

PROGRAMME MANAGEMENT OF ENTERPRISE TRANSFORMATION PROGRAMMES AS EXPERIENCED IN THE PUBLIC SECTOR IN SOUTH AFRICA

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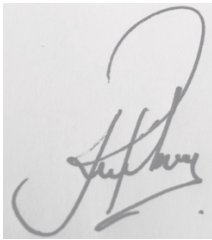
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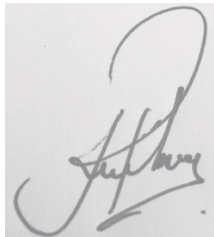
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Dedication

I dedicate this thesis to my family: my wife Annarie, my son Jan-Harm, and my daughter Malindé and her family. May the outcome of this serve to inspire you to pursue your own dreams, whatever they may be. Thank you for your patience, your love, and your support during the twists and turns of my journey. I know this was at the best of times not easy for you.

Abstract

The study “Programme Management of Enterprise Transformation Programmes as experienced in the public sector in South Africa” investigates the life experiences of programme managers of IT-enabled, or socio-technical, enterprise transformation and modernisation interventions in the South African public sector to understand the factors that impact them during programme execution and delivery.

The study followed a qualitative research design and used grounded theory as its mode of enquiry. A total of 19 semi-structured interviews were conducted with programme managers and recipients of programme management services in individual departments or other public-sector entities.

The findings led to a systemic understanding of programme managers and their unique contexts and challenges, the role of the public-sector organisation, as well as the influence of departmental line managers on the broader delivery of enterprise transformation programmes.

The study sheds light on some of the challenges and factors that contribute to the lived experiences of programme managers in public-sector organisations. Several institutional factors exert negatively on the performance of programme managers, especially the bureaucratic demands of stringent legislative and regulatory regimes in respect of finances, procurement, and human resources. The study establishes that programme managers generally experience difficult relationships with programme stakeholders, of which departmental line managers are the most complex and possibly the most disruptive. Lastly, the study determines that strategic assumptions and decisions around organisational change and the adoption of a programme approach for enterprise transformation initiatives impacts programme managers in sometimes unexpected ways.

For public sector entities embarking on the programme management journey, policy implications are that, notwithstanding the general legislative and regulatory limitations, they do have direct control over institutional management and administrative policies, procedures, and conventions that directly and indirectly influence programme managers. This extends to internal accountability arrangements, governance frameworks, mechanisms to monitor progress, and disciplinary remedies. The public-sector organisation thus can, and should, positively impact the lived experiences of public-sector programme managers.

The study concludes with an institutional framework, the recommendations of which should contribute to an improvement in the lived experiences of programme managers.

Keywords: Programme management, public sector, enterprise transformation, stakeholders, systems thinking

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LIST OF ABBREVIATIONS

ACDC:	Aitken-Carnegie-Duncan Complexity
APP:	Annual Performance Plans
GAPPS:	Global Alliance for Project Performance Standards
GTAC:	Government Technical Advisory Centre/Committee
IS/ICT:	Information Systems/Information and Communication Technology
IT:	Information Technology
MTEF:	Medium-Term Expenditure Framework
MTSF:	Medium-Term Strategic Framework
OGC:	Office of Government Commerce
P2M:	Project and Programme Management for Enterprise Innovation
PDCF:	Project Delivery Capability Framework
PFMA:	Public Finance Management Act
PMAJ:	Project Management Association of Japan
PMBOK®:	Project Management Body of Knowledge
PMI:	Project Management Institute
SAFe:	Scaled Agile Framework
SDLC:	Systems Development Lifecycle
SoS:	System-of-systems
STSE:	Socio-technical systems engineering
UK:	United Kingdom
USA:	United States of America

CHAPTER ONE – INTRODUCTION AND BACKGROUND

1.1 Introduction

This research was prompted by the extent to which government departments and public entities in South Africa adopted programme management as a means to govern and deliver information technology (IT)-enabled enterprise transformation and modernisation initiatives.

In 1995, the South African Government adopted the philosophy of ‘Batho Pele’ to transform the public service into an inclusive and participatory model. Batho Pele promotes eight principles: consultation, service standards, access, courtesy, information, openness and transparency, redress, and value for money (Department of Public Service and Administration of South Africa, 2007). Several South African government agencies, departments, and state-owned entities moved to implement these principles when they engaged in multi-year IT-enabled enterprise transformation and modernisation programmes to fundamentally improve operational efficiency, effectiveness, and the quality of their service delivery to citizens (Gordhan, 2007; South African Police Service, 2005). Examples of these South African public-sector IT-enabled enterprise transformation and modernisation programmes include:

- i. The modernisation programme of the South African Revenue Service that delivered improved efficiencies, effectiveness, and productivity gains in tax and customs administration (South African Revenue Service, 2009, 2014; Van Vuuren, 2016);
- ii. The Integrated Justice System programme that aimed to increase the efficiency and effectiveness of the entire criminal justice process by implementing information technology and business process connections that link individual departments in the criminal justice context (Department of Justice & Constitutional Development, 2017a; Du Rand, 2005);
- iii. The “Who Am I Online” initiative that modernised the Department of Home Affairs made improvements to the issuing of new smart ID-cards, passports, and birth and death certificates (Department of Home Affairs, 2010); and
- iv. The National Treasury-led Integrated Financial Management System initiative that sought to modernise the government’s transverse information technology systems by replacing multiple diverse systems servicing the needs of accounting and financial management, logistics, and personnel management (Hendriks, 2012).

These service delivery improvement programmes took many forms. Most adopted approaches enabled by Information Systems/Information and Communication Technology (IS/ICT) to embody principles of eGovernment in partnership with human capability to establish maximum efficiency in operations and public service delivery. In the context of these programmes, the innovative use of advanced technology solutions, re-engineered business processes, and the introduction of new approaches all aimed to contribute to empowering employees and simplifying interactions with citizens. Principles of Total Quality Management and Kaizen, business process and procedure redesign, value-stream reinvention, enterprise redesign, strategic visioning, organisational and culture development, and information technology development in some form or another were used as tools during these IT-enabled enterprise transformation and modernisation initiatives.

In addition, the implementing Agencies and Departments established programme governance structures and appointed dedicated programme and project managers to facilitate and oversee the delivery activities of these IT-enabled enterprise transformation and modernisation programmes.

An analysis of the delivery performance of these IT-enabled enterprise transformation and modernisation programmes revealed varying levels of success. The Integrated Justice System programme, active for more than two decades, appears slow to deliver tangible and measurable improvement initiatives. Progress is haphazard, and expected benefits are not delivered within time, scope, and budget constraints (Brainstorm, 2013; Department of Justice & Constitutional Development, 2017b; Parliamentary Monitoring Group, 2014). The “Who Am I Online” programme of the Department of Home Affairs was marred by delivery challenges, which eventually resulted in the programme being cancelled (Department of Home Affairs, 2010). Hendricks (2012) and Gcora and Chigona (2019) identified several challenges to implementing an Integrated Financial Management System, including a lack of capacity, weak commitment to change, institutional challenges, and technical challenges.

In considering the potential reasons for programme failures, Lycett *et al.* (2004) identify three concerns that contribute to programme management effectiveness: an excessive control focus, insufficient flexibility in the context of evolving business strategy, and ineffective co-operation between projects within the programme. These concerns are underpinned by two fundamentally flawed assumptions that:

- i. programme management is a scaled-up version of project management, and
- ii. a one-size fits all approach is appropriate.

Artto *et al.* (2009) and Pellegrinelli (2002) suggest that contributors to programme failures include the neglect of certain themes in the programme management context: neglect of inter-project co-ordination and of inter-organisational issues and theories, limited inclusion of the effect of uncertainty, complexity and novelty on relevant types of programme management, a lack of industry-specific approaches, neglect of the interplay between the permanent and the temporary organisation, and the interaction between a programme and the environment it aims to change.

1.2 Research Problem

Buijs and Edelenbos (2012) found that studies addressing the broader issue of programme management in the public sector are rare. A search for existing scientific research outputs relating to programme management of IT-enabled enterprise transformation and modernisation of South Africa’s public sector entities has not yielded positive results. Although there are research outputs on programme management in general, no focussed research study has been conducted on the topic and theme covered by this researcher.

The research problem was informed by the following observations:

- i. There exists evidence of unsuccessful IT-enabled enterprise transformation and modernisation programmes in the South African public sector.
- ii. There exists multiple perspectives amongst practitioners and stakeholders of what programmes and programme management mean (Great Britain, 2011; IAPPM, 2003; PMAJ, 2005; PMI, 2006d)

- iii. There exists a perception that programme management is still a young discipline being influenced by various competing schools of thought (Pellegrinelli *et al.* 2007)
- iv. There are differing levels of preconceptions amongst practitioners about what it takes to be a programme manager (Partington *et al.*, 2005)
- v. There appears to be multiple non-IT-related factors and assumptions that contribute to programme failures (Artto *et al.*, 2009; Lycett *et al.*, 2004; Pellegrinelli, 2002)

The research problem investigated by this thesis is therefore formulated as:

Failures of IT-enabled enterprise transformation and modernisation initiatives in the public sector of South Africa occur because formally defined programme management strategic and procedural knowledge frameworks do not exist.

The next section will expand the research problem with a definition of the research aim and objectives.

1.3 Research Aim and Objectives

The purpose of this research was to make a meaningful contribution to National Government in South Africa and was approached with respect for the complexity in contemporary public administration in South Africa. It acknowledges that the vast challenges of public sector governance and delivery in the 21st century can only be resolved through multi-dimensional and innovative solutions. The research aims to contribute to the conversation with a specific emphasis on the experiences of public-sector programme managers and it is anticipated that the findings could be implemented to benefit all managers of public sector organisations with programme delivery accountabilities in South Africa.

Tranfield and Starkey (1998) suggest that management research addresses the organisation and arrangement of resources to deliver organisational outcomes and is not only concerned with 'knowing what' but also addresses 'knowing how'. Furthermore, it is also important that problems are set, addressed, and disseminated with insight into the managerial and broader societal context.

Programme management is a complex endeavour that concerns itself with the management of collections of diverse projects and becomes a means to organise and arrange resources to deliver organisational outcomes. It could thus be the subject of management research. In this context:

- i. The delivery trajectories and varying levels of success attained in the execution of the public-sector IT-enabled enterprise transformation and modernisation programmes identified earlier suggest that the adoption of programme management does not guarantee success.
- ii. It is important to investigate and understand programme management from a practitioner's perspective or viewpoint and to find solutions that have practical value in application.
- iii. The use of programme management to direct and govern public-sector IT-enabled enterprise transformation and modernisation programmes is a very practical challenge: There is value in addressing strategy, governance requirements, programme management approaches, and empowerment of resources.

- iv. Understanding the historic experiences of programme managers should aid public-sector organisations in the execution of future complex IT-enabled enterprise transformation and modernisation programmes.
- v. The opportunity thus exists to consider a review of the efficacy of programme management approaches enveloping the delivery of IT-enabled enterprise transformation and modernisation programmes and, in so doing, improve the situation while also addressing the question: What are the implications for management and the organisation?

In view of the above, the aim of this research is as follows: To develop an institutional framework that could explain and improve the environmental context within which programme managers in the broader South African public sector are expected to operate.

In support of the above stated aim, the following objectives have been identified:

- i. to understand the main practical complexities related to the programme management of IT-enabled enterprise transformation and modernisation initiatives in the South African public sector;
- ii. to analyse theory pertaining to systems thinking, enterprise transformation, and programme management as theoretical foundations for the research;
- iii. to gather relevant data and arrive at findings and logical conclusions after analysis of the gathered data, to deliver a scientific response to the research problem;
- iv. to develop a descriptive framework that could be applied to positively influence the programme management of public-sector IT-enabled enterprise transformation and modernisation programmes.

The next section introduces the conceptual framework used as an integrative mechanism to relate the practice of programme management in the context of public-sector institutions.

1.4 Systems Thinking as a Conceptual Framework

The researcher is a student at The Da Vinci Institute, a higher education institute where tuition is conducted in a Mode 2 frame of reference focused on transdisciplinary engagements and an integrative process of knowledge creation, application, and dissemination. Knowledge production in a Mode 1 frame of reference occurs in a context of established institutions and disciplines and is typically directed at academic progress. In contrast, Mode 2 knowledge production is integrative and multi-disciplinary, focuses on knowledge production for application in a specific subject domain, demonstrates an elevated level of social accountability and reflexivity, and has a wider community of interest through which quality control is applied (Gibbons *et al.* 1994; MacLean *et al.* 2002; Nowotny *et al.* 2006; Partington, 2000a; Tjeldvoll, 2010).

Systems thinking provides a lens or mental frame on how to look at the world that determines what one sees and often influences what one does about it (Pourdehnad *et al.* n.d.). It provides techniques to holistically investigate the nature, components, and relationships of a system and its environment in a highly interactive manner (Morgan, 2005).

Hessels and van Lente (2008, p. 745) compares 'systems thinking' with the Mode 2 research approach and finds that both places an "emphasis on non-linearity and heterogeneity of

knowledge production.” Neither of the two approaches are deeply prescriptive in how they should be applied, therefore the use of systems thinking as a conceptual framework appear to be compatible with the prescripts of the Mode 2 research approach.

Weinberg (2001, p. 52) views a ‘system’ as a “way of looking at the world” where a functioning complex whole is dependent on its constituent parts and the interrelationships between those parts. ‘Systems thinking’ is “a system of thinking about systems” (Arnold & Wade, 2015, p. 670), in which the system consists of elements, interconnections, and a function or purpose. The fundamental concepts of ‘systems thinking’ include “parts/wholes/sub-systems, system/boundary/environment, emergent properties, structure/process, hierarchy of systems, positive and negative feedback, information and control, open systems, holism, and observers” of such systems (Mingers & White, 2009, p. 1147).

Sherwood (2002, pp. 3–5) emphasises the “connectedness” between entities comprising a system, which results in complex cause-and-effect events propagating through the system in view. A proper understanding of the system can thus only develop when this connectedness is conserved, permitting the whole system to be studied. Systems thinking locates ‘the system’ in the context of a larger encompassing environment and studies the role it plays in that larger environment (Gharajedaghi, 2011). It is a ‘way of thinking’ guiding the design of solutions to dynamic, constantly-changing, complex problems that are influenced by stakeholder actions, feedback and context, and which generate unpredictable outcomes (Adam & De Savigny, 2012).

Systems thinking draws from a variety of disciplines, all with different strengths, and influences the development and use of powerful systems approaches to management as a task, through which managers can discover new metaphors for understanding their roles in organisations and address real-world management problems (Sambo, 2009). It offers practical ways of thinking about complex and ambiguous problems and situations and, as such, is more than “management” – it is also about “managing” (Armson, 2011, p. 10). Managers can use systems thinking to answer complex, diverse problems by adopting a holistic approach that acknowledges the complexity of modern organisations where relationships between parts are crucial. It places emphasis on process as well as structure and allows innovative behaviour and solutions to emerge.

The use of concepts associated with complex adaptive systems (Stacey, 2011) offers an approach to understand the inherent complexity that emerges during the programme management of major IT-enabled enterprise transformation and modernisation initiatives. This is especially true where local interactions between programme managers and impacted stakeholders become messy and politically charged, and delivery of the programme to support the overall organisational strategy is impacted.

By applying the systems model-based conceptualisation described by Best and Holmes (2010) to the subject area of programme management, one could assume that:

- i. Programme management is a complex adaptive system where its processes are dynamic, the hosting environment is constantly changing and co-exists with and within other interdependent environments, and changes in one environmental or stakeholder domain may result in unexpected impacts in other parts of the system.

- ii. It is important to understand the roles and actions of key stakeholders and how they are shaped by– and in turn shape – the dynamic system of programme management. Relationships, linkage, and exchange are also important.
- iii. Specific elements of the systems model (such as feedback loops) are critical to the programme management process.

The present study intended to investigate the day-to-day experiences and perspectives of programme managers working in the public sector. In this milieu, systems thinking appears to provide a suitable conceptual framework for the study as an appropriate transdisciplinary and integrative lens. This lens emphasises the need to view the subject area as a system of interconnectivity, considers problems as originating from the system, and calls for critical reflection on patterns of behaviour and solutions integrated into the process (Bierema, 2003).

Pourdehnad and Bharathy (2004, p. 345) support the use of systems thinking in exploring the interactions and relationships amongst the independent parts of purposeful social systems, such as the discipline of programme management. Systems thinking provides “a new set of organising principles, emphasis on the systemic wholeness, interdependency, synthetic thinking, optimisation of the whole, and support for organisational learning,” all of which contribute to the purpose of this study.

The following two concepts support the choice of systems thinking as the conceptual framework:

- i. Programme management as an ill-structured problem.
- ii. Public-sector programmes as complex systems.

1.4.1 Programme management as an ‘ill-structured problem’

According to Jackson (2011), human activity systems is but one example of complex systems. Programme management is a human activity system where people and processes are the parts, and complex interrelationships exist amongst people in their different organisational roles. In a typical programme, each person has a defined role to fulfil. When relationships between people break down, the programme suffers. When processes are incorrectly applied or demonstrate inherent deficiencies, the programme suffers.

These concepts can be assigned either directly or indirectly to the programme management discipline. Programme definition may address parts, wholes, and subsystems. The programme’s location in the broader organisation signifies the system, boundary, and environment. Programme execution is influenced by emergent properties that cannot be predicted during planning. The programme approach determines structure and process and, depending on the occurrence of positive and negative feedback, remedial steps are taken.

As referenced earlier, multiple competing definitions exist of what programmes and programme management should be. Furthermore, a wide range of bodies of knowledge are published which codify the roles and responsibilities of actors, base principles, governance requirements, ideal organisation, management processes, control procedures, and knowledge areas. Evidence exists that these reductionist bodies of knowledge are restrictive in their application to complex environments (Ireland, Rapaport, & Omarova, 2012).

1.4.2 Public-sector programmes as complex systems

According to Holland (2006), complex adaptive systems display the four major features of parallelism, conditional action, modularity, and adaptation and evolution. In measuring public-sector programmes against these four features the following observations are made:

- i. Parallelism: Public-sector programmes consist of large numbers of agents (subdivisions and human participants) who interact (communicate) by sending and receiving signals (communication). These agents interact simultaneously, resulting in large numbers of simultaneous signals.
- ii. Conditional Action: Agents' actions depend on the signals they receive. These actions follow conditional processing in the form of 'if-then' structures: if {signal x }, then {execute act y }. Given the social nature of public sector programmes, the acts themselves may be signals, resulting in complex feedback loops or overt impacts on the programme's environment.
- iii. Modularity: Groups of rules are codified in legislation, policy, standard operating procedures, and processes. The rules range in specificity from being generic to very precise.
- iv. Adaptation and Evolution: The agents (subdivisions and human participants) of public-sector programmes change over time. These changes focus on adaptations made to improve performance or in response to external stimuli, directing changes in strategic intent or expected outcomes.

Poli (2013) warns against confusing 'complicated' systems with 'complex' systems. In his view, 'complicated systems' have components that can be individually distinguished, addressed component-wise, and controlled. Inputs and outputs appear proportionate, and one can find permanent solutions to the problems they present. 'Complex systems', however, stem from networks of multiple interacting agents that sometimes cannot be uniquely distinguished. They must be addressed in their entirety and not component-wise. Small inputs might result in disproportionate results. Systemic problems cannot be solved with permanent solutions but require progressive management because remedial interventions result in new emergent problems. Lastly, a complex system cannot be controlled by controlling its underlying systems.

Depending on the evaluator's vantage point, public-sector organisations could be seen as 'complicated' in the sense that a reductionist approach can break the organisation down into its relative components (subdivisions, stakeholders, processes, assets, systems, et cetera). Surrounding each of the subcomponents, one can then build isolated descriptors, specifications, and rule sets aiming to institute a level of control. In contrast, Poli (2013, p. 143) suggests that modern social systems are "hideously complicated and bewilderingly complex." In this context, public-sector organisations could be seen as 'complex' given that they are primarily social constructions with multiple networks of interacting agents and causes, albeit that they are operating within seemingly well-defined organisational arrangements and physical structures.

The conceptual framework presents systems thinking as an integrative mechanism to consider programme management as an ill-structured problem and public-sector institutions as complex systems. Grounded theory development typically excludes a specific theoretical

framework or theory when the research project is conducted whilst requiring a theory to be developed from the data. However, the researcher believes that the conceptual framework is sufficiently open-ended to remind the researcher of the depth and breadth of analysis required to allow the theory to emerge from the data. In this scenario, grounded theory applied in combination with systems thinking is expected to deliver a rich result. This requires the researcher to define the study's scope, as well as an illumination of the limitations inherent in the endeavour. These will be discussed in the next section.

1.5 Scope and Limitations of the Study

This study will focus on programme managers and recipients of programme management services in the context of the broader South African public sector. Although the study is focused on programme managers of national departments, it is expected that the results could be generalised in the context of provincial government, local government, and other state-owned entities in the South African context. The results of this study may not be applicable in public-sector entities or organisations beyond the borders of South Africa.

Grounded theory studies may be subject to subjectivity introduced by the researcher that could lead to difficulties in establishing reliability and validity. During the study, the researcher was a practicing programme manager in a South African public-sector entity that could have led to researcher-induced bias. This risk was mitigated through preventative actions, including a pilot study and peer review of interview questionnaires, audio recordings, verbatim transcriptions, verification by interviewees of interviews, and memo writing.

The next section presents a high-level introduction of the structure of the thesis document.

1.6 Structure of the Study

Chapter 1 provides a general introduction, and an orientation to and overview of the study. The remaining chapters of the thesis consist of the following:

Chapter 2 is a summary literature review focusing on a general view on the South African public sector, enterprise transformation and socio-technical systems, and programme management. The chapter also includes a section on systems thinking. This chapter serves to orientate the reader by providing a high-level view of the subjects. Although it appears next in the thesis, it was completed in two stages – at the commencement of the study, and during the data analysis phase where the literature interrogated was used as additional data.

