisation constantly builds competencies of employees.	3.1% (7)	22.1% (50)	37.6% (85)	35.0% (79)	2.2% (5)	2.89	.88
Q15g. Our organisation constantly reacts well to market changes.	2.2% (5)	20.8% (47)	42.5% (96)	31.4% (71)	3.1% (7)	2.88	.85
Q15e. Our organisation constantly adopts new technology.	3.5% (8)	19.0% (43)	42.5% (96)	31.0% (70)	4.0% (9)	2.87	.89
Q15b. Our organisation constantly improves its profitability.	2.7% (6)	18.6% (42)	43.8% (99)	32.3% (73)	2.7% (6)	2.86	.84
Q15c. Our organisation constantly creates new markets.	3.1% (7)	24.3% (55)	33.2% (75)	33.6% (76)	5.8% (13)	2.85	.96
Q15h. Our organisation constantly reacts well to market technology changes.	2.7% (6)	17.7% (40)	42.5% (96)	33.2% (75)	4.0% (9)	2.82	.86

From the results shown in Table 5.13, no item had a mean above 3.5 indicating that most survey respondents did not agree that perceived business success items were present to a large extent in their organisations, but rather that they were present to some extent. It can be noted from the above results that for each item, survey

respondents indicated that it mainly occurs to some extent. For each item the standard deviation is close to 1.

Items with the highest level of agreement that the occurrence was to some extent only were, "*Our organisation constantly improves its profitability*" $(M = 2.86, SD = 0.84)$ in first place, followed by "*Our organisation constantly reacts well to market changes"* $(M = 2.88, SD = 0.85)$ in second place and then "*Our organisation constantly adopts new technology*" $(M = 2.87, SD = 0.89)$ in the third place.

However, when items are viewed according to agreement from respondents that there was occurrence of the item to some extent or substantially more the order becomes, "*Our organisation constantly builds on market share*" $(M = 3.15, SD = 0.83)$ as the highest with 79.2% respondents agreeing, followed by "*Our organisation constantly improves business processes"* $(M = 2.94, SD = 0.94)$ as second with 65.5% respondents agreeing and then "*Our organisation constantly reacts well to market changes*" $(M = 2.88, SD = 0.85)$ as third with 65.5% respondents agreeing.

On the other hand, items with the highest agreement that they occur to a little extent or not at all in the organisation are namely first, "*Our organisation constantly creates new markets*" which is indicated by results as the least occurring with 39.4% respondents agreeing. Notably, this item was also rated the lowest with a mean of 2.85. The next item is namely "*Our organisation constantly builds competencies of employees*" which is indicated by results as second least occurring with 37.2% respondents agreeing and mean at 2.89. The third item is namely "*Our organisation constantly reacts well to market technology changes*" which is indicated by results as third least occurring with 37.2% respondents agreeing, and mean at 2.82.

5.10 Comparative Analysis Using Independent T-Tests and ANOVA

By averaging Likert scale items in a construct according to guidelines by Boone and Boone (2012) and Subedi (2016) a composite variable is formed. Question 13 was subdivided into seven areas and the overall composite variable was named "strategy management process". The composite variables created were as follows:

- Q9. Leadership;

- Q10. Communication and change process;
- Q11. Use of project management tools;
- Q12. Strategy implementation success;
- Q13. Vision formulation;
- Q13. Information analysis;
- Q13. Objective setting;
- Q13. Strategy formulation;
- Q13. Strategy implementation;
- Q13. Strategy control;
- Q13. Strategy management process and
- Q15. Perceived business success

Question 14's composite variable was created by summing the number of items that were correctly classified in the area of project management approach they belong to. The areas were project initiation, project planning, project execution and project monitoring and control. This resulted in the following composite variables with their maximum scores.

- Q14. Vision formulation (total score 6);
- Q14. Information analysis (total score 6);
- Q14. Objective setting (total score 5);
- Q14. Strategy formulation (total score 7);
- Q14. Strategy implementation (total score 15);
- Q14. Strategy control (total score 4) and
- Q14. Strategy management process (total score 43)

The assumptions of the independent t-tests and ANOVA were assessed namely that observations should be independent, data should come from a normal population and there should be equality of variances across groups. The observations independent from each other with normality being achieved by application of the central limit theorem. In order to test for equality of variances across groups Levene's test of homogeneity of variance was used. For the independent t-test, if the test was significant it meant that the variances across groups were not equal and therefore statistics under unequal variances was assumed while a non-significant test meant

that variances across groups were equal and therefore statistics under equal variances was assumed.

For the univariate analysis of variance (ANOVA), the tradition ANOVA test was used to test for equality of means if the variances across groups were equal, and Tukey HSD was used as a post hoc test. The Welch robust test for equality of means was used to test for equality of means if the variances were not equal, and the Games-Howell test was used as the post hoc test. These tests were done at the 5% level of significance. The test was significant if the p-value was less than .05 and highly significant if p-value was less than .01.

The independent t-test was used to determine if the constructs differed by gender, industry and core function whilst ANOVA was used to determine whether the constructs differed by job function, years of experience in strategy management, years of experience in project management, functional area and area of involvement on issues on the constructs. The comparative tests are discussed in the following sections

5.10.1 Independent t-test for determining difference in mean scores by gender

The independent t-test was used to compare the views of males and females whether they were the same on issues of strategy management process with project management as a vehicle. The results are shown in Table 5.14.

Table 5.14: Independent t-test to determine difference in mean scores by gender

Construct	Group Statistics				Levene's Test for Equality of Variances			T-test for Equality of Means	
	Gender	N	Mean	SD	Equal variances	F	Sig	t-value	Sig (2 –tailed p-score)
Q9. Leadership	Male	110	3.052	.673	Assumed	1.078	.300	1.769	.078
	Female	116	2.900	.615	Not Assumed			1.765	.079
Q10. Communication and change process	Male	110	2.994	.678	Assumed	.052	.819	1.380	.169
	Female	116	2.873	.645	Not Assumed			1.378	.169
Q11. Use of project management tools	Male	110	3.023	.641	Assumed	2.898	.090	1.050	.295
	Female	116	2.927	.729	Not Assumed			1.053	.293
Q12. Strategy implementation success	Male	110	2.962	.609	Assumed	1.040	.309	.823	.411
	Female	116	2.891	.689	Not Assumed			.826	.410
Q13. Vision formulation	Male	110	2.852	.511	Assumed	1.407	.237	-.067	.947
	Female	116	2.856	.567	Not Assumed			-.067	.947
Q13. Information analysis	Male	110	2.921	.567	Assumed	.013	.908	.266	.790
	Female	116	2.901	.581	Not Assumed			.267	.790
Q13. Objective setting	Male	110	3.047	.544	Assumed	1.624	.204	1.420	.157
	Female	116	2.938	.609	Not Assumed			1.424	.156
Q13. Strategy formulation	Male	110	2.933	.484	Assumed	1.029	.311	-.375	.708
	Female	116	2.958	.542	Not Assumed			-.376	.707
Q13. Strategy implementation	Male	110	3.030	.423	Assumed	2.615	.107	1.112	.267
	Female	116	2.963	.488	Not Assumed			1.116	.266
Q13. Strategy control	Male	110	2.968	.564	Assumed	2.053	.153	.527	.598
	Female	116	2.927	.615	Not Assumed			.529	.598
Q13. Strategy management process	Male	110	2.970	.408	Assumed	1.459	.228	.653	.515
	Female	116	2.932	.467	Not Assumed			.655	.513

Construct	Group Statistics				Levene's Test for Equality of Variances			T-test for Equality of Means	
	Gender	N	Mean	SD	Equal variances	F	Sig	t-value	Sig (2 –tailed p-score)
Q14. Vision formulation	Male	110	1.736	1.002	Assumed	11.063	.001	.779	.437
	Female	116	1.621	1.213	Not Assumed			.783	.434
Q14. Information analysis	Male	110	1.873	.607	Assumed	3.555	.061	.391	.696
	Female	116	1.836	.780	Not Assumed			.394	.694
Q14. Objective setting	Male	110	2.909	.551	Assumed	3.327	.070	1.250	.213
	Female	116	2.810	.631	Not Assumed			1.255	.211
Q14. Strategy formulation	Male	110	6.218	1.576	Assumed	1.906	.169	-.640	.523
	Female	116	6.345	1.396	Not Assumed			-.638	.524
Q14. Strategy implementation	Male	110	12.591	1.950	Assumed	.192	.662	.286	.775
	Female	116	12.517	1.927	Not Assumed			.285	.776
Q14. Strategy control	Male	110	3.718	.665	Assumed	7.377	.007	1.445	.150
	Female	116	3.560	.944	Not Assumed			1.458	.146
Q14. Project management approach	Male	110	29.046	3.994	Assumed	.056	.813	.635	.526
	Female	116	28.690	4.410	Not Assumed			.636	.525
Q15. Perceived business success	Male	110	2.889	.636	Assumed	.537	.464	-.466	.642
	Female	116	2.927	.593	Not Assumed			-.465	.642

From the results in Table 5.14, The Levene's test of homogeneity of variance resulted in the majority of constructs, except two, having p-values greater than 0.05 hence non-significant, indicating equal variances across groups, and therefore the relevant statistics to discuss are those with equal variances assumed as previously explained. The exceptions were "*Q14. vision formulation"* and "*Q14. strategy control*", with p-values of .001 and .007.

However, there was homogeneity across means as demonstrated by the results of the independent t-tests of equality of means in that all the constructs had p-values more than .05. This implies that the means were equal across groups. The results suggest that the males and females had similar views overall with regard to the constructs. Based on the results, it can be concluded that there is no difference in views between males and females and that gender difference does not have an effect on the following constructs, namely "*leadership, communication and change process, use of project management tools, strategy implementation success, strategy management process and perceived business success*".

5.10.2 Independent t-test for determining difference in mean scores by industry

The independent t-test was used to determine whether the views of the survey respondent from the financial services were the same as those from the insurance services. The results of the test for equality of means are presented in Table 5.15.

Table 5.15: Independent t-test to determine difference in mean scores by industry

Construct	Group Statistics				Levene's Test for Equality of Variances			T-test for Equality of Means	
	Industry	N	Mean	SD	Equal variances	F	Sig	t-value	Sig (2 –tailed p-score)
Q9. Leadership	Financial services	111	2.790	.529	Assumed	12.813	$p < .001$	-4.351	$p < .001$
	Insurance	115	3.151	.701	Not Assumed			-4.373	$p < .001$
Q10. Communication and change process	Financial services	111	2.815	.571	Assumed	8.989	.003	-2.634	.009
	Insurance	115	3.045	.725	Not Assumed			-2.645	.009
Q11. Use of project management tools	Financial services	111	2.803	.628	Assumed	1.759	.186	-3.779	$p < .001$
	Insurance	115	3.138	.705	Not Assumed			-3.786	$p < .001$
Q12. Strategy implementation success	Financial services	111	2.824	.615	Assumed	.560	.455	-2.313	.022
	Insurance	115	3.023	.671	Not Assumed			-2.317	.021
Q13. Vision formulation	Financial services	111	2.698	.407	Assumed	9.520	.002	-4.442	$p < .001$
	Insurance	115	3.004	.606	Not Assumed			-4.472	$p < .001$
Q13. Information analysis	Financial services	111	2.806	.487	Assumed	3.843	.051	-2.732	.007
	Insurance	115	3.012	.631	Not Assumed			-2.744	.007
Q13. Objective setting	Financial services	111	2.838	.467	Assumed	11.330	.001	-4.035	$p < .001$
	Insurance	115	3.139	.639	Not Assumed			-4.057	$p < .001$
Q13. Strategy formulation	Financial services	111	2.799	.418	Assumed	9.591	.002	-4.378	$p < .001$
	Insurance	115	3.087	.557	Not Assumed			-4.399	$p < .001$
Q13. Strategy implementation	Financial services	111	2.875	.410	Assumed	1.466	.227	-4.040	$p < .001$
	Insurance	115	3.113	.472	Not Assumed			-4.051	$p < .001$
Q13. Strategy control	Financial services	111	2.849	.550	Assumed	.183	.669	-2.477	.014
	Insurance	115	3.041	.613	Not Assumed			-2.482	.014
	Financial services	111	2.822	.347	Assumed	8.090	.005	-4.539	$p < .001$

Construct	Group Statistics				Levene's Test for Equality of Variances			T-test for Equality of Means	
	Industry	N	Mean	SD	Equal variances	F	Sig	t-value	Sig (2 –tailed p-score)
Q13. Strategy management process	Insurance	115	3.076	.481	Not Assumed			-4.565	$p < .001$
Q14. Vision formulation	Financial services	111	2.090	.793	Assumed	79.460	$p < .001$	5.868	$p < .001$
	Insurance	115	1.278	1.232	Not Assumed			5.911	$p < .001$
Q14. Information analysis	Financial services	111	1.838	.565	Assumed	2.641	.106	-.340	.734
	Insurance	115	1.870	.811	Not Assumed			-.342	.733
Q14. Objective setting	Financial services	111	2.856	.585	Assumed	.092	.761	-.063	.950
	Insurance	115	2.861	.605	Not Assumed			-.063	.950
Q14. Strategy formulation	Financial services	111	6.460	1.271	Assumed	10.237	.002	1.762	.079
	Insurance	115	6.113	1.653	Not Assumed			1.770	.078
Q14. Strategy implementation	Financial services	111	12.685	1.972	Assumed	.435	.510	1.005	.316
	Insurance	115	12.426	1.897	Not Assumed			1.004	.316
Q14. Strategy control	Financial services	111	3.658	.803	Assumed	.620	.432	.367	.714
	Insurance	115	3.617	.844	Not Assumed			.367	.714
Q14. Project management approach	Financial services	111	29.586	4.438	Assumed	.382	.537	2.569	.011
	Insurance	115	28.165	3.864	Not Assumed			2.562	.011
Q15. Perceived business success	Financial services	111	2.706	.465	Assumed	16.896	$p < .001$	-5.135	$p < .001$
	Insurance	115	3.103	.674	Not Assumed			-5.168	$p < .001$

From results in Table 5.15, the Levene's test on homogeneity of variances resulted in the constructs *"Q9. leadership", "Q10. communication and change process", "Q13. vision formulation", "Q13. objective setting", "Q13. strategy formulation", "Q13. strategy management process", "Q14. vision formulation", "Q14. strategy formulation"* and *"Q15. perceived business success"* have unequal variances across groups with p-values of less than .001, 003, 002, 001, 002, 005, less than .001, .007 and less than .001 respectively. For these constructs, statistics under equal variances not assumed will be discussed.

However, the independent t-test showed that the following constructs were significant, namely “Q9. leadership”, “*Q10. communication and change process*”, “*Q11. use of project management tools*”, “*Q12. strategy implementation success*”, “*Q13. vision formulation*”, “*Q13, information analysis*”, “*Q13. objective setting*”, “*Q13. strategy formulation*”, “*Q13. strategy implementation*”, “*Q13. strategy control*”, “*Q13. strategy management process*”, “*Q14. vision formulation*”, “*Q14. project management approach*” and “*Q15. perceived business success*” with p-values less than .05.

Hence with regard to these constructs the mean scores for the financial services sector were different from those of the insurance sector, meaning that the views of the financial services differ from those of the insurance sector on issues on the constructs. It is also notable that in general there was heterogeneity of means across groups on the issues.

Regarding the independent sample t-test for “*Q9. leadership”*, there was a significant difference in mean scores between the two industries, ($t\ (211.750) = -4.373, p < .001$) with the mean score for those in the insurance sector ($M = 3.15, SD = .70$) being significantly higher than those in the financial services ($M = 2.79, SD = .53$). On the other hand, given that both groups had means close to three it can be inferred that there was a level of agreement to some extent on the issues, although the level of extent of the *“leadership”* issues was high in the insurance sector than the financial services. A moderate effect size of eta squared, that is, $\eta^2 = .08$ was obtained. The amount of variability in *“leadership”* accounted for by industry was 8%.

For the construct “*Q10. communication and change process”, the* independent sample t-test showed a significant difference in mean scores between the two industries, ($t\ (215.399) = -2.645, p = .009$) with the mean score for those in the insurance sector being higher than those in the financial services at ($M = 3.04, SD = .73$) and ($M = 2.82, SD = .57$) respectively. Both means are close to three inferring that respondents agreed that the issues were occurring to some extent, although the level of extent of the *“communication and change process”* issues was higher in the insurance sector than the financial services. A small effect size of eta squared, that is, $\eta^2 = .03$ was

obtained. About 3% of the amount of variability in *"communication and change process"* was accounted for by industry.

The construct *"Q11. use of project management tools"* indicated a statistically significant difference in means across the two groups of industry using the independent sample t-test with results of $t\,(224) = -3.779, p < .001$, where the mean score for those in the insurance sector ($M = 3.14, SD = .71$) were significantly higher than those for the financial services ($M = 2.80, SD = .63$). However, in light of both groups having means close to three, it can be proffered that there was a level of agreement to some extent on the issues, although the level of extent of the *"use of project management tools"* issues was higher in the insurance sector than the financial services. A moderate effect size of eta squared, that is, $\eta^2 = .06$ was obtained. About 6% of the amount of variation in *"use of project management tools"* was being explained by industry.

For the construct "*Q12. strategy implementation success", the* independent sample t-test showed a significant difference in mean scores between the two industries, $(t\,(224) = -2.313, p = .022)$ with the mean score for those in the insurance sector being higher than those in the financial services at ($M = 3.02, SD = .67$) and ($M = 2.82, SD = .62$) respectively. Both means are close to three inferring that respondents agreed that the issues were occurring to some extent, although the level of extent of the *"strategy implementation success"* issues was higher in the insurance sector than the financial services. A moderate effect size of eta squared, that is, $\eta^2 = .06$ was obtained. About 6% of the amount of variability in *"strategy implementation success"* was accounted for by industry.

The construct "*Q13. vision formulation"* indicated a statistically significant difference in means across the two groups of industry using the independent sample t-test with results of $t\,(200.241) = -4.472, p < .001$, where the mean score for those in the insurance sector ($M = 3.00, SD = .61$) were significantly higher than those for the financial services ($M = 2.70, SD = .41$). However, in light of both groups having means close to three, it can be proffered that there was a level of agreement to some extent on the issues, although the level of extent of the *"vision formulation"* issues was higher

in the insurance sector than the financial services. A moderate effect size of eta squared, that is, $\eta^2 = .09$ was obtained. About 9% of the amount of variation in *"vision formulation"* was being explained by industry.

For the construct "*Q13. information analysis", the* independent sample t-test showed a significant difference in mean scores between the two industries, $(t\,(224) = -2.732, p = .007)$ with the mean score for those in the insurance sector being higher than those in the financial services at $(M = 3.01, SD = .63)$ and $(M = 2.81, SD = .49)$ respectively. Both means are close to three inferring that respondents agreed that the issues were occurring to some extent, although the level of extent of the *"information analysis"* issues was higher in the insurance sector than the financial services. A small effect size of eta squared, that is, $\eta^2 = .03$ was obtained. About 3% of the amount of variability in *"information analysis"* was accounted for by industry.

The construct "Q13. *objective setting"* indicated a statistically significant difference in means across the two groups of industry using the independent sample t-test with results of $t\,(208.726) = -4.057, p < .001$, where the mean score for those in the insurance sector $(M = 3.14, SD = .64)$ were significantly higher than those for the financial services $(M = 2.84, SD = .47)$. However, in light of both groups having means close to three, it can be proffered that there was a level of agreement to some extent on the issues, although the level of extent of the *"objective setting"* issues was higher in the insurance sector than the financial services. A moderate effect size of eta squared, that is, $\eta^2 = .07$ was obtained. About 7% of the amount of variation in *"objective setting"* was being explained by industry.

For the construct "*Q13. strategy formulation", the* independent sample t-test showed a significant difference in mean scores between the two industries, $(t\,(211.280) = -4.399, p < .001)$ with the mean score for those in the insurance sector being higher than those in the financial services at $(M = 3.09, SD = .56)$ and $(M = 2.80, SD = .42)$ respectively. Both means are close to three inferring that respondents agreed that the issues were occurring to some extent, although the level of extent of the *"strategy formulation"* issues was higher in the insurance sector than the financial services. A

moderate effect size of eta squared, that is, $\eta^2 = .08$ was obtained. About 8% of the amount of variability in *"strategy formulation"* was accounted for by industry.

The construct "Q13. ***strategy implementation"*** indicated a statistically significant difference in means across the two groups of industry using the independent sample t-test with results of $t\ (224) = -4.040, p < .001$, where the mean score for those in the insurance sector ($M = 3.11, SD = .47$) were significantly higher than those for the financial services ($M = 2.88, SD = .41$). However, in light of both groups having means close to three, it can be proffered that there was a level of agreement to some extent on the issues, although the level of extent of the *"strategy implementation"* issues was higher in the insurance sector than the financial services. A moderate effect size of eta squared, that is, $\eta^2 = .07$ was obtained. About 7% of the amount of variation in *"strategy implementation"* was being explained by industry.

For the construct "*Q13. strategy control", the* independent sample t-test showed a significant difference in mean scores between the two industries, $(t\ (224) = -2.477, p < .014)$ with the mean score for those in the insurance sector being higher than those in the financial services at ($M = 3.04, SD = .61$) and ($M = 2.85, SD = .55$) respectively. Both means are close to three inferring that respondents agreed that the issues were occurring to some extent, although the level of extent of the *"strategy control"* issues was higher in the insurance sector than the financial services. A small effect size of eta squared, that is, $\eta^2 = .04$ was obtained. About 4% of the amount of variability in *"strategy control"* was accounted for by industry.

The construct "Q13. ***strategy management process"*** indicated a statistically significant difference in means across the two groups of industry using the independent sample t-test with results of $t\ (207.382) = -4.565, p < .001$, where the mean score for those in the insurance sector ($M = 3.08, SD = .48$) were significantly higher than those for the financial services ($M = 2.82, SD = .35$). However, in light of both groups having means close to three, it can be proffered that there was a level of agreement to some extent on the issues, although the level of extent of the *"strategy management process"* issues was higher in the insurance sector than the financial services. A moderate effect size of eta squared, that is, $\eta^2 = .09$ was obtained. About 9% of the

amount of variation in *"strategy management process"* was being explained by industry.

For the construct "*Q14. vision formulation", the* independent sample t-test showed a significant difference in mean scores between the two industries, $(t\,(195.455) = -5.911, p < .001)$ with the mean score for those in the insurance sector being higher than those in the financial services at $(M = 2.09, SD = .79)$ and $(M = 1.28, SD = 1.23)$ respectively. Both means are close to three inferring that respondents agreed that the issues were occurring to some extent, although the level of extent of the *"vision formulation"* issues was higher in the insurance sector than the financial services. A large effect size of eta squared, that is, $\eta^2 = .15$ was obtained. About 15% of the amount of variability in *"vision formulation"* was accounted for by industry.

The construct "Q14. *project management approach"* indicated a statistically significant difference in means across the two groups of industry using the independent sample t-test with results of $t\,(224) = 2.569, p = 0.11$, where the mean score for those in the insurance sector $(M = 29.59, SD = 4.44$ were significantly higher than those for the financial services $(M = 28.17, SD = 3.86)$. However, in light of both groups having means close to three, it can be proffered that there was a level of agreement to some extent on the issues, although the level of extent of the *"project management approach"* issues was higher in the insurance sector than the financial services. A small effect size of eta squared, that is, $\eta^2 = .03$ was obtained. About 3% of the amount of variation in *"project management approach"* was being explained by industry.

For the construct "*Q14.* Perceived *business success", the* independent sample t-test showed a significant difference in mean scores between the two industries, $(t\,(203.037) = -5.168, p < .001)$ with the mean score for those in the insurance sector being higher than those in the financial services at $(M = 2.09, SD = .79)$ and $(M = 1.28, SD = 1.23)$ respectively. Both means are close to three inferring that respondents agreed that the issues were occurring to some extent, although the level of extent of the *"perceived business success"* issues was higher in the insurance sector than the financial services. A large effect size of eta squared, that is, $\eta^2 = .15$ was obtained.

About 15% of the amount of variability in *"perceived business success"* was accounted for by industry.

5.10.3 Independent t-test for determining difference in mean scores by function

The independent t-tests was used to compare whether the views based on the function were the same on the constructs. The test for equality of means are shown in Table 5.16.

Table 5.16: Independent t-test to determine difference in mean scores by function

Indicator	Group Statistics				Levene's Test for Equality of Variances			T-test for Equality of Means	
	Function	N	Mean	SD	Equal variances	F	Sig	t-value	Sig (2 –tailed p-score)
Q9. Leadership	Core business	93	2.988	.731	Assumed	4.458	.036	.273	.785
	Support function	133	2.964	.583	Not Assumed			.262	.793
Q10. Communication and change process	Core business	93	2.938	.736	Assumed	1.366	.244	.117	.907
	Support function	133	2.928	.609	Not Assumed			.114	.910
Q11. Use of project management tools	Core business	93	2.959	.707	Assumed	.080	.778	-.268	.789
	Support function	133	2.984	.676	Not Assumed			-.266	.791
Q12. Strategy implementation success	Core business	93	2.872	.694	Assumed	1.610	.206	-1.028	.305
	Support function	133	2.962	.618	Not Assumed			-1.007	.315
Q13. Vision formulation	Core business	93	2.823	.595	Assumed	1.329	.250	-.731	.465
	Support function	133	2.876	.498	Not Assumed			-.709	.479
Q13. Information analysis	Core business	93	2.919	.600	Assumed	1.194	.276	.188	.851
	Support function	133	2.905	.556	Not Assumed			.186	.853
Q13. Objective setting	Core business	93	3.013	.609	Assumed	2.271	.133	.471	.638
	Support function	133	2.976	.560	Not Assumed			.464	.643
Q13. Strategy formulation	Core business	93	2.974	.572	Assumed	2.871	.092	.691	.490
	Support function	133	2.926	.470	Not Assumed			.667	.505
Q13. Strategy implementation	Core business	93	2.993	.504	Assumed	5.422	.021	-.075	.940
	Support function	133	2.998	.424	Not Assumed			-.073	.942
Q13. Strategy control	Core business	93	2.927	.583	Assumed	.004	.951	-.415	.679
	Support function	133	2.961	.596	Not Assumed			-.416	.678

Indicator	Group Statistics				Levene's Test for Equality of Variances			T-test for Equality of Means	
	Function	N	Mean	SD	Equal variances	F	Sig	t-value	Sig (2 –tailed p-score)
Q13. Strategy management process	Core business	93	2.952	.492	Assumed	4.473	.036	.034	.973
	Support function	133	2.950	.399	Not Assumed			.032	.974
Q14. Vision formulation	Core business	93	1.817	1.042	Assumed	5.398	.021	1.587	.114
	Support function	133	1.579	1.156	Not Assumed			1.616	.107
Q14. Information analysis	Core business	93	1.903	.723	Assumed	.479	.490	.884	.378
	Support function	133	1.820	.684	Not Assumed			.875	.382
Q14. Objective setting	Core business	93	2.968	.375	Assumed	18.466	.000	2.335	.020
	Support function	133	2.782	.700	Not Assumed			2.578	.011
Q14. Strategy formulation	Core business	93	6.398	1.320	Assumed	2.079	.151	.971	.333
	Support function	133	6.203	1.590	Not Assumed			1.003	.317
Q14. Strategy implementation	Core business	93	12.484	1.626	Assumed	.071	.790	-.449	.654
	Support function	133	12.602	2.128	Not Assumed			-.471	.638
Q14. Strategy control	Core business	93	3.720	.728	Assumed	4.560	.034	1.274	.204
	Support function	133	3.579	.881	Not Assumed			1.318	.189
Q14. Project management approach	Core business	93	29.290	3.063	Assumed	1.428	.233	1.279	.202
	Support function	133	28.564	4.839	Not Assumed			1.380	.169
Q15. Perceived business success	Core business	93	2.926	.690	Assumed	4.458	.036	.273	.715
	Support function	133	2.896	.555	Not Assumed			.262	.725

From results in Table 5.16, The Levene's test of homogeneity of variance resulted in the majority of constructs having equal variances across groups except the constructs *"Q9. leadership", "Q13. strategy implementation", "Q13. strategy management process", "Q14. vision formulation", "Q14. objective setting"* and *"Q14. strategy control"* have unequal variances across groups with p-values of .036, .021, 036, .021, less than .001 and .034 respectively. For these constructs, statistics under equal variances not assumed will be discussed.

However, the independent t-test showed that the majority constructs had no difference in means given that they all had p-values more than .05 except for the construct *"Q14. objective setting".* As such, there was homogeneity across means except on objective setting in the project management approach. The dimensions were interpreted in a similar way irrespective of one being in core business or support function on objective setting in the project management approach. These results suggest that function difference does not have an effect on views on the constructs on objective setting in the project management approach.

For the construct "*Q14. objective setting", the* independent sample t-test showed a significant difference in mean scores between the two industries, $(t\,(211.370) = 2.578, p = .011)$ with the mean score for those in the core business being higher than those in the support function at $(M = 2.97, SD = .37)$ and $(M = 2.78, SD = .70)$ respectively. Both means are close to three inferring that respondents agreed that the issues were occurring to some extent, although the level of extent of the *"objective setting"* issues in the project management approach was higher in the core business than the support function. A small effect size of eta squared, that is, $\eta^2 = .03$ was obtained. About 3% of the amount of variability in *"objective setting"* was accounted for by function.

5.10.4 ANOVA test to determine difference in mean scores by job function/title

Job function or title were categorised into five groups namely senior manager, middle manager, entry level manager, professional specialist and other. The results of the F-tests are shown in Table 5.17.

Table 5.17: ANOVA test to determine difference in mean score by job function or title

Constructs	Levene's test for equality of variance		Test for equality of means	
	F	*p-value*	*F*	*p-value*
Q9. Leadership	3.076	.017	1.791[b]	.153
Q10. Communication and change process	2.493	.044	1.008[b]	.416
Q11. Use of project management tools	5.312	$p < .001$	1.545[b]	.210
Q12. Strategy implementation success	1.259	.287	2.229	.067
Q13. Vision formulation	2.702	.031	.317[b]	.864
Q13. Information analysis	2.612	.036	.186[b]	.944
Q13. Objective setting	3.188	.014	.263[b]	.900
Q13. Strategy formulation	3.585	.007	.348[b]	.844
Q13. Strategy implementation	5.989	$p < .001$	.209[b]	.931
Q13. Strategy control	3.803	.005	.888[b]	.481
Q13. Strategy management process	5.129	.001	.218[b]	.927
Q14. Vision formulation	3.319	.012	1.768[b]	.157
Q14. Information analysis	.997	.410	.222	.926
Q14. Objective setting	4.742	.001	.711[b]	.590
Q14. Strategy formulation	17.873	$p < .001$	4.451[b]	.005
Q14. Strategy implementation	5.699	$p < .001$	2.444[b]	.065
Q14. Strategy control	2.346	.056	.593	.668
Q14. Project management approach	6.070	$p < .001$	2.960[b]	.033
Q15. Perceived business success	4.204	.003	.664[b]	.621

[b] Welch F-statistic

From results in Table 5.16, the Levene's test of homogeneity of variance resulted in the majority of constructs having unequal variances across groups except the constructs *"Q12. strategy implementation success"*, *"Q14. information analysis"* and *"Q14. strategy control"* with p-values of .287, .410 and .056 respectively. In this case the Welch robust test for equality of means was used to determine whether there were mean differences between groups and in the case of all other constructs where the

test was significant, the Games Howell test was used as the post-hoc test. For the other constructs, The ANOVA F-test was used to test for equality of means across groups and the Tukey HSD was used as a post hoc test where differences exist.

From the results in Table 5.17, the F-tests indicate the constructs having difference of means among groups with p-values more than .05 implying that there was no statistically significant difference by job function across groups except on "*Q14. strategy formulation" and "Q14. project management approach"*, where there was difference in means on the issues. It can be concluded that job function or title had an impact on the views of the survey respondent on these two issues.

For the construct "*Q14. strategy formulation*" across job functions, the Welch robust test for equality of means results from Table 5.17, $(F(4, 34.441) = 4.451, p = .005)$ imply mean differences across age groups and the Games-Howell post hoc test that followed resulted in two homogeneous group as shown in Table 5.18.

Table 5.18: Games-Howell group for strategy formulation in project management approach by job function

	Q1. Which category best fits your job function or title?	**N**	**Subset for alpha = 0.05**	
			1	**2**
Games-Howell	Senior Manager	10	4.8000	
	Other (specify)	12	4.8333	
	Middle manager	34	5.7353	5.7353
	Entry level manager	102		6.5392
	Professional specialist	68		6.6471

From the results in Table 5.18, the entry level manager $(M = 6.54, SD = 1.19)$ and professional specialist $(M = 6.65, SD = .79)$ had significantly higher mean score than senior managers $(M = 4.8, SD = 2.30)$ and other $(M = 4.83, SD = 2.37)$. The estimated omega-squared $(\omega^2 = .06)$ indicated that approximately 6% of the total variation in "*strategy formulation*" in the project management approach. The effect size is of a moderate effect. The senior managers and others correctly classified five

issues[6] out of seven while entry level managers and professional specialist managed correctly classified all the items on "*strategy formulation*" in the project management approach.

For the construct "*Q14. project management approach"* across job functions, the Welch robust test for equality of means results from Table 5.17, ($F(4,34.514) = 2.96, p = .033$) imply mean differences across age groups and the Games-Howell post hoc test that followed resulted in two homogeneous group as shown in Table 5.19.

Table 5.19: Games-Howell group for project management approach by job function

	Q1. Which category best fits your job function or title?	**N**	**Subset for alpha = 0.05**	
			1	**2**
Games-Howell	Senior Manager	10	25.1000	
	Other (specify)	12	25.8333	
	Middle manager	34	27.6471	27.6471
	Entry level manager	102		29.4902
	Professional specialist	68		29.6176

From the results in Table 5.19, the entry level manager ($M = 29.49, SD = 3.79$) and professional specialists ($M = 29.62, SD = 2.16$)had significantly higher mean scores than senior managers ($M = 25.10, SD = 6.1$) and other ($M = 25.83, SD = 6.69$). The entry level managers approximately correctly classified twenty-nine issues out of forty-three, professional specialists correctly classified thirty while senior managers correctly classified twenty-five and other correctly classified twenty-six. The estimated omega-squared ($\omega^2 = .03$) indicated that approximately 3% of the total variation for "*project management approach*" is attributable to differences in job function. The effect size is of a small effect.

[6] This is obtained from the Table 5.18 where a score of 4.8 for both Senior Managers and Others approximates 5 while Entry level Manager with a score of 6.5 and Professional Specialist with a score of 6.6 are all approximately 7.

5.10.5 ANOVA test to determine difference in mean scores by years of experience in strategy management

Years of experience in strategy management were grouped into under 2 years, 3 – 5 years, 6 – 10 years, 11 – 15 years and more than 15 years. The F-test for equality of means are presented in in Table 5.20.

Table 5.20: ANOVA test to determine difference in mean score by years of experience in strategy management

Constructs	Levene's test for equality of variance		Test for equality of means	
	F	*p-value*	*F*	*p-value*
Q9. Leadership	.608	.658	2.380	.053
Q10. Communication and change process	1.243	.293	1.104	.356
Q11. Use of project management tools	.244	.913	2.665	.033
Q12. Strategy implementation success	.561	.691	1.966	.101
Q13. Vision formulation	1.048	.383	1.801	.130
Q13. Information analysis	1.803	.129	2.461	.046
Q13. Objective setting	1.440	.222	1.302	.270
Q13. Strategy formulation	2.351	.055	1.296	.273
Q13. Strategy implementation	.492	.742	4.031	.004
Q13. Strategy control	.218	.928	3.338	.011
Q13. Strategy management process	1.102	.357	3.027	.019
Q14. Vision formulation	4.805	.001	5.162[b]	.001
Q14. Information analysis	1.311	.267	2.094	.083
Q14. Objective setting	2.213	.068	.776	.542
Q14. Strategy formulation	2.514	.043	1.143[b]	.342
Q14. Strategy implementation	.477	.752	.536	.709
Q14. Strategy control	.550	.700	.129	.972
Q14. Project management approach	1.025	.395	1.493	.205
Q15. Perceived business success	2.095	.082	2.060	.087

[b] Welch F-statistic

The Levene's test resulted in the majority of constructs having equal variances across groups as supported by p-values of more than .05. except for *"Q14. vision formulation"* and *"Q14. strategy formulation"* with p-values of .001 and .043 respectively. In this case the Welch F-tests equality of means was used to compare means for the two constructs and where differences exist the Games-Howell was used as a post hoc test.

From the results in Table 5.20, the majority of constructs had equal means except "*Q11*. *use of project management tools", "Q13. information analysis", "Q13. strategy implementation", "Q13. strategy control", "Q13. strategy management process" and "Q14. vision formulation"* with p-values of .033, .046, 004, .011, 019 and .001 respectively, where there were differences in means on the issues represented by the six constructs in the project management approach. It can be concluded that years of experience in strategy management had an impact on the views of the survey respondent on these six issues.

It was noted from Table 5.20 that ANOVA results of "*Q11. Use of project management* tools" across years of experience in strategy management showed a statistically significance difference in mean scores, ($F(4, 221) = 2.665, p = .033$). The Tukey HSD post hoc test resulted in two homogeneous group as shown in Table 5.21.

Table 5.21: Tukey HSD homogeneous group for use of project management tools by years of experience in strategy management

Tukey HSD[a,b]			
Q2. How many years of experience have you spent in strategy management?	**N**	**Subset for alpha = .05**	
		1	**2**
6 - 10 years	82	2.8933	
3 - 5 years	60	2.9042	
More than 15 years	25	2.9733	2.9733
11 - 15 years	34	2.9926	2.9926
Under 2 years	25		3.3767

From the results, those with under 2 years' experience in strategy management ($M = 3.38, SD = .74$) had a significantly higher mean score than those with 6 – 10 years ($M = 2.89, SD = .70$) as well as those with 3 – 5 years ($M = 2.90, SD = .61$). All means

were close to three indicating that the issues occurred to some extent. However, the level of extent was high in those with under 2 years' experience in strategy management. The estimated eta squared ($\eta^2 = .05$) indicated that approximately 5% of the total variation in "*use of project management tools*" is attributable to differences in years of experience in strategy management. The effect size is of a small effect.

Regarding "*Q13. information analysis*", it was noted that the ANOVA test across years of experience in strategy management showed a statistically significance difference in mean scores, ($F(4, 221) = 2.461, p = .046$). Proceeding with the Tukey HSD post hoc test resulted in two homogeneous group as shown in Table 5.22.

Table 5.22: Tukey-HSD homogeneous group for information analysis by years of experience in strategy management

Tukey HSD[a,b]			
Q2. How many years of experience have you spent in strategy management?	**N**	**Subset for alpha = .05**	
		1	**2**
6 - 10 years	82	2.7724	
3 - 5 years	60	2.9389	2.9389
11 - 15 years	34	2.9706	2.9706
More than 15 years	25	2.9933	2.9933
Under 2 years	25		3.1333

From the results, the younger age group from under 2 years and those more than 15 years were not significantly different from each other. The major difference was those with under 2 years' experience in strategy management ($M = 3.13, SD = .60$) and those with 6 – 10 years ($M = 2.77, SD = .64$). All means were close to three indicating that the issues occurred to some extent. However, the level of extent was high in those with under 2 years' experience in strategy management. The younger age group are of the opinion that "*information analysis*" occurs to some extent and the level of extent is higher as compared to other groups although closer to those with more than 15 or more years. A small effect size of ($\eta^2 = .04$) indicated that approximately 4% of the total variation in "*information analysis*" is attributable to differences in years of experience in strategy management.

For the construct "*Q13. strategy implementation*" across years of experience in strategy management, the ANOVA results from Table 5.20, $(F(4, 221) = 4.031, p = .004)$ imply mean differences across age groups and the Tukey HSD post hoc test that followed resulted in two homogeneous group as shown in Table 5.23.

Table 5.23: Tukey HSD homogeneous group for strategy implementation by years of experience in strategy management

Tukey HSD[a,b]			
Q2. How many years of experience have you spent in strategy management?	**N**	**Subset for alpha = 0.05**	
		1	**2**
6 - 10 years	82	2.8992	
3 - 5 years	60	2.9511	
11 - 15 years	34	3.0196	3.0196
More than 15 years	25	3.1013	3.1013
Under 2 years	25		3.2800

From the results, the major difference was between those under 2 years with a mean of $(M = 3.28, SD = .50)$ had a significantly higher mean than those with 6 – 10 years of experience with a mean of $(M = 2.90, SD = .46)$ as well as those with 3 – 5 years $(M = 2.95, SD = .47)$. All means were close to three indicating that the issues occurred to some extent. However, the level of extent was high in those with under 2 years of experience in strategy management. The younger age group are of the opinion that "*strategy implementation*" occurs to some extent and the level of extent is higher as compared to other groups although closer to those with more than 15 or more years**.** A medium effect size of ($\eta^2 = .07$) indicated that approximately 7% of the total variation in "*strategy implementation*" is attributable to differences in years of experience in strategy management.

With regard to the construct "*Q13. strategy control*" across years of experience in strategy management whose ANOVA results, $(F(4, 221) = 2.228, p = .011)$ indicated mean differences across age groups, the Tukey HSD post hoc test that followed resulted in two homogeneous group as shown in Table 5.24.

Table 5.24: Tukey HSD homogeneous group for strategy control by years of experience in strategy management

Tukey HSD[a,b]			
Q2. How many years of experience have you spent in strategy management?	**N**	**Subset for alpha = 0.05**	
		1	**2**
11 - 15 years	34	2.8088	
6 - 10 years	82	2.8476	
3 - 5 years	60	2.9000	
More than 15 years	25	3.0000	3.0000
Under 2 years	25		3.2600

The results indicate that those under 2 years with a mean of $(M = 3.26, SD = .56)$ had a significantly higher mean than those with 11 – 15 years of experience with a mean of $(M = 2.81, SD = .52)$, 6 – 10 years of experience with a mean of $(M = 2.85, SD = .52)$ and those with 3 – 5 years $(M = 2.90, SD = .59)$. All means were close to three indicating that the issues occurred to some extent. However, the level of extent was high in those with under 2 years' experience in strategy management. A medium effect size of $(\eta^2 = .06)$ indicated that approximately 6% of the total variation in "*strategy control"* is attributable to differences in years of experience in strategy management.

For the construct *"Q.13. strategy management process*" across years of experience in strategy management with the Welch robust tests of equality of means results $(F(4, 221) = 3.027, p = .019)$ indicating mean differences across age groups, the Games-Howell post hoc test resulted in two homogeneous group as shown in Table 5.25.

Table 5.25: Games-Howell homogeneous group for strategy management process by years of experience in strategy management

Tukey HSD[a,b]			
Q2. How many years of experience have you spent in strategy management?	**N**	**Subset for alpha = 0.05**	
		1	**2**
6 - 10 years	82	2.8599	
3 - 5 years	60	2.9384	2.9384
11 - 15 years	34	2.9617	2.9617
More than 15 years	25	3.0260	3.0260
Under 2 years	25		3.1888

From the results, the major difference was between those under 2 years with a mean of $(M = 3.19, SD = .49)$ and the 6 – 10 years of experience with a mean of $(M = 2.86, SD = .46)$. All means were close to three indicating that the issues occurred to some extent. However, the level of extent was high in those with under 2 years' experience in strategy management. A medium effect size of $(\omega^2 = .05)$ indicated that approximately 5% of the total variation in "*strategy management process*" is attributable to differences in years of experience in strategy management.

For the construct *"Q14. vision formulation"*, the Welch robust tests of equality of means showed that there was a statistically significance difference in mean scores, $(F(4,76.841) = 5.162, p = .001)$ across years of experience in strategy management as noted from Table 5.20 and proceeding with the Games-Howell post hoc test resulted in two homogeneous group as shown in Table 5.26.

Table 5.26: Games-Howell group for vision formulation in project management approach by years of experience in strategy management

Games-Howell				
Q2. How many years of experience have you spent in strategy management?	**N**	**Subset for alpha = 0.05**		
		1	**2**	**3**
More than 15 years	25	1.2400		
6 - 10 years	82	1.4634	1.4634	
11 - 15 years	34	1.5000	1.5000	1.5000
3 - 5 years	60			2.0333
Under 2 years	25			2.2000

From the results, those with under 2 years' experience $(M = 2.20, SD = 1.04)$ and those with 3 – 5 years' experience $(M = 2.03, SD = .99)$ had significantly higher mean scores than those with more than 15 years' experience in strategy management $(M = 1.24, SD = 1.23)$. Those with at most 5 years' experience approximately correctly classified two issues[7] out of six while those with more than 15 years' experience in strategy management correctly classified one out of the six issues in "*vision formulation*" in the project management approach. The level of classification was high in those with less experience in strategy management. The estimated omega-squared

[7] The numbers under subset are the classification numbers per category of years of experience spent in strategy management

($\omega^2 = .07$) indicated that approximately 7% of the total variation in "*vision formulation*" in the project management approach is attributable to differences in years of experience in strategy management. The effect size is of a moderate effect.

5.10.6 ANOVA test to determine difference in mean scores by years of experience in project management

Years of experience in project management was grouped into under 2 years, 3 – 5 years, 6 – 10 years, 11 – 15 years and more than 15 years. The F-test for equality of means are presented in Table 5.27.

Table 5.27: ANOVA test to determine difference in mean score by years of experience in project management

Constructs	**Levene's test for equality of variance**		**Test for equality of means**	
	F	***p-value***	***F***	***p-value***
Q9. Leadership	2.300	.060	.254	.907
Q10. Communication and change process	1.086	.364	.718	.581
Q11. Use of project management tools	1.502	.203	1.091	.362
Q12. Strategy implementation success	.722	.578	1.210	.307
Q13. Vision formulation	1.369	.246	.653	.625
Q13. Information analysis	.918	.454	.972	.424
Q13. Objective setting	1.441	.221	.702	.591
Q13. Strategy formulation	1.196	.313	1.494	.205
Q13. Strategy implementation	1.192	.315	.439	.780
Q13. Strategy control	.108	.979	.478	.752
Q13. Strategy management process	1.344	.255	.476	.754
Q14. Vision formulation	.843	.499	7.588	$p < .001$
Q14. Information analysis	1.060	.377	.589	.671
Q14. Objective setting	4.326	.002	1.024[b]	.400
Q14. Strategy formulation	7.086	$p < .001$	.2.920[b]	.026
Q14. Strategy implementation	.938	.442	.765	.549

Constructs	Levene's test for equality of variance		Test for equality of means	
	F	*p-value*	*F*	*p-value*
Q14. Strategy control	1.715	.148	.545	.703
Q14. Project management approach	1.837	.123	.346	.847
Q15. Perceived business success	1.380	.242	.974	.422

[b] Welch F-statistic

The Levene's test of resulted in the majority of constructs having equal variances across group as supported by p-values of more than .05 except for *"Q14. objective setting"* and *"Q14. strategy formulation".* In this case the Welch F-tests equality of means was used to compare means for the two constructs and where differences exist the Games-Howell was used as a post hoc test.

From the results in Table 5.27, no difference in mean scores by years of experience in project management existed for most constructs except "*Q14. vision formulation*" and "*Q14. strategy formulation*" with p values of < .001 and 026 respectively. It can be concluded that years of experience in project management had an impact on vision formulation and strategy formulation.

For the construct "*Q14. vision formulation"* across years of experience in project management, the ANOVA results from Table 5.27, ($F(4,221) = 7.588, p < .001$) imply mean differences across age groups and the Tukey HSD post hoc test that followed resulted in two homogeneous group as shown in Table 5.28.

Table 5.28: Tukey HSD homogeneous groups for vision formulation in project management approach by years of experience in project management

	Q3. How many years of experience have you spent in project management?	N	Subset for alpha = 0.05	
			1	2
Tukey HSD[a,b]	More than 15 years	40	1.3750	
	11 - 15 years	67	1.4776	
	6 - 10 years	56	1.6071	
	3 - 5 years	32	1.6875	
	Under 2 years	31		2.6129

From the results, those with under 2 years' experience $(M = 2.61, SD = 1.05)$ had a significantly higher mean scores than all the other groups. Those under 2 years' experience in project management approximately correctly classified three issues out of six while those with more than 15 years' experience in strategy management who correctly classified one out of the six issues in "*vision formulation*" in the project management approach. The level of classification was high in those with less experience in project management. A large effect size of ($\eta^2 = .14$) indicated that approximately 14% of the total variation in "*vision formulation*" is attributable to differences in years of experience in project management.