Chapter 3 describes the research design and methodology applied during the execution of the study.

Chapter 4 contains a detailed account of the research process applied during the field-work phase of the study.

Chapter 5 presents the data analysis and results. It includes a discussion of the findings from the empirical investigation on the adoption and use of programme management in the South African public sector.

Chapter 6 is the final chapter. It presents a grounded theory framework on programme management of IT-enabled enterprise transformation and modernisation change in the South African public sector. This grounded theory emanates from the research outcomes of the empirical study in conjunction with the literature review. The chapter concludes with a view

on the attainment of the research questions, the limitations of the study, recommendations for further study, and closing remarks.

1.7 Chapter Conclusion

This chapter has set the scene and provided context and orientation to the study. The research aims and objectives have been discussed, followed by a brief introduction to the conceptual framework, the scope, and limitations, and has been closed off with an outline of the remaining chapters in the thesis.

The next chapter is a preliminary literature review that contextualises the structure of the South African public sector and illuminates the subject areas of enterprise transformation and socio-technical systems, programme management, and systems thinking.

CHAPTER TWO - LITERATURE REVIEW

2.1 Introduction

The literature review for this research comprises two distinct phases. The first is an overview of the structure of the South African public sector, enterprise transformation and socio-technical systems theory, programme management, and of systems thinking. The second is included in Chapter 5 and supports the results of the data analysis. The justification for this approach is found in the following discussion.

In grounded theory studies, the general advice given is for researchers to refrain from conducting a detailed literature review prior to data collection because they run the risk of having their objective thinking contaminated (Ramalho *et al.* 2015). However, it is highly unlikely that researchers would enter the field without any prior knowledge about the subject area, given their training, experience, and perspectives (Charmaz, 2006). Thornberg (2012, p. 249) argues that a well-thought-through literature review can be used to establish an “informed” grounded theory. Birks and Mills (2015, p. 23) support the notion of a “limited and purposive review” in the early stages of the research effort to enhance the development of theoretical sensitivity. Strauss and Corbin (1998) emphasise that considered use of literature can assist the researcher to increase their sensitivity to subtle nuances in the data, but that researchers must be aware that overexposure might block their creativity and perceptions in identifying emergent observations.

Urquhart and Fernandez (2006, p. 461) also suggest that literature reviews should be done such that existing theories do not “derail the emerging theory” and that the phasing of the review needs to be carefully considered. The initial phase of literature review should be “non-committal” and aim to help the researcher to develop sensitivity when identifying the problem. In the second phase, the researcher adopts an “integrative” approach where the existing theory is integrated with the emerging theory, thereby increasing the value of the theory.

In view of the above arguments, the researcher acknowledges that literature should not be elevated over emergent data from the empirical study. At most, it should be treated as equally important to the data. In following the advice of Urquhart and Fernandez (2006), the researcher presents a non-committal or preliminary literature review in this chapter.

In documenting and discussing the research findings in Chapter 5, the researcher integrated the emergent findings from the empirical study with additional literature reviews informed by each of the emergent categories and findings.

The next section commences with a high-level discussion of the structure of the South African public sector.

2.2 High-level Structural View of the South African Public Sector

South Africa is a constitutional democracy with a three-tier system of government and an independent judiciary. The three-tier system consists of national government, provincial government, and local government authorities, each with legislative and executive authority in their own spheres. The South African public sector extends into several business and non-business, or so-called state-owned entities, which operate under the auspices of designated

national or provincial departments. Furthermore, there exists institutions that perform a public function supporting democracy under the Constitution (such as the Public Protector and the South African Human Rights Commission) and entities that perform a public function under other legislation (such as the South African Reserve Bank, the National Nuclear Regulator, and others). Figure 1 provides a graphical view of this three-tier hierarchy (Freedom of Information Programme, 2014).

Whilst government departments have specific mandates, they are grouped into clusters with cross-cutting programmes. This allows for an integrated approach to governance aiming to improve government planning, decision making, and service delivery. Clusters must align government-wide priorities, facilitate, and monitor the implementation of priority programmes, as well as establish a consultative platform on cross-cutting priorities.

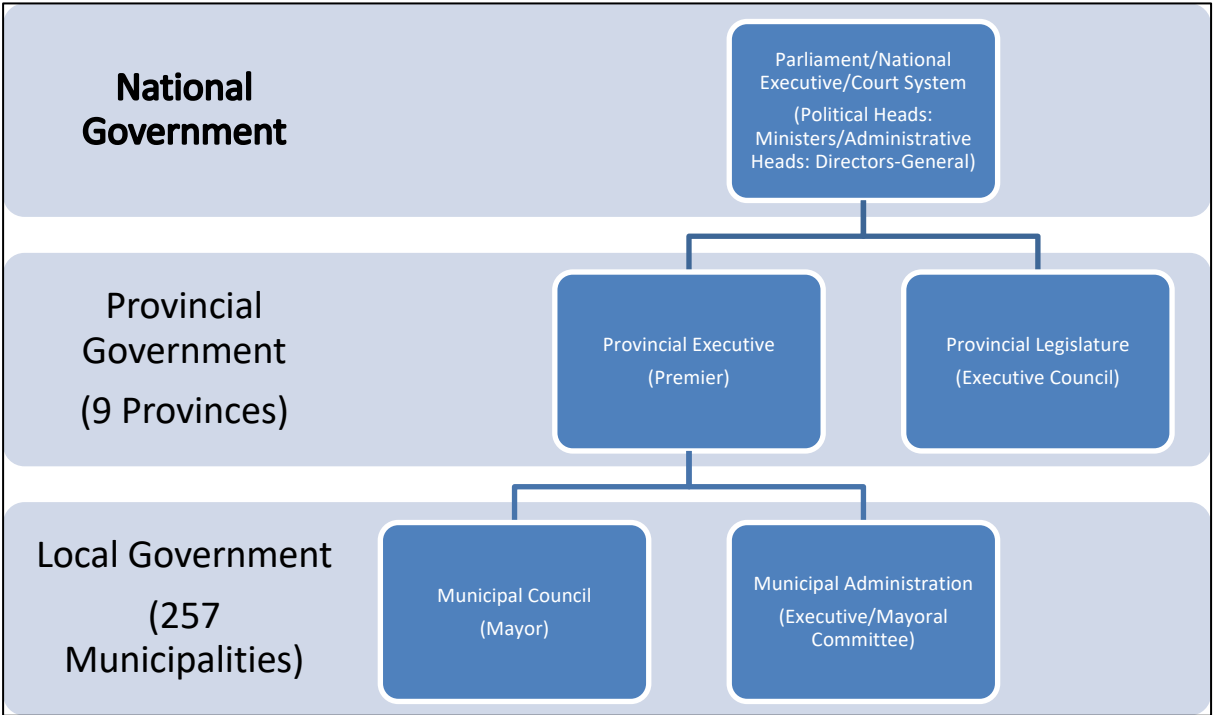


Figure 1: Three-tier hierarchy of the South African public sector (Freedom of Information Programme, 2014)

The National Development Plan defines South Africa’s socio-economic policy blueprint and establishes a long-term vision and development planning programme for the country. This plan informs the priorities and interventions of the Medium-Term Strategic Framework (MTSF) in supporting the transformation of South Africa into a developmental state. The MTSF influences departments’ business planning, budgeting, and implementation by housing a focused set of short-, medium- and long-term strategic priorities shared by all spheres of government (Mokoena & Honwane, 2020).

South African public-sector entities are directed by the government’s Programme of Action that documents the key priorities of the administration, following national elections. Furthermore, public-sector entities are governed by the prescripts of entity-specific legislation and cross-cutting acts, such as the Municipal Finance Management Act, 56 of 2003, while also having to perform to a strong expectation of service delivery and general non-profit driven mandates.

Departments are charged with developing strategic plans to identify strategically important outcomes-orientated goals and objectives. Whilst strategic plans do not replace project, programme, and policy plans appropriate to the activities of the department, these plans must be referenced and acknowledged in respect of likely sequencing of delivery in the forthcoming period (National Treasury (South Africa), 2010).

The Medium-Term Expenditure Framework (MTEF) summarises the business plans of national and provincial departments and reflects government’s three-year rolling expenditure and revenue plans. Departmental MTEF submissions are shaped by localised strategic planning and progress reviews in the context of their mandates, alignment with cluster priorities, and serving the MTSF priorities (Department of Public Service and Administration of South Africa, 2003).

In developing budget proposals to enable their service delivery activities, public-sector entities in South Africa must work in the broad framework of the Medium-Term Strategic Framework (MTSF), a five-yearly policy document that defines the government’s Programme of Action. Figure 2 highlights the key performance concepts of the MTSF which the departmental budgets must demonstrate adherence to in support of departmental strategic plans and annual performance plans (APP).

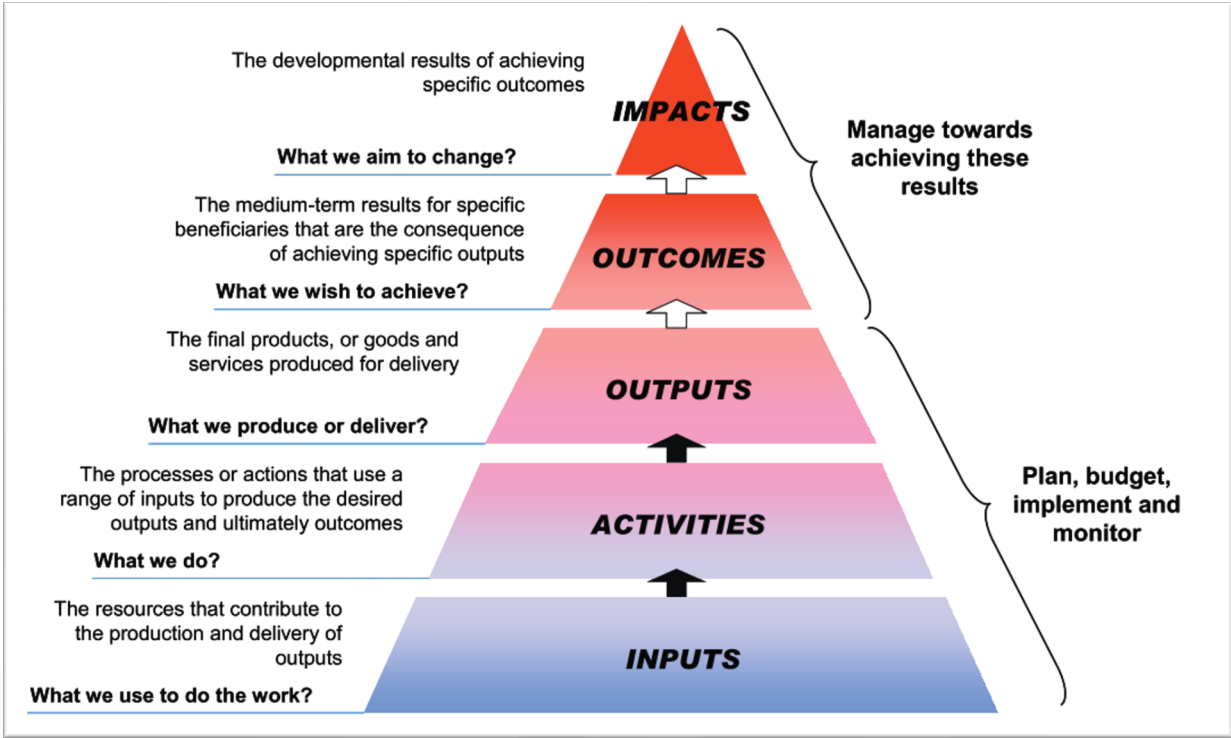


Figure 2: Key performance concepts in South African public-sector programmes (adapted from National Treasury (South Africa) (2010))

APP set down the performance indicators and targets to be achieved in the forthcoming financial year. The APP is closely linked to the departmental budget submission, with individual programmes and projects likely to be referenced in some level of detail (National Treasury (South Africa), 2010).

South African public-sector organisations function in the context of complex legislative and regulatory frameworks and must implement robust governance mechanisms to review,

approve, and monitor the operations and improvement initiatives of the organisations (Republic of South Africa, 1996, 1999). A common feature across these public-sector organisations is the adoption of project management and, occasionally, the programme management discipline to facilitate and govern the delivery of embarked-upon enterprise transformation and modernisation initiatives to enable the realisation of initiatives and priorities identified in their strategic plans and APP. Programme management approaches are largely found in environments where multi-year transformation initiatives are executed. In addition, the National Treasury's Government Technical Advisory Centre (GTAC) offers consulting services and publishes toolkits, methodologies, and manuals to assist and support all South African public-sector entities in adopting and implementing programme and project management ("Government Technical Advisory Centre," 2019).

The medium-term strategic and annual planning processes are key opportunity generators for IT-enabled enterprise and socio-technical transformation initiatives to be launched. The next section of the literature review will provide a brief overview of the concepts of enterprise transformation and socio-technical systems theory, and how they relate to public-sector initiatives.

2.3 Enterprise Transformation and Socio-Technical Systems Theory

Public-sector entities increasingly approach transformation initiatives from a position where major elements of their organisational assets and resources need to be modernised. Frequently, public-sector entities will reason that technology is an important enabler in these transformation initiatives and, subsequently, will structure their transformation initiatives around the implementation of technology (Andersen, 2006; V. Bekkers, van Duivenboden, & Thaens, 2006). Beyond impacting the employees of the public-sector entities, the technology-supported transformation outcomes also exert influence on citizens and other external stakeholders who interact with the public-sector entities through the technology solutions (Maddock, 2002; Ruffner & Sevilla, 2004). In this context, being able to position and use technology in a social context is particularly important.

Programme managers could derive value from understanding the main characteristics of enterprise transformation, socio-technical systems theory, and IT-enabled transformation because their underlying assumptions and work approaches influence the design, delivery, and management of technology-supported transformation programmes.

2.3.1 Enterprise transformation

2.3.1.1 Theory of enterprise transformation

Rouse (2005a, 2005b) and Rouse and Baba (2006) establish the foundations of an emergent theory of enterprise transformation with enterprises seen through a System-of-Systems (SoS) lens. According to the authors, enterprise transformation is prompted by perceived or anticipated value deficiencies, resulting in significantly adjusted or new business processes as determined by organisational management who operate within organisational constraints and social contexts.

Enterprise transformation involves the introduction of fundamental change to address experienced or anticipated value deficiencies in an organisation. Value propositions concerning products and services may be substantially altered in relation to delivery, support

and organisation, as well as the relationships with one or more of the key constituencies of the enterprise, such as customers, employees, suppliers, and investors. Fundamental change excludes routine and continuous improvement initiatives, and is rather abrupt and discontinuous (Rouse & Baba, 2006).

Work processes are examined and changed and may follow three broad approaches each with varying levels of transformative effects: improvements can be made to how current work is done, current work can be done differently, or different work can be executed (Rouse & Baba, 2006).

Public-sector organisations embarking on enterprise transformation can follow several routes across a range of ends, means, and scope classifications. The ends of transformation range in extent from improved cost efficiencies, to enhanced perceptions by constituencies, to new service offerings – culminating in fundamental changes to constituencies. Means of transformation range from upgrading people’s skills and redesigning business processes to introducing advanced new technology and fundamental changes in strategy. The scope of transformation addresses work activities and business functions, as well as overall organisations and the enterprise as a whole. Transformation efforts at the outer extremes of the ends, means, and scope are likely to be more complex, risky and time consuming, and may require more resource and management investment than lower-level elements (Rouse, 2005a).

Since enterprise transformation is launched to address value deficiencies and results in changes made to work practices and processes, the use of technology becomes more pronounced. Technology is used as both catalysts for or supporting change (Rouse, 2005b; Rouse & Baba, 2006) in enterprise transformation programmes. Rouse (2005a) suggests that technology needs to be integrated into the individual user and broader social structures with the adoption of a socio-technical approach.

In this context, IT-enabled enterprise transformation occurs when IT impacts on work practices, structures, strategies, and products and services to such an extent that substantial organisational transformation or strategic change is effected (Khan & Bokhari, 2018; vom Brocke, Schmid, Simons, & Safrudin, 2021).

2.3.1.2 Enterprise systems and enterprise systems engineering approaches

Elaborate enterprise transformation frameworks and systems engineering approaches enable organisations to justify, design, and organise their enterprise transformation initiatives. These frameworks and approaches define best practice methodologies and tools aiming to maximise the opportunities for successful completion of enterprise transformation plans.

Nightingale (2009) describes a non-domain specific framework for enterprise transformation initiatives that could be useful for public-sector entities. The framework guides implementing organisations to achieve sustainable enterprise transformation by following a five-step methodology addressing key questions that are instructive to the total transformation strategy and practice. According to Nightingale (2009), the commencement of transformation initiatives must be properly motivated by addressing the following seven principles of enterprise thinking:

- i. Adopt a holistic approach to enterprise transformation.

- ii. Identify relevant stakeholders and determine their value propositions.
- iii. Focus on enterprise effectiveness before efficiency.
- iv. Address internal and external enterprise dependencies.
- v. Ensure stability and flow within the enterprise.
- vi. Cultivate leadership to support and drive enterprise behaviours.
- vii. Emphasise organisational learning.

Once the principles are established, an enterprise transformation roadmap provides organisational management with a decision-aid, focusing on cultural, organisational, and change management concerns. The roadmap follows a cyclical approach, with the first 'strategic cycle' addressing the development of a business case whilst building engagement with the leadership. The 'planning cycle' follows, with emphasis placed on conducting a current state analysis and future state definition. This leads into the crafting of a transformation plan to achieve the expected future state outcomes. The final 'execution cycle' delivers the transformation plan.

The proposed enterprise transformation framework furthermore provides guidance and tools to enable organisations to assess progress, enhance decision making based on information and data, and to architect appropriate organisational, process, and technology infrastructure designs across the different enterprise strata touched by the transformation initiative.

Figure 3 provides a graphical depiction of the key questions (prefaced by 'Q:') and the recommended tool or approach (prefaced by 'A:') proposed by Nightingale (2009).

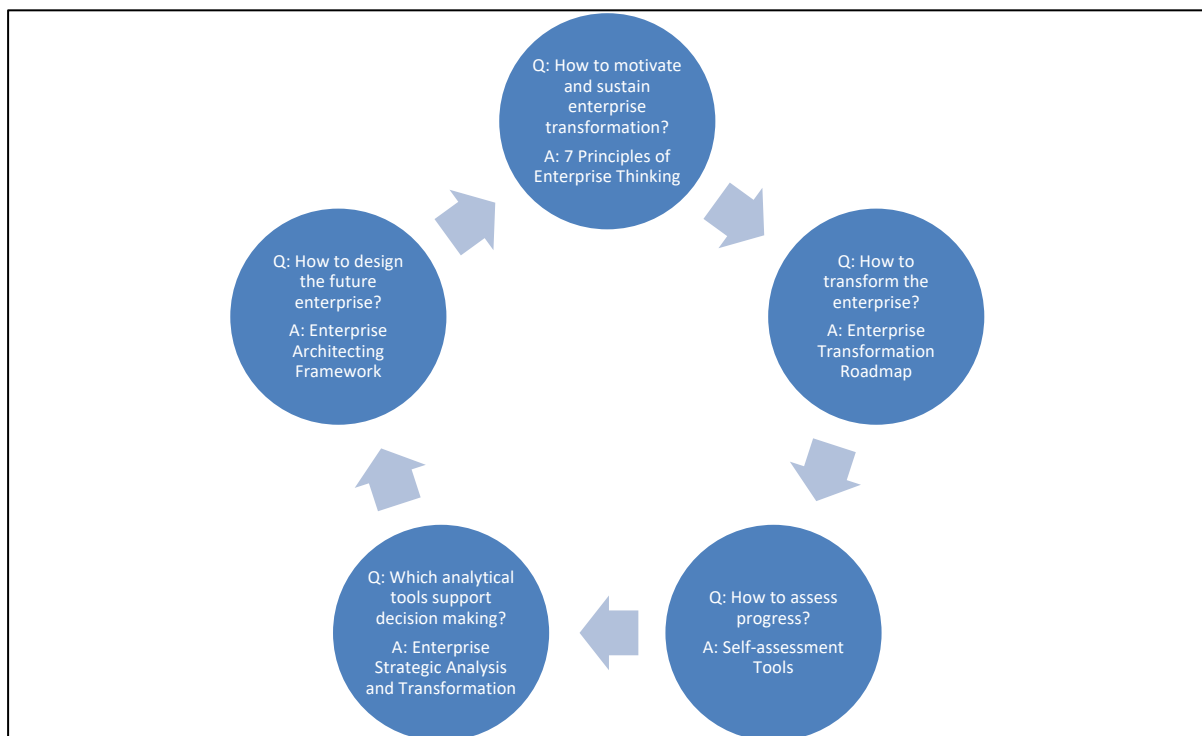


Figure 3: Framework for enterprise transformation (adapted from Nightingale (2009))

According to Brook and Riley (2012), who have primarily worked in central government and government agency environments, the term 'enterprise systems engineering' describes the technical processes in use when organisations apply systems principles to themselves. This

is particularly relevant in the context of enterprise transformation initiatives where an assortment of enterprise, programme and project, and technical processes are used in combination to bring about fundamental strategic change.

Brook and Riley (2012) recognise that organisations face several challenges when attempting to implement enterprise transformation initiatives. Their analysis reveals issues related to systems or technology, process and skills, management as well as uncertainty and complexity. At the macro level, enterprises experience challenges associated with persistent ambiguity in goals, unclear understanding of definitions of success, inherent unpredictability of future events, complex multi-agency interfaces, and strained interactions amongst actors.

Enterprise systems engineering provides organisations with several emergent strategies to manage the increasing complexity they must face. In general, the strategies suggest the adoption of a goal-directed orientation, focusing on adaptability and modularity in the system or product, clustering projects based on systems principles, building layered architectures, and streamlining the exchange of information amongst stakeholders. Additionally, stage-based development approaches, design strategies that reduce complexity in decision making, and smart standardisation across technology components also contribute to better management of the overall perceived complexity. Enterprise systems engineering thus demands of organisations to manage relationships across three types of activity: 'organising activities,' where the emphasis is on leading, making decisions, and managing outcomes; 'systemic activities,' which are concerned with forming holistic perspectives of complex problems, modelling whole-system properties, and crafting integrated solutions concepts; and 'systematic activities,' where requirements are transformed into practical solutions, meeting defined needs.