With regard to the construct "*Q14. strategy formulation"* across years of experience in project management whose Welch robust tests of equality of means results, $F(4,87.937) = 2.92, p = .026)$ indicated mean differences across age groups, the Games-Howell post hoc test that followed resulted in two homogeneous group as shown in Table 5.29.

Table 5.29: Games-Howell group for strategy formulation in project management approach by years of experience in project management

	Q3. How many years of experience have you spent in project management?	**N**	**Subset for alpha = 0.05**	
			1	**2**
Games-Howell	Under 2 years	31	5.6129	
	More than 15 years	40	6.1750	6.1750
	6 - 10 years	56	6.1786	6.1786
	3 - 5 years	32		6.5000
	11 - 15 years	67		6.6418

From the results, those with 11 - 15 years' experience $(M = 6.64, SD = .85)$ as well as those with 3 – 5 years' experience $(M = 6.50, SD = 1.14)$ had significantly higher mean scores than those with under 2 years' experience in project management $(M = 5.61, SD = 1.89)$. Those with 11 – 15 years and 3 – 5 years' experience approximately correctly classified all issues while those with under 2 years' experience in project management correctly classified six out of the seven issues in "*strategy formulation*" in the project management approach. The level of classification was high in those with 11 – 15 years' experience in project management. A small effect size of ($\omega^2 = .03$)

indicated that approximately 3% of the total variation in "*strategy formulation*" is attributable to differences in years of experience in project management.

5.10.7 ANOVA test to determine difference in mean scores by functional area

Functional areas were grouped into sales, finance and accounting, operations, marketing, ICT, general management and other support services. The F-test for equality of means are presented in Table 5.30

Table 5.30: ANOVA test to determine difference in mean score by functional area

Constructs	**Levene's test for equality of variance**		**Test for equality of means**	
	F	***p-value***	***F***	***p-value***
Q9. Leadership	3.968	.001	1.655[b]	.162
Q10. Communication and change process	2.524	.022	1.535[b]	.196
Q11. Use of project management tools	3.295	.004	.245[b]	.958
Q12. Strategy implementation success	3.500	.003	.664[b]	.679
Q13. Vision formulation	2.519	.022	2.118[b]	.074
Q13. Information analysis	1.495	.181	1.367	.229
Q13. Objective setting	1.540	.166	1.014	.417
Q13. Strategy formulation	2.838	.011	2.448[b]	.045
Q13. Strategy implementation	1.823	.096	1.161	.329
Q13. Strategy control	1.724	.117	.692[b]	.658
Q13. Strategy management process	2.304	.035	1.723[b]	.145
Q14. Vision formulation	2.166	.047	1.655[b]	.162
Q14. Information analysis	.517	.795	.221	.970
Q14. Objective setting	2.895	.010	1.434[b]	.203
Q14. Strategy formulation	6.916	$p < .001$	2.448[b]	.011
Q14. Strategy implementation	1.349	.237	1.601	.148
Q14. Strategy control	2.996	.008	.610[b]	.720
Q14. Project management approach	1.080	.375	1.617	.144
Q15. Perceived business success	1.989	.068	1.429	.205

[b] Welch F-statistic

The Levene's test of resulted in all constructs having unequal variances across group as supported by p-values of less than .05 except *"Q13. information analysis"*, *"Q13. objective setting"*, "*Q13. strategy implementation", "Q13. strategy control", "Q14.*

information analysis", *"Q14. strategy implementation"*, "*Q14. project management approach"* and *"Q14. perceived business success"* with p-values of .181, .166, .096, .117, .795, .237, .375 and .068 respectively. In this case the ANOVA F-tests for equality of means was used to compare means and where differences exist the Tukey HSD was used as a post hoc test.

Looking at Table 5.30, the majority of constructs had equal means except *"Q13. strategy formulation" and "Q14. strategy formulation"* with p-values of .045 and .011 respectively. It can be concluded that functional area had an impact on strategy formulation and vision formulation.

For the construct "*Q13. strategy formulation"* across groups of functional area, the Welch robust test for equality of means results from Table 5.30, $F(6,33.740) = 2.448\,, p = .045$ imply mean differences across age groups and the Games-Howell post hoc test that followed resulted in two homogeneous group as shown in Table 5.31.

Table 5.31: Games-Howell homogeneous group for strategy formulation by functional area

	Q7. Which of the following best describes the functional area you work in?	**N**	**Subset for alpha = .05**	
			1	**2**
Tukey HSD[a,b]	ICT	53	2.7547	
	Finance and accounting	21	2.8163	2.8163
	General management	65	2.9780	2.9780
	Other support services	18	3.0397	3.0397
	Operations	54		3.0688
	Sales	10	3.0714	3.0714
	Marketing	5	3.1714	3.1714

The results indicate that those in Operations $(M = 3.07,\ SD = .57)$ had a significantly higher mean score than those in ICT $(M = 2.75, SD = .42)$. All means were close to three indicating that there was a level of agreement to some extent on the issues. However, the level of extent of the "*strategy formulation*" issues were lower in ICT than

any other group. This can be attributed to the fact that they do not witness or are not involved when strategy formulation is happening. A small effect size of ($\omega^2 = .04$) indicated that approximately 4% of the total variation in "*strategy formulation*" is attributable to differences in functional areas

With regards to the construct "*Q14. strategy formulation"* across groups of functional area, the Welch robust test for equality of means results from Table 5.30, $F(6,37.633) = 3.532\,, p = .007$ imply mean differences across age groups and the Games-Howell post hoc test that followed resulted in two homogeneous group as shown in Table 5.32.

Table 5.32: Games-Howell homogeneous group for strategy formulation in project management approach by functional area

	Q7. Which of the following best describes the functional area you work in?	**N**	**Subset for alpha = 0.05**	
			1	**2**
Games-Howell	Sales	10	5.0000	
	Other support services	18	5.5556	5.5556
	Operations	54	6.1296	6.1296
	ICT	53	6.3208	6.3208
	General management	65		6.5692
	Marketing	5		6.8000
	Finance and accounting	21		6.8095

From the results, those in finance and accounting $(M = 6.81,\ SD = .40)$, marketing $(M = 6.8,\ SD = .45)$ as well as general management $(M = 6.57,\ SD = 1.06)$ had a significantly higher mean score than those in sales $(M = 5, SD = 2.05)$. Those in finance and accounting, marketing and general management approximately correctly classified all issues while those in sales correctly classified five out of the seven issues in "*strategy formulation*" in the project management approach. The level of classification was high in those in finance and management. The estimated omega squared ($\omega^2 = .06$) showed that approximately 6% of the total variation in "*strategy formulation*" in the project management approach is attributable to differences in functional areas. The effect size is of a moderate effect.

5.10.8 ANOVA test to determine difference in mean scores by area of involvement

The area of involvement was grouped into project management, strategy management, both project and strategy management and neither of the two. The F-test for equality of means are presented in Table 5.33.

Table 5.33: ANOVA test to determine difference in mean score by area of involvement

Constructs	Levene's test for equality of variance		Test for equality of means	
	F	*p-value*	*F*	*p-value*
Q9. Leadership	.859	.463	3.708	.012
Q10. Communication and change process	.292	.831	2.062	.106
Q11. Use of project management tools	.460	.711	2.138	.096
Q12. Strategy implementation success	.533	.660	.596	.618
Q13. Vision formulation	.303	.824	.929	.427
Q13. Information analysis	1.897	.131	2.673	.048
Q13. Objective setting	1.226	.301	1.295	.277
Q13. Strategy formulation	2.963	.033	3.021[b]	.036
Q13. Strategy implementation	1.293	.278	3.357	.020
Q13. Strategy control	.897	.443	2.281	.080
Q13. Strategy management process	1.676	.173	2.975	.033
Q14. Vision formulation	9.222	$p < .001$	4.574[b]	.006
Q14. Information analysis	2.796	.041	1.043[b]	.378
Q14. Objective setting	6.943	$p < .001$	1.739[b]	.166
Q14. Strategy formulation	2.643	.050	.941	.421
Q14. Strategy implementation	3.502	.016	2.541[b]	.062
Q14. Strategy control	6.520	$p < .001$	1.762[b]	.162
Q14. Project management approach	3.374	.019	3.326[b]	.024
Q15. Perceived business success	1.369	.253	1.592	.192

[b] Welch F-statistic

The Levene's test of resulted in all constructs having equal variances across group as supported by p-values of more than .05 except *"Q13. strategy formulation"*, *"Q14. vision formulation"*, *"Q14. information analysis"*, "*Q14. objective setting"*, "*Q14. strategy implementation", "Q14. strategy control" and "Q14. project management approach"* with p-values of .033, less than .001, .041, less than .001, .016, less than .001 and .019 respectively. In this case the Welch robust F-tests for equality of means was used to compare means and where differences exist the Games-Howell was used as a post hoc test.

From the results in Table 5.33, highlights that most of the constructs had equal means except "Q9. *leadership", "Q13. information analysis", "Q13. strategy formulation", "Q13. strategy implementation",* "*Q13. strategy management process", "Q14. vision formulation" and "Q14. project management approach"* with p-values of .012, .048, .036, .020, .033, .006 and .024 respectively. The views of the survey respondents in these issues were dependent on area of involvement.

For the construct "*Q9. leadership"* across area of involvement, the ANOVA results from Table 5.33, $F(6,33.740) = 2.448, p = .045$ imply mean differences across age groups and the Tukey HSD post hoc test that followed resulted in two homogeneous group as shown in Table 5.34.

Table 5.34: Tukey-HSD homogeneous group for leadership by area of involvement

	Q8. Which area are you normally involved in?	**N**	**Subset for alpha = 0.05**	
			1	**2**
Tukey HSD[a,b]	Neither of the two	20	2.6167	
	Project management	68	2.9284	2.9284
	Both project and strategy management	99	2.9933	2.9933
	Strategy management	39		3.1863

From the results, those with neither of the two $(M = 2.62, SD = .73)$ had a significantly lower mean than those in strategy management $(M = 3.19, SD = .72)$. All means were close to three indicating that the issues occurred to some extent. However, the level of extent was high for those in strategy management. A small effect size of $(\eta^2 = .05)$

indicated that approximately 5% of the total variation in "*leadership*" is attributable to differences in area of involvement.

With regards to the construct "*Q13. information analysis"* across area of involvement, the ANOVA results, $(F(3, 222) = 2.673, p = .048)$ imply mean differences across age groups and the Tukey HSD post hoc test that followed resulted in two homogeneous group as shown in Table 5.35.

Table 5.35: Tukey HSD homogeneous group for information analysis by area of involvement

	Q8. Which area are you normally involved in?	**N**	**Subset for alpha = 0.05**	
			1	**2**
Tukey HSD[a,b]	Both project and strategy management	99	2.7980	
	Project management	68	2.9510	2.9510
	Neither of the two	20	3.0500	3.0500
	Strategy management	39		3.0556

From the results, those in strategy management $(M = 3.06, SD = .50)$ had a significantly higher mean score than those in both project and strategy management $(M = 2.80, SD = .62)$. All means were close to three indicating that the issues occurred to some extent. However, the level of extent was high for those in strategy management. The estimated eta squared ($\eta^2 = .04$) indicated that approximately 4% of the total variation in "*information analysis*" is attributable to differences in area of involvement. The effect size is of a small effect.

For to the construct "*Q13. strategy formulation"* across area of involvement whose Welch robust tests of equality of means results, $(F(3, 65.558) = 3.021, p = .036)$ indicated mean differences across age groups, the Games-Howell post hoc test that followed resulted in two homogeneous group as shown in Table 5.36.

Table 5.36: Games-Howell homogeneous group for strategy formulation by area of involvement

	Q8. Which area are you normally involved in?	N	Subset for alpha = .05	
			1	2
Tukey HSD[a,b]	Both project and strategy management	99	2.8543	
	Project management	68	2.9349	2.9349
	Neither of the two	20	3.1000	3.1000
	Strategy management	39		3.1172

From the results, those in both project and strategy management and those in project management were not significantly different from each other. The major difference was those in strategy management $(M = 3.12, SD = .48)$ and those in both project and strategy management $(M = 2.85, SD = .48)$. All means were close to three indicating that the issues occurred to some extent. However, the level of extent was high in those in strategy management. A small effect size of ($\omega^2 = .03$) indicated that approximately 3% of the total variation in "*strategy formulation*" is attributable to differences in area of involvement.

With regards to the construct "*Q13. strategy implementation"* across area of involvement, the ANOVA results, ($F(3, 222) = 3.357, p = .020$) imply mean differences across age groups and the Tukey HSD post hoc test that followed resulted in two homogeneous group as shown in Table 5.37.

Table 5.37: Tukey-HSD homogeneous group for strategy implementation by area of involvement

	Q8. Which area are you normally involved in?	N	Subset for alpha = 0.05	
			1	2
Tukey HSD[a,b]	Both project and strategy management	99	2.8949	
	Neither of the two	20	3.0400	3.0400
	Project management	68	3.0451	3.0451
	Strategy management	39		3.1419

From the results, the major difference was between those in strategy management with a mean of $(M = 3.14, SD = .38)$ and those in both project and strategy

management with a mean of $(M = 2.89, SD = .45)$. All means were close to three indicating that the issues occurred to some extent. However, the level of extent was high in those in strategy management. A small effect size of ($\eta^2 = .05$) indicated that approximately 5% of the total variation in "*strategy implementation*" is attributable to differences in area of involvement.

For to the construct "*Q13. strategy management process"* across area of involvement, the ANOVA results, $(F(3, 222) = 2.975, p = .033)$ imply mean differences across age groups and the Tukey HSD post hoc test that followed resulted in two homogeneous group as shown in Table 5.38.

Table 5.38: Tukey HSD homogeneous group for strategy management process by area of involvement

	Q8. Which area are you normally involved in?	N	Subset for alpha = .05	
			1	2
Tukey HSD[a,b]	Both project and strategy management	99	2.7980	
	Project management	68	2.9510	2.9510
	Neither of the two	20	3.0500	3.0500
	Strategy management	39		3.0556

From the results, those in strategy management $(M = 3.08, SD = .37)$ had a significantly higher mean score than those in both project and strategy management $(M = 2.86, SD = .44)$. All means were close to three indicating that the issues occurred to some extent. However, the level of extent was high in those in strategy management. The estimated eta squared ($\eta^2 = .04$) indicated that approximately 4% of the total variation in "*strategy management process*" is attributable to differences in area of involvement. The effect size is of a small effect.

For the construct "*Q14. vision formulation"* across area of involvement whose Welch robust tests of equality of means results, $(F(3, 67.287) = 4.574, p = .006)$ indicated mean differences across age groups, the Games-Howell post hoc test that followed resulted in two homogeneous group as shown in Table 5.39.

Table 5.39: Games-Howell group for vision formulation in project management approach by areas of involvement

	Q8. Which area are you normally involved in?	N	Subset for alpha = 0.05	
			1	2
Games-Howell	Both project and strategy management	99	1.3737	
	Strategy management	39	1.8462	1.8462
	Project management	68		1.8824
	Neither of the two	20	2.1500	2.1500

From the results, those with neither of the two $(M = 2.15, SD = 1.23)$ as well as those in project management $(M = 6.50, SD = 1.14)$ had significantly higher mean scores than those in both project and strategy management $(M = 1.37, SD = 1.17)$. Those in neither of the two and those in project management approximately correctly classified two of the issues out of six while those in both project and strategy management correctly classified one out of the six issues in "*vision formulation*" in the project management approach. The level of classification was high in those in neither of the two. The estimated omega-squared ($\omega^2 = .05$) indicated that approximately 5% of the total variation in "*vision formulation*" in the project management approach is attributable to differences across areas of involvement. The effect size is of a small effect.

With regard to the construct "*Q14. project management approach"* across area of involvement whose Welch robust tests of equality of means results, $(F(3, 80.755) = 3.326, p = .024)$ indicated mean differences across age groups, the Games-Howell post hoc test that followed resulted in two homogeneous group as shown in Table 5.40.

Table 5.40: Games-Howell group for strategy formulation in project management approach by area of involvement

	Q8. Which area are you normally involved in?	N	Subset for alpha = 0.05	
			1	2
Tukey HSD[a,b]	Both project and strategy management	99	27.8384	
	Neither of the two	20	29.2000	29.2000
	Strategy management	39		29.7436
	Project management	68		29.7500

From the results, those with in project management ($M = 29.75, SD = 2.98$) as well as those with in strategy management ($M = 29.74, SD = 2.22$) had significantly higher mean scores than those in both project and strategy management ($M = 27.84, SD = 5.45$). Those in project management and those in strategy management had approximately correctly classified thirty issues out of forty-three while those in both project and strategy management correctly classified twenty eight out of the forty-three "*strategy formulation*" issues in the project management approach. The level of classification was high in those with project management. The estimated omega-squared ($\omega^2 = .03$) indicated that approximately 3% of the total variation in "*strategy formulation*" is attributable to differences across areas of involvement. The effect size is of a small effect.

5.11 Structural Equation Model

Structural equation modelling was used to test the relationships between latent variables in the conceptual framework developed in chapter 3 (Figure 3.1). The conceptual framework is reproduced below for easy reference.

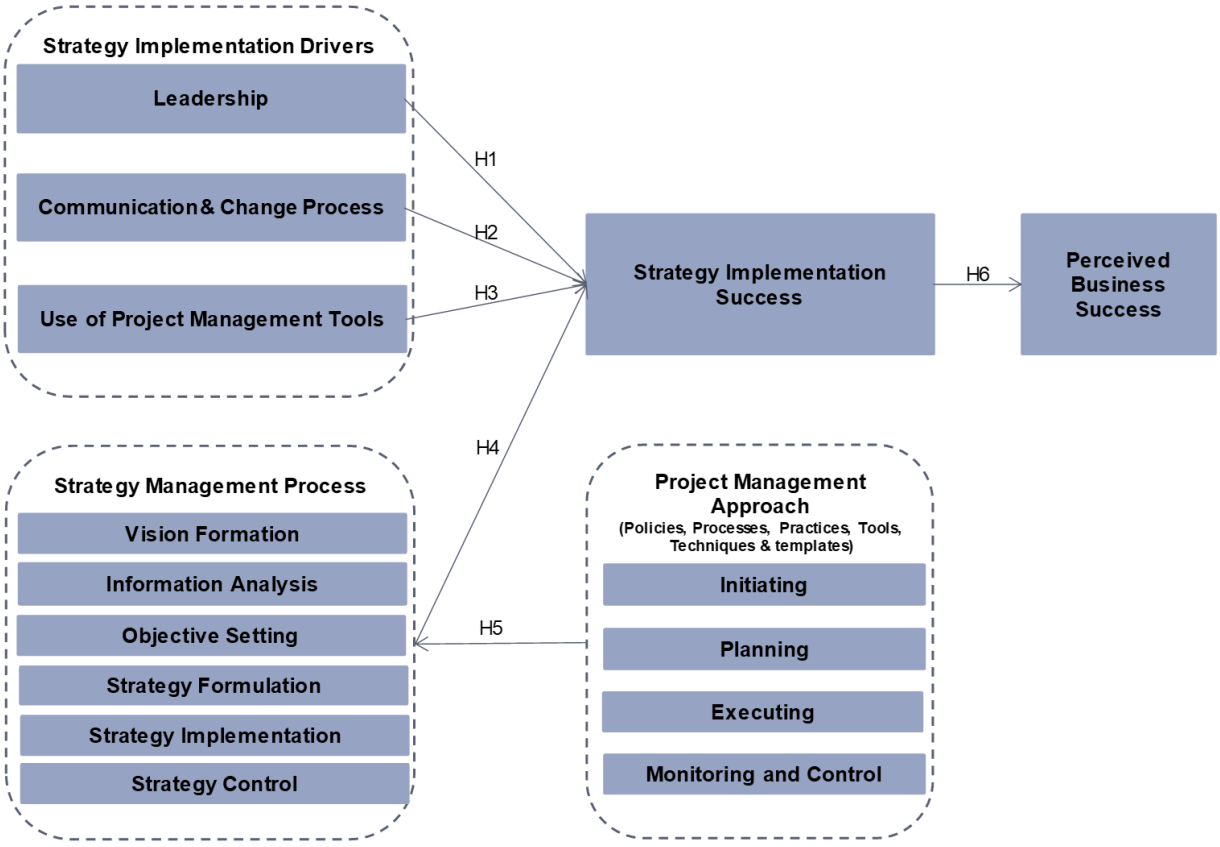


Figure 5.1: The conceptual model framework in Figure 3.1. reproduced

As explained in the methodology chapter (section 4.4.4.3), a structural equation model (SEM) has a two-part process, namely the first part being the measurement model that uses confirmatory factor analysis to measure how well measured variables fit reality and the second part being the structural model that represents interrelationships of variables between constructs (Hair et al. 2018). The measurement model and the structural model were assessed using the maximum likelihood estimation (MLE), which is a robust estimation method, employed in structural equation models that yields consistent parameter estimates that are most likely to have produced the observed values (Hair et al. 2018). The results are presented in the next sections.

5.11.1 Correlation analysis

The Pearson correlation analysis was performed to determine the extent or degree of the relationship between the composite variables from the Likert-scale items using the 5% level of significance. The assessment of correlations was performed using the proposed guidelines by Cohen (1988) which state that an r = .10 - .29 is low effect (low correlation); r = .30 - .49 is medium effect (moderate correlation) and r = .50 - .99 is large effect (strong correlation). The correlations between the variables are shown in Table 5.41.

Table 5.41: Correlation between variables

Item	Q9	Q10	Q11	Q12	Q13	Q15
Q9. Leadership	-					
Q10. Communication and change process	.807[b**]	-				
Q11. Use of project management tools	.608[a**]	.623[b**]	-			
Q12. Strategy implementation success	.605[b**]	.623[b**]	.761[b**]	-		
Q13. Strategy management process	.460[a**]	.394[a**]	.474[a**]	.377[a**]	-	
Q15. Perceived business success	.492[a**]	.462[a**]	.427[a**]	.415[a**]	.467[a**]	-
[*]p < .05 statistically significant; [**] p < .01 statistically highly significant						
[a]r > .3 statistically significant (medium effect); [b]r > 0.5 statistically significant (large effect)						

From the results in Table 5.41, perceived business success had a statistically significant moderate correlation with leadership ($r = .492;\ p < .001$), communication and change process (r=.462; p< .001), use of project management tools, (r=.427; p< .001), strategy implementation success (r=.415; p< .001) and strategy management process (r=.467; p< .001), implying that high values in perceived business success associated with high values in the mentioned variables.

Similarly, strategy management process had a statistically significant moderate positive correlation with leadership ($r = .460;\ p < .001$), communication and change process (r=.394; p< .001), use of project management tools, (r=.474; p< .001) and strategy implementation success (r=.377; p< .001), implying that values in strategy management process associated with high values in the mentioned variables.

On the other hand, enhanced strategy implementation success had a strong positive significant correlation with leadership ($r = .605;\ p < .001$), communication and change process ($r = .623;\ p < .001$) and use of project management tools, ($r = .761;\ p < .001$) . The relationships are of a large effect. High scores in enhanced strategy implementation success are associated with high scores in the mentioned variables.

Similarly, use of project management tools had a strong positive significant correlation with leadership ($r = .608;\ p < .001$) and communication and change process ($r = .623;\ p < .001$). High values in use of project management tools are associated with high values in leadership and communication and change process.

The results in Table 5.41 indicate that communication and change process had a very strong positive significant correlation with leadership ($r = .807;\ p < .001$). High values in communication and change process are associated with high values in leadership.

All correlations were significant ranging from moderate to strong.

5.11.2 Confirmatory Factor Analysis

In order to test how well the measured variables, represent the number of constructs, the confirmatory factor analysis was used with the following constructs:

- Leadership (LEA);
- Communication change process (CCP);
- Use of project management tools (UPMT);
- Strategy management process (SMP);
- Project management approach (PMA);
- Strategy implementation success (SIS) and
- Perceived business success (BS).

A number of statistics and indices were used in order to test for model fitness. The goodness of fit (GOF) indices were used to assess the similarity of the observed and estimated covariance matrices. In terms of determining model fitness, the chi-square (χ^2) and the degrees of freedom were used. According to Hair et al. (2018), the chi-square goodness of fit statistic has some properties that present challenges in its interpretation as a GOF (see section 4.4.4.3) and for that reason its use as the only goodness of fit indices is compromised. Thus, the use of the chi-square value and its associated degrees of freedom statistic called CMIN/DF is preferred over the chi-square statistic (Hair et al. 2018).

Other indices formulated to assess model fitness Included absolute fit indices, incremental fit indices and parsimony fit indices. Absolute fit indices comprise the Chi-Square Statistics, Goodness-Fit Index (GFI), the Root Mean Square Error of Approximation (RMSEA), Root Mean Square Residual (RMR) and the Standardized Root Mean Residual (SRMR). The incremental indices used are the Normed Fit Index (NFI), Tucker Lewis Index (TLI), Comparative Fit Index (CFI) and Relative Non-centrality Index (RNI). The parsimonious indices used are the Adjusted Goodness of Fit Index (AGFI) and Parsimony Normed Fit Index (PNFI). The indices cut off criteria are shown in Table 5.42.

Table 5.42: Summary of cut-off criteria for fit indexes

Measure	Terrible	Acceptable values	Perfect fit
CMIN/DF $\left(\frac{\chi^2}{df}\right)$	> 5	> 3	> 1
CFI	<.90	.90<CFI<.95	>.95
SRMR	>.10	.08<SRMR<.10	<.08
RMSEA	>.08	.06<RMSEA<.08	<.06
PClose	<.01	.01<PCLOSE<.05	>.05
GFI	<.90	.90<GFI<.95	>.95
TLI	<.90	.90<TLI<.95	>.95
NFI	<.90	.90<NFI<.95	>.95
IFI	<.90	.90<IFI<.95	>.95
AGFI	<.90	.90<AGFI<.95	>.95
RFI	The better the closer to 1		

Source: Hair, et al. (2019) and Hu and Bentler (1999)

Gaskin & Lim (2016) recommend that a combination of $CFI > .95$ and $SRMR < .08$ is a good combination and can be solidified by an $RMSEA < .06$. According to Hair et al. (2018) and Tabanchick & Fidell (2014) the factor loadings of the confirmatory factor analysis should have loadings of .5 or ideally greater than .7. The confirmatory factor analysis model is presented in Figure 5.2.

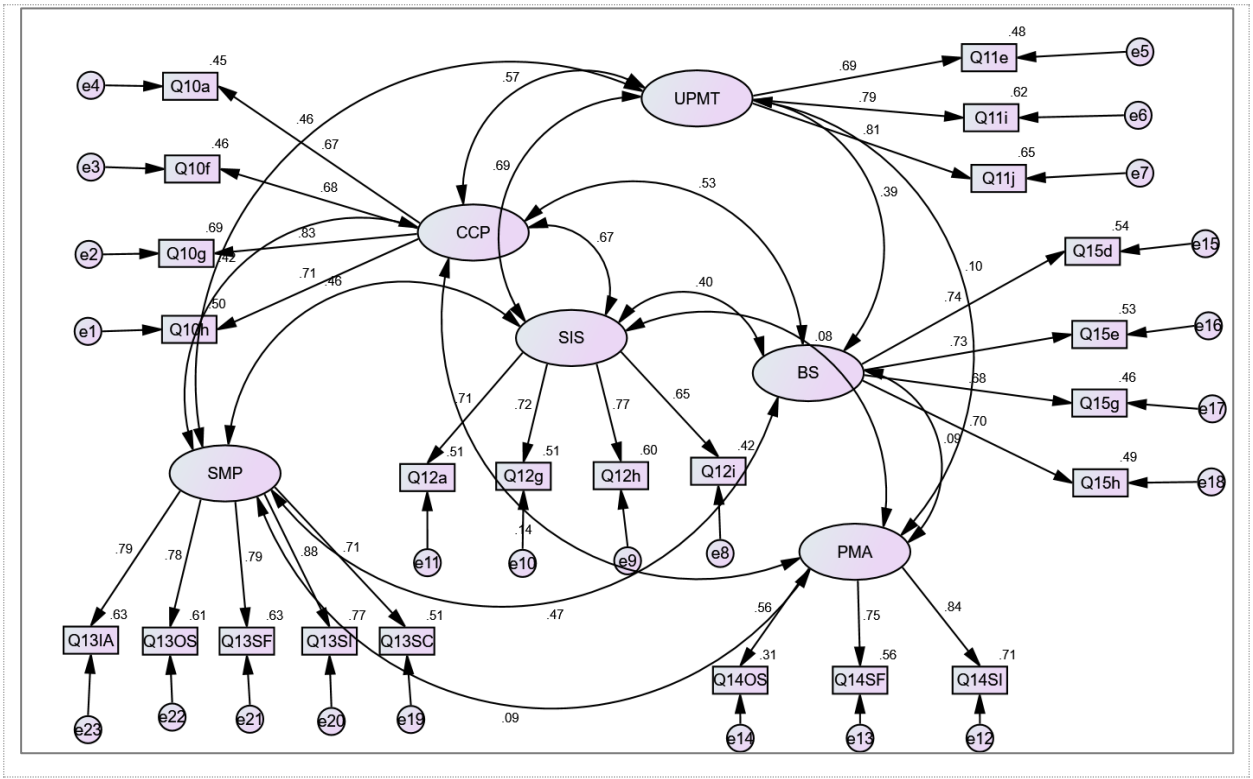


Figure 5.2: Confirmatory factor analysis of the model

From Figure 5.2, the confirmatory factor analysis resulted in the construct leadership being dropped from the model. Inclusion of the construct resulted in a bad fit. Below are model measures emanating from the confirmatory factor analysis as shown in Table 5.43.

Table 5.43: Summary model fit measures for CFA model

Measure	Estimate	Threshold	Interpretation
CMIN	319.521	--	--
DF	215.000	--	--
CMIN/DF	1.486	Between 1 and 3	Excellent
CFI	.953	>.95	Excellent
SRMR	.060	<.08	Excellent
RMSEA	.046	<.06	Excellent
PClose	.700	>.05	Excellent
IFI	.954	>.95	Excellent
TLI	.945	>.95	Acceptable

Considering Table 5.43, the overall fit indices resulted in a chi-squared (χ^2) of 319.521 with 215 degrees of freedom and provides an excellent CMIN/DF of 1.486. The standardized root mean residual (SRMR) and root mean square error of approximation (RMSEA) values of .06 and .046 respectively that are regarded as excellent were obtained. The SRMR met the required level since it was below .08 and the RMSEA was below .06. The CFI was .953, which is considered excellent, as it is greater than .95. PClose above .05 indicates an excellent fit which in this case was .700 thus meeting the requirement. The incremental indices used TLI (.945) and IFI (.954) and were above .9 which is an acceptable level. Based on the foregoing, the model was considered an excellent fit. In addition to model fitness, the model was tested for construct validity.

5.11.2.1 Construct validity

Construct validity involves convergent validity, discriminant validity and nomological validity (see section 4.4.4.3). Convergent validity was measured using Average Variance Extracted (AVE) and construct reliability (CR). They were convergent if all AVE were more than .5 ($AVE > .5$) and all construct reliabilities were greater than AVEs ($CR > AVE$). Following Fornell and Larcker (1981), discriminant validity was measured by comparing square root of AVEs and inter-construct correlations in which the square root of each construct's AVE should have a greater value than the correlations with other latent constructs. Establishing whether the correlation between constructs in the measurement theory makes sense and construct correlations can be useful in this assessment and is how nomological validity was examined (Hair et al. 2018).

Convergent Validity

Convergent validity was assessed by the construct reliability (CR) and the Average Variance Extracted (AVE) as shown in Table .5.44.

Table 5.44: Standardised loadings, construct reliability and AVE

Construct items	Standard loading	Construct reliability	AVE
Communication and change process			
Q10a	.674		
Q10f	.678		
Q10g	.831		
Q10h	.705	.815	.525
Use of project management tools			
Q11e	.695		
Q11i	.789		
Q11j	.808	.809	.586
Strategy implementation success			
Q12a	.712		
Q12g	.717		
Q12h	.772		
Q12i	.647	.805	.509
Strategy management process			
Q13IA	.793		
Q13OS	.782		
Q13SF	.793		
Q13SI	.877		
Q13SC	.714	.894	.630
Project management approach			
Q14OS	.558		
Q14SF	.748		
Q14SI	.844	.766	.528
Perceived business success			
Q15d	.736		
Q15e	.728		
Q15g	.681		
Q15h	.701	.804	.507

From results in Table 5.44, convergent validity was achieved given that all AVEs were more than .5 and all the construct validity (CR) values were greater than the corresponding average variance extracted (AVE).

Discriminant Validity

Discriminant validity was achieved by ensuring that the square root of AVE is greater than the inter-construct correlations, and that the maximum of shared variance (MSV) is less than AVE. The results are shown in Table 5.45, with the square roots of AVE located on the diagonal of the matrix, the squared inter-construct correlations (SICs) located in the top half and the inter-construct correlations located in the bottom half of the matrix.

Table 5.45: AVE, MSV, Inter-construct correlations and Squared Inter-construct correlations *(SICs)*

Construct	***AVE***	***MSV***	***1***	***2***	***3***	***4***	***5***	***6***
1. SIS	.509	.477	**.713**	**.452**	**.207**	**.006**	**.477**	.157
2. CCP	.525	.451	.672	**.725**	.173	.020	.326	.284
3. SMP	.630	.218	.455***	.416***	**.793**	.008	.210	.218
4. PMA	.528	.020	.080	.142†	.092	**.727**	.010	.008
5. UPMT	.586	.477	.691	.571***	.458	.100	**.765**	.154
6. BC	.507	.285	.396***	.533***	.467	.092	.392***	**.712**
† $p < .10$,* $p < .05$,** $p < .01$,*** $p < .001$								
The squared inter-construct correlations (SICs) are in the top half and the inter-construct correlations are in the bottom half of the diagonal.								

From the results in Table 5.45, all the square roots of the AVEs are greater than the corresponding inter-construct correlations and are more than the Squared Inter-construct Correlations (SICs). Therefore, discriminant validity has been achieved.

5.11.3 Structural equation model

The cut-off criteria used in the confirmatory factor analysis was also used to assess the model fitness for the SEM. used. Prior to looking at the significance of the paths,

the chi-square statistics were used to evaluate the model fitness with results shown in Table 5.46.

Table 5.46: Model Chi-square results

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	52	359.840	201	$p < .001$	1.790
Saturated model	253	.000	0		
Independence model	22	2326.660	231	$p < .001$	10.072

From results in Table 5.46, a chi-square value of 359.840 was obtained with 201 degrees of freedom and the p-value was highly significant ($p < .001$). Given that the chi-square is affected by sample size, the appropriate measure became CMIN/DF, which was instead used and a value of 1.790 was obtained which is between 1 and 3 thereby indicating an excellent fit mode.

The absolute fit indices and the parsimony are shown in Table 5.47.

Table 5.47: Absolute fit indices and the parsimony fit indices results

Model	RMR	GFI	AGFI	PGFI
Default model	.075	.872	.839	.693
Saturated model	.000	1.000		
Independence model	.224	.321	.256	.293

From results in Table 5.47, the GFI value (.872) is slightly below .9. The GFI is highly sensitive to sample size and due to developments of other fit indices, this has led to the decline in the usage of GFI (Hair et al. 2018). The RMR is .075, which is below .08, and low values of RMR indicate better fit.

The incremental fit indices are shown in Table 5.48.

Table 5.48: Incremental indices results

Model	NFI	RFI	IFI	TLI	CFI
Default model	.845	.822	.925	.913	.924
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

From results in Table 5.48, the incremental indices IFI, TLI and CFI were .925, .913 and .924 respectively and were greater than the cut-off point of .9 indicating a good model fit.

Table 5.49: RMSEA model results

Model	RMSEA	LO 9O	HI 9O	PCLOSE
Default model	.059	.049	.069	.063
Independence model	.201	.193	.208	.000

From results in Table 5.49, the RMSEA measures the badness of fit and high values are indicative of poor fit. An RMSEA value of .059 was obtained which is below .06, which is an excellent fit.

The overall fit measures of the SEM are presented in Table 5.50.

Table 5.50: Model fit measures for structural model

Measure	Estimate	Threshold	Interpretation
CMIN	359.840	-	-
DF	201.000	-	-
CMIN/DF	1.790	Between 1 and 3	Excellent
CFI	.924	$> .95$	Acceptable
RMSEA	.059	$< .06$	Excellent
PClose	.063	$> .05$	Excellent

From results in Table 5.50, the model fit measures show that there are at least three measures that are excellent and according to Hair et al. (2018); and Hu and Bentler (1999), this is a good model.

The significance of the paths is presented in Table 5.51 using the regression weights from the structural equation model.

Table 5.51: The standardised and unstandardised regression weights from the model

Hypothesis		**Standardised Estimate parameter**	**Estimate**	**S.E.**	**CR**	**P**
H_5	SMP ← PMA	.192	.164	.067	2.451	.014
H_2	SIS ← CCP	.430	.372	.082	4.542	***
H_4	SIS ← SMP	.182	.270	.093	2.894	.004
H_3	SIS ← UPMT	.418	.342	.078	4.391	***
H_6	BS ← SIS	.457	.535	.106	5.032	***
***** p<.001**						

From the results in Table 5.51, all the paths were significant with p-values less than .05 and the hypothesis $H_0: \beta = 0$ was rejected. The paths were highly significant (p<.001) except for the paths SMP ← PMA (strategy management process ← project management approach) ($CR = 2.491, p = .014$) and Q14OS ← PMA (Objective setting ← project management approach) ($CR = 2.185, p = .029$) which were statistically significant with p-value less than .05. A construct is statistically significant as a predictor of another latent construct if the p-value is less than 5%. Further, a positive estimate meant the predictor had a positive impact, and for this case all estimates were positive.

Notably, the construct on leadership was removed from the model given that its inclusion resulted in the model being a poor fit, as such, the first hypothesis was not tested. Below is a presentation of the hypothesis:

H_1: Leadership has a significant and positive relationship with strategy implementation success

As leadership was not part of the model, this relationship could not be established (hypothesis was not tested) because the inclusion of leadership resulted in the model being a poor fit.

The rest of the hypotheses may be commented upon as follows, based on the results in Table 5.51.

H_2: Communication has a significant and positive relationship with strategy implementation success

Communication and change process had positive relationship with strategy implementation success with a $\beta = .372$ and a highly significant p-value ($p < .001$) resulting in the null hypothesis of no relationship ($H_0: \beta = 0$) being rejected. Survey respondents felt that communication and change process contributed positively to strategy implementation success at the 1% level. As such, for every increase of one unit in communication and change process, strategy implementation success increases by .372.

H_3: The use of project management techniques has a significant and positive relationship with strategy implementation success

A statistically significant positive relationship was established on the effect of use of project management tools on strategy implementation success ($\beta = .342, p < .001$). Survey respondents felt that use of project management tools contributed positively to strategy implementation success at the 1% level. This means that, for every increase of one unit in use of project management tools resulted in an increase of .342 in strategy implementation success.

H_4: Enhanced strategy management process has a significant and positive relationship with strategy implementation success

Strategy management process had a statistically highly significant positive relationship strategy implementation success ($\beta = .270, p = .004$). It can be noted that survey respondents felt that enhanced strategy management process contributed positively

to strategy implementation success at the 5% level. For every increase of one unit in strategy management process, strategy implementation success increases by .270.

H_5: Project management approach as a vehicle has a significant and positive relationship with strategy management process

The project management approach (PMA) had a positive relationship with strategy management process ($\beta = .164, p = .014$) and the null hypothesis of no relationship ($H_0: \beta = 0$) was rejected since the p-value was less than .05. The project management approach tends to influence strategy management process positively. For every increase of one unit in project management approach, strategy management process increases by .164. The components that drove the strategy management process were found to be information analysis, objective setting, strategy formulation, strategy implementation and strategy control.

H_6: Enhanced strategy implementation success has a significant and positive relationship with perceived business success

The model revealed that strategy implementation success had a positive relationship with perceived business success ($\beta = .535, p < .001$). Survey respondents felt that strategy implementation success contributed positively to perceived business success at the 1% level. This is indicative that, for every increase of one unit in strategy implementation success, perceived business success increases by .535. This was the highest impact in the model.

5.11.4 Summary of hypotheses tested and confirmed relationships

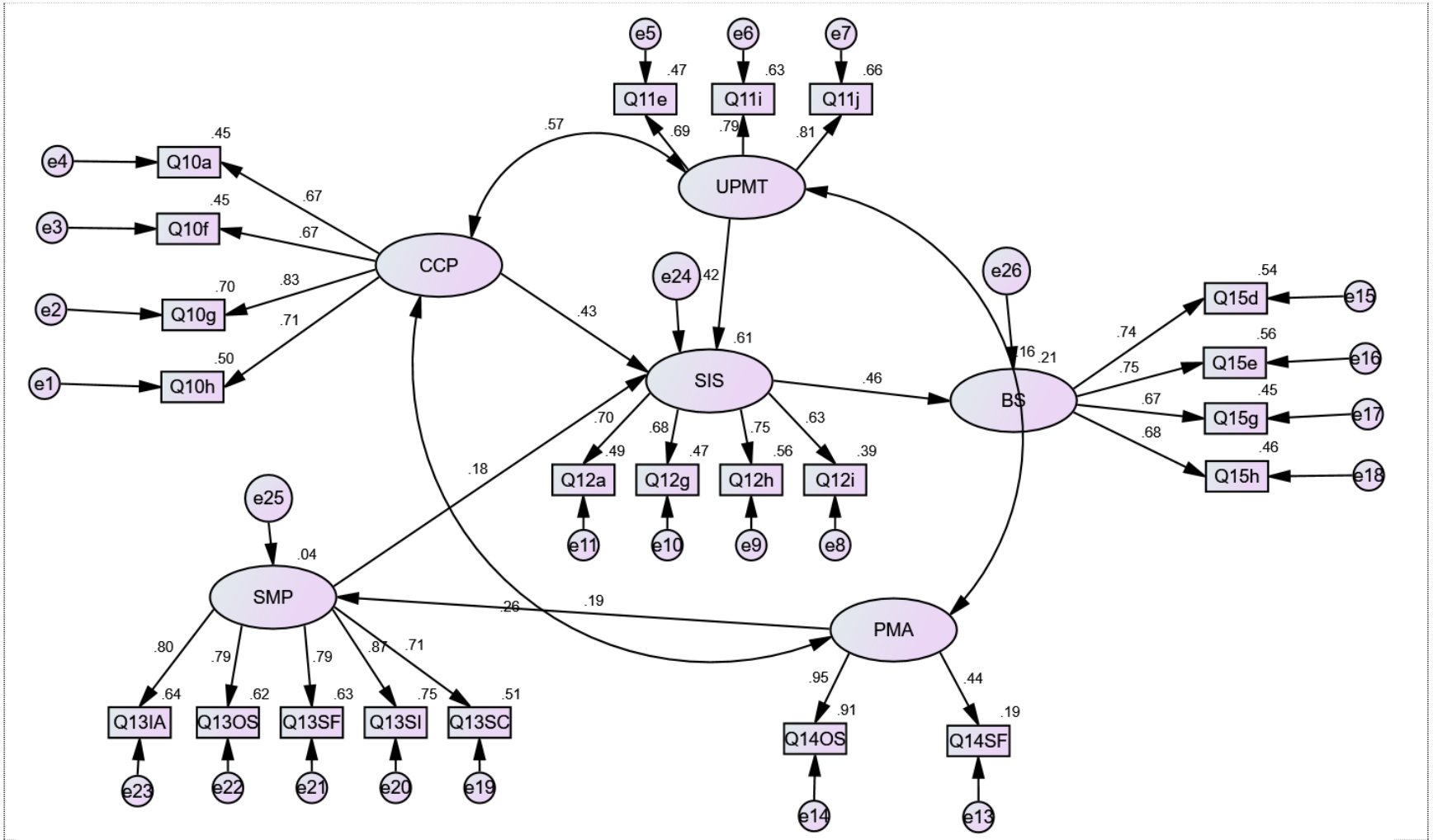
Based on the SEM, the hypotheses tested are summarised in Table 5.52.

Table 5.52: The result of the hypothesis

Hypothesis	Construct	Path	Construct	Unstandardised estimate (β)	p-value	Result of hypothesis
H_1	SIS	<---	LEA			Not tested
H_2	SIS	<---	CCP	$.372$	$p < .001$	Reject null hypothesis at $\alpha = .05$

Hypothesis	Construct	Path	Construct	Unstandardised estimate (β)	p-value	Result of hypothesis
H_3	SIS	<---	UMPT	$.342$	$p < .001$	Reject null hypothesis at $\alpha = .05$
H_4	SIS	<---	SMP	$.270$	$p = .004$	Reject null hypothesis at $\alpha = .05$
H_5	SMP	<---	PMA	$.164$	$p = .014$	Reject null hypothesis at $\alpha = .05$
H_6	BS	<---	SIS	$.535$	$p < .001$	Reject null hypothesis at $\alpha = .05$

All tested hypotheses were positive and significant. The final SEM model of the constructs is presented in Figure 5.3.



X^2= 359.84, df = 201; p-value < .001, Cnmin/df=1.79, CFI =.924; IFI, =.925, TLI=.913, RMSEA = .059, PClose =.063

Figure 5.3: The structural equation model

The summarised decision of the model is presented in Table 5.53.

Table 5.53: Overall hypothesis testing results

Hypothesis	**Result**
H_1: Leadership has a significant and positive relationship with strategy implementation success	Not tested
H_2: Communication has a significant and positive relationship with strategy implementation success	Supported
H_3: The use of project management techniques has a significant and positive relationship with strategy implementation success	Supported
H_4: Enhanced strategy management process has a significant and positive relationship with strategy implementation success	Supported
H_5: Project management approach as a vehicle has a significant and positive relationship with strategy management process	Supported
H_6: Enhanced strategy implementation success has a significant and positive relationship perceived business success	Supported

Based on the structural equation modelling, the initial model proposed in the study had modifications. Leadership was not significant; thus, it was removed from the model. Hence, all the research hypotheses were supported except H_1 which was not tested and the revised model showing the significant paths is given as the final conceptual framework in Figure 5.4.

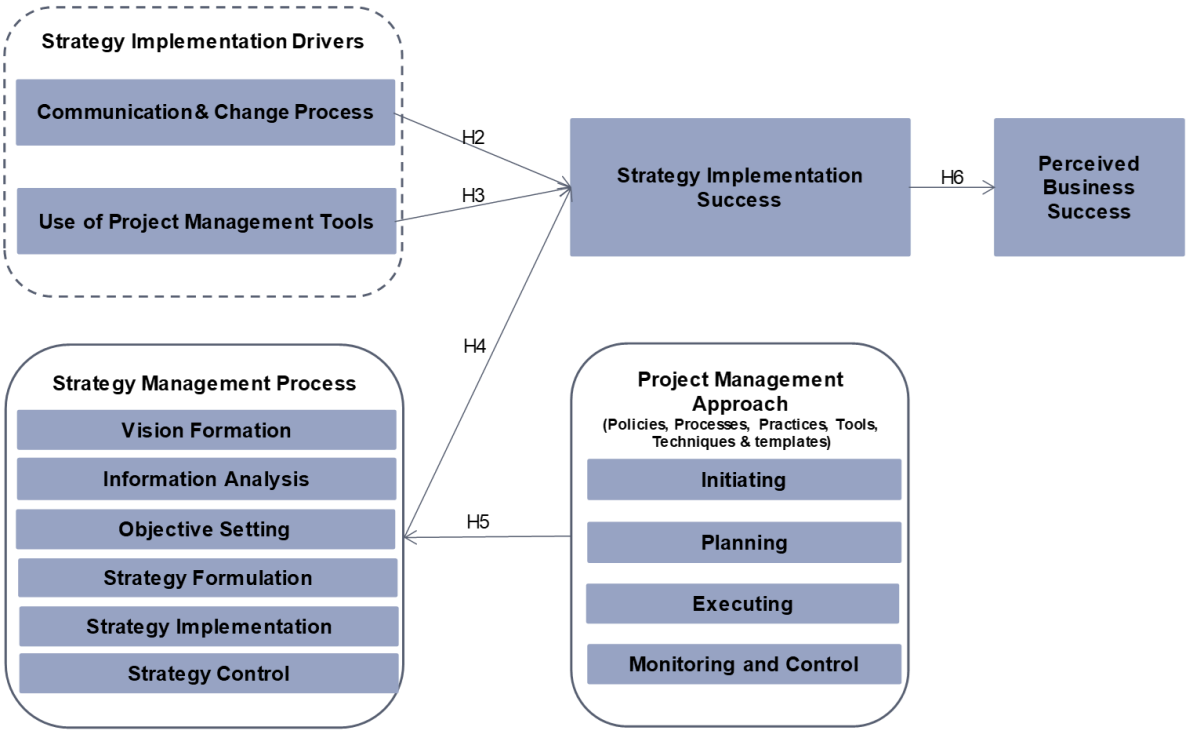


Figure 5.4: Final conceptual framework

5.12 Qualitative Data Analysis and Findings

Phase two of the sequential mixed-method approach entailed collection of qualitative data wherein consideration and explanation of quantitative phase results was done. After the survey and quantitative phase data analysis, semi-structured interviews were conducted with people who had participated during the survey and had indicated willingness to participate in the follow up qualitative phase.