Analogous to Rouse and Baba (2006), Brook and Riley (2012) acknowledge the socio-technical nature of enterprises and advocate for the availability of skilled people who are properly supported and are collaborating effectively. In their view, a sophisticated workforce with integrated enablers is a prerequisite for successful enterprise systems engineering.

2.3.1.3 Systems thinking as an enabler in enterprise transformation

Pourdehnad and Bharathy (2004) argue that enterprise transformation efforts are more likely to succeed when organisations adopt the systems thinking paradigm as an enterprise transformation enabler. Although transformation initiatives might assume unique forms given local contexts, they remain invested in realising a fundamental, qualitative, or marked change of form or condition of the implementing organisation.

In their view, the prime reasons for enterprise transformation failures include:

- i. strategic or organisational mindset failures,
- ii. cultural bias and an unwillingness to engage with different ideas,
- iii. deficiencies in information flows and interpretations, and
- iv. leadership mistakes.

Amongst these, strategic or mindset failures are the biggest contributors to enterprise transformation failures.

Systems thinking provides organisational leadership with the tools to facilitate mindset shifts and behavioural change in response to disruptive change events. At the outset, it aids in answering the important question of determining whether enterprise transformation is an

appropriate response to internal or external sources of organisational challenges. Simple subsystem optimisations or adjustments based on predictable environmental changes do not warrant major transformation initiatives to be launched. However, enterprise transformation is required when the environment in which the organisation operates experiences discontinuous, qualitative, and drastic change.

Pourdehnad and Bharathy (2004) suggest organisations must address four conditions to be successful in enterprise transformations. Firstly, there is a need for a paradigm shift in how managers and leaders define and respond to problems. Next, to change the organisation's character and performance, they advocate for the adoption of a multidimensional approach to appropriately address the depth and pervasiveness of change, as well as the size of the organisation. Thirdly, enterprise transformation must follow an interactive and participative design process which focuses on crafting the organisation's mission, identifying systemic functions, developing work processes, and organising structures in which work is performed. The last condition requires for leadership to be aligned with the demands and expectations of the transformation efforts – participative leadership is more effective than directive leadership.

2.3.2 Socio-technical systems theory

Socio-technical systems theory originated from labour studies done at the Tavistock Institute in London during the 1950s and 1960s. Socio-technical systems theory acknowledges that systems consist of complex interactions between social, organisational, and technical components that need to be simultaneously configured to be successful (Emery, 1959; Trist, 1981). Appelbaum (1997) and Baxter and Sommerville (2011) emphasise that the organisation or lower-level work unit comprises a combination of social and technical parts that must be open to its environment and work together to deliver the expected physical outputs and social outcomes. This demands joint optimisation of all the contributing elements to deliver optimally. Open socio-technical systems, also called complex systems, demonstrate five key characteristics:

- i. The systems have interdependent parts.
- ii. The systems adapt to and pursue goals in external environments.
- iii. There is an internal systems environment, comprising separate but interdependent technical and social subsystems.
- iv. There is choice in the system – system goals can be achieved by more than one means; thus, there are design choices to be made during system development.
- v. The system's performance depends on jointly optimising the technical and social subsystems.

According to Ropohl (1999, p. 59), the philosophical definition of socio-technical systems aims to emphasise the “reciprocal relationship between humans and machines” and to influence the technical and social conditions of a work environment where efficiency and humanity would be balanced. Ropohl (1999) highlights the challenge with technical systems in a social context: technologists or engineers tend to ignore the social dimensions in which they work; and social scientists or casual users tend not to have deep knowledge of technology, thereby failing to acknowledge some of the realities that accompany technological objects.

Socio-technical systems theory can enhance the successful delivery of progressively increasing numbers of public-sector transformation initiatives that aim to establish and enhance e-Government strategies. Four components need simultaneous configuration, management, and alignment: technologies selected for use in the initiative require configuration and tailoring to the needs of the intended user community; business processes are subjected to re-configuration or re-engineering; revision of working practices, with an emphasis on the content of individual tasks and the introduction of cultural change, focus on the development of a customer or have a citizen-centred focus; and the active participation of stakeholders, with an emphasis of building awareness and trust in new systems and services, need to be configured (Damodaran *et al.*, 2005).

According to Doherty and King (2005), the introduction and use of information technology in organisations is often accompanied by undesirable organisational impacts. These emanate from classifying the projects as exercises in technical change rather than socio-technical change. These undesirable impacts can be minimised when organisations holistically approach the technical development of information technology-based solutions alongside the organisational and human aspects. However, Doherty and King (2005, p. 2) also acknowledge the difficulty of fully adopting a socio-technical approach since there appears to be a scarcity of practical socio-technical approaches that “explicitly address the human and organisational aspects of systems development projects.” In their view, organisations would therefore likely apply some form of explicit, homegrown, or pragmatic intervention to address organisational issues emergent from the technology implementation process.

Baxter and Sommerville (2011) recognise that organisations make major investments in IS/ICT and use established information systems development approaches and lifecycles in the delivery and maintenance of those systems. The use of narrow socio-technical systems design approaches in conjunction with classical systems development lifecycle (SDLC) is likely to cause challenges associated with usability and incompatibility between the socio-technical and technical systems development methods. In answer to this challenge, Baxter and Sommerville argue for the adoption of a socio-technical systems engineering (STSE) approach, which encompasses a comprehensive, systematic, and constructive use of socio-technical principles and methods across all domains of the delivery lifecycle and evolution of complex systems. This will allow organisations to preserve their investments in established software design methods and tools.

Furthermore, the adoption of STSE is seen as a pragmatic response to the non-technical failures of large, complex systems that overshoot their deadlines, exceed cost estimates, and do not live up to stakeholder expectations. STSE is a means for organisations to address the social and organisational complexity of the environment in which the systems are deployed. In this context, the systems engineering processes related to procurement, analysis, construction, operation, and interrelated information flows are enhanced with socio-technical considerations. Also, the organisational change processes of goal setting, process mapping, process design, and process execution are realigned with socio-technical considerations in mind. STSE thus becomes a mechanism to strengthen connections between organisational change and systems development processes.

The next section presents the results of a literature review of the Programme Management domain.

2.4 The Programme Management Domain

Traditionally, organisations use project management to focus resources and activities on the fulfilment of various undertakings. Project management developed and matured as an applied discipline over a period of 40 years (Kerzner, 2013). However, the growth in the volume, size, and complexity of projects active at any one stage in an organisation demanded a review of the shortcomings of traditional project management approaches (Pellegrinelli & Garagna, 2010). Maylor *et al.* (2006) suggested a shift towards the “programmification” of project management theory, identifying “programme management” as a necessary benefits realisation tool and considering it “a more holistic approach to effecting fundamental and transformational change in organisations than projectification” (Maylor, Brady, Cooke-Davies, & Hodgson, 2006, p. 671). An early proponent of programme management, Ferns (1991), advocated that programme management will increasingly provide substantial benefits to a wide range and number of organisations.

Programmes and programme management are now widely used in both private- and public-sector organisations to implement complex change, execute strategy, develop and maintain new capabilities of varying natures, and manage complex information system implementations (Pellegrinelli *et al.*, 2007). In a public sector context, the UK Government is one example which demands that public-sector organisations must use programmes to implement policy and change initiatives (Pellegrinelli, Stenning, & Partington, 2006).

Programme management is primarily occupied with planning and controlling practices in a multi-project or strategic change environment. It provides a means to harmonise, organise, and co-ordinate a group of concurrent and frequently competing projects. Practices directed at unpacking strategy into deliverable outcomes, resource management and sharing, formalised planning, conflict resolution, and risk management might be deemed a good fit with the requirements of a highly regulated public-sector domain. Professional bodies – such as PMI, OGC, PMAJ, and the International Standards Organisation – publish and update guidelines for best practice in programme management. Practitioners and researchers augment these guidelines with various ‘flavours’ of programme management approaches and methodologies. Sometimes, these are also tailored to address the specific nuances of a specialist domain such as technology delivery or civil construction environments.

The sections that follow delve deeper into the key tenets of programmes and programme management, aiming to set a theoretical basis and acknowledgement of the key domains of the topic. The first section provides a brief definition and introduction to projects, programmes, and portfolios. The sections following discuss literature sources under the headings of programmes as organisational structures, programme management processes and lifecycles, and a competence-based view of programme management.

2.4.1 Terminology used for projects, programmes, and portfolios

The terms ‘project’, ‘programme’, and ‘portfolio’ frequently appear together in subject literature and standards documents. This subsection provides short definitions for each of these terms and for some of the management acts associated with these. A concise description of how these are related concludes this subsection.

2.4.1.1 *Project*

From (Kerzner, 2017), we understand that a project is a unique endeavour, with tasks and activities, that:

- i. addresses a specific objective, directed at creating business value, and completed according to certain specifications;
- ii. is conducted within a specified timeframe with defined start and end dates;
- iii. is subjected to a budget or funding limit;
- iv. utilises human and other resources; and
- v. crosses organisational or functional boundaries.

2.4.1.2 *Project management*

Project management then is the “application of knowledge, skills and tools necessary to achieve the project’s requirements” (Kerzner, 2017, p. 2).

2.4.1.3 *Programme*

Unlike the generally accepted and relatively unitary definition of what constitutes a project, there are multiple definitions of what constitutes a programme. What follows are definitions sourced from seminal academic literature and practitioner sources.

The major project management standards and certification bodies present different perspectives and definitions of what ‘programme’ and ‘programme management’ mean. The Project Management Institute (PMI) defines a ‘programme’ as “a group of related projects managed in a coordinated way to obtain benefits and control not available from managing them individually” (PMI, 2006d, p. 4). The United Kingdom’s Office of Government Commerce (OGC) characterises it as “a temporary flexible organization created to coordinate, direct and oversee the implementation of a set of related projects and activities in order to deliver outcomes and benefits related to the organization’s strategic objectives” (Great Britain, 2011, p. 5). The Project Management Association of Japan (PMAJ) terms it to be “... an undertaking in which a group of projects for achieving a holistic mission are organically combined. Multiple projects that have weak relations with one another or are independent are not regarded as programs” (PMAJ, 2005, p. 29).

Thiry (2010, p. 25) defines a programme as “a collection of change actions (projects and operational activities) purposefully grouped together to realize ... benefits,” while Denyer *et al.* (2011) view a programme as a means to better align delivery activities with organisational strategy since it includes a dynamic collection of related projects and activities that, in combination, achieve agreed organisational objectives and emergent outcomes.

The key difference in emphasis amongst these definitions is the focus on strategy implementations versus groupings of related projects for the sake of convenience. Ferns (1991) identifies three categories into which programmes can be placed:

- i. strategic programmes address groups of projects directed at changes in an organisation’s mission or objectives;
- ii. business-cycle programmes include projects within a time-bound business-cycle; and
- iii. single-objective programmes, or macro-projects, address a single strategically important large initiative that is managed using multiple smaller projects.

Pellegrinelli (1997) augments this categorisation based on the reasons organisations put forward when justifying the launching of programmes. The resultant programme configurations are 'portfolio,' 'goal-oriented' and 'heartbeat.' The 'portfolio programme' consists of relatively independent projects, which have a common underlying theme. Portfolio programmes create the opportunities for improved performance through project co-ordination, efficient resource utilisation, and leveraging of existing knowledge or skills. Although the individual projects are defined outside of the programme's sphere of influence, their planning and execution are co-ordinated using programme structures.

'Goal-oriented programmes' direct management attention to initiatives operating beyond current infrastructure or existing ways of working. They provide a means towards tangible actions and innovative delivery of new things that are vague, incomplete in definition, and in a context of evolving business strategies. Goal-oriented programmes are particularly suited to contexts with elevated uncertainty and where progress can only be made based on learning and experimentation using projects with very short delivery cycles.

'Heartbeat programmes' address the need to conduct improvement and regular maintenance of existing systems, infrastructure, and business process improvements through the delivery of incremental enhancements. The heartbeat programme collates and integrates diverse requirements into implementable projects that are clearly defined, technically coherent, and operationally efficient. This type of programme configuration results in continuously evolving systems, infrastructure, and processes, thereby minimising the disruption to operational environments.

Programme outputs also include the creation of capabilities, such as strategic infrastructure. The primary difference between 'projects' and 'programmes' is that the former deliver outputs and the latter focus on the delivery of outcomes. Projects are constraints-driven, whereas programmes demonstrate emergence in their definition.

2.4.1.4 *Programme management*

In their bibliometric analysis of programme management, (Artto *et al.*, 2009) find that there is a lack of industry-specific views on and approaches to programme management.

PMI (2006d, p. 4) defines 'programme management' as "the centralized coordinated management of a programme to achieve the program's strategic benefits and objectives." From the International Association of Programme and Project Managers, this same concept is "the active process of managing multiple global workstreams or projects which need to meet or exceed business goals according to a pre-determined methodology or life cycle. Programme management focuses on tighter integration, closely knit communications and more control over programme resources and priorities" (IAPPM, 2003). From PMAJ, 'programme management' "... provides a framework of capability for an organization to flexibly adapt to changes in external environment, by devising ways to cope with such changes, for achieving a holistic mission. This capability involves integration activities to enhance holistic value and to achieve the mission by optimizing relationships between projects" (PMAJ, 2005, p. 31).

Thiry (2010, p. 27) defines 'programme management' as "the governance and harmonized management of a number of projects and other actions to achieve stated business benefits and create value for the stakeholders." Pellegrinelli (1997) emphasises that programme

management emerged in response to the limitations of traditional project management approaches to satisfactorily address the multiple goals, uncertainty, and pace with which organisations must adapt to change. Programme management thus ensures that required benefits that cannot be delivered through single projects can be achieved through the integration and management of a group of related projects (Denyer *et al.*, 2011; Lycett *et al.*, 2004). Adopting programme management also aims to address efficiency, effectiveness and business focus goals (Lycett *et al.*, 2004).

A distinguishing feature of programme management is that it is widely used to bring about complex change in commercial and public-sector organisations. Public-sector organisations in the UK must use programmes to implement policy and change initiatives (Pellegrinelli *et al.* 2006).

In summary, programmes and programme management appear to address five key facets:

- i. Programmes consist of multiple, related projects.
- ii. Programmes have longer durations than individual projects.
- iii. Programme management facilitates economies of scale in the management of resources, activities, and outputs.
- iv. Programmes are a means to address complexity manifesting itself through the involvement of multiple stakeholders in the delivery of a strategic outcome.
- v. Programmes require unique organisational structures and governance regimes to facilitate delivery.

2.4.1.5 *Portfolio*

PMI (2017, p. 3) defines a 'portfolio' as "a collection of projects, programs, subsidiary portfolios, and operations managed as a group to achieve strategic objectives." At first glance, the definition appears like that of 'programmes', with an emphasis on the delivery of strategic objectives. The difference lies in that portfolios can be made up of initiatives that are related or unrelated, with multiple or no interdependencies, or may have shared or discrete objectives. As with projects and programmes, portfolios have lifecycles. Portfolio lifecycles are, however, much longer than that of projects and programmes.

2.4.1.6 *Portfolio management*

Portfolio management draws from financial planning and investment approaches, with specific emphasis on techniques that focus on goals, risk levels, cost, and forecasted returns in the broad context of delivering strategic objectives. It encompasses dynamic controlling and investment of resources through active management of the underlying project, programme, and subsidiary portfolio components (PMI, 2017c). Portfolio management practises frequently find application in the management of corporate information technology investments (Rajegopal *et al.* 2007).

2.4.1.7 *Relationships between portfolios, programmes, projects, and operations*

A portfolio typically consists of an assortment of projects, programmes, secondary portfolios, and related business operations that are managed co-operatively to deliver strategic objectives. Inherent relationships between these initiatives hold value-adding potential to an organisation. Programmes comprise of projects, sub-programmes, and other activities

managed in a co-ordinated manner to deliver benefits not attainable from managing them individually.

The primary difference between programmes and projects is that programmes focus on the delivery of outcomes and projects deliver outputs. Projects are constraints-driven, whereas programmes demonstrate emergence in their definition. Projects with strategic importance might be assigned to a portfolio or a programme. It might also be completely independent when the implementing organisation have not yet matured to the point of using portfolios and programmes in their project delivery operations (PMI, 2017c). Projects have fixed objectives and scope. They follow linear life cycles, are limited to subsets of organisational capabilities, and are governed by a common set of transferable principles and processes. Programmes are emergent in nature and must be more responsive to external change and shifting strategic goals. They are conceived as frameworks or structures with indeterminate time horizons and are concerned with individual and organisation-wide capabilities, as well as efficient deployment of resources. In the strategic perspective, governance is intimately bound up with and determined by context (Pellegrinelli *et al.*, 2007).

Project management, and by extension programme management, is applied to “do projects [and programmes] right” and portfolio management focuses on “doing the right projects [and programmes]” (Müller & Blomquist, 2006, p. 53).

Table 1 provides a summarised comparison between project and programme management as defined by PMI’s Standard for Portfolio Management (PMI, 2006c, p. 6).

Table 1: Comparative Overview of Project and Programme Management
(adapted from PMI (2006))

Project	Programme
Projects have a narrow scope with specific deliverables.	Programmes have a wide scope that may have to change to meet the benefit expectations of the organisation.
Project Manager works to keep change at a minimum.	Programme managers must expect change and even embrace it.
Success is measured by budget, on time, and products delivered to specification.	Success is measured in terms of return on investment, new capabilities, and delivery of benefits.
Leadership style focuses on task delivery and directives to meet the success criteria.	Leadership style focuses on managing relationships, and conflict resolution. Programme managers need to facilitate and manage the political aspects of the stakeholder management.
Project managers manage technicians, specialists, etc.	Programme managers manage project managers.
Project managers are team players that motivate using their knowledge and skills.	Programme managers are leaders providing vision and leadership.
Project managers conduct detailed planning to manage the delivery of products of the project.	Programme managers create high-level plans providing guidance to projects where detailed plans are created.

Project	Programme
Project managers monitor and control tasks and the work of producing the project outputs.	Programme managers monitor projects and on-going work through governance structures.

2.4.1.8 Interim Conclusion

The ambiguity and debate amongst academics and practitioners about the many proposed definitions and methods reveals that programme management is a relatively young discipline when compared to project management (Pellegrinelli *et al.* 2007). A deeper analysis indicates that two main influences attempt to shape programme management.

At first, authors and industry bodies aligned to project management conceive of programme management as an extension of project management. Project management concepts, tools, and techniques are adapted, refined, and enhanced to handle the complexity introduced by multiple projects, multiple stakeholders, inter-project co-ordination, shared resources, and other programme characteristics.

In contrast, authors and practitioners aligned with strategic management or strategic planning disciplines distinguish programmes as means to implement strategy and for bringing about corporate renewal. They argue that programmes are qualitatively different than projects, and by taking a project-based view, the benefits are lost.

Once the decision is made to establish a programme, consideration should be given on the most appropriate manner to organise the initiative. The next section discusses options related to programme organisational considerations and structures available to implementing organisations.

2.4.2 Programme management: Organisational structure view

Programmes may be regarded as temporary organisations in which the programme-organisation relationship requires programme managers to act as intermediaries between executives, operational staff, and project teams (Great Britain, 2011; P. Lehtonen & Martinsuo, 2008). In this arrangement, programme managers report upwards to an appropriate steering body or executive and have project managers reporting to them. The steering body can take many forms. At a minimum, it typically consists of a programme sponsor, programme owner, accountable business representatives, and other impacted stakeholders (Great Britain, 2011; PMI, 2017c).

A programme structure is the most visible and important mechanism through which governance requirements are enacted. Considering the numerous and sometimes complex linkages between programme managers and line management, executives, and other organisational stakeholders, Buijs and Edelenbos (2012) suggest that programme management is a constantly adaptive process to regulate the temporary interconnections between different projects and line management structures within organisations. Pellegrinelli (2002) emphasises that in this setting, programme managers must be acutely aware of internal and external programme contexts to mediate and moderate the impact of demands emanating from these respective environments.

Yu and Kittler (2012) suggest that the choice and locating of an appropriate programme structure is a strategic decision, contingent on the programme environment, and can follow

either a centralised or decentralised model. The key determinants informing this decision include the level of authority that a programme has over its environment and how homogenous the business processes are between the participating organisations.

Programme authority is approximated by the level of authority afforded to the sponsor. When a sponsor can enforce business decisions on other organisations, the programme is assumed to be having high authority through effective escalations to the sponsor. When participating organisations have freedom to make strategic and operational decisions, programmes tend to have low authority. High levels of similarities between the business processes of participating organisations suggest a homogenous environment. Low levels of business process homogeneity occur in instances where business processes support bottom-up decision-making processes and the development of different business processes. Centralised programme structures are useful in environments with high authority and high levels of business process homogeneity. Decentralised programme structures tend to prevail in environments where both authority and business process homogeneity are low (Yu & Kittler, 2012). One is likely to find centralised programme structures in the public sector given the tendency of organisations to follow hierarchical structures, and homogeneity across business processes and decision-making structures mandated by legislative frameworks, such as the Public Finance Management Act, 1 of 1999, (PFMA) and entity-specific acts, regulations, policies, and procedures.

The programme structure defines how sub-programmes, projects, and operational processes directed at solving problems in the context of addressing a larger goal and common objectives are consolidated and related under a single management structure (Lycett *et al.* 2004; Müller & Blomquist, 2006). In defining the programme structure, decisions are made to inform the logical structure and control requirements, hierarchical roles, and primary delivery activities (Näsholm & Blomquist, 2015). Subramanian (2015) emphasises that the programme structure embodies the roles and responsibilities, programme accountability, escalation paths, and decision making.