5.12.1 Profile of interview participants

Twelve interviews were conducted and due to availability 8 interview participants were from organisation A and 4 from organisation B who were previously purposefully selected, a total of one analyst, four managers, six senior managers and one executive. In order to maintain equal sample representation six were strategists and six were project managers despite the fact that the interview participants had diverse experience both in strategy management and project management. The interviews continued until saturation was reached wherein interview participants started to give similar answers at which point twelve interview participants had been interviewed. At this point of saturation, the researcher opted to stop further interviews

Table 5.54: Demographics for interview participants

Interview Participant	Gender	Organisation	Job Function	Category of Years in Project Management	Category of Years in Strategy Management	Strategist (S) OR Project Manager (PM)
A1	Male	A	Senior Manager	More than 15	6 - 10	PM
A2	Male	A	Executive	11 - 15	More than 15	S
A3	Female	A	Senior Manager	3 – 5	11 - 15	S
A4	Female	A	Manager	11 - 15	3 - 5	PM
A5	Female	A	Senior Manager	6 - 10	More than 15	S
A6	Female	A	Manager	3 - 5	6 - 10	S
A7	Male	A	Senior Manager	More than 15	3 - 5	PM
A8	Female	A	Senior Manager	11 - 15	6 - 10	PM
B1	Female	B	Manager	6 - 10	3 - 5	PM
B2	Male	B	Senior Manager	More than 15	6 - 10	PM
B3	Female	B	Analyst	3 - 5	3 - 5	S
B4	Female	B	Manager	3 – 5	6 - 10	S

5.12.2 Results from interviews

Given that the study adopted the sequential explanatory research design, quantitative results from phase one were used to inform qualitative data collection in phase two. Subsequently, results from phase one were analysed and in order to explain and supplement the survey results, interview questions were developed. The survey yielded results for each objective where interviews could provide additional explanation and context about (i) strategy implementation drivers, (ii) strategy management process, (iii) project management approach, (iv) strategy implementation success and (iv) perceived business success. Thus the questions generated for the qualitative phase (Appendix B) were mostly guided by the survey results findings.

Subsequently, the transcripts from the interview were reviewed and analysed thematically based on provisions made by Braun and Clarke (2006) using Atlas.ti 8, namely: Stage 1: Familiarising yourself with the data; Stage 2: Generating initial codes; Stage 3: Searching for themes; Stage 4: Reviewing themes; Stage 5: Defining and naming themes; and Phase 6: Producing the report

The manner in which the analysis was done, following the process mentioned above was to identify key words from the transcribed interviews. Key words were then allocated and placed under relevant themes e.g. Leadership which in turn fell under a relevant theme i.e. Drivers enhancing strategy implementation, from the study themes that were already developed. Hence the table in Appendix D (trail of evidence for qualitative phase) was produced to summarise the allocation of the key words under respective themes and then into main key words. For example, under the study theme 'Drivers enhancing strategy implementation success', one of the sub-themes is leadership, another is communication and change process, among others. During the interview, participants mentioned certain key words e.g. employee engagement, management support for strategy, facilitate adaptability, organisational culture and level of involvement which emerged under the discussion of drivers enhancing strategy implementation (hence Appendix F i.e. 'snippet of interview participants and corresponding themes within the thesis' identifies the participant who raised the particular key word). These key words were identified as having a common concept or main key words were grouped into the final key words 'Management level and employee engagement' and were located under leadership where the discussion was centred. Further to the two tables mentioned in the appendices D and F, abridged interview for participant A1 is provided in Appendix E as an example, and reference of first cycle manual coding obtained based on the original transcripts[8].

The sections that follow provide results of the thematic analysis following the steps described above. Results are provided under the themes Drivers of strategy implementation success, strategy implementation success, strategy management process and project management approach, and perceived business success following the study themes used for quantitative phase.

[8] Transcripts are archived separately for future referencing and can be made available on request.

5 .12.3 Drivers of strategy implementation success

The first question (see Appendix B) was asked to ascertain the perceptions of the participants on leadership as a driver of strategy implementation. Additional questions were asked with regard to perceptions on the other drivers of strategy implementation success. This investigated the themes of leadership, communication and change process, use of project management tools and their sub-themes.

5.12.3.1 Leadership

Quantitative phase results indicated that leadership was not part of the model, because its inclusion resulted in the model being a poor fit. Through follow-up interviews, the researcher sought to establish insights based on these results. From the qualitative phase, a number of themes emerged which included: management levels and employee engagement, organisational structure and you are not always in control, understanding the specific industry, zero tolerance to none performance and building consensus, short termism, long term employees and leadership changes.

5.12.3.1.1 Management levels and employee engagement

From the interview data, a number of themes emerged under this sub-theme and are presented here. In particular, interview participants B1, A3, A4, A2 and A8 indicated the following:

Key word alluded to by interviewee: Employee engagement

Interview Participant B1

"If I do not understand the vision of the company, I am definitely completely in a lost zone, because I need to understand the company's vision, so as to contribute to the company's vision meaningfully. But if there is no understanding, you wouldn't see any involvement and contribution from many or myself".

"Leadership and people, they are not two different people. Nowadays, for strategy to succeed people must be engaged and understand what's happening. So, leadership here and people there is a barrier in itself. If I am working in a vacuum, I don't know where I am going, then it becomes difficult for consensus and strategy success".

Key word alluded to by interviewee: Management support for strategy

Interview Participant A3

"Middle managers must be involved in strategy formulation as they assist in running the organisation. If there's a gap between the executive and the staff, and the organisation wouldn't succeed. You will find that people are demotivated, people are resigning, and that's the key, there is a vacuum between the two. The middle managers are not privy to the knowledge of the masterpiece of strategy being created, thus it is bound to fail".

Key word alluded to by interviewee: Facilitate adaptability

Interview Participant A4

"So, when we formulated the strategy, it was high level thoughts that were positioned and we produced a strategy visualisation of this which was a guidance, this is what strategy means".

It is evident from the analysis that leadership needs to engage employees and more so middle management who must facilitate adaptability if success of the strategy is to be enhanced. Interview participant A2 added more clarity on the balance between top leadership (to include CEO) and middle management in bringing the "*contiguous cascade of change*" and organisational culture enhancement as below:

Key word alluded to by interviewee: Organisational culture

Interview Participant A2

"Middle managers shouldn't be involved initially in strategy formulation and organisational structure, not initially. I do believe that at the end of the day, the responsibility for determining the strategy and driving towards it really rests with one person, and that's the CEO. In addition, the CEO then has the job of bringing on board his colleagues in the C-suite. Moreover, I believe it's their job then to cascade that downwards, and bring on board their senior managers, so on and so forth, until you create what I call the contiguous cascade of change".

Key word alluded to by interviewee: Level of involvement

Interview Participant A2

"Make sure that capability development programs, even though they might be long term, are part of your strategy transformation journey".

Interview Participant A8

"New middle management, they have no view of the strategy when it was formulated and must now execute and this breaks the strategy.

From data analysed above, qualitative phase findings suggest that leadership needs to engage and involve the employees, understand their capabilities and improve the organisational culture in order to facilitate adaptability and enhance strategy success. In addition, is the involvement of middle management in the strategy management process as alluded to by the majority of the interview participants.

5.12.3.1.2 Organisational structure and you are not always in control

From the interview data, a number of themes emerged under this sub-theme and are presented here. In particular, interview participants A2, A1, A6 and B1 indicated the following:

Key word alluded to by interviewee: No business control

Interview Participant A2

"But you've to accept that sometimes it's not always in your control. And looking back a few years later, you shouldn't blame yourself that you didn't implement that strategy, because actually, you couldn't, you didn't have total control. And you had to amend your strategy on the hoof to deal with changes and external circumstances".

Interview Participant A1

"During organisational restructuring, I think with the best of intentions surmise, organisations set out to try and do this well, but then get deflected by other extraneous factors that they cannot control".

Key word alluded to by interviewee: Strategy supportive organisational structure

Interview Participant A6

"*A nightmare for the organisation due to CEO's ever-changing bringing unnecessary pain, anger and anguish to teams and people*".

Key word alluded to by interviewee: Organisational architecture and design

Interview Participant *B1*

"Organisational structure and culture impact strategy definitely, for sure, and if I can maybe try to elaborate a little bit, it also goes back to awareness and consensus".

Key word alluded to by interviewee: Competitive environment

Interview Participant B1

"In terms of adoption of new businesses and new business processes, the world is forever changing so we need to make sure that we're relevant".

From data analysed above, qualitative phase findings indicate that clear strategic focus and strategy supportive organisational structure needs to be set by leadership in order to gain business control, as promulgated by most interview participants, if strategy success is to be realised. The tendency for leadership to be derailed in terms of focus increases during organisational architecture and design as indicated.

Notable is the emotions expressed by interview participant A6, for example "…*pain, anger and anguish to teams and people*". The comment alludes to the emotional challenges of establishing strategy supportive organisational structure which also become pronounced as a challenge for strategy implementation success.

5.12.3.1.3 Understanding the specific industry

From the interview data, a number of themes emerged under this sub-theme and are presented here. In particular, interview participants B2 and A6 indicated the following:

Key word alluded to by interviewee: Industry specific knowledge and dynamics

Interview Participant B2

"…the corporate world has been working over the past years, is that, they believe that if someone gets exposed to a general management role, then they'll have an understanding of that industry. For instance, if I was a CEO in the automotive industry, can I safely move into a CEO role within the financial industry? This I can do, overlooking the fact that at times, you need to have a technical understanding of that industry for you to be able to understand the problems and how to derive the solutions for it".

Interview Participant A6

"Strategy should not be five years when CEO is leaving in two years or less. Move from same industry you need slightly less time to run strategy. Industry specific movements are recommended".

Key word alluded to by interviewee: Technical knowledge of the industry

Interview Participant B2

And therefore, you tend to find that people, when they get to that position, and have to define a strategy based on an industry that they don't have a full understanding of, especially understanding the core of that industry, they come up with a strategy that is very cloudy and fluffy, to a point where if it comes to the implementation mode, desired results are not achieved. So, it is quite critical that organisations ensure that they find the relevant people to actually define the strategy who have a critical understanding of the industry that they are in".

From data analysed above, qualitative phase findings indicate that leadership needs to have an understanding of industry specific knowledge and dynamics and technical knowledge of the industry in which they operate as a key driver for enhanced strategy implementation success. Based on the foregoing comments, it can be proffered that industry specific experience and knowledge cannot be overlooked, more so in the financial services as the basis of the strategy formulation hinges on this and has to be solid for enhanced chances of strategy success.

5.12.3.1.4 Zero tolerance to none performance and building consensus

From the interview data, a number of themes emerged under this sub-theme and are presented here. In particular, interview participants A3 and A2 indicated the following:

Key word alluded to by interviewee: Employee performance

Interview Participant A3

"Don't just come in and present a brand-new plan, and think that your people are magically going to fall behind you. You've got to show them that you are serious. When you say that culture is something that needs to change and show them that you are prepared to do it".

Interview Participant A2

"Leadership need to take it seriously, and show employees that they mean business, and I think if you do that, then people might actually start to listen".

Key word alluded to by interviewee: Employee dismissal

Interview Participant A2

"…and the only way you can do that is slash and burn, that is by sacking people".

"… or the first time that they will listen to you, is when sadly you sack one of them".

The qualitative phase findings indicate that there is a need for radical change driven by CEO and top leadership who need to demonstrate that they are serious about the business and employee performance in order to enhance strategy success chances.

5.12.3.1.5 Short termism

From the interview data, a number of themes emerged under this sub-theme and are presented here. In particular, interview participants A8, A2, B4 and A6 indicated the following:

Key word alluded to by interviewee: Short term in office

Interview Participant A8

"If something is failing, get rid of the CEO, bring another new one. We don't want to give you another chance because we think you are failing. The CEOs lifespan is probably reduced from five years to two years".

Interview Participant A2

"…because the executive knows he is running out of time to actually show a turnaround. And then they either show a turn around and get headhunted or they do not show turn around and get sacked. But 2.5 years later they are out. And then what happens, a new executive comes in the same process all over again. So, we keep changing our minds too frequently, because the reality is, it takes three years to turn organization around".

Interview Participant B4

"In most cases we find that, management explicitly upper management, they are always leaving and new management coming. They don't know the capabilities of people in the different teams and middle management which would have definitely benefited them".

Key word alluded to by interviewee: Strategy term reduced

Interview Participant A2

"Now any organization that even says three-year plan, people laugh at you, because everything is going to change in less than three years".

Key word alluded to by interviewee: Limited strategy formulation and implementation time

Interview Participant A6

"It impacts a lot, because I was busy with something and someone comes in and they will change the way they see the world. They want to be seen to be changing, and unfortunately, time is not available?"

Key word alluded to by interviewee: Rushed strategy implementation

Interview Participant A2

"…but if you think about it, new executive comes and goes about fact finding, their discovery. They decide that we've to have a brand-new strategy, because we've to change the direction of the company. That is probably why they've been appointed in the first place. So, it takes them six months to develop the new strategy. Now they are a year into their job. Now they know they've only got a year and a bit to go before they are likely to be replaced. So, there is a massive rush to ram this new strategy into the organization, whether it is the right thing or the wrong thing, let us just get it done. Everybody gets themselves behind this new strategy and drops what they were doing, and start implementing this new strategy…".

This is typified by the reduced years of service or short term in office for top leadership and or middle management resulting in limited strategy formulation and implementation time.

From data analysed above, qualitative phase findings indicate that the shorter term in office of middle management and or top leadership impacts heavily on any strategy and thus has a bearing on compromising strategy implementation success from a team cohesion and timeliness perspective. Further to this is the propensity to rush strategy implementation devoid of proper integrated planning which has its own challenges for enhanced strategy implementation success. As such, this may be an indication that strategy will continue to fail should the term in office for both top management and middle management continue to reduce over time.

5.12.3.1.6 Long term employees and leadership changes

From the interview data, a number of themes emerged under this sub-theme and are presented here. In particular, interview participants A2, A1 and A7 indicated the following:

Key word alluded to by interviewee: Long term employees

Interview Participant A2

"… the people whose behaviour you have to change are the ones that stay behind".

"…they have seen this happen 2 or 3 or 4 times".

Interview Participant A1

"…as I explained before, our organisation is as a company is an old company. We have people working here for many years. Therefore, if you want to change some of the fundamental thinking of the culture that is embedded in the organisation and implement strategy, work diligently through such people".

Key word alluded to by interviewee: Lost work motivation

Interview Participant A7

"…people who've been around a long time, people who've lost the will to live, people who are just irking out their time to retirement. And these're the people that you need to rely on to implement your strategy. And their motivation is not there at all. So, I think the tools that are available to executives, from a change management perspective are often not there".

Key word alluded to by interviewee: Job security

Interview Participant A2

"…most employees are very comfortable in their own comfort zones".

From data analysed above, qualitative phase findings indicate that *long term employees*" who have been around a long time are probably disgruntled and lost motivation, thus cannot be relied upon in most instances to implement the new strategy by leadership.

With regards to the leadership theme, it is evident from the above qualitative phase findings that, on one hand, leadership changes bring with it switching between tasks and roles for employees and that impacts on (i) staff morale, (ii) the ability to deliver on the strategy and (iii) builds on fragmented decision making. This is worsened if the employees have long been in the organisation to witness all the different changes and have lost work motivation. On the other hand, the short term in office for leadership *"short termism"* provides for limited strategy formulation and implementation time and in some instances rushed strategy implementation which in turn compromises success. In summary, constant changes to leadership in tandem with *"long term employees", "understanding the specific industry"* and *"short termism"* have a negative bearing on strategy implementation success.

5.12.3.2 Communication and change process

Findings from the quantitative phase indicated that communication and change process had positive influence on strategy implementation success. Through follow-up interviews, the researcher found it necessary to explore whether communication was an integral part of strategy implementation success in the qualitative phase. From the qualitative phase, a number of themes emerged which included: integrated communication, access to information, employee buy-in and change management process.

5.13.3.2.1 Integrated communication

From the interview data, a number of themes emerged under this sub-theme and are presented here. In particular, interview participants A5, B3, B1, A7, A3 and A8 indicated the following:

Key word alluded to by interviewee: Effective communication

Interview Participant A5

"…it's not happening even the communication to the last person is non-existent, employees don't know the strategy. It used to be advertised all over the organisation and that has since stopped."

Interview Participant B3

"There is poor communication strategy. There is lack of knowledge of what's our strategy, thus no consensus as this is not happening. The people doing the work are not getting communication and they don't know thus effort is compromised".

Interview Participant B1

"I think for me, first of all, strategy, it's more about awareness or understanding? What do I mean, in terms of awareness and understanding? We might have a strategy, but maybe not everyone understands or interpret the strategy in how it was actually meant to be understood. So, for me, we need to make sure that everyone understands the strategy. All are on the same level to understand the company's strategy. In our organisation there is no consensus because the communication is not happening".

Key word alluded to by interviewee: Strategy consensus

Interview Participant A7

"Executives look at strategy from their lens and that brings disconnect in interpretation and no consensus thus becoming disjointed. There is no integrated approach to how strategy is communicated".

Interview Participant *A3*

"I think the biggest risk that we do run is that people still interpret and make assumptions around what something means, because we don't have documents that explain the strategy".

Key word alluded to by interviewee Shared meaning

Interview Participant A8

"No translation of strategy to the lowest person in the organisation. Let us then have EXCO discussions but when each executive goes back to their team there is a disconnect in interpretation".

From data analysed above, qualitative phase findings indicate that there is a need for effective communication, strategy consensus and shared strategy meaning in order for enhanced strategy implementation success. Is strategy being translated and communicated from the top leadership right through to the lowest levels becomes a gap based on the qualitative phase findings. Strategy is not being communicated to lower levels. Awareness and understanding of the organisational strategy for shared meaning is not being addressed, as such, consensus is being compromised resulting in challenges to strategy implementation as outlined below. The qualitative phase evidence above points out the need for enhanced integrated communication with a drive to bring consensus and drive strategy implementation success.

5.12.3.2.2 Access to information

From the interview data, a number of themes emerged under this sub-theme and are presented here. In particular, interview participants B2, B1 and A4 indicated the following:

Key word alluded to by interviewee: Transparency

Interview Participant B2

"So, if there is no alignment or cohesiveness, then they'll definitely be resistance, which may impact the results of the implementation of the strategy".

"Employee engagement and access to information is something very important because that also develops your own people in getting them to the level where management or the vision that management sees in terms of the company itself?".

Interview Participant *B1*

"… it also goes back to the communication, and understanding? Strategy is decided by a few and not simplified to all. Because for me to understand the strategy, it must talk to me, in plain language. In our organisation, you only have one to three lines that

this is the company's strategy. It's not in detail but too high level. There are barriers to access to information".

Key word alluded to by interviewee: Awareness to strategy

Interview Participant A4

"…we don't know what the strategy is, because we've never ever gotten exposed to working on strategy".

From data analysed above, qualitative phase findings indicate that barriers to access to information act a demotivation for employees. In other words, transparency and awareness to strategy preclude strategy implementation success.

5.12.3.2.3 Employee buy-in

From the interview data, a number of themes emerged under this sub-theme and are presented here. In particular, interview participants A2, B1 and A3 indicated the following:

Key word alluded to by interviewee: Employee commitment

Interview Participant A2

"… and when you're in the middle of restructuring, it is actually very difficult to cling to your strategy, and what you believe was important. It is almost like swamps and crocodiles. It's very different to remember that your job was to drain the swamp when the crocodiles are out to attach you".

Key word alluded to by interviewee: Employee understanding

Interview Participant B1

"I think, on my side, when I said, I will start with this one, obviously, it will go through change management, because people also need to adapt to the change, but you cannot put change and say to people, adapt it. We're people, we're more about buy-in and more about understanding. I can't be able to go into something that I don't understand. I need to understand the purpose of me doing that".

"… if I can say something, it also goes back to the communication, and understanding which is not happening in this organisation".

Interview Participant A3

"EXCO goes off and agree a strategy, but they don't buy into that strategy themselves. So, when they go back into operations, they carry on doing what they would have done anyway, in spite of the strategy".

From data analysed above, qualitative phase findings indicate that, communication that enhances by-in by employees is paramount to success is strategy implementation. Buy-in which enhances employee understanding and commitment is not happening starting with top leadership to the lowest employees.

5.12.3.2.4 Change management process

From the interview data, a number of themes emerged under this sub-theme and are presented here. In particular, interview participants A2 and A7 indicated the following:

Key word alluded to by interviewee: Ineffective change management

Interview Participant A2

"I've seen centralization, decentralization every three or four years, and most of my career, I am completely punch struck. Neither of these models ever worked, because we never got chance to finish them. Every time a new chief came in, we would swing around 180 degrees and try and do the opposite we've been doing, and I've completely lost faith".

Key word alluded to by interviewee: Organisational change management

Interview Participant A2

"…and I believe it is their job then to cascade that downwards, and bring on board their senior managers…".

Interview Participant A7

"…poor or none existent change management and leads to resistance".

From data analysed above, qualitative phase findings indicate that, continuous change under different leadership is a hindrance to strategy implementation success. Centralisation and decentralisation of functions under different leadership brings

uncertainty and the people to be changed are the ones that are left behind when leaders depart organisations.

With regards to the communication and change process theme, findings from the quantitative phase indicate that employee buy-in, access to information and integrated communication plan underpinned by a good change management process is of paramount importance in building high performance organisational culture that aids in enhancing strategy implementation success. This is consistent with findings from the quantitative phase.

5.12.3.3 Use of project management tools

The quantitative phase indicated statistically significant positive relationship between the use of project management tools and strategy implementation success. The researcher sought to gauge the levels with which this is applied in practice through interviews. Findings from the qualitative phase indicated the following themes: alignment of projects to strategy, translating strategy into concrete projects, work breakdown structure, project manager role, manage project resources and empower project managers.

Force fitting projects into strategy streams

From the interview data, a number of themes emerged under this sub-theme and are presented here. In particular, interview participants A1, A8, A7, B1 and A3 indicated the following:

Key word alluded to by interviewee: Alignment of projects to strategy

Interview Participant A1

"So, top management run off and plan and formulate strategy. But there are no mechanisms back in place in the company, to align and to follow up and say, so these strategic arms are five or six. How're we doing on each of these arms, until you come to the next year when they get back into the strategy meeting. We often realise that benefits measurement and management need to be used in such meetings but it's not happening".

Interview Participant A8

"We are force fitting projects into strategy themes and aren't interrogated clearly. More so projects in execution already e.g. if strategy changes due to CEO or Digital Migration, these projects in execution are force fitted into the new themes. This is because some aspects of the strategy are ambiguous and then it becomes an issue which is not adding value and it's not robust".

Key word alluded to by interviewee: Translating strategy into concrete projects

Interview Participant A1

"The project, program and portfolio management need to be the tip of the sword. The strategy is the sword with its sharpness, program and portfolio management is the tip of the sword that will focus through and drive everything into the business together".

Key word alluded to by interviewee: Work breakdown structure

Interview Participant A7

"The techniques of work breakdown structure can be used to breakdown strategy as one of them and brain storming techniques but ultimately get to the nuts and bolts, but you can get it down, using like, brainstorming techniques".

Interview Participant B1

"…strategy can be broken down into work breakdown structure".

Key word alluded to by interviewee: Project manager role

Interview Participant A1

"They think they just got to be a coordinator of a lot of projects. The same thing with a portfolio manager, they don't realize the full scope of portfolio managers".

Key word alluded to by interviewee: Manage project resources

Interview Participant A1

"A project manager needs to keep things very tightly controlled in scope and budget in costs and everything else and resource".

Key word alluded to by interviewee: Empower project managers

Interview Participant A3

"Project managers have no view of integration and the collaboration, of people, the systems, the processes, and also the technology".

Interview Participant A1

"The project managers definitely need to be aware of how the programs are aligned to strategy. However, this is not happening in the organisation".

Interview Participant B1

"Project management tools and techniques are not very well used, because a lot of those tools and techniques get bogged down in pretty pictures, and not really a management model. So, we end up with fancy project management roadmaps and strategy roadmaps but no benefits tracking".

Evidence is abounding from the interview participants in the qualitative phase that strategy can be "*broken down into work breakdown structure"* during implementation which is in line with the quantitative phase findings. As such, strategy is being translated into concrete projects.

From data analysed above, qualitative phase findings indicate that that the alignment of projects to strategy is not happening in the organisations under study. In a way the project manager is not empowered to manage the project and its resources, let alone to appreciate its link to strategy. With that said, how then can organisations ascertain strategy implementation success without proper project manager empowerment.

5.12.4 Strategy Implementation Success

The quantitative results found a significant and positive relationship between enhanced strategy management process and strategy implementation success. The researcher sought to establish in what way an enhanced strategy management process influences success through the qualitative phase. The following themes were established during the qualitative phase: integrated strategy planning, inconsistent strategy planning and strategy implementation plan. In particular, interview participants A1, A3, A5 and A4 indicated the following:

Key word alluded to by interviewee: Integrated strategy planning

Interview Participant A1

"They never checked back up through any processes to say, are we aligned, what's changed, what's done. It is almost like they've to do strategy. So, they run off and they do strategy".

Interview Participant A3

"So, things were disparity and fragmented, you might find that a business unit create their own strategy, culture and way of doing things, which was very different to another business unit".

Key word alluded to by interviewee: Inconsistent strategy planning

Interview Participant A5

"So, when they go back into operations, they carry on doing what they would have done anyway, in spite of the strategy".

"Formulation of strategy is done by the CEO and his team whereas implementation is left to the rest of the organisation. Success becomes an elusive dream given the gap in understanding would have been created. Success hasn't been there in a long time"

Key word alluded to by interviewee: Strategy implementation plan

Interview Participant *A4*

"…. every business unit would have put together a strategy on how they are positioned in the market, how they are going to up sales numbers and things like that".

The above indicates a gap between strategy formulation and implementation, a broken strategy management process. This provide evidence of lack of integrated strategy planning which stifles strategy implementation. Additionally, the qualitative phase findings implore that strategy implementation success drives perceived business success as indicated by interview participant A3.

Interview Participant A3

"Strategy is not a point in time and is static, constantly assess and change where appropriate, it is agile. Look at competitor information and bring it to strategy working

group discussions pitting against what the competitor is doing. This assist to influence the organisation's differentiation and keeping pulse on competitor, as a living assessment. Change wheels as car is moving. This should improve market share thereby resulting in business success".

From data analysed above, qualitative phase findings indicate that continuous information analysis and evaluation of opportunities and threats is important for enhanced strategy implementation success to be achieved. In addition, is the finding that, achievement of strategy implementation success drives perceived business success attainment.

5.12.5 Strategy management process and project management approach

Quantitative phase findings indicated that project management approach had a positive effect on strategy management process. Through follow-up interviews, the researcher sought to ascertain the views around managing the strategy management process as a project. Findings from the qualitative phase indicated the following themes: strategy management process as a project, improper strategy implementation and strategy process optimisation. In particular, interview participants B1, A2, A7, A3, A5, A1, B3 and B2 indicated the following:

Key word alluded to by interviewee: Strategy management process as a project

Interview Participant B1

"Strategy management process can be approached and managed as a project and the benefits are that we can measure ourselves, that is, whatever we are doing, is it becoming a success or failure and if it happens that it becomes a failure, where can you go back and change".

Interview Participant A2

"When implementing strategy, it's a tight rope to see between the nonspecific and the specific issues. And then just recognize that you're going to have to make inevitably, some mid-course corrections and therefore, have a very proactive governance arrangement. That gives you the earliest possible warning of when things are going wrong. So again, that advocates for running strategy formulation and implementation as a project, where you've got very regular governance meetings, you've got very good

reporting going on, you've got regular assessments of how the dial is moving. And the minute that you see that the dial is not moving, as you expected it to, into the probe, find out, use the governance mechanisms that you've got to understand what's going wrong".

Interview Participant A7

"Strategy management process as a project is feasible, as it falls into a corporate calendar with time bound. Definitely, the formal steps of strategy implementation can be managed as a project".

Interview Participant A3

"You can apply the philosophy of project management say taking milestones. You can apply the principles to facilitate the process of thinking and the movement from one end to another, yes strategy process can be managed as a project".

Interview Participant A5

"Strategy process definitely can be approached in light of the project management lifecycle, but sadly not the approach that is followed. Ideation to execute without conceptualisation is a reality in this organisation".

Key word alluded to by interviewee: Improper strategy implementation

Interview Participant A1

"…and then they say, well, we didn't do very well in strategy, or we didn't achieve all our strategic objectives".

Interview Participant A2

"…I think this is a very, very important research subject and I agree with your general premise, that strategy implementation is still not being done well."

Key word alluded to by interviewee: Strategy process optimisation

Interview Participant A3

"So, it is really about prioritization. The way that we run the strategy process is that it was much less strategy content, because some of the thinking is already done. So,

what the stream and projects have to do this year, is add to the thinking, the visualization, because the strategy was sort of like formulated last year".

Interview Participant B3

"Technology and business strategy need to be aligned. Our goal in next five years regarding technology, is that, it must be in line with business strategy".

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Interview Participant A2

"We had a massive off site, strategy session, big think shop. And we all came away from that session really excited, and really raring to implement these new programs of activity to refocus the company and to restructure ourselves. And I'm sitting here a year later, not one thing has happened. Not one thing that we agreed to do has happened. We've just had another strategy workshop, and effectively repeated all the same stuff. And I worried that we will be here in a year's time having the same discussion. As such, managing the strategy management process as a project would help going forward".

Interview Participant B2

"No benefits being realised on strategic approaches due to traditional way of doing strategy wherein traditional approach was aligned to EXCO formulating and middle to senior management execute. The set-back is that there is a disconnect between formulators and implementers".

The results of the qualitative phase point out that strategy management process can be approached as a project and the need for proper strategy implementation and strategy process optimisation. The gap between formulators and implementers of strategy will be closed if the whole strategy management process is optimised and managed as a project. Notwithstanding the whole management aspect is the need for measurement of benefits during the process.

5.12.6 Perceived business success

The quantitative findings indicated that strategy implementation success had a positive relationship with perceived business success. Through follow-up interviews, the researcher sought insights as to why strategy success leads to perceived business

success. Findings from the qualitative phase indicated the following themes: missed opportunity and shareholder expectations.

5.12.6.1 Missed opportunity

From the interview data, a number of themes emerged under this sub-theme and are presented here. In particular, interview participants B1, A6, B2 and A5 indicated the following:

Key word alluded to by interviewee: Opportunity cost lost

Interview Participant B1

"The board and shareholders are happy because shareholder value is increasing but with a low strategy success rate. This is leading to failure of strategy with lost opportunity cost for even getting better return on investment. Celebrating shareholder value increase is key to the board but this could have been improved had the success of the strategy improved".

Key word alluded to by interviewee: Benefits realisation management

Interview Participant A6

"The second thing is that assuming we were doing the right things, there is no process currently in place internally, to monitor and measure the benefits".

Key word alluded to by interviewee: System and technology success

Interview Participant B2

"Systems and technology are quite important for it to be aligned to your new strategy, because it supports the implementation of the strategy. Given that they are growing, it is quite important that you take advantage from a cost saving perspective. It can support you through using the latest technology thereby enhancing business success".

Key word alluded to by interviewee: Securing funding

Interview Participant A5

"So, my observation is that, at strategy execution level, people label things so that they can get it past the checkpoint to get funding".

From data analysed above, qualitative phase findings indicate that, whilst shareholder value is increasing against a low strategy success implementation rate, there are lost opportunities which translates the lost revenue had organisations been able to increase the strategy implementation success rates.

5.12.6.2 Shareholder expectations

From the interview data, a number of themes emerged under this sub-theme and are presented here. In particular, interview participants A6, A2 and A3 indicated the following:

Key word alluded to by interviewee: Shareholder growth

Interview Participant A6

"Shareholder value is increasing but the opportunity cost of a higher rate of increase is compromised by the lacklustre strategy implementation success at 40%. Ultimately shareholders could have gotten more value but they celebrate anywhere, this is another driver why strategy is failing against a backdrop of increased shareholder value".

Key word alluded to by interviewee: Sustainable outcomes

Interview Participant A2

"…to move away from the short-term shareholder growth into more sustainable outcomes".

Interview Participant A3

"Once strategy is successful, there'll be profitability, and in all likelihood, profitability will improve enhancing business success".

From data analysed above, qualitative phase findings indicate that shareholder expectations drive among others the short termism which in turn results in missed opportunities. Whilst there is a recovery mode, for example, sacking employees to increase or maintain shareholder value, it is insurmountable that perceived business success is compromised due to missed opportunities.

The key findings from the qualitative phase are:

- Employee engagement and middle management involvement in the strategy management process is critical if strategy implementation success is to be achieved.
- Additional drivers of strategy implementation success established during the study include (i) short termism, (ii) you are not always in control and (iii) long term employees.
- Industry specific experience and knowledge of the dynamics needs to be considered when appointing top leadership. This is becoming more pronounced given the short lifespan of top management in organisations and shareholder expectations of increased value yearly.
- Employees who have stayed long in organisations (long term employees) but at the same time constantly going through different leadership and structural changes require different management style and motivation to build on trust, if they are to deliver and support strategy management process to success.
- Integrated communication at all organisational levels which is consistent can drive additional employee buy-in required for the success of strategy implementation.
- Benefits realisation management is missing in organisations which poses the question as to how organisations achieve their strategy in the first place.
- Management of the strategy process is possible through project management approach and organisations need to start applying that approach.

5.13 Chapter Summary

Chapter 5 presents results from both the quantitative and qualitative phases. The main phase of the sequential explanatory research was quantitative and focused on descriptive and inferential statistics culminating in a structural equation model to test the research hypotheses. The interpretation of quantitative phase results was attained through the second qualitative phase. In essence, the follow-up interviews provided clarity to insights around strategy management process through project management approach as a vehicle, notwithstanding the drivers of strategy implementation success and perceived business success. An integration of discussion based on findings from both the quantitative and qualitative phase follows in Chapter 6.

CHAPTER 6 - DISCUSSION

6.1 Introduction

In the previous chapter, research findings were presented. This chapter presents an integrated discussion of findings from both the quantitative and qualitative phases, from the theoretical lens of systems theory complemented by resource-based view theory. This is done based on the context wherein two publicly listed South African organisations from the financial services and insurance were involved in the study.

A synthesis of literature and current findings is done with results from this study being interpreted against the background of previous study findings. The discussion in this Chapter is done based on study objectives, hypothesis, study variables and the influence of demographics on study variables. The overall objective of the research was to establish how strategy management process can be managed with project management approach as a vehicle in the South African service sector. This led to sub-objectives as follows:

- To determine the drivers that enhance strategy implementation success;
- To determine the extent to which strategy management process enhances strategy implementation success;
- To determine the extent to which the strategy management process is enhanced with project management approach as a vehicle.
- To determine the extent to which strategy implementation success enhances perceived business success.

6.2 Data Integration

The sequential explanatory mixed method approach adopted in the study entailed two phases namely (i) the quantitative phase and (ii) qualitative phase of data collection. The approach is based on the premise that the qualitative phase assists in interpretation of quantitative phase results as in Figure 4.1. As such, the qualitative phase provided clarity to quantitative phase findings pertaining to study objectives. The complementarity of the data collection methods provided richness in information from practitioners regarding the extent to which strategy implementation success and ultimately perceived business success can be achieved.

In light of the foregoing, it is interesting to note that interview results are not always supporting the empirical findings from the study, nor qualitative with quantitative, requiring further investigations. For example, in the case of leadership, which was dropped from the quantitative based model, the qualitative phase insisted leadership had a place as a strategy implementation driver. This may be because there is a need for radical change driven by CEO and top leadership who must demonstrate their seriousness about the business and employee performance in order to enhance strategy success chances. From the perspective of systems theory, since there are considerable unknowns, it may require consideration of uncertainty and complexity models, including chaos theory which although being part of modern systems theory, are outside the scope of the thesis. It appears the conventional survey approach used was unable to identify an aspect that is observed by insiders of the organisation. Interestingly, as noted in the literature review, Schaap's (2006) study was also inconclusive on the impact of senior leadership on strategy implementation as the results had mixed support.

6.3 Research Hypotheses (Strategy Implementation Drivers)

The first study objective was to determine the drivers that enhance strategy implementation success. In order to answer the research objective, three key hypotheses were formulated, one on leadership, another on communication and change process, and a third on use of project management tools.

6.3.1 Hypothesis 1 (Leadership)

It was hypothesised that:

H_1: Leadership has a significant and positive relationship with strategy implementation success.

The hypothesis sought to establish the relationship between leadership and strategy implementation success. However, leadership was not included in the SEM model as it resulted in the model being of poor fit, hence the hypothesis was not tested. Nonetheless, previous studies by Jooste and Fourie (2009) found that leadership is a vital driver of the strategy management process and that it has a positive contribution to strategy implementation success. If the quantitative model is unable to measure the

influence of leadership during implementation, perhaps the involvement of senior leadership is missing in practice during implementation stages. It may be one thing to provide overarching guidelines, and another to be closely involved in following up implementation down the hierarchy, apart from receiving reports.

The qualitative phase considered leadership and provided insights, revealing the following findings about leadership, namely that it needs to set clear strategic focus and drive these together with enhanced organisational culture throughout the strategy management process, and that there is need to understand the specific industry in which leadership operates if strategy implementation success is to be achieved. Interrelated to this is the key finding around 'short-termism' that the lifespan of top management in office is reducing thus exerting pressure for delivery of shareholder value. 'Short-termism' results in limited strategy formulation and implementation time thus ultimately in a rushed strategy implementation which compromises strategy implementation success. Whilst results indicate 'short termism' as a shareholder driven issue, the implication for shareholders and top leadership is to move away from short termism and imminent shareholder growth onto more sustainable outcomes. Should this be done on a much wider platform, it should be able to give CEOs and top leadership more breathing space to be able to transform organisations better. Since resources tend to be channelled to where rewards are indicated, the decision makers are likely to direct the entire system towards those goals, and being short-term goals also lead to short-term gains with associated rewards which create individual or silos–mentality negating a holistic view that systems theory advocates, and to sub-optimisation of resources in the long run.

Further, the qualitative phase analysis results indicate that 'long term employees' who have been around a long time and have lost work motivation pose a threat to strategy implementation success. This is somewhat in line with findings from Slocum at al. (2014) that, it is imperative to create both an organisational culture and a network of relationships that support strategy implementation if success is to be realised. Leadership should drive this and create the organisational ability and capacity to implement objectives based on a set organisational culture (shared values, beliefs and principles). The above also relates to capability for 'long term employees', in that, it needs to be built if strategy implementation success is to be established. The results

support claims of other researcher's (Engberg et al. 2015; Hutzschenreuter & Kleindienst, 2006; Slocum et al. 2014; Yang et al. 2010) that capability is vital for strategy implementation success. The need to actively focus on building capability emanates from the research findings. Building capability itself is at least a three to five-year journey based on the need to (i) bringing in new people, (ii) coaching them, (iii) providing frameworks, and (iv) getting rid of the "long term employees". Ensuring that capability development programs, even though they might be long term, are part of the strategy transformation journey since they are enablers that ultimately will assist organisations to achieve strategy implementation success. This is in line with systems thinking which considers relationships between different elements and parts of the bigger system working towards a common goal, through motivated employees and conducive culture in the organisation. It is also in line with RBV theory which explains building of capability, in this case through human resources of the organisation.

The qualitative phase results provided more insight, alluding to the fact that middle management plays a critical role in enhancing strategy implementation success. In addition, the results indicate that earlier involvement of middle management in the process minimises poor delivery, what several authors' term frustrations and poor outcomes (Hart, 1992; Jarzabkowski & Spee, 2009; O'Shannassy, 2014). This is supported by Speculand (2014) who asserts that the delegation of strategy to middle management for implementation after formulation is a cause of failure as senior management takes their attention off it, that is, the brokerage role (Moran, 2005). The middle managers are the vital link coordinating information from senior management to employees and back with feedback to senior management, and activating resources to implement the plans through operatives they supervise.

One of the issues considered was organisational structure which the qualitative phase found to be causing challenges for strategy implementation success. This is in line with findings from Beck & Plowman (2009) and O'Shannassy (2014) when they establish that bureaucracies brought about by organisational structure bring frustrations in organisations. Although Schaap (2006) and Gert and Lee (2011) establish that adjustment of organisational structure brings about strategy success, results of their study indicate that leadership is derailed in terms of focus during organisational restructuring resulting in reduced chances of strategy implementation

success. This is supported by results for the item "*senior leadership ensures that the organisational structure evolves as strategy implementation progresses"* which received the lowest rating at 38.9% agreement levels, with the rating of 'to a little extent or not at all' indicated.

6.3.2 Hypothesis 2 (Communication and Change Process)

It was hypothesised that:

H_2: Communication and change process has a significant and positive relationship with strategy implementation success.

In taking a pragmatic research approach, the hypothesis sought to uncover the relationship between communication and change process on strategy implementation success. Results from the quantitative phase confirmed the significant positive relationship between communication and change process and strategy implementation success. The results are similar to several studies (Dandira, 2011; de Salas & Huxley, 2014; Forman & Argenti, 2005; Gurowitz, 2012; Martin, 2010; Schaap, 2006) which confirm the importance of communication in influencing strategy implementation success. In order to optimise and ensure consensus on strategic issues within the organisation, this is in line with the RBV theory which suggests that resources need to be optimised through building capabilities which includes enhancing organisational communication to be more effective on strategic issues, which in turn motivates employees and provides a conducive culture in the organisation.

However, contrary to the quantitative phase results, the qualitative phase findings reveal that there is a gap in that strategy is not being communicated from top leadership right through to the lowest employees which supports findings by Getz and Lee (2011). This results in compromise on strategy consensus, shared meaning and ultimately strategy implementation success. The qualitative phase findings are in line with what Jooste and Fourie (2009: 65) established that "poor understanding of the strategy by the workforce and ineffective communication of the strategy to the workforce are barriers to effective strategy implementation". Similarly, Schaap (2006) established that thirty-eight percent of senior leadership failed to communicate organisational strategy. The study findings establish that lack of transparency and

awareness of strategy compromise strategy consensus thereby hindering strategy implementation success. Cocks (2010) and Yang et al. (2010) had similar findings in that, if organisational members are not aware of the same information as communicated a low level of consensus may become a hindrance to strategy implementation success.

The qualitative phase findings support claims by other researcher's (Kash et al. 2014; Salih & Doll, 2013) that communication resulting in better employee understanding enhances employee buy-in thus building shared meaning and sense of ownership which are important for success to be realised during strategy implementation. Conversely, shared understanding devoid of employee sustained commitment may not yield the right success for strategy as established in this study which Getz and Lee (2011) also alludes to. Within the change process, previous researchers (Kotter, 2007; Salih & Doll, 2013) found that ineffective change process was an obstacle to strategy implementation success which the qualitative phase findings allude to. Further, the study findings reveal that continuous change under different leadership precludes strategy implementation success.

6.3.3 Hypothesis 3 (Use of Project Management Tools)

It was hypothesised that:

H_3: The use of project management techniques has a significant and positive relationship with strategy implementation success.

The hypothesis was aimed at establishing the relationship between strategy implementation success and the use of project management techniques as a driver. The statistical findings in Chapter 5 provided a significant positive relationship between use of project management techniques and strategy implementation success. Given that several scholars Getz and Lee (2011) together with Mišanková and Kočišová (2014) point out the need to cascade strategy into nested strategies which would be executed through project management, the researcher sought further clarity on this through the qualitative phase.

From the qualitative phase findings, it is quite evident that strategy can be broken down into different projects (work breakdown structure) during implementation, thereby translating strategy into concrete projects. This is demonstrated when interview participant A7 indicated that, "*the techniques of work breakdown structure can be used to breakdown strategy as one of them…"* and interview participant B1 *"…strategy can be broken down* into work breakdown structure". This is supported by the qualitative phase results for the item "*during strategy implementation, activities are broken down into activities which can be displayed on a Gantt chart*", which received the highest rating at 73.5% agreement levels, with the rating of 'to some extent or substantially more' indicated. This is in line with systems thinking which emphasises the interrelationships between individual system parts as part of the whole, working towards a common goal of project success.

One would have expected that measurement of the milestones during execution through projects and ultimately the strategy itself and the associated benefits to be happening. However, the qualitative phase findings reveal the contrary, namely that the measurement of milestones and benefits during strategy implementation are not happening. As such, whilst organisations might be using this traditional way to manage strategy, the link between projects to benefits and the associated benefits to strategy which is alignment of projects to strategy is absent. Further, the findings reveal that project managers are not empowered to realise this necessary link between the stages mentioned and in some instances are not even empowered to manage the project and its resources. This is in contrary with what Meredith et al. (2017) highlight that project managers achieve success through structured management by breaking projects into discrete parts whilst managing the constraints of time, quality and cost. To empower project managers, the RBV explains building project manager capabilities to realise the link of specific projects to organisational strategy. Realisation of individual system parts into a whole is important for project managers so that they drive organisational strategy whilst measuring milestones and the benefits obtained.

Ways of managing feedback on strategic projects from project managers through project status reports is happening minimally based on the study results. This is apparently due to the disconnect in interpretation and synergy between project

management and strategy management process, in turn due to the perspective inculcated in the project manager and strategist.

6.4 Hypothesis 4 (Strategy Implementation Success)

The second study objective was to determine the extent to which strategy management process enhances strategy implementation success. The ensuing hypothesis was that:

H_4: Enhanced strategy management process has a significant and positive relationship with strategy implementation success

In taking a pragmatic research approach, the hypothesis sought to establish the relationship between strategy management process and strategy implementation success. Results from the quantitative phase confirmed the significant positive relationship between strategy management process and strategy implementation success.

The qualitative phase findings were indicative of a gap between strategy formulation and implementation, that is, a broken strategy management process which stifles strategy implementation. The gap between formulation and implementation has been alluded to by Getz and Lee (2011) who indicate that leadership is not orchestrating the requisite strategy management process. This is further supported by the quantitative phase findings for item "*there is a gap between formulation and the effective implementation of strategy in our organisation"* which received the second highest rating at 70.7% agreement levels, with the rating of 'to some extent or substantially more' indicated. To close the gap between strategy formulation and implementation, requires a shift of mind-set given that leaders focus mainly on strategy formulation. Literature is abounding with scholars highlighting that strategy formulation is a privilege for the executives as it rewards creativity - the esteemed of all intellectual pursuits (Adobor, 2019; Cocks, 2010; Raffoni, 2008; Speculand, 2011) whilst Dandira (2011) highlights that it is a sign of power.

Similarly, Cocks (2010) and Speculand (2011) indicate that formulation and implementation have to be linked and that no process drivers are provided for that in

literature. This was established in the qualitative phase findings when several interview participants indicated that there is lack of integrated strategy planning, and inconsistent planning, both of which precludes strategy implementation success. This is further supported by the quantitative phase findings for item "*the organisation is better at formulating than at implementing strategy*" which received a rating at 69.5% agreement levels, with the rating of 'to some extent or substantially more' indicated. Further, through the qualitative phase findings it is stressed that continuous information analysis and evaluation of opportunities and threats is key if strategy implementation success is to be achieved.

6.5 Hypothesis 5 (Strategy Management Process and Project Management Vehicle)

The third study objective was to determine the extent to which project management approach as a vehicle enhances strategy management process. In light of this, the hypothesis was that:

H_5: Project management approach as a vehicle has a significant and positive relationship with strategy management process.

Managing the strategy management process as a project has been supported and shown empirically in this study to result in strategy implementation success which also was alluded to by the qualitative phase findings. The statistical findings in Chapter 5 provided a significant positive relationship between strategy management process and project management as a vehicle. From the qualitative phase findings, it is quite evident (five interview participants: B1, A2, A7, A3 and A5) that strategy management process can be managed as a project.

Strategists needs to change the viewpoint of projects as aiding strategy to that of managing the strategy management process as a project. This in turn requires strategy training to provide insights into this new paradigm and game changer as evidenced by the empirical results from the study. This is in line with systems thinking which considers relationships between different elements and parts of the bigger system working towards a common goal of strategy implementation success. All activities need to be integrated, coordinated whilst being visible and need to be

reported on particularly when it comes to the benefits. Even issues of short-termism (short tenure of CEO's or top leadership) as highlighted by the study interview participants could have its impact minimised given that CEO handover would be seamless as the strategist would have been managing strategy management process as a project.