Martinelli *et al.* (2012) argue for the application of a systems thinking approach during the definition of the programme solution, the collection of highly interdependent projects to deliver the solution, and the programme organisational structure to govern the delivery. They recommend that programmes adopt a flat, network-based programme organisational structure to minimise challenges such as stifled cross-team and cross-project collaboration, communication, and lack of workflow integration produced by the constraints of traditional hierarchical governance structures. The benefits of a network-based programme organisational structure include proper accountability assignment, consistency of execution across various organisational domains, enhanced integration across horizontal programme functions, scalability across contributing projects, and the effective use of resources in the programme delivery pipeline (Wills, 2014).

Gray (1997), in contrast, warns that the adoption of network-based programme structures in organisations with strong hierarchical structures represents a major change to how work is organised. To successfully migrate to matrix management approaches requires substantial investments in time and support to nudge executives and line managers into meaningfully changing their attitudes.

The programme structure characterisation furthermore includes the definition and selection of individual projects. Gray (1997) suggests that project-programme assignment can follow

two approaches. An existing collection of projects displaying some level of commonality might be grouped into a programme with an emergent theme. Alternatively, the implementing organisation will establish a programme to address a high-level strategic objective whereafter the programme management team then defines various projects to support the programme's mission statement and deliver the objective. These two approaches broadly align with the programme categorisations identified by Pellegrinelli (1997) and described in the introductory sections above.

In analysing whether a large, complex project should rather be structured and managed as a programme, Martinelli *et al.* (2014) recommend that an analysis of the interconnectedness and interdependence among individual project elements is informative in the decision making. In this context, adopting a systems perspective of the problem will aid to simplify and manage the complexity resulting from the multiple interdependencies.

Programme governance arrangements empower the programme structure to design, monitor, manage, and support the programme in delivering its strategic and operational goals – for both the meso-programme and micro- individual-project levels. Where required, the governance arrangements can also be extended to align with macro-portfolio requirements (PMI, 2017c).

Several organisational strata share the accountability for programme governance. Top management, and line and portfolio managers should act directionally to clarify vision, mission, and strategy. Portfolio, programme, and business-change managers have a combined sponsoring accountability to establish and maintain the structures, resources, and the supporting organisational management infrastructure required to ensure programme success. The programme manager and business-change managers are accountable to ensure that the stated programme objectives and benefits are achieved. Thus, programme governance is a reasonably collaborative process that requires constructive rather than directive relationships (Thiry, 2010).

Beyond the core programme governance stakeholders, Managing Successful Programmes (Great Britain, 2011) proposes the inclusion of supplementary governance roles addressing risk management, programme accounting, benefits realisation, procurement expertise, and design authorities concerning specialised subject areas, such as technology, when the programme demands it.

The definition and establishment of enabling programme structures are but one part of the programme management domain. Programme management as a technically complex management domain depends on the application of process and lifecycle methodologies to structure programme delivery activities. The next section discusses a subset of the available programme management lifecycles and processes.

2.4.3 Programme management: Lifecycle and process view

Various programme management lifecycles and processes are described in the subject literature. The following highlights the most prominent examples found, commencing with observations gleaned from two major industry standards, sponsored and maintained by the American PMI and the UK OGC.

2.4.3.1 The PMI Standard for Programme Management

An analysis of PMI's standards and bodies of knowledge on project and programme management reveals that the processes for project and programme management appear similar, yet they differ at the detail level. The management of both projects and programmes is based on process-driven lifecycle-based approaches addressing definition (formulation and planning), delivery (execution and controlling), and closure. PMI's programme management standard follows a similar approach to the Project Management Body of Knowledge (PMBOK). This describes project management knowledge areas and process groups by describing activities for each of the identified programme lifecycle phases within the context of the overarching programme governance requirements and an emphasis on consolidation and on the sustainment of benefits (PMI, 2017a, 2017c).

2.4.3.2 Managing Successful Programmes

The prominent UK approach to programme management depicted in *Managing Successful Programmes* (Great Britain, 2011) describes a programme delivery and management framework addressing principles, governance themes, and transformational flow. Principles address the common factors girding the success of any transformational programme. Next, the governance themes address the need for a governance context to enable the programme to deliver the planned outcomes and realising the expected benefits. This theme provides guidance on establishing appropriate organisation structures, controls and control information, and the requisite leadership, management, and delivery teams. Lastly, the transformational flow is the core of the framework. It encompasses the process of identifying the programme, defining the programme, managing the tranches where the focus is on delivering capabilities and realising benefits, to finally closing the programme. (Great Britain, 2011).

2.4.3.3 Project and Program Management for Enterprise Innovation

PMAJ advocates for the adoption of the Project and Program Management for Enterprise Innovation (P2M) project and programme management approach (PMAJ, 2005). The P2M is a guidebook to enterprise innovation using project and programme management. It offers guidelines to standard Japanese project management. It positions the use of programme management to address the complexity and interrelationships associated with consolidating and managing multiple projects. PMAJ (2005, p. 3) defines a 'programme' as "an undertaking in which a group of projects for achieving a holistic mission are organically combined" and expressly eliminates multiple independent projects or projects with weak interrelationships from inclusion into a programme. In this definition, the basic attributes of a programme include elements of multiplicity (projects, purposes, objectives, worldviews, interpretations of mission, possible solutions), scalability (size, dimensions, structures), complexity (interfaces amongst projects, overlaps between project phases), and uncertainty (environmental changes, durations longer than projects).

Although P2M claims to be uniquely sensitive to the Japanese cultural climate and that it surpasses western-style project and programme management approaches, it adopts similar phases to PMI and *Managing Successful Programmes* approaches referenced earlier. P2M's main phases include:

- i. define programme;
- ii. acquiring and understanding the common view, where the programme mission and value, as well as the programme community and architecture are defined;
- iii. integration management that deals with the integrative management of projects; and
- iv. structured value assessment.
- v. The P2M approach appears not to have a formal closing phase (Ohara, 2005b, 2005a).

2.4.3.4 *FOrDAD*

In the context of project management approaches, Morris and Pinto (2007) disapproves of the overly execution, or delivery, orientation of the PMI's PMBOK and Organisational Project Management Maturity Model approaches. The crucial definitional stages that set the foundation for a best fit of the project with business, technical, and other organisational requirements are under-emphasised, thereby jeopardising the establishment of macro-project strategies and delivery of business benefits. Likewise, Thiry (2002, 2004, 2010) criticises the definition of the preceding programme management approaches as transpositions of approaches applied in the project management context.

Thiry submits that two characteristics support a proposition that programme management is the most suitable approach to implement strategies:

- (1) a cyclic process, which enables the regular assessment of benefits, the evaluation of emergent opportunities, and the pacing of the process; and
- (2) the acknowledgment of projects as interdependent, thereby ensuring strategic alignment.

He argues for the adoption of a different paradigm for programmes that is an iterative, rather than a linear process, which establishes stronger alignment to strategic management principles and recognises that programmes are emergent in nature.

The FOrDAD programme lifecycle conceptualisation leverages the iterative and cyclical nature of programme phases, focusing on Formulation, Organisation, Deployment, Appraisal, and Dissolution. Learning-based phases – such as formulation, strategy development during organisation, and appraisal done during benefits realisation – use value management tools. Performance-based phases – such as structuring during organisation and deployment – use project management tools and techniques to facilitate delivery.

In keeping with the strong alignment with strategic management approaches, this programme lifecycle follows three steps through multiple delivery cycles. The value creation step crafts the need for change and the associated value proposal. The transition step focuses on committing resources and managing the actual change processes. Lastly, the value realisation step is burdened with integrating the newly established change into the environment to achieve a sustainable transformed setting.

The FOrDAD programme lifecycle shifts the perspectives of programme managers and implementing organisations away from the predominantly performance-based project paradigm, emphasising short-term tactical deliverables, to a learning paradigm where the emphasis is on strategic management and value delivery.

2.4.3.5 ISO 21503

The International Standards Organisation published ISO 21503:2017(E) as general and concise guidance on programme management (ISO/TC258, 2017). Like PMI, a stage-based programme lifecycle focused on the organising, managing, and integrating of programme components is proposed but not described in detail. Items relevant to managing a programme are highlighted:

- i. programme establishment;
- ii. programme integration across strategic, requirement, component, and functional domains; and
- iii. an exposition of programme management practices, such as risk and issue management, change management, quality management, resource and schedule management, budget and financial management, and stakeholder and communication management.

2.4.3.6 PROMOTE

Al-Khouri (2015) developed the **Program and Project Management of Technology Endeavours (PROMOTE)** methodology to address the challenges experienced in the context of the United Arab Emirates and to close gaps identified in global project and programme management standards. PROMOTE is positioned to provide practical guidance to government agencies involved in major change initiatives induced or supported by technology. PROMOTE is characterised as a hybrid methodology, combining the strengths of PMBOK, ISO10006 guidelines for quality management in projects, and systems development methodologies to ensure that the overall emphasis of the programme is placed on stakeholder concerns, a better understanding of the problem context, and the requirements from the stakeholders' perspectives.

PROMOTE advocates a two-phase lifecycle, each constituting the key containers with several stages from where required artefacts, outputs, deliverables, and activities are directed.

The first phase addresses the initial investigation and design of the programme through four underlying stages: initiation and design, current state assessment, future state design, and tendering and selection. Key outputs produced during this phase include the programme initiation parameters, programme organisation structures, requirements analysis, feasibility study results, documented systems specifications, specifications for tendering and evaluation, and vendor selection.

The second phase primarily focuses on the programme or project management activities to deliver as contracted. It consists of five stages: programme management (organisation, planning and control), watch list, project methodology, requirements validation and development, and evaluation of deliverables and system acceptance (execution and closure). This phase accentuates the governance oversight, day-to-day management, and reporting of the technical design, development, testing, and transitioning of programme components into an operational state.

Being constituted of only two phases, the methodology aims to address observed reasons for project and programme failure because organisations tend to ignore the important initial steps directed at setting an appropriate foundation for the actual delivery actions. The first

phase aims to perfect the concept development, associated requirements definition, and planning. The likelihood of downstream failure in phase two is thus markedly reduced.

2.4.3.7 Programme management in an Agile/Lean context

Van Der Waldt (2016) suggests that public-sector entities should strive to become more flexible and agile. Wagner and Barkley (2010) highlight the importance for programme managers to create agile programmes by embracing a more liberal approach to scope changes.

The delivery of IS/ICT initiatives traditionally rely on a systems development lifecycle (SDLC) (Benbya & McKelvey, 2006). According to Krüger (2015), SDLC's range in approach: from the original waterfall model to the more recent agile approaches. With the traditional waterfall model, the solution is progressively designed and delivered through the completion of several development phases, each building on the outputs of a predecessor. The agile approach allows a solution to be delivered incrementally, with multiple iterations, and frequently in much shorter timeframes than what the waterfall model allows.

According to Rothman (2016), agile principles allow programmes to collaborate across the organisation to deliver a working product, while being sufficiently flexible to accommodate changes and conforming to technical excellence expectations. Lean principles help to create a whole process view of the programme across all its facets. Used in combination, agile and lean principles simplify programme risk management and problem resolution. Programmes will likely find the co-existence of different project teams, each applying either the waterfall model or agile approaches to their delivery, thereby causing co-ordination challenges.

Khan *et al.* (2016) acknowledge that the increased rate of business and technological change spawned a growing interest in faster-paced programme approaches, leading to organisations adopting agile practices in programme management. However, due to the scarcity of appropriate agile programme management industry frameworks, understanding the use thereof is limited. Challenges associated with agile in the programme context remain undiscovered.

Gartner (Jones & Schoen, 2014) recognises that the use of agile practices in small-to-medium scale projects found such sufficient footing that agile-based project management approaches are becoming the norm in many organisations. However, enterprise-level agile practices, such as the Scaled Agile Framework (SAFe), that addresses the needs of very large and complex projects and programmes are complex and not mature enough for mainstream adoption and use. Conboy and Carroll (2019) submit that the adoption of large-scale agile frameworks like SAFe are not without challenges.

In relation to established project management methodologies, PMBOK (PMI, 2017a) acknowledges the positioning of SAFe as focusing on the provision of a knowledge base that aids the scaling of solutions development work across project, programme, and portfolio levels of an enterprise. Pace (2019) acknowledges SAFe as a change-driven method where the focus is placed on collaboration while embracing change.

SAFe (Leffingwell, 2021) is not a 'traditional' programme management framework or methodology but is a practitioner-driven and open knowledge base. It addresses the needs of organisations engaged in large-scale systems development initiatives. With SAFe, organisations have access to a tool chest of agile and lean principles, practices, and

approaches to structure, govern, empower, and deliver their large-scale solution delivery initiatives. The core principles of SAFe include alignment, built-in quality, transparency, and programme execution. The primary purpose of these principles aims to streamline the delivery efforts through innovation, speed, and agility. In the context of SAFe, programmes are embodied in so-called 'agile release trains' as a long-lived team consisting of multiple agile teams who collaboratively and incrementally develops, delivers, and sometimes operates one or more solutions in a value stream.

2.4.3.8 Interim conclusion

Since systems thinking was applied as a theoretical lens in this research endeavour, the proposal by Rai and Swaminathan (2010) to conceive of programme management as a system-of-systems (SoS) appears as a particularly apt way of concluding this section of the literature review. In their concept, the programme management SoS framework addresses three facets directed at value realisation, programme construction, and programme execution. By connecting the themes through logical activity and information flows, the resultant feedback loops deliver a dynamic and flexible programme management framework. The value realisation theme is mainly concerned with establishing a programme worldview where the emphasis is on crafting the programme goal definition, conducting a stakeholder needs assessment, understanding the situation, and fashioning impact analysis to understand the value realisation dynamics. The programme construction theme focuses on crafting the programme strategy and an engineering model that: encompasses the conceptualisation of projects and their selection into a portfolio; identifies expected outcomes, value assessments, and trade-off analysis parameters; and defines the structure, systems, and processes required to deliver the programme. The programme execution theme focuses on execution dynamics by attending to the actual setting up of the structures, systems, and processes; commitment of resources and resolving contention; monitoring and management of dependencies; and measurement of outcomes and dynamics analysis. In summary then, the programme management SoS framework proposed by Rai and Swaminathan can be considered a meta-model that encapsulates the preceding lifecycle and process models in a succinct manner.

Wood (2014) advocates that programme managers must demonstrate well-developed technical and business competencies while exercising leadership in executing large, complex programmes. Without competent programme managers, the delivery and oversight of programmes in motion will likely fail to deliver expected results. The realities and expectations of the programme manager role demand that consideration be given to the personal competencies and qualities of practitioners. The next section imparts a competencies-based perspective of the subject literature.

2.4.4 Programme management: Competencies-based perspective

This section of the literature review commences with a summary perspective of challenges connected to programme manager competences. It then progresses to a definition of terms. A discussion is included on some of the perspectives, frameworks, and findings that relate to programme manager competencies and competences offered by programme management professional bodies and academic researchers.

2.4.4.1 *Contextualising the challenges*

Partington *et al.* (2005) and Miterev *et al.* (2016) contextualise some of the challenges associated with programme manager competence expectations and profiles:

- i. Corporate leaders have realised that project management competence is not simply transferable into programme management competence.
- ii. Given that programmes are more strategic in nature, programme management competence requires a multifaceted combination of:
 - a. social skills and personal integrity,
 - b. ability to embrace uncertainty and ambiguity,
 - c. political awareness in context of the organisational dynamics and networks,
 - d. preponderance to leadership rather than project management, and
 - e. deep insight into the organisation's strategic context.
- iii. Given the existence of different programme typologies (Ferns, 1991; Pellegrinelli, 1997), the expectation that a single, homogenous set of programme management competences is applicable to all types of programmes is flawed.

2.4.4.2 *Basic definitions*

Pellegrinelli and Garagna (2010, p. 2) define the terms “competency” and “competence” as follows: ‘competency’ is “a particular set of aptitudes, attitudes and/or predispositions deemed important for, or underpinning, the effective performance of a specific role,” while ‘competence’ is “the minimum standard of performance in a specific role against predetermined criteria – an output-based measure assessed on (objectively) observed/demonstrated behaviour.” According to Springer (2018), competencies encompass those behaviours that indicate requirements to be successful in a specific discipline.

In the context of the South African public sector, the Department of Public Service and Administration of South Africa (2015) considers ‘competency’ as those behaviour patterns an individual should display to perform effectively and efficiently in his or her position. ‘Competence’ is seen as a blend of knowledge, skills, behaviour, and aptitude applied by a person in the work environment, which indicates a person’s ability to meet the requirements of a specific post.

It follows that competency focuses on the existence of aptitudes, attitudes, and behaviour to be effective, while competence sets the evaluative criteria against which performance can be measured.

Two broad interpretive approaches are followed when conducting competence research and in the description of competence frameworks: ‘work-oriented’ or ‘worker-oriented’. Work-oriented approaches focus on the demands of the work rather than the actual person doing the work and derive required personal attributes from the lower-level work activities. Worker-oriented approaches focus on generalising the knowledge, skills, and attributes of competent workers in a specific work setting (Partington *et al.* 2005).

2.4.4.3 *The Global Alliance for Project Performance Standards*

The Global Alliance for Project Performance Standards (GAPPS) is the custodian of an open framework of performance-based competency standards for programme managers (GAPPS, 2011). The GAPPS framework aligns with the qualification frameworks of Australia, New

Zealand, South Africa, and the UK, and allows organisations to conduct performance based and supplement attribute-based competency assessments using the framework.

The GAPPS framework is an example of a work-oriented framework built around the two dimensions of breadth of responsibility and management complexity and describes eight units of competency, six unique categories of programme managers, and three levels of programme managers based on programme complexity. The units of competency include:

- i. provide leadership for the programme,
- ii. facilitate stakeholder engagement,
- iii. craft the programme,
- iv. orchestrate the attainment of benefits,
- v. sustain programme progress,
- vi. manage organisational change,
- vii. direct the management of contracts, and
- viii. engage in collaborative alliances.

Competency units (1) to (5) are deemed core competencies for all programme managers, while competency units (6) to (8) apply only to some. Table 2 illustrates the six different categories of programme managers based on the combinations of the core and additional competency units.

Table 2: Aitken-Carnegie-Duncan Complexity Programme Manager Categories
(adapted from GAPPS (2011, p. 5))

Identifier	A	B	C	D	E	F
Core Units	1-5	1-5	1-5	1-5	1-5	1-5
Additional Units	6,7,8	7,8	6,7	6	7	None

Programme complexity is measured using a tool called the Aitken-Carnegie-Duncan Complexity table for evaluating roles, or ACDC in short. ACDC consists of five groups, categorising 29 detailed complexity factors. The summative groups are governance complexity, stakeholder complexity, programme definition complexity, benefits delivery complexity, and resource complexity. Each complexity factor is rated from one to four using a qualitative point scale, with the sum of all factors indicating a management complexity rating for the programme. Three levels of programme complexity are discerned as indicated in Table 3.

Table 3: Aitken-Carnegie-Duncan Complexity Levels for Programmes
(adapted from GAPPS (2011, p. 6))

Level	ACDC Score	Percent of Programmes
1	29-40	~20%
2	41-75	~70%
3	76-116	~10%

2.4.4.4 *Model of programme management competence*

Research conducted by Partington *et al.* (2005) investigates how practitioners understood the parameters of competence to determine what it takes to be a successful programme manager. Pellegrinelli (2008) describes a comprehensive worker-oriented model of programme management competence consisting of 17 attributes and attitudes at four levels of understanding, with the attributes and attitudes grouped into three categories describing the programme manager's relationships to (1) self and work, (2) self and others, and (3) self and the programme environment. They determined that programme managers with lower-order understanding find it difficult to recognise or appreciate behaviours, attitudes, and actions originating from higher-order understanding.

The four levels of understanding represent a widening view, commencing with focus on details and culminating in appreciation of contextual and future consequences. The lowest level of understanding requires a basic comprehension of details and relationships between activities and can be deemed core project management work. The second level of understanding assumes the ability to work at a summary level without becoming overwhelmed by the details. Level 2 expects proactive intent, being adaptable and working with anticipation, and dealing with the complexity of detachment between the programme and projects. The third level of understanding demands comprehension of the entire programme, including change management activities to assist the implementing organisation absorb or accommodate the change introduced by the programme. At level 3, the emphasis is on a distinct programme management approach and agenda, with the enablement of beneficial change in the contexts of diverse interests, pressures, and constraints. The highest level of understanding focuses on the entire programme where decision making and engagement is more strategic, a view of time is taken to determine windows of opportunity, and potential future consequences of actions external to the programme are contemplated. The emphasis is on strategy implementation, organisational development, and change in a context that is blurred, permeable, and malleable.

Three observations emerged from this research. First: Success in project management is not an accurate predictor of success in managing complex strategic programmes. Second: Senior managers, who themselves hold lower-order understanding, may be holding back the development of higher-order competence in how they provide direction and support. Third: Programme management approaches that are based on project management principles may contribute to the primacy of lower-order understanding.

2.4.4.5 *The Standard for Programme Management*

The third edition of the Standard for Program Management (PMI, 2013) states that programmes demand a management approach that can accommodate uncertainty of outcomes and unpredictability in the environment where the programmes are being run. This dynamism requires a different management inclination and competencies of programme managers to that applied in the management of projects. In this environment, programme managers must balance control-oriented leadership and management skills, focusing on accurate project and sub-programme delivery, with goal-centric adaptive skills to dynamically adjust a programme's approach towards improving the delivery of benefits.

By placing emphasis on the knowledge, experience, and management expertise of the programme manager, PMI crafted a set of competencies grouped into core knowledge areas

and core skills. This definition follows a work-oriented approach in its alignment with PMI's Program Management Professional® credential programme.

The fourth edition of the Standard for Programme Management (PMI, 2017c) lists a fairly generic set of competences commonly required by programme managers. However, it confirms that the nature and dynamics of different programmes will demand other skills in addition to the following:

- i. communication skills,
- ii. stakeholder engagement skills,
- iii. change management skills,
- iv. leadership skills,
- v. analytical skills, and
- vi. integration skills.

This fourth edition does away with references to the core knowledge areas and core skills of the third edition but refers the reader to the latest edition of a PMI publication titled *Project Manager Competency Development Framework* (PMI, 2017b). This was seemingly done in response to PMI deciding to shift the standard from a process-based to a principle-based document.

2.4.4.6 *Managing Successful Programmes*

Managing Successful Programmes (Great Britain, 2011) does not provide a prominent description of the competences required from programme managers. The publication references the competency framework defined by Pellegrinelli (2008) but does not offer any detailed requirements or expectations similar to the approach followed by, for example, the third edition of PMI's Standard for Program Management. Instead, *Managing Successful Programmes* refers the reader to the Project Delivery Capability Framework (PDCF) for project delivery professionals in government (Government Project Delivery Profession, 2018). This is a detailed framework describing job roles, capabilities, and learning for all government project delivery professionals in the UK government. The framework includes a career pathway, common set of job roles, a set of competencies, and signposts for development opportunities for 20 project delivery jobs in the project delivery profession. These jobs are grouped into the categories of leadership, project delivery specialists, and business analysis and change specialists.

The PDCF describes 29 project delivery competencies, with 19 technical competencies aligned to the Association for Project Management's Competence Framework and 10 behavioural and leadership competencies aligned to the UK Civil Service Success Profiles. Each of these competences are rated on a four-level evaluation scale with descriptors: awareness, working, practitioner, expert.

In the PDCF, the programme manager role is assigned to the leadership category and describes the role's career progression pathway through six civil service grades, commencing with Programme Manager 1 and culminating in Programme Director 3. The progression is informed by an indicator termed 'Project Complexity' where the rating ranges from 'Low' through 'Moderate', 'High', to 'Very High'. The framework describes varying levels of competences for typical role responsibilities, two options related to entry routes into the

role, typical qualifications and professional memberships, and for each of the six career-pathway landing roles, the detailed competencies and expected level of performance.

The PDCF, in conclusion, provides project delivery practitioners with guidance on personal development in their respective roles. It suggests a six-step personal development planning cycle, as well as key elements of a project delivery curriculum addressing foundational and leadership elements.

2.4.4.7 Focusing on programme complexity

According to Levin and Ward (2011), their competency model empowers programme managers to apply appropriate competencies and management techniques in response to recognised elements of programme complexity at the appropriate time in the programme lifecycle. The competency framework aims to minimise the negative effects of complexity on the programme and to use the complexity to advance the delivery of programme benefits, products, services, and results. Secondly, the competency framework could be used to recruit, train, and develop programme managers.

The Levin-Ward competence model appears to address both the work-oriented and worker-oriented demands of the programme management domain by identifying six performance competencies and eight personal competencies.

The performance competencies highlight what is required by programme managers in the following programme domains:

- i. defining the programme,
- ii. initiating the programme,
- iii. planning the programme,
- iv. executing the programme,
- v. monitoring and controlling the programme, and
- vi. closing the programme.

Personal competencies focus on soft or interpersonal skills to buttress the programme manager's abilities in executing the performance competencies. The personal competencies include:

- i. communicating,
- ii. leading,
- iii. building relationships,
- iv. negotiating,
- v. thinking critically,
- vi. facilitating,
- vii. mentoring, and
- viii. embracing change.

The framework definitions for the performance and personal competencies follow a similar pattern with every programme domain or personal competency, consisting of multiple performance competencies, each with their own sets of performance criteria and associated types of evidence to prove that the criteria are met. The Levin-Ward framework can be used by organisations, practicing programme managers, and prospective programme managers to assess organisational and individual knowledge and practice in programme management.

2.4.4.8 Programme Manager leadership focus

Thiry (2010) contrasts the leadership focus of programme managers into agency versus innovative approaches. In an agency relationship, principals define the scope of delivery, and programme managers are agents who are delegated the responsibility to perform the work. This relationship strongly depends on governance structures where programme managers are expected to be 'super' project managers that follow a specific script. Programme managers thus become transactional in their leadership and focus on their explicit knowledge (indicated on the left of Figure 4). In organisations that follow an innovative approach, managers are empowered with guiding principles to help them make decisions in uncertain circumstances. Programme managers act as stewards who are expected to define the programme delivery objectives, scope, and benefits. In this situation, programme managers must manage uncertainty, ambiguity, and make decisions in a changing context. This requires the application of tacit knowledge (indicated on the right of Figure 4).

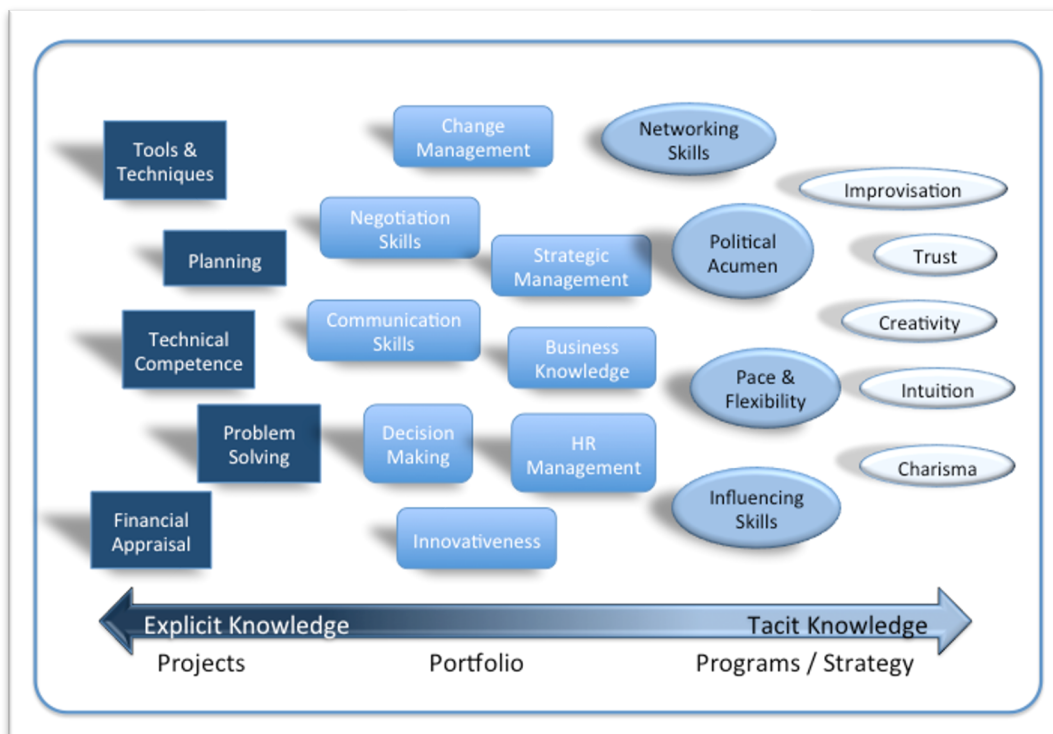


Figure 4: Programme manager leadership focus (adapted from Thiry (2010))

2.4.5 Conclusion: The programme management domain

Programmes in their definition and programme management in its execution are deeply technical and involved endeavours to bring about strategic change in organisations. By engaging with the programme management literature, focusing on the perspectives of programmes and programme as organisational structures, programme management lifecycle and process views, and programme manager competency outlook, it is relatively clear that the subject area is packed with divergent perspectives across key stakeholders.

The organisational structure perspective accentuates the thought that programmes and programme management are temporary organisational arrangements to facilitate and

oversee programme governance. It also reflects the programme architecture and the relationships between the programme, sub-programmes, and related projects as structured to deliver the expected strategic and business benefits.

The lifecycle and process perspective emphasises that several programme management approaches and methodologies are available for practitioners and implementing organisations to select from. Major programme management lifecycles and processes are derived in geographical contexts with examples emanating from the USA, UK, Japan, and the Middle East having some prominence.

The competency perspective emphasises the demand that programme managers must have a core set of competencies to be effective in their roles. Several competing competency frameworks exist, with a difference in emphasis on work-oriented versus worker-oriented outlooks driving the definitions of the competence frameworks. Apart from setting the basic requirements, the competence frameworks allow for programme manager evaluation and guides programme managers in their personal development needs.

2.5 Systems Thinking as a Conceptual Framework and Theoretical Foundation

In Chapter 1, Systems Thinking was introduced as the conceptual framework to provide a theoretical foundation to develop an understanding of the contextual environment in which public sector programme managers are located and operates. The expectation was raised that systems thinking could be used as a lens or mental frame to look at the world, that it assists in determining what one sees, and that it often influences what one does, or can do, about what is observed (Pourdehnad *et al.* n.d.).

The following sections aim to discuss the theoretical propositions of systems thinking and relates it to this study's context of public-sector programme management. It presents a brief introduction to systems theory and thinking, and then discusses five principles of sociocultural systems. The section concludes with a discussion about problem contexts, systems approaches and social paradigms in context of the systems thinking approach.

2.5.1 Introduction

The systems thinking theory and approach can be found across a number of disciplines. Systems exist everywhere, such as biological systems, economic systems, environmental systems, organisational systems, political systems, and social systems.

Systems consist of things that are interconnected coherently such that it achieves something and produces a unique pattern of behaviour over time (Meadows, 2008). Alternatively stated, a system is a complex whole where its functioning depends on underlying parts, and the interactions between those parts (Jackson, 2011). To be a system, it must consist of elements, interconnections, and have a function or purpose.

Systems can also be classified as purposive or purposeful. Purposive systems are designed by designers or engineers to reach specific goals without human actors. Purposeful systems are social or organisational in nature and feature human beings as agents and stakeholders. Social and organisational systems present and serve multiple purposes (Jackson, 2011) – human agents can generate purposes from within the system that may differ from the purpose ascribed by the designers or managers of the system. By definition, programmes and programme management are purposeful systems functioning in complex environments

and are dependent on constituent parts and the interrelationships between those parts (Arnold & Wade, 2015; Weinberg, 2001).

Pourdehnad and Bharathy (2004) support the use of systems thinking in exploring the interactions and relationships amongst the independent parts of purposeful social systems, such as for the discipline of programme management. They submit (2004, p. 345) that systems thinking provides “a new set of organising principles, emphasis on the systemic wholeness, interdependency, synthetic thinking, optimisation of the whole, and support for organisational learning,” all of which contribute to the purpose of this study.

In an early treatise on systems thinking, O'Connor and McDermott (1997) submitted that systems thinking is concerned with a holistic analysis of a system – the whole, the parts, and the connections between the parts to understand the parts. It is the opposite of the reductionist scientific approach that advances the idea that the system is the sum of its parts, and therefore places the focus on identifying and understanding the elements, or parts, of the system. Jackson (2011) positions holism as an alternative to the reductionist approach. Holism is interested in the networks of relationships that exist between the parts, with special emphasis on how these parts, the inherent relationships between parts, and their interactions give rise to and sustain the whole entity. Sherwood (2002, pp. 3–5) emphasises the “connectedness” between entities comprising a system, which results in complex cause-and-effect events propagating through the system in view. A proper understanding of the system can thus only develop when this connectedness is conserved, permitting the whole system to be studied. In defining the study's scope and how it was investigated, the present study applied a holistic system thinking approach by considering the nature and composition of public sector programmes and their utilisation of programme management approaches.

By offering practical ways of thinking about complex and ambiguous problems and situations, Armson (2011, p. 10) suggests that systems thinking is more than “management” – it is also about “managing”. When applied to management as a task, systems thinking enables managers to discover new metaphors for understanding their roles in organisations and addressing real-world management problems (Sambo, 2009).

According to Gharajedaghi (2011), systems thinking locates ‘the system’ in the context of a larger encompassing environment and studies the role it plays in that larger environment. Systems thinking guides the design of solutions to dynamic constantly-changing complex problems that are influenced by stakeholder actions, feedback and context, and which generate unpredictable outcomes (Adam & De Savigny, 2012).

Arnold and Wade (2015) summarize a rich field of views on systems thinking as “a set of synergistic analytic skills used to improve the capability of identifying and understanding systems, predicting their behaviours, and devising modifications to them in order to produce the desired effects. These skills work together as a system.” (Arnold & Wade, 2015, p. 675).

By applying the basic elements of systems to programmes, the researcher submits that these can be seen as sociocultural systems, in that they consist of human actors and stakeholders, and other non-human parts with inherent relationships and interactions between them. The test of purposive versus purposeful systems suggest that programmes are purposeful since they generally aim to deliver strategic outcomes to organisations through directing the collaboration and participation of multiple human actors and stakeholders.

In relation to programme management, the systems model-based conceptualisation described by Best and Holmes (2010) suggests that:

- i. Programme management is a complex adaptive system where its processes are dynamic, the hosting environment is constantly changing and co-exists with and within other interdependent environments, and changes in one environmental or stakeholder domain may result in unexpected impacts in other parts of the system.
- ii. It is important to understand the roles and actions of key actors and stakeholders, and how they are shaped by– and in turn shape – the dynamic system of programme management. Relationships, linkage, and exchange are also important.
- iii. Specific elements of the systems model (such as feedback loops) are critical to the programme management process.

Gharajedaghi (2011) argues that it is important to understand the behavioural characteristics of multi-minded sociocultural, or purposeful, systems, and proposes five principles that can be used in developing a systems view of socio-cultural systems. The next section discusses these principles and finds linkages to the programme management domain, as relevant to the present study.

2.5.2 Five Principles of Sociocultural Systems

Gharajedaghi (2011) identifies openness, purposefulness, multidimensionality, emergent property, and counterintuitive behaviour as interrelated and integrative principles that define the essential characteristics and influence assumptions about the behaviour of sociocultural or purposeful systems. Figure 5 is a graphical depiction of these principles and their interrelationships.

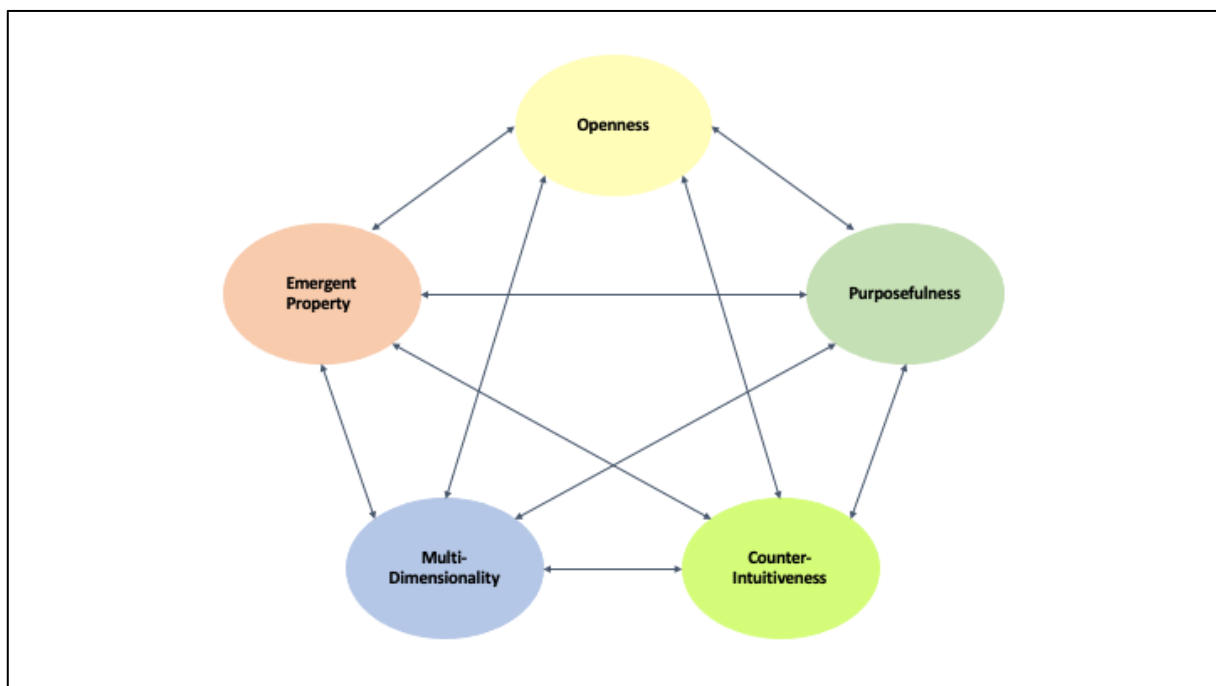


Figure 5: Principles of Sociocultural Systems
(adapted from Gharajedaghi (2011))

2.5.2.1 *Openness*

According to Gharajedaghi (2011), the principle of openness means that sociocultural systems can be understood only in the context of the environment where they are located. This reveals a certain level of complexity because the immediate environment is also a system in a larger context.

Consideration of the environment, the system, and the system boundary leads to groupings of elements that can be controlled (elements of the system), those that can be influenced (elements of the transactional environment), and those that cannot be controlled (elements of the environment). In this context, the definition of the system boundary becomes contingent on negotiation and interpretation by the participating agents or stakeholders.

The system cannot ignore what is external to its boundary – it must be open to exchanges with stakeholders of the exterior, embrace learning and exploit opportunities for the system to adapt its behaviour. Openness leads to the establishment of hierarchy in the system with the structure and organisation of the systems components and the system itself into the outside world (Boardman & Sauser, 2008).

In relation to Principle 1: Openness, programmes and programme management are located in the environmental context of public sector entities. Programme boundaries are generally influenced by scope determinations which set the items under the control of the programme. The transactional environment then is the environment immediately adjacent to the boundary and which need to be influenced by the programme. Those elements that cannot be influenced or controlled by the programme form the broader environment. Setting of the programme boundary, structure and organisational interfaces can be contentious or difficult given the negotiations between departmental stakeholders. A programme hierarchy is established with an internal programme structure, as well as how the programme is located in the transactional environment.

2.5.2.2 *Purposefulness*

The principle of purposefulness considers how actors and stakeholders of the system's transactional environment exert influence by understanding why actors do what they do. This understanding focuses on the matter of purpose – how stakeholders enact the making of choices or decisions (Gharajedaghi, 2011).

In this principle, choice is informed by the rational, emotional, or cultural dimensions of the decision maker, not the observer. Rational choice is risk averse and focuses on instrumental (extrinsic) values and the perceived self-interest of the decision maker. Emotional choice focuses on stylistic (intrinsic) values of beauty, challenge, and excitement, with risk being an important attribute of challenge and excitement. Culture sets the constraining elements of the decisions process as it defines the ethical norms and values of a collective of which the decision maker is a member. Culture defines default positions that will apply in circumstances when decision makers fail to choose or decide.

Meadows (2008) submits that information is a critical enabler of the purposefulness of sociocultural systems. Interrelationships between actors and stakeholders act as conduits along which information flows. What information flows, how the information flows, and how it is interpreted all influence how choice and decisions are enacted by the actors and stakeholders. By being able to enact choice, actors in purposeful systems have the ability to

learn and adapt, thereby creating and varying the means and ends of producing outcomes across multiple environments.

In relation to Principle 2: Purposefulness, programmes and programme management are dependent on and influenced by the decision-making structures, processes, and strategies of the prevailing environment. This extends to how accountability, decision-making and role assignments of departmental stakeholders, programme managers and other supporting actors are agreed and governed. The information needs of actors and stakeholders are also clarified in this context to ensure that the programme of programme management actions can maintain its purposefulness.

2.5.2.3 *Multidimensionality*

Gharajedaghi (2011) posits that multidimensionality is the ability to see complementary relations in opposing tendencies and to create feasible wholes with infeasible parts.

The phenomenon of opposing tendencies manifests as pairs of binary opposites: good/bad, security/freedom, modernity/tradition, art/science, etcetera. These pairs are cast in mutually exclusive, discrete relationships where interactions result in zero-sum games – a win for one leads to a loss for the other: an OR relationship manifests with a choice of one or the other. Occasionally, opposing tendencies are formulated such that they can be represented as limits of a continuum. Compromise then becomes a give-and-take struggle in a larger power game to resolve conflict.

Multidimensionality maintains that opposing tendencies not only coexist and interact, but also form complementary relationships. This results in the establishment of an AND relationship consisting of multidimensional combinations and delivering unexpected behaviours and results.

Gharajedaghi (2011) argues that the concept of plurality is complementary to multidimensionality. Plurality maintains that systems can have multiple functions and multiple structures and can be governed by multiple processes. Plurality of function suggests that systems can have multiple functions, both implicit and explicit. Plurality of structure suggests that there may be multiple components and variable relationships among the components of a system. Plurality of process suggests that outputs or outcomes might be produced by any number of different development routes.

To ensure that all aspects of public sector programme management are investigated, this study also interrogated the multidimensionality characteristics of the IT-enabled transformation and modernisation initiatives.

In relation to Principle 3: Multidimensionality, programmes and programme management are expected to deliver strategic outcomes in environments where opposing tendencies and pluralities frequently occur. Examples might include the expectation to deliver a complex transformation with highly motivated team members in an environment characterised by a strong tendency to reject proposed changes, which informs the need to compromise with labour representatives on the limits of the change. Plurality might manifest through the need for internal modernisation which over time translates into new service delivery models and technological platforms made available to citizens.

2.5.2.4 *Emergent property*

This principle maintains that emergent properties are properties of the whole system, not of the parts, and cannot be deduced from the properties of the parts. To understand the emergent properties, one needs to understand the processes that generate them (Gharajedaghi, 2011).

Interaction between parts signifies a dynamic process producing a time-dependent state. Emergent properties therefore emanate continuously and in real time from the dynamic interactions between the parts. Interaction among sociocultural system participants, the power relationships between actors and the unanticipated actions of groups are sources of emergence (Edson, 2008; Madni & Moini, 2007). These interactions are also influenced by the bounded rationality of systems actors and stakeholders caused by them being subjected to stress, time pressure and emotive forces (Pourdehnad, Maani, & Sedehi, 2002).

Being highly interactive endeavours, programmes and programme management will experience the effects of Principle 4: Emergent Property. Programmes and programme management teams are staffed with and surrounded by human actors and groups with varying accountability, mandates, speciality, and bounded rationalities. There are differences in expectations, and in political and power relations between stakeholders, all leading to unanticipated and unscripted outcomes.