Interview participant B2 indicated that "… *the set-back is that there is a disconnect between formulators and implementers*". This together with evidence presented in section 6.4 indicates that there is a gap between formulators and implementers of strategy based on qualitative phase findings as was also alluded to by Cocks (2010) and Speculand (2011). Such a gap would be closed if the whole strategy management process is managed as a project thereby optimising it.

Notable in the literature is that strategy is failing. Such rates of failure from 2010 onwards are within the region of between 34% and 44% based on a study by Cândido and Santos (2015). It is pertinent in that failed strategies impact the organisation and lead to imbalance between expected outcomes and resources spent (Madhavan & Rathi, 2015). The empirical findings from this study indicate that if managed as a project the success of the strategy management process will be enhanced. This also would assist ameliorate what Čater and Pučko (2010) indicate as the momentum that disappears from formulation through to implementation. This momentum needs to be harnessed in line with systems theory by adopting a holistic view such as managing the strategy management process as a project.

Literature is abounding with scholars (Joslin and Müller, 2016; Müller & Jugdev, 2012) indicating positive relationships between project management approach and project success. Adopting the project management approach results in success with the same proviso that the strategy management process is a managed as a project has been established empirically in this study to drive strategy implementation success.

In addition, relating project management approach to the strategy management process will help project managers and strategists find interdependencies. Given that project managers are engrossed in completing tasks devoid of the link to strategy, this study should help change such mind-set by encouraging application of the project

management approach and the integration to strategy thereof – breaking the barriers. It is also in line with RBV theory which explains building such project capability, in this case through human resources of the organisation. By helping shift the mind-sets of project managers and strategists there is benefit of optimised strategy management process which enhances strategy implementation success and ultimately perceived business success.

These findings assist the thesis in providing an explanation and a solution option in the literature debate around high failure rate of strategy implementation and the apparent literature gap in that strategy formulation and implementation is not undertaken as a continuous process but rather as two distinct stages where formulation hands over to implementation.

6.6 Hypothesis 6 (Perceived Business Success)

The fourth study objective was to determine the extent to which strategy implementation success enhances perceived business success. The ensuing hypothesis was that:

H_6: Enhanced strategy implementation success has a significant and positive relationship with perceived business success.

The hypothesis sought to establish the relationship between strategy implementation success and perceived business success. The statistical findings in Chapter 5 indicate a significant positive relationship between enhanced strategy implementation success and perceived business success. In seeking to establish further what way strategy implementation success was a catalyst for perceived business success, the qualitative phase was done and further insight obtained.

Although financial measures are used to assess business success (Kokfai et al. 2013), the findings from the qualitative phase indicate that whilst shareholder value is increasing against a low strategy success implementation rate, there are lost opportunities. This comes about in that, had the success rate of the strategy improved, business could have reaped more return on investment and ultimately increased shareholder value. A holistic view that systems theory advocates would help

organisations realise these lost opportunities. In the same breadth, shareholder expectations drive short termism, which is typified by the reduced years of service or short term in office for top leadership and or middle management resulting in limited strategy formulation and implementation time. Short termism results in additional missed opportunities. Due to these unfavourable influences, sustainable outcomes are not achieved due to lacklustre performance of organisations at strategy implementation. The quantitative phase findings indicate that the item "*our organisation constantly builds on market share*" was rated the most positive with a level of agreement rated as 'to some extent or substantially more" at 79.2%. This demonstrates an appetite for growth with regard to market share which in a way enhances business growth and ultimately perceived business success.

Whilst the findings provide support that strategy implementation success enhances perceived business success, the findings have revealed that perceived business success is compromised due to missed opportunities as discussed above.

6.7 Influence of Demographics on Study Variables

Study findings form the quantitative phase reveal that there were significant differences among study survey respondents' industry, function, job function or title years of experience in strategy management, years of experience in project management, functional area and area of involvement. However, gender had no significant influence as espoused by survey respondents.

6.7.1 Influence of industry on study variables

Quantitative phase study findings indicated that industry has significant influence on the following issues: "*leadership, communication and change process, use of project management tools, strategy implementation success*", question 13 "*vision formulation, information analysis, objective setting, strategy formulation, strategy implementation, strategy control and strategy management process*", question 14 "*vision formulation and project management approach*" and question 15 "perceived *business success*". The findings reveal that the level of extent on strategy management process for all question 13 constructs and question 15, was high in insurance sector than financial services. In addition, the level of classification on project management approach for question 14 constructs, was high in financial services than insurance sector. For

example, “regarding the independent sample t-test for ‘*Q9. leadership’*, there was a significant difference in mean scores between the two industries, ($t\,(211.750) = -4.373, p < .001$) with the mean score for those in the insurance sector ($M = 3.15, SD = .70$) being significantly higher than those in the financial services ($M = 2.79, SD = .53$)”. A possible explanation is that the insurance sector has matured more in terms of strategy management process whilst the financial services has more maturity in project management approach. Further study would be required to validate this proposition.

6.7.2 Influence of function on study variables

Findings from the quantitative phase indicated that function has significant influence on question 14 “*objective setting*”. The findings reveal that the level of classification on project management approach was high for those in core business than in support functions. For example, “for the construct ‘*Q14. objective setting’, the* independent sample t-test showed a significant difference in mean scores between the two industries, ($t\,(211.370) = 2.578, p = .011$) with the mean score for those in the core business being higher than those in the support function at ($M = 2.97, SD = .37$) and ($M = 2.78, SD = .70$) respectively”. One can infer that those in core business are more involved in project management approach than those in support functions.

6.7.3 Influence of job function/title on study variables

Quantitative phase study findings reveal that job function or title had an impact on the views of the survey respondents on both question 14’s “*strategy formulation and project management approach*”. For both aspects, the level of classification on project management approach, was high for entry level manager and professional specialist. For example, “for the construct ‘*Q14. strategy formulation’*, the entry level manager ($M = 6.54, SD = 1.19$) and professional specialist ($M = 6.65, SD = .79$) had significantly higher mean score than senior managers ($M = 4.8, SD = 2.30$) and other ($M = 4.83, SD = 2.37$)". A possible explanation is that both entry level managers and professional specialists are more involved in the project management approach. This proposition requires further investigation to validate.

6.7.4 Influence of years of experience in strategy management on study variables

Findings from the quantitative phase reveal that, years of experience in strategy management had an impact on the views of the survey respondent on the following: question 13 "*use of project management tools, information analysis, strategy implementation, strategy control and strategy management process*" and question 14 "*vision formulation*". The findings reveal that both the level of extent on strategy management process for question 13 and level of classification on project management approach for question 14, were high for those with under 2 years' experience in as compared to other groups. For example, "for the construct '*Q11. use of project management tools'*, those with under 2 years' experience in strategy management $(M = 3.38, SD = .74)$ had a significantly higher mean score than those with 6 – 10 years $(M = 2.89, SD = .70)$ as well as those with 3 – 5 years $(M = 2.90, SD = .61)$". One can infer that the limited experience made them believe that both strategy management process and project management approach are happening.

6.7.5 Influence of years of experience in project management on study variables

Quantitative phase study findings indicated that job function or title had an impact on the views of the survey respondents on both question 14's "*vision formulation and strategy formulation*". For "*vision formulation*" the level of classification on project management approach was as high for those under 2 years of experience whereas for "*strategy formulation*" the level of classification on project management approach was high for those with 11 – 15 years' experience. For example, "for the construct '*Q14. vision formulation*, those with under 2 years' experience $(M = 2.61, SD = 1.05)$ had a significantly higher mean scores than all the other groups". A possible explanation is that, those with less experience are involved in vision formulation whereas those with high experience are involved in its strategy formulation.

6.7.6 Influence of functional area on study variables

Findings from the quantitative phase reveal that functional area had a significant impact on question 13 and question 14 "*strategy formulation*". The findings indicate that the level of extent for "*strategy formulation*" for question 13 is lower in the people working in ICT than any other functional area. In terms of question 14 "*strategy*

formulation" the level of classification is lower in the people working in Sales than any other functional area. For example, "for the construct '*Q13. strategy formulation'*, those in Operations $(M = 3.07,\ SD = .57)$ had a significantly higher mean score than those in ICT $(M = 2.75, SD = .42)$".This can be attributed to the fact ICT people are involved minimally in strategy management process whereas those in sales are involved minimally in project management approach.

6.7.7 Influence of area of involvement on study variables

Quantitative phase study findings reveal that area of involvement had a significant influence on the following constructs: question 9 "l*eadership*", question 13 "*information analysis, strategy formulation, strategy implementation and strategy management process*" and question 14 "*vision formulation and project management approach*". For question 9 and 13, level of extent on strategy management process was high for those in strategy management than any other area of involvement. For question 14, the level of classification on project management approach, was as lower for those in both project and strategy management than any other area of involvement. For example, "for the construct '*Q9. leadership',* those with strategy management $(M = 3.19, SD = .72)$ had a significantly higher mean than those in neither of the two $(M = 2.62, SD = .73)$". A possible explanation is that those in strategy management are more involved in the strategy management process.

6.8 Chapter Summary

A discussion of study findings in this chapter linked them to the research objectives and hypotheses. Both quantitative and qualitative phase findings were considered concurrently to integrate findings and discuss in light of each hypothesis and references to literature. All the study hypotheses were supported except leadership which was dropped from the model as it caused a model poor fit. The qualitative phase analysis brought to the fore several issues emanating from the quantitative phase which elicited explanations providing further insight otherwise not accessed by the quantitative approach alone. For example, reasons for managing the strategy management process as a project. The next chapter concludes and looks at the contribution and limitations of the study, then makes recommendations for future studies.

CHAPTER 7 CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

This chapter presents the thesis contribution to the body of knowledge. It starts by summarising key results and findings and then providing theoretical, methodological and practical contributions of the study. The limitations of the study and future research recommendations are then provided.

7.2 Conclusions

The study sought to establish how strategy management process can be managed with project management approach as a vehicle. It also investigated drivers that enhance strategy implementation success and the extent to which strategy management process enhances strategy implementation success. In addition, the study sought to establish the extent to which strategy implementation success enhances perceived business success. Based on the study findings, the central research question and objectives have been answered and the following conclusions advanced:

In response to objective one

The widely accepted positive relationship between leadership and strategy implementation success was not confirmed by this study. Nevertheless, based on the qualitative phase, the study findings highlight that middle management are critical role players to enhance strategy implementation success and that senior leadership should work with middle management during the strategy management process journey. In addition, leadership should drive the creation of the organisational ability and capacity to manage the strategy formulation and implementation process.

It was supported by the study that communication and change process had a positive relationship with strategy implementation success. Through the qualitative phase, it brought to the fore that if not handled well, employee buy-in, access to information and integrated communication plan become a key hindrance for strategy implementation success attainment. Further, the study finds that a good change management process is of paramount importance in building high performance culture that aids in enhancing strategy implementation success.

With regards to use of project management tools, the study established a positive relationship with strategy implementation success and the possibility that strategy can be broken down into different projects. It is the expectation that if this were achieved, the breakdown would allow for measurement of milestones in the strategy process which should then help increase success in strategy implementation. However, the study could not confirm this as measurement of the benefits are not taking place, according to study findings.

In response to objective two

Results of the study show that managing the strategy management process as a project has a positive relationship with strategy implementation success which was also alluded to by the qualitative findings. The qualitative phase points out that if the strategy management process is not managed well, the gap between formulators and implementers results in failure of strategy management process and thus failed strategy implementation.

In response to objective three

The relationship between strategy management process and project management as a vehicle was significant and positive, and reinforced by qualitative findings, one can conclude that project management approach as a vehicle strategy implementation success enhances strategy management process.

In response to objective four

The relationship between strategy implementation success and perceived business success was significant and positive, and reinforced by qualitative findings, one can conclude that strategy implementation success enhances perceived business success. It was found that perceived business success is compromised due to missed opportunities. Such missed opportunities are occurring due to low achievement of strategy implementation driven by mainly ‘short-termism’ culminating from shareholder expectations.

In response to central research question

All the responses above to the different objectives including findings below which assisted to answer the central research question.

The proposed conceptual model had six hypotheses, with each linked to a construct. Five of the six hypotheses were supported by findings from the study whilst one was dropped as it resulted in a poor model fit. Path analysis provided the path coefficients and constructs relationships all of which were used during hypotheses testing. A good-fitting model was established in the study based on model fit indices.

Other findings

The study introduced some novel drivers of strategy implementation success namely "short termism" and "you are not always in control". In addition, it proposed the consideration of additional terms as drivers namely, "shareholder expectations", "missed opportunity", "understanding the specific industry", "long term employees" and "force fitting projects into strategy streams".

In terms of influence of demographic factors on study variables, study findings indicate statistically significant differences based on industry, function, job function or title, years of experience in strategy management, years of experience in project management, functional area and area of involvement. However, gender had no significant influence as put forward by survey respondents.

Ultimately, the study provides a conceptual model based on (i) the strategist (drivers of strategy implementation wherein leadership was excluded), (ii) the issue (strategy implementation success and business success) and (iii) sequence of actions (strategy management process with project management approach as a vehicle). This addresses the purpose of the study which sought to determine the management of strategy formulation and implementation as a continuous strategy management process in such a way that the likelihood of success in strategy implementation and perceived business success is enhanced.

7.3 Contributions of the Study

7.3.1 Major contribution

This thesis positions itself in the literature debate around the high failure rate of strategy implementation and the apparent literature gap in that, strategy formulation and implementation is not undertaken as a continuous process but rather as two

distinct stages where formulation hands over to implementation. The thesis then provides an explanation and solution option as to how this can be improved by adopting the project management vehicle to drive the strategy management process.

This thesis pioneers the modelling and testing of the empirical relationship for strategy formulation and implementation as a continuous process with project management approach as a vehicle and this is the major contribution of the study. Whilst other studies have looked at strategic project management and how projects aid in strategy implementation, none was found to have modelled and tested empirically strategy formulation and implementation as a project.

7.3.2 Other contributions

Below is a discussion of other contributions by this thesis pertaining to, theoretical contribution and practical contribution.

7.3.2.1 Empirical contribution

None of the studies have tested the empirical relationship between strategy formulation and implementation as a continuous process with project management approach as a vehicle and this is the major contribution of the study, more so within the given context. As such, the study provides better understanding of the complex relationship between strategy management process and project management approach as a vehicle. Whilst the conventional studies have looked at strategic project management and how projects aid in strategy implementation, none has looked and tested empirically strategy formulation and implementation as a project.

Additionally, the link of the whole strategy management process moderated by project management approach to attain strategy implementation success and perceived business success is another contribution of the study. The thesis illustrated how established disciplines can be related through the lens of systems theory to attain strategy implementation success and ultimately perceived business success.

In essence, the study contributes in providing a framework that is aimed at offering an opportunity which minimises strategy implementation failure in the future. It is important to add to the body of knowledge a process through which strategy

formulation and implementation could be managed in a continuous process that offers enhanced success, sustainability and robustness. Additionally, the study makes important contributions to the two areas of strategy management process and project management approach through linking them in a novel way.

As a contribution to knowledge, the study provides additional drivers for the strategy management process (formulation to implementation) to assist in enhancing strategy implementation success. Interlinked to this is that, the project management approach proposed to become the vehicle for strategy implementation success already has tried and tested measurement tools for achievements of milestones and their tracking and tracing which can be borrowed to measure (track and trace) the strategy management process. This offers strategy management the benefits of tracking which would be run similarly to the projects benefits of tracking.

7.3.2.2 Practical contribution

The framework is expected to assist project management and strategy practitioners with an end-to-end (comprehensive) perspective of strategy formulation through to implementation with project management approach as the vehicle.

Strategy management process as a project

The strategy management process and project management approach can be linked but what happens inside each process is different based on the context. When managing the strategy management process as a project one needs to keep establishing how the actions link back to the organisational strategy. The novelty of the approach in aiding strategy implementation success has been established through empirical evidence and the interviews that provided verification. The benefit of managing the strategy management process as a project is that it enhances chances of strategy implementation success from the current levels of between 56% and 66%.

Collaboration and integration – breaking the barriers

Holistic or systems thinking needs to be inculcated for both strategists and project managers to benefit organisations through enhancing integration and collaboration seamlessly in the strategy management process (from individual pockets of excellence to integration). This will help organisation in optimising and driving strategies better.

As such, understanding tasks based on purpose and meaning is an important ingredient to drive success for project managers and strategists.

Feedback mechanism between projects and strategy management process

The thesis provides a process of training the mind-set of practitioners to see possibility of managing the strategy management process as a project before implementing the approach. If this is inculcated in project managers and strategists, the synergy will enable seamless strategy management process which would then be expected to have far reaching benefits for strategy implementation success and perceived business success.

Transformation and integration

In a quest for strategic integration (formulation through to implementation) there is need for transformation with senior management overseeing such a function. The function would be tasked with coordinating and aligning strategic vision through purposefully shaping the future and creating strategic plans that are executable whilst empowering positive transformation. Employing a strategy facilitator will enhance collaboration and integration of strategy for effective communication and application (applying agile strategy management just like agile project management). This will benefit organisations through building rapport and consensus during the strategy management process aiding understanding and collaborating whilst ensuring ultimate organisational buy-in.

Moving away from 100-page strategy documents to discussing and implementing through a facilitator who drives coordinating, integration and implementation. This approach assists managerial and administrative talent to be executed effectively and efficiently with monitoring and control mechanisms for the ultimate benefit of strategy implementation success and perceived business success.

Strategy is living

Moving away from documenting strategy to seeing it as a living organism is another contribution. How the strategists assist project managers to prioritise the portfolios, programs and projects based on strategic intent which would be in themes and linking the portfolio to one or many themes would be done simultaneously between project

managers and strategists ensure collaboration and integration aimed at strategy implementation success.

General picture of strategy destination

Inspirational leaders create a picture of the destination transformation journey that resonates with people at all levels in the organisation. When going through a strategy development process, executives need not be too specific in the goals. However, they need to be specific enough to actually paint a picture for the employees as to what the future looks like. It is necessary to see between the nonspecific and the specific. Inevitably, some mid-course corrections have to be taken to include a proactive governance arrangement, which gives the earliest possible warning of when things are going wrong. This advocates for running strategy implementation as a project with a risk management undertone.

7.4 Study Limitations

While the study made significant contributions, there are serval limitations that need to be considered. The study focused on strategy management process within the financial services and insurance industry, as such the findings are industry specific. In addition, the financial services and insurance industry organisations which are within the JSE top 200 are in excess of six which were all approached; however, the study used a sample drawn from two organisations which becomes a study limitation in that the results cannot be generalised. Most of the four organisations cited the Protection of Personal Information Act (POPI Act) against which they could not allow their employees to participate. Given that the fields of strategy management and project management are still emerging, it may well benefit from large scale quantitative and qualitative studies aimed at supporting its maturation. Furthermore, it is the sensitivity nature of the study (strategy management focus) that hampered organisations and their respective employees to participate.

7.5 Recommendations for Future Research

The research study resulted in identification of the following which requires further study:

- Discussing the communication and change management process for each stage of the validated model from this study presents itself for further study.

- In addition, further research of this nature in different industries to include, telecommunication and manufacturing among others, both within and outside South Africa.
- The research was done on the private sector, undertaking public sector strategy management process assessment wherein the public is the customer as a different perspective is another opportunity for a future study.
- Replicating the study in emerging economies is another opportunity for future studies.
- There are organisations that rely on organic change to transform and rely heavily on innovation being driven from below, how they run their strategy management process would be an interesting study for the future.
- Development of the strategy benefits tracking mechanism emanating throughout the strategy management process is required for further study.
- The use of complexity theories to undertake a similar study is recommended for the future.

7.6 Conclusion

The main contribution of the study was that strategy management process (formulation to implementation) can be managed as a project. This was achieved through modelling and testing of the empirical relationship for strategy formulation and implementation as a continuous process with project management approach as a vehicle in the South African service sector context. Additionally, the link of the whole strategy management process moderated by project management approach to attain strategy implementation success and perceived business success is another contribution of the study.

The practical and managerial implication is that if this is inculcated in project managers and strategists, the synergy will enable seamless strategy management process which would then be expected to have far reaching benefits for strategy implementation success and perceived business success.

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APPENDIX A – RESEARCH INSTRUMENT (QUESTIONNAIRE)



Research Instrument - Questionnaire

Dear Sir/Madam

My name is Blessing Javani and I am a PhD student in School of Mechanical, Industrial and Aeronautical Engineering at Wits University in Johannesburg. As part of my studies I have to undertake a research project, and I am investigating strategic management process through a project management vehicle in the South African service sector**.**

It is expected that this research will be a valuable resource for practitioners (strategists and project managers) on how to use project management approach as a vehicle for the strategy management process in a way which improves chances of success in strategy implementation.

As an individual who has project management and or strategy management experience, I would like to invite you to take part in answering the questionnaire which will take around 40 minutes. This questionnaire is designed to allow you to pause if you wish to continue later.

You will not receive any direct benefits from participating in this study, and there are no disadvantages or penalties for not participating. You may withdraw at any time or not answer any question if you do not want to. By participating in the responses and pressing the send button, it is assumed that consent has been granted. The researcher will ensure confidentiality and anonymity of yourself and your organisation.

If you have any questions afterwards about this research or require a summary of the research, feel free to contact me on the details listed below. This study will be written up as a research report which will be available online through the university library website. Data will be summarised so that no organisation or individual will be identified. If you have any queries, concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (non-medical), telephone: + 27 11 717 1408, email: Shaun.Schoeman@wits.ac.za

Kind Regards,

Blessing Javani
1501946@students.wits.ac.za
Supervisor: Dr Bruno Emwanu, bruno.emwanu@wits.ac.za, +27 11 717 7343

Section A – Demographics

This section contains some demographic characteristics. Please indicate the option that best describes you by marking with an **[X]** in the relevant box. Kindly mark only one option per row and please do not write in the shaded boxes.

Q1. Please select the category that best fits your job function or title.

Chief Officer / Group executive	1		A1
Executive	2		
Senior Manager	3		
Middle Manager	4		
Entry Level Manager	5		
Analyst / Professional Specialist	6		
Other: Specify	7		

Q2. Please indicate the number of years of experience you have spent in strategy management.

Under 2 years	1		A2
3 - 5 years	2		
6 - 10 years	3		
11- 15 years	4		
More than 15 years	5		

Q3. Please indicate the number of years of experience you have spent in project management.

Under 2 years	1		A3
3 - 5 years	2		
6 - 10 years	3		
11- 15 years	4		
More than 15 years	5		

Q4. Gender

Male	1		A4
Female	2		

Q5. Which of the following best describes the functional area you work in?

Banking	1		A5
Consumer Services	2		
Financial Services	3		
Insurance	4		
Manufacturing	5		
State Owned Entities	6		
Telecommunications	7		
Other – Please Specify	8		

Q6. Which function do you work in?

Core Business	1		A6
Support Function	2		

Q7. Which of the following best describes the functional area you work in?

Sales	1		A7
Finance and accounting	2		
Operations	3		
Marketing	4		
ICT	5		
General management	6		
Other support services	7		

Q8. Which area are you normally involved in?

Project Management	1		A8
Strategy Management	2		
Both Project and Strategy Management	3		
Neither of the two	4		

SECTION B –STRATEGY IMPLEMENTATION DRIVERS

This section of the questionnaire is used to establish drivers of strategy implementation. Please indicate the extent to which you agree or disagree with each of the following by marking an **[X]** in one of the option boxes.

DRIVER 1 - LEADERSHIP

Q9. To what extent are the following leadership issues enhancing the strategy implementation success within your organisation?