2.5.2.5 *Counterintuitive behaviour*

Counterintuitive behaviour is endemic in sociocultural systems and occurs when actions intended to produce a desired outcome generate opposite results. It reveals a level of complexity that is very difficult to understand with traditional analytical approaches (Gharajedaghi, 2011).

Unpredictability of nonlinear systems parallels counterintuitive behaviour in a sociocultural context.

In programmes and programme management, Principle 5: Counterintuitive Behaviour might follow from the unanticipated and unscripted outcomes emergent under Principle 4 and be precipitated from the quality of interactions between programme actors and stakeholders. An example might be the refusal of a key stakeholder, who has deeply collaborated with a colleague to craft a key document, to approve the key document because of a superficial disagreement with the creator of said document.

The principles of sociocultural systems are useful to analyse and describe a system of choice. The next section discusses how the constructs of problem contexts, systems approaches aligned to problem contexts, and the influence that sociological paradigms play in the selection of a systems thinking methodology.

2.5.3 Problem Contexts, Systems Approaches and Sociological Paradigms

Jackson (2011) is a proponent of holism, or holistic approaches to systems thinking. His description of a holistic System of Systems Methodology (SOSM) raises the concepts of problem contexts, systems approaches and sociological paradigms as constructs that influence the selection of a systems thinking methodology. Problem contexts are those areas of concern associated with describing and working with purposeful systems. Systems approaches are ideal-type methodologies positioned to address unique problem contexts.

Sociological paradigms are philosophical constructs that are useful to guide managers and systems practitioners to investigate their own assumptions whilst engaging with sociocultural systems (Burrell & Morgan, 1979; Jackson, 2011).

2.5.3.1 *Problem Contexts*

According to Jackson (2011), problem contexts are those areas of concern associated with describing and working with purposeful systems and are shaped by a categorisation of how human actors participate in and influence sociocultural systems. Firstly, the human actors are categorised based on their roles in relation to the system and their propensity to generate alternative purposes. Secondly, the human actors are categorised based on the mental models, values, and world views that they bring to their roles. Lastly, the concept of boundary is significant in purposeful systems. Human actors in purposeful systems greatly influence how boundaries are defined, where they are located, and who are included or excluded. These decisions are made in circumstances subjected to value and ethical differences, questions of who should participate, disparate philosophies, power, and politics.

Jackson (2011) submits that problem contexts increasingly become more difficult to manage as they exhibit greater complexity, change and diversity. Two sources contribute to these increases in complexity, change and diversity. Firstly, the systems under consideration become larger and subject to increased turbulence. Secondly, there occurs a divergence of the values, beliefs and interests of the participants, or actors, with an interest in the system.

In combining these two dimensions Jackson (2011) establishes an 'ideal-type' grid of problem situations or problem contexts:

- i. The vertical axis categorises system types in a simple-complex continuum. Simple systems have minimal sub-systems with a small number of highly structured interactions. Simple systems appear static over time, being relatively uninfluenced by their independent parts or by environmental influences. Extremely complex systems consist of large numbers of sub-systems involved in many more loosely structured interactions with outcomes that are not predetermined. Complex systems adapt and evolve over time because their own purposeful parts, and the turbulent environments where they exist, affect them.
- ii. The horizontal axis focuses on the relationships between actors concerned with the problem context. It classifies the relationships in three types: 'unitary', 'pluralist' and 'coercive'. Unitary relationships signify similar values, beliefs, and interests. A common purpose is shared, and all are involved in the decision-making process. In pluralist relationships, there is a shared basic interest, but divergence in values and beliefs. Participation in decision-making requires debate, disagreement, conflict, and compromise. Few shared interests, and conflicting values and beliefs characterise coercive relationships. Compromise is not possible when decisions are made in coercive relationships – decisions are characterised by coercion to force adherence to commands and are taken by those who have the most power.

Table 4 presents the 'ideal-type' grid proposed by Jackson (2011).

Table 4: 'Ideal-type' grid of problem contexts
(adapted from Jackson (2011, p18))

		PARTICIPANTS		
		UNITARY	PLURALIST	COERCIVE
SYSTEMS	Simple	Simple-Unitary	Simple-Pluralist	Simple-Coercive
	Complex	Complex-Unitary	Complex-Pluralist	Complex-Coercive

The grid does not suggest that real-world problems should be located or defined exactly within any of these problem contexts. It presents the abstract models by which managers and management scientists might typify problem contexts. It also influences the selection of systems approaches applicable to the relevant problem context, as discussed in the next section.

2.5.3.2 *Systems Approaches*

Commencing with the vertical axis of the preceding problem-context grid, Jackson (2011) suggests that systems approaches range from hard systems thinking as applied in the simple-unitary problem context to approaches that are more understanding of the nature of complex adaptive systems and their capacity for goal seeking and remaining viable in turbulent environments.

In traversing the horizontal axis of the preceding problem-context grid, Jackson (2011) posits that systems approaches applicable to the pluralist problem context fall within the category of 'soft systems thinking' to distinguish them from the hard systems thinking approach. Soft systems thinking accepted that it was not possible to assume easily identifiable, agreed-on goals to provide an objective account of the system and its objectives. It rather leverages the existence of multiple values, beliefs, and interests into temporary coalitions in support of particular changes. Soft systems thinking enables a systemic learning process where actors come to appreciate alternative world views, the possibilities for changes they offer, and the opportunity to accommodate divergent values and beliefs.

Moving to the coercive problem context, Jackson (2011) states that soft systems thinking is considered inappropriate because of its assumption that consensus between actors can be achieved. Systems approaches are required that can withstand the coercive nature of the problem context – typically these are approaches that are 'emancipatory' in outlook and aim to empower actors who are affected by management decisions but not involved, to participate. The final group of systems approaches assume a postmodernist posture accommodating of massive and impenetrable complexity and coercion applicable to all problem contexts. With these systems approaches, suppressed viewpoints are surfaced and diversity are encouraged. The approach facilitates contestation about all that is possible resulting in improvements being justified on the basis that it feels right given local circumstances.

Table 5 depicts how systems approaches are related to the problem contexts.

In attempting to keep organisations performing optimally and remaining competitive and relevant, four different orientations can be used to describe the primary orientation of these systems approaches. The orientations include improved goal seeking and viability (Type A), exploring purposes (Type B), ensuring fairness (Type C), and promoting diversity (Type D).

- i. Type A systems approaches focus mainly on the viability of organisations as they pursue their predetermined goals. To ensure viability, capacity-building is given attention. In ensuring control, direction and providing procedures in organisations, cybernetic models known as viable systems models are often employed to deal with the varying complexities in organisations.
- ii. Type B systems approaches seek to explore and clarify what the stakeholders wish to pursue and achieve in organisations. The diverse views and value systems that stakeholders bring to the fore are dealt with through this type of approach.
- iii. Type C systems approaches ensure that all stakeholders benefit from the way in which the system is designed by eliminating any bias based on an individual's cultural, racial, sexual and/or religious orientation.
- iv. Type D systems thinking approaches bring to the fore the diverse thinking involved with problem-solving, thereby enriching the various options available for the common good of organisations.

Table 5: Systems Approaches related to problem contexts
(adapted from Jackson (2011, p24))

		PARTICIPANTS		
		UNITARY	PLURALIST	COERCIVE
SYSTEMS	Simple	Hard Systems Thinking	Soft Systems Approaches	Emancipatory Systems Thinking
	Complex	System Dynamics Organisational Cybernetics Complexity Theory		Postmodern Systems Thinking

Systems thinking approaches are concerned with unravelling the complex nature of organisations, aim to improve their functionality, and give them a competitive edge over their counterparts. Thus, internal organisational relationships, relationships with external environments, and the way in which environmental issues have a profound role in shaping the nature of responses to challenges, are paramount in systems thinking (Senge, 2006).

Systems approaches emphasise innovation and creativity in dealing with organisational challenges. The use of sociological paradigms as a creative source of problem solving in sociocultural systems such as the definition of public sector programmes and the selection of programme management approaches will be discussed next.

2.5.3.3 *Sociological Paradigms*

Jackson (2011) proposes that organisational leadership employ sociological paradigms in seeking creative approaches to managing organisations and to dealing with the complexity of the challenges with which they are faced. In this, four main sociological paradigms are explored.

- i. Functionalist paradigm – places emphasis on the efficient functioning of the various parts of the organisation to ensure success and therefore survival. It advocates for managers to constantly remain in full control of operations.
- ii. Interpretive paradigm – is related to the way in which organisations derive meaning from the various situations in which they find themselves. The people, the technology, the regulatory framework, and environmental issues have profound meanings that have to be interpreted and applied to improve the functioning of organisations.
- iii. Emancipatory paradigm – is concerned with power relations and the ways in which those that are marginalised are given the power to be emancipated from domination and become empowered. It is opposed to any form of discrimination in organisations.
- iv. Post-modern paradigm – advocates for space for the often-discarded viewpoints by bringing them to the fore and encourages a diversity of opinions to enrich the process.

The sociological paradigms can inform the definition of IT-enabled enterprise transformation and modernisation programmes by evaluating the assumptions and purposes of the stakeholders, and thereby refining the process to determine the desired outcomes of these programmes. The paradigms are useful in the decision-making concerning the selection of programme management approaches compatible with the outcomes of the selected programme and the prevailing organisational culture, or specific demands, of the implementing public sector organisation.

2.6 Chapter Conclusion

This chapter provided a high-level structural view of the South African public sector to define the environmental context of the domain in which programme managers operate and in which the research is located.

Secondly, the literature review sought to clarify certain key differentiating concepts included in this study, namely the principles of enterprise transformation and socio-technical systems theory. The literature review aimed to demonstrate that the existence of these concepts in the respective organisational contexts demands of programme managers to understand relevant lifecycles, approaches, and nuances that will place specific management demands on programmes executed in these contexts.

Thirdly, it provides an overview of key concepts and approaches embodied in the programme and programme management literature. The programme management discipline is

characterised by multiple, competing definitions, each with its own subset of supporting and enabling governance requirements, delivery processes, and knowledge areas. There appears to be some agreement on the competence requirements of programme managers across the respective literature sources.

The literature review acknowledges that the use of programme management in an organisational context is well described in the private sector and in professional contexts such as civil engineering and infrastructure development. The literature is relatively silent on the use of programme management in the public sector, especially in the more 'civilian' or non-military domains, such as those addressing revenue collection, budgetary and financial management, policing, et cetera. However, the public sector frequently employs the terms 'programme' or 'programme of action' to collate a group of political strategies, policies, activities, and expected outcomes into a coherent whole. This 'political programme of action' might, through departmental strategy development and planning, result in the definition of one or more transformational initiatives that, when executed, are positioned under the banner of one or more programmes.

In conclusion, the chapter presents systems thinking as a conceptual framework and theoretical base for the research. It presents a basic definition of what systems are and positions systems thinking as a powerful approach to find holistic solutions to purposeful sociocultural systems. The discussion then highlighted the five principles of sociocultural systems defined by Gharajedaghi (2011) and concluded with a discussion of problem contexts, systems approaches and sociological paradigms in context of Jackson's (2011) holistic System of Systems Methodology.

The next chapter, Chapter 3, will explain the research design and methodology in detail.

CHAPTER THREE - RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This study focuses on establishing an institutional framework that could improve the environmental context within which programme managers in the broader South African public sector are expected to operate. This chapter will discuss the research design and methodology chosen to advance the expected outcome. Additionally, it will discuss limitations, as well as ethical considerations applied during the study.

3.2 Research Design

Orlikowski and Baroudi (1991, p. 2) emphasise the “plethora of schools of thought” apparent in social research disciplines, each with their philosophical assumptions, research methodologies and advocates. These allow for a multitude of perspectives available to conduct research in a specific field. As a fledgling research student, the researcher concurs with Crotty’s (1998) observation about the bewilderment experienced in making sense of, selecting, and justifying the use of an appropriate research methodology and methods to conduct this research project. The maze appears real.

The remaining sections of this chapter follow the simplified view of Crotty’s research design elements and how they relate to one another, as presented in Figure 6 below. In this context, the elements represent distinct hierarchical levels of decision making during the research design process.

Following the hierarchy, the researcher adopted a particular stance to the nature of knowledge at the onset. This stance, or epistemology, underlies the entire research process and governs the theoretical perspective. The theoretical perspective is reflected in research questions and dictates the researcher’s choice of methodology. This methodology or plan of action informs the choice of the methods employed.

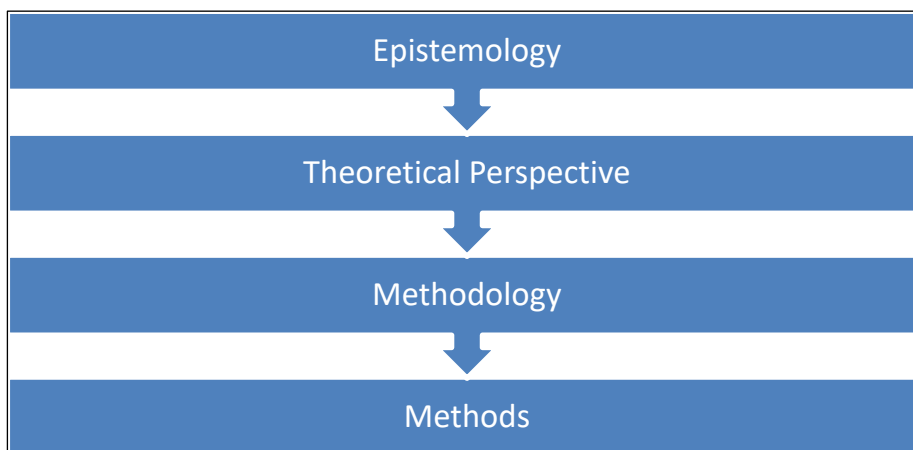


Figure 6: Hierarchy of research design elements
(adapted from Crotty (1998))

The next section will address the philosophical principles of ontology and epistemology, informing the basis upon which the research design rests.

3.3 Ontology and Epistemology

'Research philosophy' refers to a system of beliefs and assumptions about the development of knowledge. Researchers make ontological assumptions about realities encountered during the research, epistemological assumptions about human knowledge, and axiological assumptions about their own values during the research journey (Burrell & Morgan, 1979). These assumptions inevitably shape how research questions are understood, the methods being used, and how findings are interpreted (Crotty, 1998). Research projects are highly impacted by the researcher's perception of reality (ontological position) and how knowledge is constructed (epistemology) (Urquhart, 2013).

'Ontology' ('the way the world is') describes the philosophical assumptions about the nature of reality and determines what could be known about it. It informs epistemology (Cilliers, 2002; Easterby-Smith *et al.* 2015; Guba & Lincoln, 1994). According to Crotty, an ontological stance implies a particular epistemological perspective and vice versa. In other words, the way one thinks the world is (ontology) influences what one thinks one can know about it – what constitutes knowledge (epistemology), how one goes about getting that knowledge or investigating it (methodology and research techniques), and the kinds of theories one thinks can be constructed about it.

Urquhart (2013) reiterates the importance and impact of Burrell and Morgan's philosophical work to frame research findings. Burrell and Morgan's (1979) analysis of the assumptions around the nature of social science and the nature of society identifies four key debates concerning the nature of research in a social context.

- i. The ontological debate, which questions the nature of reality: Does an independent reality exist outside of the human mind, or is reality the product of individual consciousness?
- ii. The epistemological debate: How can knowledge be acquired, and how can truth be found? Is it necessary to experience something to understand it?
- iii. The human nature debate: Do humans have free will to create their environments or are we products thereof, or does the environment determine our behaviour?
- iv. The methodological debate: What methods of inquiry are appropriate for finding 'truth'? Is understanding best gained through scientific method or through 'getting inside' a subject and exploring their detailed background and lived experiences?

In answering these questions, along the key dimensions of the subjective-objective nature of science and the regulation-radical change nature of society, Burrell and Morgan (1979, pp. 26–34) describe four key theoretical paradigms.

- i. Theorists located in the functionalist paradigm find themselves in the domain defined by the sociology of regulation and taking an objective point of view. This is the dominant paradigm for organisational study and seeks to provide rational explanations of human affairs. It is pragmatic and deeply rooted in sociological positivism. Relationships are concrete and can be identified, studied, and measured via science. Research approaches used in this context tend to be "realist," "positivist," "determinist" and "nomothetic."
- ii. Theorists located in the interpretive paradigm find themselves in the domain defined by the sociology of regulation, but they are taking a subjective point of view. This

paradigm seeks to explain the stability of behaviour from the individual's viewpoint. Theorists are most interested in understanding the subjectively created world 'as it is' in terms of ongoing processes. There is also an emphasis on the spiritual nature of the world. Research approaches used in this context tend to be "nominalist," "anti-positivist," "voluntarist" and "ideographic."

- iii. Theorists located in the radical humanist paradigm find themselves in the domain defined by the sociology of radical change and taking a subjective point of view. In this view, the consciousness of man is dominated by the ideological superstructures with which they interact, and these drive a cognitive wedge between themselves and their true consciousness, which prevents human fulfilment. These theorists are mainly concerned with releasing the social constraints that bind potential. Research approaches used in this context tend to be "nominalist," "anti-positivist," "voluntarist" and "ideographic."
- iv. Theorists located in the radical structuralist paradigm find themselves in the domain defined by the sociology of radical change. However, they are taking an objective point of view. They believe that radical change is built into the nature of societal structures with contemporary society being characterised by fundamental conflicts. These generate radical change through political and economic crises. Research approaches used in this context tend to be "realist," "positivist," "determinist" and "nomothetic."

In answer to Auriacombe's (2009) emphasis on the importance for a researcher to express their scientific beliefs in order for a specific study's methodology to be appreciated, the next subsections will clarify the researcher's ontological and epistemological position.

3.3.1 Ontological position

Burrell and Morgan (1979) juxtapose the assumptions of the nominalist and realist ontological positions as follows:

- i. Nominalism assumes that social reality is relative. The social world is mainly names, concepts, and labels that help individuals to structure reality. These labels are artificial creations.
- ii. Realism assumes that the real world has hard, intangible structures that exist irrespective of our labels. The social world exists separate from the individual's perception of it. The social world exists as strongly as the physical world.

Snape and Spencer (2003, p. 11) advance realism, materialism and idealism as ontological positions in answer to the three key ontological questions related to "whether or not social reality exists independently of human conceptions and interpretations; whether there is a common, shared, social reality or just multiple context-specific realities; and whether or not social behavior is governed by 'laws' that can be seen as immutable or generalizable."

- i. The realist ontology claims that there is an external reality which exists independently of people's beliefs or understanding about it. There is a difference between the way the world is and the meaning and understanding of that world held by individuals.
- ii. The materialist ontology also claims that there is a real world but that only material or physical features of that world hold reality. Values, beliefs, or experiences are qualities that arise from, but do not shape, the material world.

- iii. The idealist ontology asserts that reality is only knowable through the human mind and through socially constructed meanings.

Orlikowski and Baroudi (1991) describe the positivist, interpretive, and critical ontological positions promoted by researchers.

- i. In the positivist ontology, researchers assume an objective and social world that exists independently of humans, which can be characterised and measured.
- ii. In the interpretivist ontology, researchers believe in social constructivism, wherein reality is a social construct that cannot be understood independently of the actors who make that reality.
- iii. In the critical ontology, researchers have the view that history shapes social reality. People could change their social and material circumstances. However, systems of social domination constrain their capacity to change. Social reality is produced by humans but also possesses objective realities that dominate human experience.

Table 6 summarises the ontological positions described above and positions them relative to one another.

Table 6: Summary and Mapping of Ontological Positions
(Source: Researcher, 2022)

Authors	Ontological Positions			
Burrell and Morgan	Realism		Nominalism	
Snape and Spencer	Realism	Materialism	Idealism	
Orlikowski and Baroudi	Positivist		Interpretivist	Critical

'Qualitative research' "locates the observer in the world," resulting in the researcher being the primary instrument for collecting data (Denzin *et al.* 2000, p. 3; Yin, 2011, p. 270). Charmaz (2006, p. 15) concludes that, apart from the methods, that which the researcher and research participants bring to the study also influences what can be seen. All participants engage whilst being touched by the world, therefore "researchers are obligated to be reflexive about what they bring to the scene, what they see, and how they see it."

Chia (2002) warns about assuming that researchers and practitioners share attitudes and definitions of what constitutes knowledge. Management researchers seek primarily to understand and explain, whereas practitioners are concerned with consequences and effects of management insights, policies, and actions. This is an interesting dilemma for this researcher, especially since he is a programme management practitioner embarking on a research journey. The researcher, being the primary research instrument, needs to expose his actions, failings, motivations, and assumptions to public scrutiny and critique in order to allow readers to determine the impact and direct influence of the researcher's voice on the resulting theory (Jantunen & Gause, 2014; Schultze, 2006).

3.3.2 This researcher's ontology

This researcher is a programme management practitioner in the South African public sector, who participated in the delivery of an assortment of IT-enabled transformation and modernisation programmes that were launched during the transformation of the South

African public sector in the period post the 1994 transition to a democratic state. Having been involved with programmes of varying levels of success and experiencing the dynamics of the different environments in which these programmes were executed, the researcher was prompted to start questioning whether other programme managers shared similar lived experiences in their programme deliveries.

As a practicing programme manager in the public sector, the researcher acknowledges his subjectivity, due to prior insight and experience of the subject area and the broad organisational contexts where IT-enabled enterprise transformation and modernisation programmes were delivered.

In adopting an interpretivist ontology, the researcher suggests that multiple truths exist and that a single objective truth cannot be uncovered. The researcher believes that knowledge creation should be a collaborative process enacted during social interchanges to uncover multiple truths relative to the experiences and perspectives of the research participants (Ramalho *et al.* 2015). The researcher will therefore have to “enter the participants’ worlds” to “learn their views and understand their lives from their perspectives” (Charmaz, 2006, p. 19).

3.3.3 Epistemological position

Epistemology cares about how we come to know the reality that we know and the relationship between the knower and what is known. It relates to a general set of assumptions about the ways of inquiring into the nature of the world by considering the nature of the relationship between the inquirer or would-be inquirer and what can be known. It is concerned with what constitutes knowledge and what kinds of knowledge are possible – how do we ensure it is adequate and legitimate (Crotty, 1998; Easterby-Smith *et al.* 2015; Guba & Lincoln, 1994; Krauss, 2005)?

Burrell and Morgan (1979) contrasts the assumptions of the positivist and anti-positivist epistemological positions as follows:

- i. Positivists seek for universal laws to explain reality and relationships between people. They believe one can develop hypotheses and test them and that knowledge is a cumulative process. This position is also known as objectivism.
- ii. Anti-positivists reject that observing behaviour can help one understand it. They focus on how individuals create, modify, and interpret the world. One must experience it directly. They reject that social science can create true objective knowledge of any kind and see nature as more relativistic. This position is also known as subjectivism.

Orlikowski and Baroudi (1991) identified the positivist, interpretive and critical research philosophies. Epistemological characteristics of the positivist, interpretive and critical ontologies include the following:

- i. Positivist researchers work in a deductive way to discover independent, causal relationships. Theories need to be empirically testable; hypotheses, based on theory, are tested in the research for verification or falsification.
- ii. Interpretive researchers study phenomena within cultural and contextual situations. Ideas generally originate from the field by in-depth examination in its natural setting and from the perspective of the participants. Researchers aim to construct interpretations of practices and meanings whilst not imposing their outsiders’ *a priori*

understanding on the situation.

- iii. Critical studies adopt the belief that knowledge is rooted in social and historical practices. It is not possible to conduct theory-independent collection and interpretation of evidence to conclusively prove or disprove a theory. Critical studies tend to be longitudinal due to the tendency to focus on a process view of the phenomena.

Crotty (1998) warns of substituting constructionism with subjectivism when describing the epistemological position taken in a research project. The constructionist epistemology sees truth and meaning emerging through researchers' engagement with human beings' realities in the world. Crotty (1998, p. 9) asserts that for the constructionist epistemology, "there is no meaning without a mind" – meaning about a phenomenon is constructed and can be done so in many ways by different participants. However, in the subjectivist epistemology, meaning does not emerge from the interplay between subject and object. The object does not make any contribution to the generation of meaning – meaning is imposed on the object by the subject.

Constructing meaning in a social setting requires a progressive and interactive process where what is taken for "reality" is what is shared through the combination of history, language, and action (Locke, 2001, p. 9).

3.3.4 This researcher's epistemology

The South African public sector is a diverse environment governed by 'generic' or cross-cutting and entity-specific legislation, regulations, and policies. The researcher, having worked in several public-sector entities, expects that programme managers face varying opportunities, challenges, and dynamics given the specific circumstances of the environments in which they work.

In this context, the researcher acknowledges that the discovery of absolute truths is not possible but rather aims to understand the lived experiences of the programme managers in these diverse environments. The researcher suggests that the most suitable epistemological position to adopt in this scenario is that of constructionism, which allows the researcher to investigate the subject matter while engaging with the participants to determine their experiences and the meanings that the participants assign to them.

The constructionist epistemological position is distinguished by an interest to understand the world of lived experiences from the point of view of those who live it, using language and interaction as mediators of meaning. The notion of co-creating knowledge between the researcher and research participants is embodied in the expectation for the researcher to "enter [the] research participants' worlds" (Guba & Lincoln, 1994, p. 111). This could greatly aid the researcher in developing an understanding of the experiences of programme managers and their respective clients, as well as recipients of programme management services, by learning about their life worlds and experiences. This will aid the researcher in interpreting and not rashly adopting or reproducing the research participants' views as the researcher's own (Charmaz, 2006).

The next section will address the chosen theoretical perspective in relation to the interpretivist ontology and constructionist epistemology adopted by the researcher.

3.4 Theoretical Perspective

Crotty defines the theoretical perspective of his research design framework as the “philosophical stance informing the methodology and thus providing a context for the process and grounding its logic and criteria” (Crotty, 1998, p. 3). In essence, it is “how we know what we know” and is the philosophical stance informing the methodology.

Babbie (2007, pp. 31–33) contextualises the relationship between theories and paradigms in the sense that “theories seek to explain whilst paradigms provide ways of looking.” Paradigms are the fundamental models or logical frameworks used to organise observations and understanding within which theories are created. Guba and Lincoln (1994) emphasise that research methods are subordinate to paradigms since paradigms are basic belief systems or worldviews that guide the researcher to determine his ontological and epistemological position, as well as the method or methods to be used to conduct the research inquiry. Both Babbie (2007) and Guba and Lincoln (1994) confirm the transient nature of paradigms as belief systems since they do not constitute absolute truths or falsehoods. Their utility varies depending on the context that the researcher finds himself in.

Levers (2013, pp. 3–4) quotes the definition by (Fossey *et al.* 2002) of a paradigm being “a system of ideas, or world view, used by a community of researchers to generate knowledge. It is a set of assumptions, research strategies and criteria for rigour that are shared, even taken for granted by that community.” Three research paradigms are then described: post-positivist, interpretivist, and constructionist.

- i. The post-positivist paradigm is based on an objectivist epistemology and a critical realist ontology. The post-positivist paradigm maintains that truth and universal laws exist, but discovery of these truths are hardly possible because contextual influences shape knowledge to be imperfect. Objective investigation will bring post-positivist researchers marginally closer to the truth.
- ii. The interpretivist paradigm is based on a relativist ontology with a subjectivist epistemology. Interpretivist researchers are guided by their beliefs about the world and how it should be studied. Knowledge is relative to individual circumstances and exists in multiple forms, or interpretations by individuals, thereby constituting multiple meanings based on human experiences and actions.
- iii. The constructionist paradigm uses aspects of both the post-positivist and interpretivist paradigms in adopting critical realism as ontology and subjectivism as epistemology. Meaning is created through interaction between the researcher, the researched, and the phenomenon under investigation. The constructionist researcher makes no claim to be discovering truth because of the influence exerted between the researcher and the researched. In this paradigm, knowledge is constructed rather than discovered.

The interpretivist paradigm resonates with the researcher’s personal ontological and epistemological views. Selecting the interpretivist paradigm allows the researcher to co-create knowledge with research participants whilst they and the researcher are interacting and making sense of the problem domain.

A relativist ontology and subjectivist epistemology underpin Burrell and Morgan’s (1979) interpretive paradigm. Adherents to the interpretive paradigm aims to understand the social world as it is subjectively experienced. Explanations of understanding draw on the individual

consciousness and subjectivity of participants, rather than on outwardly independent observers. According to Orlikowski and Baroudi (1991), researchers in the interpretive tradition aim to understand experiences by delving into the meanings that people assign to them. These meanings are formed when people interact with the world around them. It follows that social research is inherently biased because the researcher's and participants' values remain present, and complete neutrality and objectivity are impossible.

The implication of adopting an interpretivist theoretical perspective requires a discussion on reflexivity and evaluation.

3.4.1 Reflexivity

In the interpretivist theoretical perspective, knowledge is a social and cultural construction. The researcher needs to take account of how their assumptions and views impact on the research process and products by interpreting the complexities and multiple realities involved with the research process.

Reflexivity involves the process of a critical self-reflection by the researcher of their implicit influences, personal biases, and predispositions. It is an active form of self-reflection – a conversation with oneself (Gasson, 2003; Urquhart, 2013).

Klein and Myers (1999) propose a set of principles for conducting interpretive studies of which the following could be seen as reflexive:

- i. Interaction between the researcher and subjects – requiring critical reflection on the social construction of data through the interactions between the researcher and the research participants.
- ii. Dialogical reasoning – requiring sensitivity to possible contradictions between the theoretical preconceptions guiding the research design and actual findings, and multiple interpretations – requiring sensitivity to differences in interpretations of the same event.

Charmaz (2006, pp. 131–132) emphasises that constructivist grounded theorists must take a reflexive attitude towards how theories emerge and evolve from the research process and its products, especially since researchers interpret their own meanings and actions, as well as that of research participants. Charmaz warns that researchers who fail to adopt a reflexive stance might “elevate their own tacit assumptions and interpretations to ‘objective’ status.” Gasson (2003) advises that reflexivity in grounded theory studies can be enhanced by writing personal memos describing the rationales behind the developing constructs, engaging with people external to the field of study to explain why and what is being done, and presenting preliminary findings to a group of highly critical colleagues.

Upon reflection of these principles, this researcher, as a practicing programme manager, therefore took account of the effect of his own preconceptions, experiences, personality, and presence on what was being investigated. He accordingly remained mindful of the following risks in the anticipated engagements:

- i. Although open-ended questions were used in the interviews, he guarded against steering the discussions in directions that align with his own preconceptions, understanding, experiences, and concerns.

- ii. Research participants might be reluctant to share experiences in cases where he was also familiar with their practical experience, or they might attempt to leverage a historic relationship to paint things in a different colour.
- iii. In engaging with very senior or experienced research participants, he had to guard against losing his objectivity by becoming overawed by the perceived knowledge or experience of the research participant.
- iv. He had to consider his own personal biases – such as perceptions related to research participants’ race, gender, level of education, position held, years of experience, and their organisational context or the profile of the actual public-sector entity where the research participant works.

3.4.2 Evaluation

Angen (2000) emphasises that researchers need assurance that they have done the right thing in their endeavours to produce the truth. Interpretivist and grounded theory research products are provisional and context specific and require a different set of evaluation criteria.

According to Strauss and Corbin (1998), the evaluation of a grounded theory includes an evaluation of the analytical logic of the researcher. Strauss and Corbin identify four key areas for consideration when evaluating grounded theory research efforts:

- i. judgements about the validity, reliability, and credibility of the data;
- ii. judgements about the theory itself;
- iii. decisions regarding the adequacy of the research process through which the theory is being generated, elaborated, or tested; and
- iv. conclusions about the empirical grounding of the research.

Gasson (2003) advises that different measurements of quality and rigour apply to interpretivist research than for positivist research efforts. Table 7 depicts the issues of concern and related measurements applicable to interpretivist research.

Table 7: Testing Quality and Rigour in Interpretivist Theory-building Research
(adapted from Gasson (2003, p. 90))

Issue of Concern	Measurement
Representativeness of findings	Confirmability: conclusions depend on subjects and conditions of the study rather than the researcher.
Reproducibility of findings	Dependability/Auditability: the study process is consistent and reasonably stable over time and between researchers.
Rigour of method	Internal consistency: the research findings are credible and consistent to the research participants and to the readers. For authenticity, findings should be related to significant elements in the research context or situation.
Generalisability of findings	Transferability: how far can the findings and conclusions be transferred to other contexts, and how do they help to derive useful theories?

Upon reflection of these requirements, this researcher therefore ensured that the research design, methodology selected, and chosen methods were applied robustly enough during the study to withstand measurements of quality and rigour. In this regard:

- i. Confirmability was established by ensuring that the experiences and perspectives of the research participants were appropriately captured during engagements with the researcher. Also, the researcher was reflexively self-aware to guard against implicit influences, biases, and prejudices.
- ii. Dependability and auditability were introduced by following the same clear and repeatable process and procedure of engagement with all research participants and by treating the results of those engagements in similar ways. Consistency in engagement (the interviews) was maintained with the use of guides to prompt discussion points.
- iii. The attainment of internal consistency required of the researcher to ensure that the data collection, analysis, and coding process were applied uniformly across all research participants and collated data. This was also important to ensure that the emergent theoretical constructs were forthcoming from the data itself.
- iv. Transferability of the research results, which will likely be a substantive theory, was expected to be limited to the public-sector environmental context wherein the research effort is conducted. However, there might be elements of the research results that could be transferable to other organisations who are utilising the programme management approach beyond enterprise transformation initiatives.

3.4.3 Research goal

Three alternative research goals – namely exploratory, descriptive and explanatory – are available to researchers in reply to the question on what they wish to attain in their research (Mouton & Marais, 1988; Rubin & Babbie, 2008). Exploratory studies focus on relatively unknown research areas. The aims of engaging in an exploratory study may include offering new insights into a specific phenomenon, preparing for a more structured study of the phenomenon, illuminating central concepts and theories, determining priorities and foundations for future research, and developing new hypotheses about an existing phenomenon (De Villiers, 2005; Mouton & Marais, 1988; Rubin & Babbie, 2008).

Since exploratory studies usually lead to insight and comprehension rather than the collection of accurate and replicable data, the researcher must demonstrate the flexibility to find data by examining new ideas and suggestions and be open-minded to various stimuli and sources of this data. In exploratory studies, researchers are “led by general notions, expectations and anticipations” and should position themselves to “acquire an intimate first-hand understanding of the group, process, activity or situation being observed” (Mouton & Marais, 1988, p. 134; Stebbins, 2008, p. 328).

The experiences of programme managers in the public sector appear to be a subject area where limited research has been done. Reflecting on the researcher’s ontology and epistemology in conjunction with the aims of this study leads to the conclusion that the most appropriate research goal to adopt is that of an exploratory study.

3.4.4 This study's research design

A research design focuses on the endpoint and all the steps in the process to achieve that outcome. In this sense, the research design is a logical blueprint that brings together the research question, purpose of the study, data collections strategies, the data to be collected, and the approaches to analyse the data. Through the research design, the researcher is located in the empirical world where connections are established with locations, institutions, individuals, groups, and collections of relevant material (Denzin & Lincoln, 2000; Yin, 2011).

A qualitative research design seems to be most appropriate for this study, considering the researcher's worldview and the need for this study to investigate and explain the social phenomenon of the life experiences of programme managers in public-sector organisations. The selection of a qualitative research design for this study will now be discussed in more detail.

3.4.4.1 Qualitative design

Qualitative research is primarily interested in crafting an understanding of how humans interpret experiences, constructions of their life worlds, and meanings attributed to their experiences. Myers (2013) emphasises that qualitative research is valuable to locate human decisions and actions in context – the social and cultural contexts help to explain why what happened. At its simplest, qualitative research uses words as data, which are collected and analysed in various ways (Merriam & Tisdell, 2016).

A qualitative research design enables the researcher to reveal the complexity of a situation (Creswell, 2014), which in this context of programme management of public sector IT-enabled transformation and modernisation programmes, appears appropriate.

3.4.4.2 Mode of enquiry

Easterby-Smith *et al.* (2015) list action research, ethnography, narrative methods, case method, and grounded theory as examples of constructionist research designs. The researcher's ontological and epistemological perspectives and his subjective direct engagement with public-sector programme managers induced his choice of grounded theory as the preferred research method to this study.

Grounded theory allows for flexible, durable analysis results and portrays the researcher's and research participants' voices, both in the study and in the emerging theory (Charmaz, 1996). Grounded theory is a qualitative research design in which the enquirer generates a theory, or general explanation, of a process, action, or interaction shaped by the views of many participants (Strauss & Corbin, 1998). Charmaz (2012, p. 2) describes 'grounded theory' as a "comparative, iterative, and interactive method," allowing the researcher to use flexible methodological strategies to build theories from inductive data.

This study is structured in line with the problem-solving nature of a Mode 2 study and around three main elements, namely a comprehensive literature review, an exploratory qualitative study, and culminating in theory development in the form of an institutional framework, addressing the contextual environment of public-sector programme managers. It is hoped that the institutional framework will not only facilitate a description of the life world of programme managers but also an understanding of the processes influencing the forming of those experiences (Corbin & Strauss, 2008).

The researcher engaged with his existing knowledge (Thornberg, 2012) and with the research participants in an interdependent and dynamically interactive manner, aiming to make sense of different perceptions of reality. The researcher used prior knowledge to inform his analysis rather than direct it, and literature was used as 'data' for constant comparison with the emerging categories, aiming to integrate it into the theory (Fernandez, 2004).

The following subsections will introduce the envisaged phases of the study, namely the literature review, exploratory purpose, and theory building framework.

3.4.4.3 Purpose and context of the literature review

The decision of when to conduct the literature review remains a disputed topic in grounded theory research. Glaser and Strauss (1967) advocate for researchers to delay the literature review to avoid the introduction of preconceived ideas that could cloud the output of the study. However, researchers enter the field with extant knowledge due to prior training, reading to develop a research proposal, or very practical experience in the plying of their trade in their workplace.

Nagel *et al.* (2015) confirm that, although one of the core principles of the grounded theory method is to limit exposure to literature prior to beginning research, the practicality of this in a research setting is near impossible to avoid, given that researchers enter the field with some exposure to literature. Urquhart and Fernandez (2006) support the notion that a preliminary literature review is not detrimental in the context of a grounded theory study, as long as the literature review does not result in the researcher imposing a structure on future data collection based on the literature review.

The researcher aimed to use the literature review to support the developing grounded theory and, where preliminary reading had to be done, ensured that this was treated as part of the data rather than serving as theoretical underpinnings of the exploratory study (Charmaz, 2006). It also became an aid to determine the content of the research instruments in the form of semi-structured interviews for individuals to be used during the exploratory phase.

Although Chapter 2, documenting the literature review, precedes the remainder of the thesis chapters, it was compiled in multiple stages prior to (in a preliminary and non-committal mode), during, and after (more in-depth and in confirmation of) the data analysis and coding process with content being determined by relevance of the literature to the developing grounded theory. This was done to reduce the prospect of elevating the literature to a position of privilege over the data emerging from the analysis process (Ramalho *et al.* 2015; Urquhart & Fernandez, 2006). It was also done in answer to (Charmaz, 2006), who invites researchers to not only limit the literature review to a specific chapter in the document but also to weave it throughout once a foundation has been set. In this context, the discussion of the research results in Chapter 5 was augmented with additional literature reviews directed at and influenced by each of the emergent categories and themes.

Lastly, the literature review documented in Chapter 2 that covers the fields of programme management, enterprise transformation, and socio-technical systems theory was positioned to present how and where this work fits in the 'bigger picture'.

3.4.4.4 Exploratory study

The exploratory study is embodied in the form of a grounded theory study amongst programme managers and clients of programme management services in the South African public sector. This is done to increase the practical understanding of their work experiences and the factors that contribute to those experiences in the delivery of IT-enabled enterprise transformation and modernisation programmes. Grounded theory serves both as the mode of enquiry as well as the data collection and analysis methodology.

The results of the literature review and the exploratory study was used in the next phase to develop a framework or theory in a process termed 'theory building' and is described in the next section.

3.4.4.5 Theory building

Grounded theory research delivers either substantive or formal theories. Substantive theories are generated through empirical research and emerge through the analysis of data. This data is collated through a process where the direction and quantity of data collected are guided by emerging patterns in the data. The ultimate aim of grounded theory research is to generate formal theories – those that can be generalisable at an abstract level and follows from theoretical or conceptual work (Glaser & Strauss, 1967). Gasson (2003) suggests that the emergence of a formal theory requires the analysis of sufficient amounts of data across multiple cases, thereby ensuring that the researcher does not fall foul of describing a singular case in a singular situation.

Morse *et al.* (2009) emphasise that grounded theory studies not only document the change within social groups but also develop understanding of the core contributing processes to the change. Grounded theory method – through the progressive identification and description of a phenomenon and its attributes, its social process, and its interactions – enables researchers to explain the specifics of a specific setting or a particular event. According to Corbin and Strauss (2008), grounded theory researchers construct concepts and theories from the stories that they and their research participants create whilst attempting to explain and making sense of their experiences. Stories, as well as literature, are treated as data. Theory building progresses through an inductive, exploratory process, where the researcher starts bottom-up with the empirical data from which a theory is to be built. And from the data, after having been thoroughly coded and analysed, a theory that is grounded in the data is constructed (Myers, 2013; Urquhart, 2013).

Figure 7 presents the process to build substantive theories in grounded theory studies (Gasson, 2003, p. 85).

In the context of this study, the researcher aimed to construct a substantive grounded theory in the final phase of the study from the literature and the research participant stories gathered during the exploratory study.

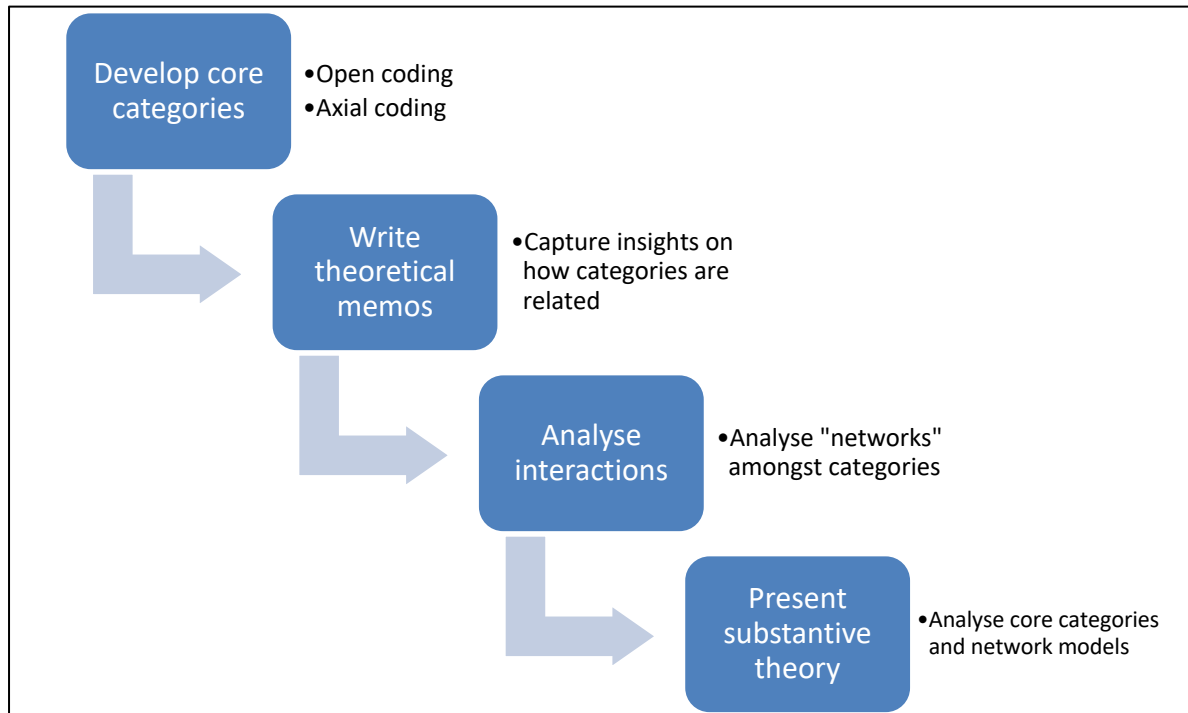


Figure 7: Process to develop substantive grounded theory
(adapted from Gasson (2003, p. 85))

3.5 Methodology

The essence of research design is about making choices to organise the research activity in ways that will most likely achieve the research aims: what will be observed and how (Easterby-Smith *et al.*, 2015). A research methodology is a strategy and plan of action that influences the choice and use of specific methods and techniques to inquire into a specific situation. It associates the choice and use of those methods to systematic modes, procedures, or tools used for collection and analysis of data to deliver the desired outcomes. Different methodologies may have the same underlying theoretical perspective, and each methodology may be implemented using different combinations of research methods (Easterby-Smith *et al.* 2015; Guba & Lincoln, 1994; Mackenzie & Knipe, 2006).