		Not to any extent at all	To a little extent	To some extent	To a large extent	To a very large extent	
a)	Senior leadership provides strategic direction for the organisation.	1	2	3	4	5	B1.1
b)	Senior leadership provides support during strategy implementation.	1	2	3	4	5	B1.2
c)	Senior leadership supports strategy formulation and implementation.	1	2	3	4	5	B1.3
d)	Senior leadership is competent enough to implement strategy.	1	2	3	4	5	B1.4
e)	Senior leadership involves the workforce during early stages of strategy formulation.	1	2	3	4	5	B1.5
f)	Senior leadership encourages the workforce to understand organisation's strategy.	1	2	3	4	5	B1.6
g)	Senior leadership ensures that the goals of each division within the organisation are aligned to the strategy.	1	2	3	4	5	B1.7

h)	Senior leadership ensures the core competencies are aligned with the strategy of the organisation.	1	2	3	4	5	B1.8	
i)	Senior leadership ensures that the organisational structure evolves as strategy implementation progresses.	1	2	3	4	5	B1.9	
j)	Senior leadership effectively develops human capital to support strategy implementation.	1	2	3	4	5	B1.10	
k)	The organisational culture inspires everyone to do their best.	1	2	3	4	5	B1.11	
l)	We have a customer oriented organisational culture.	1	2	3	4	5	B1.12	
m)	We have training and educational programmes for employees at all organisational levels.	1	2	3	4	5	B1.13	
n)	Change in structure is managed effectively during strategy implementation.	1	2	3	4	5	B1.14	
o)	Change in organisational culture is managed effectively during strategy implementation.	1	2	3	4	5	B1.15	

DRIVER 2- COMMUNICATION AND CHANGE PROCESS

Q10. To what extent are the following issues on communication and change process enhancing the strategy implementation success within your organisation?

		Not to any extent at all	To a little extent	To some extent	To a large extent	To a very large extent		
a)	Senior leadership effectively communicate the organisational strategy to the workforce.	1	2	3	4	5	B1.16	
b)	There is continuous workforce engagement during strategy implementation.	1	2	3	4	5	B1.17	
c)	Change processes, and systems are managed effectively during strategy implementation.	1	2	3	4	5	B1.18	
d)	Communication enhances shared understanding of the organisational strategy.	1	2	3	4	5	B1.19	
e)	We are organised according to main customer segments.	1	2	3	4	5	B1.20	
f)	The impact on employee satisfaction is measured when processes are changed.	1	2	3	4	5	B1.21	
g)	Processes are reviewed to ensure they contribute to the achievement of strategic goals.	1	2	3	4	5	B1.22	
h)	Processes are reviewed regularly to ensure that they contribute to attainment of customer satisfaction.	1	2	3	4	5	B1.23	

DRIVER 3 - USE OF PROJECT MANAGEMENT TOOLS

Q11. To what extent are the following issues used as project management tools in your organisation to enhance the strategy implementation success.

		Not to any extent at all	To a little extent	To some extent	To a large extent	To a very large extent		
a)	Project management is used during strategy implementation.	1	2	3	4	5	B1.24	
b)	The allocation of resources is aligned to the strategy of the organisation.	1	2	3	4	5	B1.25	
c)	We monitor strategy implementation continuously.	1	2	3	4	5	B1.26	
d)	During strategy implementation, activities are broken down into activities which can be displayed on a Gantt Chart.	1	2	3	4	5	B1.27	
e)	Project management is used as a monitoring and control mechanism during strategy implementation.	1	2	3	4	5	B1.28	
	In our organisation, during strategy implementation the project management methodology enhances							
f)	The understanding of the strategy.	1	2	3	4	5	B1.29a	
g)	What each team must accomplish.	1	2	3	4	5	B1.29b	
h)	How each team's work contributes to the strategy process as a whole?	1	2	3	4	5	B1.29c	
i)	Tools and techniques to help make strategy process successful.	1	2	3	4	5	B1.29d	
j)	Meeting the requirements of stakeholders.	1	2	3	4	5	B1.29e	
k)	Operating within budget and available resources.	1	2	3	4	5	B1.29f	
l)	Minimise duplication of effort.	1	2	3	4	5	B1.29g	

SECTION C – ENHANCED STRATEGY IMPLEMENTAION SUCCESS

This section of the questionnaire is used to establish enhanced strategy implementation success aspects. Please indicate the extent to which you agree or disagree with each of the following by marking an **[X]** in one of the option boxes.

Q12. To what extent are the following issues enhancing strategy implementation success within your organisation?

		Not to any extent at all	To a little extent	To some extent	To a large extent	To a very large extent		
a)	Our organisation is effective at implementing strategy.	1	2	3	4	5	C1.1	
b)	Ethical practices are evident in strategy implementation.	1	2	3	4	5	C1.2	
c)	The organisation is better at formulating than at implementing strategy.	1	2	3	4	5	C1.3	
d)	There is a gap between formulation and the effective implementation of strategy in our organisation.	1	2	3	4	5	C1.4	
e)	There is a strong relationship between our vision, mission, and corporate strategy.	1	2	3	4	5	C1.5	
f)	Our organisation is capable of doing business despite market conditions.	1	2	3	4	5	C1.6	
g)	Our innovation is customer driven.	1	2	3	4	5	C1.7	
h)	The gap between realised and planned innovations has diminished.	1	2	3	4	5	C1.8	
i)	Our organisation's products exceed customer expectations.	1	2	3	4	5	C1.9	
j)	Our organisation maintains the market share.	1	2	3	4	5	C1.10	

SECTION D – STRATEGY MANAGEMENT PROCESS AND PROJECT MANAGEMENT APPROACH

This section of the questionnaire is used to establish the alignment between strategy management process and project management approach. Please indicate one project management approach where each of the strategy management process activities would happen by marking an **[X]** in one of the option boxes.

Q13 & Q14. How can the strategy management process be managed with project management approach as a vehicle?

For each question there is a drop-down list and please answer the two (2) parts as follows:

Q13. Indicate the level of extent on each statement pertaining to your organisation

Q14. The project management approach(es) from which the statement belongs.

	The following are important:	Level of Extent					Project Management Approach				
		Not to any extent at all	To a little extent	To some extent	To a large extent	To a very large extent	Project Initiation	Project Planning	Project Execution	Project Monitoring & Control	
a)	Defining the organisation's corporate long-term direction.	1	2	3	4	5	1	2	3	4	D1.1
b)	Linking the vision, mission and organisational values.	1	2	3	4	5	1	2	3	4	D1.2
c)	Establishing the product-customer-market-technology mix that is optimal for the organisation.	1	2	3	4	5	1	2	3	4	D1.3
d)	Building commitment for the organisation's future course of action whilst providing a reference point in making strategic decisions.	1	2	3	4	5	1	2	3	4	D1.4
e)	Communicating the organisation's support for the vision.	1	2	3	4	5	1	2	3	4	D1.5
f)	Steering the organisation's personnel in a common direction.	1	2	3	4	5	1	2	3	4	D1.6
g)	Assessing information about the forces at play in the internal and external business environments.	1	2	3	4	5	1	2	3	4	D2.7
h)	Identifying important information which helps understanding the business environment.	1	2	3	4	5	1	2	3	4	D2.8
i)	Providing agility between analysing external environments whilst adapting internal processes and systems, leads to success.	1	2	3	4	5	1	2	3	4	D2.9
j)	Integrating information for both internal and external business environment.	1	2	3	4	5	1	2	3	4	D2.10
k)	Managing complex information processing.	1	2	3	4	5	1	2	3	4	D2.11
l)	Forecasting potential trends whilst re-evaluating their impact.	1	2	3	4	5	1	2	3	4	D2.12
m)	Converting the organisation's vision and mission into specific performance targets.	1	2	3	4	5	1	2	3	4	D3.13

n)	Articulating the performance target and what is intended to be achieved successfully.	1	2	3	4	5	1	2	3	4	D3.14
o)	Focus efforts and aligning actions throughout the organisation.	1	2	3	4	5	1	2	3	4	D3.15
p)	Providing motivation and inspiration to the organisation geared at providing central purpose and direction.	1	2	3	4	5	1	2	3	4	D3.16
q)	Identifying, recognising and developing business opportunities.	1	2	3	4	5	1	2	3	4	D3.17
r)	Cascading corporate objectives into business and function objectives.	1	2	3	4	5	1	2	3	4	D4.18
s)	Developing the necessary priorities, procedures and operations to achieve the vision during implementation.	1	2	3	4	5	1	2	3	4	D4.19
t)	Building employee participation through mechanisms to allow for their contribution.	1	2	3	4	5	1	2	3	4	D4.20
u)	Encouraging communities of interest around topics that support strategy.	1	2	3	4	5	1	2	3	4	D4.21
v)	Generating, evaluating and selecting the most appropriate strategy.	1	2	3	4	5	1	2	3	4	D4.22
w)	Facilitating the efficient allocation of resources.	1	2	3	4	5	1	2	3	4	D4.23
x)	Formulating performance targets and their requisite measurement criteria.	1	2	3	4	5	1	2	3	4	D4.24
y)	Ensuring that there is a clear shared understanding of who does what, when and at what cost.	1	2	3	4	5	1	2	3	4	D5.25
z)	Leading the development of action plans and taking actions.	1	2	3	4	5	1	2	3	4	D5.26
aa)	Creating conducive organisational culture and work climate.	1	2	3	4	5	1	2	3	4	D5.27
ab)	Instilling a strategy supportive organisational structure.	1	2	3	4	5	1	2	3	4	D5.28
ac)	Collaborating among strategy managers given that they will be competing for the same resources and accommodate trade-offs.	1	2	3	4	5	1	2	3	4	D5.29
ad)	Exercising strong leadership to propel strategy execution.	1	2	3	4	5	1	2	3	4	D5.30
ae)	Exerting internal leadership, focused leadership in order that implementation is driven forward whilst improving how strategy is executed.	1	2	3	4	5	1	2	3	4	D5.31

af)	Ensuing accountability from senior leadership given that it is critical for successful strategy implementation.	1	2	3	4	5	1	2	3	4	D5.32
ag)	Ensuring that the language and format used during communication exerts discipline during implementation.	1	2	3	4	5	1	2	3	4	D5.33
ah)	Ensuring frequent communication as it enhances consensus and organisation performance.	1	2	3	4	5	1	2	3	4	D5.34
ai)	Building visible management systems which are essential during communication.	1	2	3	4	5	1	2	3	4	D5.35
aj)	Installing both Information systems thus enabling better strategic roles to be carried out.	1	2	3	4	5	1	2	3	4	D5.36
ak)	Creating processes, policies and procedures in alignment to the organisation in order to facilitate rather than impede strategy implementation.	1	2	3	4	5	1	2	3	4	D5.37
al)	Tying reward systems and incentives directly tied to achievement of performance objectives and good strategy implementation.	1	2	3	4	5	1	2	3	4	D5.38
am)	Providing additional rewards for impetus to go an extra mile to accomplish tasks.	1	2	3	4	5	1	2	3	4	D5.39
an)	Building specific metrics that managers will beseech to monitor success through evaluating the organisation's progress and making corrective adjustments.	1	2	3	4	5	1	2	3	4	D6.40
ao)	Ensuring intricate feedback and control mechanisms to hone alignment between strategy and operations are provided.	1	2	3	4	5	1	2	3	4	D6.41
ap)	Creating an environment for success through constant review of the connection between strategy formulation and implementation whilst monitoring new developments.	1	2	3	4	5	1	2	3	4	D6.42
aq)	Visiting the organisation's direction, objectives anytime external or internal conditions warrants.	1	2	3	4	5	1	2	3	4	D6.43

SECTION E – PERCEIVED BUSINESS SUCCESS

This section of the questionnaire is used to establish perceived business success aspects. Please indicate the extent to which you agree or disagree with each of the following by marking an **[X]** in one of the option boxes.

Q15. To what extent can the following issues enhance perceived business success within your organisation?

		Not to any extent at all	To a little extent	To some extent	To a large extent	To a very large extent		
a)	Our organisation constantly builds on market share.	1	2	3	4	5	E1.1	
b)	Our organisation constantly improves its profitability.	1	2	3	4	5	E1.2	
c)	Our organisation constantly creates new markets.	1	2	3	4	5	E1.3	
d)	Our organisation constantly improves business processes.	1	2	3	4	5	E1.4	
e)	Our organisation constantly adopts new technology.	1	2	3	4	5	E1.5	
f)	Our organisation constantly builds competencies of employees.	1	2	3	4	5	E1.6	
g)	Our organisation constantly reacts well to market changes.	1	2	3	4	5	E1.7	
h)	Our organisation constantly reacts well to market technology changes.	1	2	3	4	5	E1.8	

SECTION F: COMPLETION OF DECLARATION

Q.16. My response accurately reflects my views about the organisation

Agree	1	
Disagree	2	

Q.17. No one in the organisation interfered with my completion of the questionnaire

Agree	1	
Disagree	2	

Thank you for your participation.

APPENDIX B – RESEARCH INSTRUMENT (INTERVIEW GUIDE)

Research Instrument - Interview Guide

Dear Sir/Madam

My name is Blessing Javani and I am a PhD student in School of Mechanical, Industrial and Aeronautical Engineering at Wits University in Johannesburg. As part of my studies I have to undertake a research project, and I am investigating strategic management process through a project management vehicle in the South African service sector**.**

It is expected that this research will be a valuable resource for practitioners (strategists and project managers) on how to use project management approach as a vehicle for the strategy management process in a way which improves chances of success in strategy implementation.

As an individual who has project management and or strategy management experience, I would like to invite you to take part in the interview which will take around 60 minutes.

You will not receive any direct benefits from participating in this study, and there are no disadvantages or penalties for not participating. You may withdraw at any time or not answer any question if you do not want to. The researcher will ensure confidentiality and anonymity of yourself and your organisation.

If you have any questions anytime about this research or require a summary of the research, feel free to contact me on the details listed below. This study will be written up as a research report which will be available online through the university library website. Data will be summarised so that no organisation or individual will be identified. If you have any queries, concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (non-medical), telephone: + 27 11 717 1408, email: Shaun.Schoeman@wits.ac.za

Kind Regards,

Blessing Javani
1501946@students.wits.ac.za,
Supervisor: Dr Bruno Emwanu, bruno.emwanu@wits.ac.za, +27 11 717 7343

Section A – Demographics

This section contains some demographic characteristics. Please indicate the option that best describes you by marking with an **[X]** in the relevant box. Kindly mark only one option per row and please do not write in the shaded boxes.

Q1. Please select the category that best fits your job function or title.

Chief Officer / Group executive	1		A1
Executive	2		
Senior Manager	3		
Middle Manager	4		
Entry Level Manager	5		
Analyst / Professional Specialist	6		
Other: Specify	7		

Q2. Please indicate the number of years of experience you have spent in strategy management.

Under 2 years	1		A2
3 - 5 years	2		
6 - 10 years	3		
11- 15 years	4		
More than 15 years	5		

Q3. Please indicate the number of years of experience you have spent in project management.

Under 2 years	1		A3
3 - 5 years	2		
6 - 10 years	3		
11- 15 years	4		
More than 15 years	5		

Q4. Gender

Male	1		A4
Female	2		

Q5. Which of the following best describes the functional area you work in?

Banking	1		A5
Consumer Services	2		
Financial Services	3		
Insurance	4		
Manufacturing	5		
State Owned Entities	6		
Telecommunications	7		
Other – Please Specify	8		

Q6. Which function do you work in?

Core Business	1		A6
Support Function	2		

Q7. Which of the following best describes the functional area you work in?

Sales	1	
Finance and accounting	2	
Operations	3	
Marketing	4	
ICT	5	
General management	6	
Other support services	7	

A7	

Q8. Which area are you normally involved in?

Project Management	1	
Strategy Management	2	
Both Project and Strategy Management	3	
Neither of the two	4	

A8	

Interview Guide

These questions relate to the context of the current organisation.

Question 1 - In your opinion, what are the drivers that enhance strategy implementation success?

Failure of strategy implementation can be attributed to many reasons; can you provide some based on your organisation. Probing question – could it be:

1a. Leadership (people and management, organisational structure and organisational culture)?

1b. Communication and change process (visible management systems, employee engagement, and access to information, financial resource and accountability)?

1c. Use of project management techniques (WBS etc…)?

Question 2 - In the survey, the majority of survey respondents indicated that improved strategy management process (formulation to implementation - actions leading to and supporting strategy) enhances strategy implementation success? Please elaborate? In other words, can a robust and sustainable strategy management process enhance strategy implementation success? If so, in what way?

Question 3 - Can the strategy management process be managed with project management approach as a vehicle? What is your comment? Can the robust project management approach be used as a driver to enhance strategy success? Alternatively, can strategy management process be approached as a project? If so elaborate?

Question 4 - In the survey, the majority of survey respondents indicated that strategy implementation success due to enhanced strategy management process improves perceived business success. What is your comment?

APPENDIX C – PILOT STUDY RESULTS (CRONBACH'S ALPHA)

Table 1: Reliability analysis results of the constructs			
Construct	**No. of items**	**Cronbach's alpha**	**Acceptable level**
Leadership	15	.938	Excellent
Communication and change process	8	.916	Excellent
Use of project management tools	12	.915	Excellent
Enhanced strategy success	10	.847	Good
Strategy management process and project management approach	43	.940	Excellent
Perceived business success	8	.906	Excellent
Total	***96***	***.959***	***Excellent***

APPENDIX D – TRAIL OF EVIDENCE FOR QUALITATIVE PHASE

	Themes	Sub Themes	Key Word Alluded to by Interviewee
1	**Drivers enhancing strategy implementation**		
	Leadership	• Management level and employee engagement	• Employee engagement • Management support for strategy • Facilitate adaptability • Organisational culture • Level of involvement
		• Organisational structure and you are not always in control	• No business control • Strategy-supportive organisational structure • Organisational architecture and design • Competitive environment
		• Understanding the specific industry	• Industry specific knowledge and dynamics • Technical knowledge of industry
		• Zero tolerance to none performance	• Employee performance • Employee dismissal
		• Short termism	• Short term in office • Strategy term reduced • Limited strategy formulation and implementation time • Rushed strategy implementation

	Themes	Sub Themes	Key Word Alluded to by Interviewee
		• Long term employees	• Long term employees • Lost work motivation • Job security
	Communication and change process	• Integrated communication • Access to information • Employee buy-in • Change management process	• Effective communication • Strategy consensus • Shared meaning • Transparency • Awareness to strategy • Employee commitment • Employee understanding • Ineffective change management • Organisational change management
	Use of project management tools	• Force fitting projects into strategy streams	• Alignment of projects to strategy • Translating strategy into concrete projects • Work breakdown structure • Project manager role • Manage project resources • Empower project managers

	Themes	Sub Themes	Key Word Alluded to by Interviewee
2	**Strategy implementation success**	• Strategy implementation success	• Integrated strategy planning • Inconsistent strategy planning • Strategy Implementation plan
3	**Strategy management process and project management approach**	• Strategy management process and project management approach	• Strategy management process as a project • Improper strategy implementation • Strategy process optimisation
4	**Perceived business success**	• Missed opportunity • Shareholder expectations	• Opportunity cost lost • Benefits realisation management • Systems and technology success • Securing funding • Shareholder growth • Sustainable outcomes

APPENDIX E – FIRST CYCLE MANUAL CODING EVIDENCE – INTRVIEW PARTICIPANT A1

Comments	Initial Code	Theme
During organisational restructuring, I think with the best of intentions surmise, organisations set out to try and do this well, but then get deflected by other extraneous factors that they cannot control.	• Organisational restructuring … later charged to … • No business control	**Subtheme** – Organisational structure and you are not always in control **Theme** - Drivers enhancing strategy implementation
…as I explained before, our organisation is as a company is an old company. We have people working here for many years. Therefore, if you want to change some of the fundamental thinking of the culture that is embedded in the organisation and implement strategy, work diligently through such people.	• Long term employees … remained … • Long term employees	**Subtheme** – Long term employees and leadership changes **Theme** - Drivers enhancing strategy implementation
So, top management run off and plan and formulate strategy. But there are no mechanisms back in place in the company, to align and to follow up and say, so these strategic arms are five or six. How're we doing on each of these arms, until you come to the next year when they get back into the strategy meeting? We often realise that benefits measurement and management need to be used in such meetings but it's not happening.	• Strategy execution not properly aligned … later charged to … • Alignment of projects to strategy	**Subtheme** – Force fitting projects into strategy streams **Theme** - Drivers enhancing strategy implementation
The project, program and portfolio management need to be the tip of the sword. The strategy is the sword with its sharpness, project, program and portfolio management is the tip of the sword that will focus through and drive everything into the business together.	• No alignment of projects to strategy … later charged to … • Translating strategy into concrete projects	**Subtheme** – Force fitting projects into strategy streams **Theme** - Drivers enhancing strategy implementation
They think they just got to be a coordinator of a lot of projects. The same thing with a portfolio manager, they don't realize the full scope of portfolio managers".	• Educate and train project managers … later charged to …	**Subtheme** – Force fitting projects into strategy streams

Comments	Initial Code	Theme
	• Project manager role	**Theme** - Drivers enhancing strategy implementation
A project manager needs to keep things very tightly controlled in scope and budget in costs and everything else and resource.	• Project triple constraints … later charged to … • Manage project resources	**Subtheme** – Force fitting projects into strategy streams **Theme** - Drivers enhancing strategy implementation
The project managers definitely need to be aware of how the programs are aligned to strategy. However, this is not happening in the organisation".	• No alignment of projects to strategy … later charged to … • Empower project managers	**Subtheme** – Management level and employee engagement **Theme** - Drivers enhancing strategy implementation
They never checked back up through any processes to say, are we aligned, what's changed, what's done. It is almost like they've to do strategy. So, they run off and they do strategy".	• Strategy formulation and implementation not linked … later charged to … • Integrated strategy planning	**Subtheme** – Strategy implementation success **Theme** – Strategy implementation success
…and then they say, well, we didn't do very well in strategy, or we didn't achieve all our strategic objectives".	• Strategy execution not done properly … later charged to … • Improper strategy implementation	**Subtheme** – Strategy management process and project management approach **Theme** – Strategy management process and project management approach

APPENDIX F – SNIPPET OF INTERVIEW PARTICIPANTS AND CORRESPONDING THEMES WITHIN THE THESIS

Theme	**Theme,** Sub-Theme *and Key Word Alluded to by Interviewee*	**Interview Participant**											
		A1	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**B1**	**B2**	**B3**	**B4**
1	**Drivers enhancing Strategy Implementation Success**												
	Leadership												
	Management level and employee engagement												
	Employee engagement									x			
	Management support for strategy			x									
	Facilitate adaptability				x								
	Organisational culture		x										
	Level of involvement		x						x				
	Organisational structure and you are not always in control												
	No business control	x	x										
	Strategy-supportive organisational structure						x						
	Organisational architecture and design									x			
	Competitive environment									x			
	Understanding the specific industry												
	Industry specific knowledge and dynamics						x				x		
	Technical knowledge of the industry										x		
	Zero tolerance to performance												
	Employee performance		x	x									
	Employee dismissal		x										
	Short Termism												
	Short term in office		x						x				x
	Strategy term reduced		x										
	Limited strategy formulation and implementation time						x						
	Rushed strategy implementation		x										

Theme	**Theme,** Sub-Theme *and Key Word Alluded to by Interviewee*	Interview Participant											
		A1	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**B1**	**B2**	**B3**	**B4**
	Long term employees												
	Long term employees	x	x										
	Lost work motivation							x					
	Job security		x										
	Communication and Change Process												
	Integrated communication												
	Effective communication					x				x		x	
	Strategy consensus			x				x					
	Shared meaning								x				
	Access to information												
	Transparency									x	x		
	Awareness to strategy				x								
	Employee buy-in												
	Employee commitment		x										
	Employee understanding			x						x			
	Change management process												
	Ineffective change management		x										
	Organisational change management		x					x					
	Use of Project Management Tools												
	Force fitting projects into strategy streams												
	Alignment of projects to strategy	x							x				
	Translating strategy into concrete projects	x											
	Work breakdown structure							x		x			
	Project manager role	x											
	Manage project resources	x											
	Empower project managers	x		x						x			

Theme	**Theme,** Sub-Theme *and Key Word Alluded to by Interviewee*	**Interview Participant**											
		A1	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**B1**	**B2**	**B3**	**B4**
2	**Strategy Implementation Success**												
	Integrated strategy planning	x		x									
	Inconsistent strategy planning					x							
	Strategy implementation plan			x	x								
3	**Strategy Management Process and Project Management Approach**												
	Strategy management process as a project		x	x		x		x		x			
	Improper strategy implementation	x	x										
	Strategy process optimisation		x	x							x	x	
4	**Perceived Business Success**												
	Missed opportunity												
	Opportunity cost lost									x			
	Benefits realisation management						x						
	System and technology success										x		
	Securing funding					x							
	Shareholder expectations												
	Shareholder growth						x						
	Sustainable outcomes		x	x									
Total per Interview Participant included in the Thesis		**9**	**17**	**10**	**3**	**4**	**5**	**5**	**4**	**10**	**5**	**2**	**1**