3.5.1 Qualitative research

As referenced in Section 3.4.4 the researcher adopted a qualitative research design and, therefore, utilised a qualitative research methodology. Qualitative research allows researchers to understand the actions and words of people, as well as the contexts in which those actions and words emerge. Qualitative research methods also allow researchers to understand the phenomenon from the perspective of the research participants. This understanding is based on the appreciation of the subjective, experiential life world of people in an in-depth description and analysis of their experiences. Qualitative research is applicable in exploratory research efforts for new concepts and in circumstances where research is conducted with people in organisational settings – as this research effort is positioned to do by engaging with programme managers in the South African public sector (Myers, 2013).

3.5.2 Grounded theory

“If someone wanted to know whether one drug is more effective than another, then a double-blind clinical trial would be more appropriate than grounded theory study. However, if someone wanted to know what it was like to be a participant in a drug study ..., then he or she might sensibly engage in a grounded theory project or some other type of qualitative study.” (Strauss & Corbin, 1998, p. 40).

Strauss and Corbin’s quote above captures the essence of when it is best to use grounded theory methodology for a research project. Quantitative data may be useful in measuring attitudes across a large sample. However, grounded theory methodology offers a powerful qualitative methodological framework and useful tools if the aim of the study is to learn about individuals’ perceptions and feelings regarding a particular subject area.

Grounded theory emerged with the publication of Barney Glaser and Anselm Strauss’ seminal book entitled *The Discovery of Grounded Theory* in 1967 (Glaser & Strauss, 1967). Grounded theory shifted the focus from the then-dominant deductive and hypothesis-testing approach of knowledge development to an inductive, theory-building mode of inquiry grounded in data (Charmaz, 2006; Goulding, 2002).

Grounded theory methodology advocates creating new theory, consisting of interrelated concepts rather than testing existing theories. Grounded theory researchers do not start with a hypothesis needing to be tested. Rather, the concepts and the theory are expected to emerge from the data. Grounded theory methodology does not seek representativeness to achieve statistical generalisability. Rather, it aims to systematically explain and sometimes predict phenomena or theories of human behaviour from empirical data. Data collection in grounded theory methodology typically encompasses in-depth interviews but can also include other sources of data, such as existing research literature and quantitative data. Grounded theory methodology provides guidelines for data collection and analysis consisting of coding, comparisons between data, memo writing, and theoretical sampling.

The selection of the grounded theory methodology for this study was informed by the following advantages as listed by Myers (2013):

- i. It is intuitive since it allows the researcher to immerse himself/herself in the data at a detailed level.
- ii. The researcher can start data analysis early in the research process.
- iii. It encourages and provides a method for systematic, detailed analysis of the data.
- iv. It provides researchers with ample evidence to support claims.
- v. It encourages the constant interplay between data collection and analysis.
- vi. It can be useful to describe repeated processes, such as those between programme managers and their departmental counterparts.

3.5.3 Constructivist grounded theory

Charmaz’s constructivist grounded theory can be considered a methodology that “lies squarely in the interpretive tradition” (Charmaz, 2006, p. 130). The aim of constructivist grounded theory is to interpret research participants’ meanings, which are themselves interpretations, and produce a substantive theory (Charmaz 2006).

Since constructivist research is interpretative, theorising is done dependent on the researcher's views and cannot stand outside them. Any substantive theories developed should 'emerge' in the sense that they are induced or 'grounded' on data generated during the research process (Charmaz 2006). Theories should allow "for indeterminacy rather than seeking causality" and give "priority to showing patterns and connections rather than linear reasoning" (Charmaz, 2006, p. 126).

In the research setting, both researcher and participants' views and understandings are shaped as the data collection progresses. Implications are as follows:

- i. Substantive theories that are developed are ideographic because they apply to particular cases rather than represent law-like generalisations. Interpretations are made, and theorising is achieved specific to the context and the researcher (Charmaz 2006).
- ii. Research design is emergent (Lincoln & Guba, 1985, p. 41) because the researcher and participants "interact in unpredictable ways to influence" the outcome of the study. Emergent research design does not negate the constructivist researcher's responsibilities to plan or allow them to lose focus. Emergent design allows constructivist researchers to respond to their own reflections, thoughts about reflexivity, and the data collected. Chosen research methods may evolve or become more refined as the research moves forward.
- iii. Since research participants and researcher are in a state of 'mutual simultaneous shaping,' the researcher and the outcome of data collection recognise complex interactions that have taken place.

Methodological procedures of Charmaz's constructivist grounded theory (2006) were primarily informed by Glaser and Strauss's grounded theory (1967). An iterative procedure begins with selection of the most appropriate data-gathering method for producing rich, social contextual and situational data. Intensive interviewing is mainly used. Collected data is then 'coded'. Ideas and hunches that become apparent during the process are noted in the form of memos. The researcher then uses theoretical sampling to obtain further selective data to refine and expand major codes or categories emerging from the data. Theoretical saturation is attained when no more properties of the category appear during data collection, which then results in the iterative process halting. Constant comparison and memo writing techniques are used during the process. Constant comparison ensures data is not forced into codes, codes into categories, and categories into concepts. Memo writing enables data to be compared at increasing higher levels of abstraction (theory) and to direct further data gathering. The final step involves completing the literature review and an evaluation of the research process and products.

3.5.4 Methodology adopted for this study

Grounded theory is useful in its use of a 'comparative method' when investigating a similar process in different settings or situations such as programme management in a broader public sector context (Easterby-Smith *et al.*, 2015).

Through the selection of grounded theory as the methodology, the study aimed to craft not only a description of what is happening, but also an understanding of the process by which it is happening (Corbin & Strauss, 2008).

Charmaz's constructivist grounded theory is a pragmatic and flexible approach providing a set of practical guidelines rather than a set of formulaic prescriptions (Charmaz, 2006). The methodology is consistent with an interpretivist ontology and constructionist epistemology.

Constructivist grounded theory tacitly assumes multiple constructed realities, a research process that typically emerges from social interaction, an appreciation of the researcher and research participants' positioning concerning the social and political context of the study, and data co-constructed between the researcher and research participants. It is a product of the research process (Charmaz, 2008).

Grounded theories developed in this constructivist setting represent interpretive portrayals that are "constructed" through the researcher's historic and present "involvement and interactions with people, perspectives and research practices" (Charmaz, 2006, p. 10).

The researcher's ontological and epistemological perspective and his direct involvement in the programme management of IT-enabled enterprise transformation and modernisation programmes informed the decision to adopt a qualitative research methodology, and in particular the constructivist grounded theory method, to give effect to the earlier described research design.

The selection of a methodology directs the methods to be applied in a study, the selection and details of which are described in the next section.

3.6 Methods applied in this study

Crotty defines 'methods' in his research design framework as "the techniques or procedures used to gather and analyse the data related to some research questions or hypothesis" (Crotty, 1998). Creswell (2014) emphasises that the selection of methods is influenced by whether the researcher specifies upfront the type of information needed or allows the data to emerge from interaction with research participants. Since this is a qualitative study, the researcher elected to utilise interviews as the key data collection method, and grounded theory analytical techniques to direct the analysis activities.

Data collection and resultant activities cannot commence without understanding the population and how research participants will be sampled. The next section discusses the sampling method applicable to this study.

3.6.1 Sampling

Sampling allows a social researcher to develop and describe an understanding of a phenomenon in a specific setting and with a specific population. According to Yin (2011), researchers should identify data collection units in both broad and narrow levels. Public-sector entities are data collection units located at the broad level, and data collection units at the narrow level address the individual programme managers.

3.6.1.1 Defining the population

Easterby-Smith *et al.* (2015) emphasise the importance of distinguishing between a population and a sample drawn from that population. A population encompasses all data collection units or entities that decisions relate to, while a sample of that population refers to a subset of data collection units or entities from which evidence is gathered.

The broad-level population for this study consists of all South African public-sector entities with programme managers across all types and instances of active programmes. The lower-level population for this study includes permanent employees, service providers, and independent contractors who provide programme management services to public-sector entities. It also extends to the clients or recipients of programme management services.

The researcher acknowledges that the total magnitude of the broader (public-sector organisations) and lower (programme managers and their clients) levels of the population present an unmanageably large population considering that the South African public sector extends to the national, provincial, and local government spheres, as well as a multitude of state-owned entities and agencies. In respect of utilising interviews as a data collection mechanism, this requires that the researcher applies a sampling strategy to select a reduced, but appropriate, sample from the population.

3.6.1.2 The sampling strategy

Sampling strategies can be clustered into probability and non-probability designs. Probability sampling designs are usually applied in quantitative research projects when the probability of each data collection unit or entity being sampled is known. Individual probability sampling techniques include random sampling (simple, stratified, and systematic), cluster sampling, and multi-stage sampling. Probability sampling is valuable when researchers need to minimise uncertainties about claims made from research data. In contrast, purposive sampling usually occurs in qualitative studies with the result that it is not possible to state the probability of each data collection unit or entity being sampled. Non-probability sampling techniques include convenience sampling, quota sampling, purposive sampling, and snowball sampling (Easterby-Smith *et al.*, 2015).

Grounded theory studies depend on the principle of theoretical sampling, where an analysis of the data and the emergent concepts from that analysis are used to direct where sampling should be done next. Theoretical sampling aids researchers to build a richer picture from more concepts of a particular idea, as well as allowing researchers to follow an emerging narrative suggested by the data (Urquhart, 2013).

Since this study is exploratory in nature, non-probability sampling was selected because the researcher intends to study the traits of a specific group – in this instance, programme managers. To do this, the research sample was selected using the two non-probability sampling techniques of purposive and snowball sampling. It is acknowledged that the use of non-probability sampling in the selection of the research participants will limit the transferability of the data, as well as the introduction of researcher bias due to him being in control of selecting the study participants (Given, 2008).

The initial sampling focused on limiting the broader and lower-level data collection units or entities to establish a specific entry point into the sample. Sampling activities commenced with purposive sampling. This embodies strategic choices on selecting research participants in such a manner that the sample is tied to the research objectives (Given, 2008). In this regard, the intended study participants are programme managers and recipients of programme management services in national departments of the South African public sector, where IT-enabled enterprise transformation and modernisation implementations have been embarked upon.

From the initial sample, snowball sampling was utilised to expand the lower-level data collection units or entities to access other suitable research participants through personal or professional networks. It is acknowledged that the results of the snowball sampling might result in the inclusion of broader-level data collection units that were excluded with the initial purposive sampling exercise. In acknowledgement of the need to conduct theoretical sampling, it was anticipated that this would remain broadly within the initial and possibly influence the subsequent snowball samples.

3.6.1.3 The sample size

The determination of sample size in grounded theory studies are influenced by several pragmatic factors, such as the various forms of data being gathered, maintaining methodological accuracy and consistency, and feasibility for doctoral studies. Broad variations in sample sizes, ranging between 10 and 60 research participants for grounded theory studies have been reported (Nagel *et al.* 2015; Onwuegbuzie & Collins, 2007; Starks & Trinidad, 2007).

Onwuegbuzie and Leech (2007) and Mavetera and Kroeze (2009) accentuate that sample sizes in qualitative research efforts must be small enough to enable researchers to collate dense, rich data and large enough to ensure that saturation can be achieved. The emphasis of qualitative research is more concerned with rigour in the analysis of gathered qualitative data than with sample sizes.

For this study, the researcher intended to establish a sample of 15 to 20 programme managers, using the sampling strategy and techniques described before and by focusing on selecting research participants based on their anticipated ability to contribute meaningfully to the discussion on public-sector programme management of enterprise socio-technical transformation programmes. To seed the sample, the researcher firstly engaged programme managers known to him in the course of his work, and then expanded the sample by requesting these participants for references to other programme managers based on the observations emerging from the initial interviews.

Upon conclusion of the initial seeding of the sample, data collection commenced. The next section discusses the data collection method applicable to this study.

3.6.2 Data collection

The aim of the current study is to develop a grounded theory or institutional framework that could improve the environmental context within which programme managers in the broader South African public sector are expected to operate. The objectives supporting the achievement of this aim are to understand the lived experiences of the programme managers in their work contexts and to determine the institutional factors, such as strategy and programme alignment, general factors contributing to success and failure, and relational issues that may affect the success of these programme managers.

To achieve these objectives, data must be collected from the sample discussed above, consisting of programme managers and their clients who are involved in the delivery of public-sector enterprise socio-technical transformation programmes.

The data collection instruments (interview questionnaire and schedule) will first be discussed. The data collection method (individual interviews) will then be elaborated upon.

3.6.2.1 Data collection instruments

Interviews, participant observation and fieldwork, and document analysis are the most frequently used qualitative research data collection methods (Urquhart, 2013). The purpose of interviews in grounded theory studies is to reveal the research participant's story. 'Qualitative' or semi-structured interviews build understanding and can be used to depict a complex social world from the perspectives of the research participants. Semi-structured interviews allow the researcher to delve into the meanings of research participants' words and phrases, allowing for an in-depth exploration of the matter (Starks & Trinidad, 2007; Yin, 2011).

Baker and Edwards (2012, p. 6) conclude that the answer to the question on how many qualitative interviews is enough, is "it depends." They advise that researchers need to be sensitive to methodological and epistemological demands, what evidence would be required to satisfy their stakeholders, and be guided by what constitutes excellence rather than adequacy in their work. The researcher intended to conduct between 15 and 20 semi-structured, in-depth individual interviews as the primary mode of data collection. These were held with programme managers and their clients involved in the delivery of socio-technical transformation initiatives in the public sector. Each interview with the selected study participants was scheduled for approximately an hour in duration.

Interviews would halt when theoretical saturation was achieved when no new concepts and related properties, dimensions, conditions, and relationships emerged from the data (Strauss & Corbin, 1998).

Charmaz (2006) explains the value of intensive interviews to conduct in-depth exploration of a topic or of experiences. In this setting, there is value in crafting a few broad, open-ended, and non-judgmental questions to invite detailed discussion. To structure the discussions with research participants, an interview guide was designed for the individual interviews, aimed at discussing the research participants' general background, lived experiences, exploring the positioning of programme management in the relevant organisational context, as well as perspectives on the factors that impact overall programme success within the organisation. The interview guide was grouped into key topics with proposed questions for the individual interviews. Table 8 reflects the topics that were covered as well as the proposed questions included during the interviews with programme managers and their clients.

Table 8: Topics and Questions Covered in Semi-structured Interviews
(Source: Researcher, 2022)

Topic	Questions
Pre-entry attributes, personal circumstances, a short introduction of the research participant sharing their organisational role and accountabilities	<ol style="list-style-type: none"> 1. Please confirm your organisational role and accountabilities. Are you a programme manager or a client or recipient of programme management services? 2. Are you an employee of or a service provider to the public sector? 3. How many years of experience or exposure do you have in the programme management discipline? 4. Please confirm training and certification status in the context of programme management.

Topic	Questions
	5. Please indicate the number of transformation programmes supported by information technology and systems where you were involved in or responsible for. 6. Do you have formal training in the discipline of programme management? 7. Do you have a formal programme management certification from an acknowledged industry and professional body?
Understanding of programmes and programme management	8. Please describe what a programme entails? 9. Please describe what the programme management discipline entails? 10. Do you use industry standard approaches, standards, or bodies of knowledge to guide programme delivery in your organisation? Please confirm which standard, approach, or body of knowledge is in use. If not, can you describe your internal approach where applicable and available?
General experience in applying programme management	11. What is your general experience as a programme manager in the public-sector environment?
Enablers in the work environment	12. Can you explain the factors, structures, and decisions that enabled you to conduct your accountabilities as a programme manager?
Disruptors in the work environment	13. Which factors, structures, and decisions disrupted or disempowered you to conduct your accountabilities as a programme manager?
Programme management in context of organisational strategy development	14. How do you conceptualise and experience the relative relationship between programme management and the processes of organisational strategy development?
Comparison between public-sector and private-sector programme management experiences	15. Do you have any experience in the delivery of programmes in the private sector? 16. If so, can you highlight the key similarities and differences between programmes delivered in the public sector versus those delivered in the private sector?
If given carte blanche, what is needed to improve the situation?	17. If you could influence or adjust the environment where you work, what are those things that need adjustment to improve experiences and to work towards better outcomes in the delivery of public-sector programmes?

3.6.2.2 In-depth individual interviews

Intensive, or in-depth, interviews allow researchers and research participants to engage in a deep, revealing conversation about a topic or experience. Since interviews are negotiated and contextual, the dynamism of an in-depth interview enables a researcher to delve below the surface, interrogate alternative avenues opening during the discussion, restate the participant's point to verify their understanding, and acknowledge the research participant's contribution, perspectives, and actions. In-depth interviews empower research participants to tell their stories, be experts, have a choice in what is revealed, aid the researcher in how to interpret their stories, and be more open to express thoughts and feelings than they would be allowed in other relationships or situations. Research participants, through in-depth interviews, can reveal to the researcher their perspectives on a complex social world, on their terms, and in ways that make sense to them. The researcher must therefore focus on developing an understanding of the meaning of the words and phrases used by research participants (Charmaz, 2006; Easterby-Smith *et al.* 2015; Yin, 2011).

In the context of this study, the researcher decided to use semi-structured, in-depth interviews as the primary data collection technique to allow the collection of personal experiences and perspectives (Hofisi, Hofisi, & Mago, 2014). As indicated in Section 3.6.2.1, in accordance with the flexible approach required in a grounded theory study, interviews continued until theoretical saturation was achieved – when no new concepts and related properties, dimensions, conditions, and relationships emerged from the data (Strauss & Corbin, 1998).

Digital recordings of interviews are useful since they are unbiased records of the engagement, facilitate accurate transcriptions and multiple analytical passes over the data, and release the researcher from having to simultaneously listen and make notes during the discussion. Digital recordings can only be made with the consent of research participants (Easterby-Smith *et al.*, 2015).

The researcher's effort to personally transcribe the interviews formed the first step in the data analysis phase and aids in developing an understanding of the emergent data. The transcription process revealed the nuance in language used by research participants to convey meanings, feelings, and views (Charmaz, 1996).

The next section describes the methods used to conduct data analysis and to ensure the integrity of the data in this study.

3.6.3 Data analysis and integrity

Grounded theory data analysis involves the assignment of concepts and themes to the collected data. It places the emphasis on starting with and remaining close to the data. This allows the data to be used to build and refine levels of abstraction to disclose dense, abstract analyses of empirical problems and domains (Charmaz, 1996; Rodon & Pastor, 2007).

A key tenet of grounded theory method is the need to conduct joint collection, coding, and analysis of data (Glaser & Strauss, 1967). The researcher followed this approach to ensure that the quality and quantity of the data addressed the research questions and determined when theoretical saturation had been achieved.

Data analysis is an inductive-deductive process, commencing with a topic of interest and a research setting, which systematically progresses through coding the data, to connecting the

codes through relationships between them, whilst constantly comparing new data and codes. The researcher inductively identified hypotheses and tentative theories from the data. Deductive comparisons with data subsequently collated either confirmed or refuted the inductively formed mini-theories. This process iterated during the data collection process until a point of theoretical saturation was reached where no more new concepts emerged from the data (McGhee *et al.* 2007; Urquhart, 2013).

The coding process followed by the researcher will be explained in more detail in the next section.

3.6.3.1 Data coding

Researchers use the coding process in qualitative research to move between empirical and conceptual levels (Lawrence & Tar, 2013). A code is a word or short phrase that assigns a symbolic but meaningful attribute to a portion of data. Coding is the act of deriving and developing concepts from data and is a bridge between data collection and the explanation of meaning (Saldana, 2016). Holton (2010) confirms that the researcher uses coding to break open or fracture the data. With analysis, coding reveals a core category and its related concepts and relationships, around which a theory can be built. During this process of coding and analysis, the researcher should develop memos to capture their conceptual ideas about the codes and relationships being revealed. Memos inform where and about which concepts theoretical sampling actions should be directed (Charmaz, 1996).

Coding is usually done in at least two phases with the initial, open phase focusing on individual words, lines, or segments in the data being assigned a code. Next, a focused, selective coding phase integrates, synthesises, and organises large amounts of data by using the most significant or frequently-occurring codes (Charmaz, 2006).

For this study, the data analysis process commenced with the initial coding process to explore the theoretical possibilities embedded in the data. In this phase, codes were created to break the data up into its component parts or properties to allow data to be compared with data, as well as to remain open to what the data is revealing (Urquhart, 2013). The second, focused coding phase interrogated the codes assigned during the initial phase, aiming to identify codes with the most analytical value to categorise the data incisively and completely, and upon which the grounded theory can be constructed (Charmaz, 2006).

3.6.3.2 Reliability and validity

Yin (2011) emphasises that the validity and findings of a qualitative study are key indicators of its quality. In general, research outputs are measured for reliability and validity. These terms are commonly used in quantitative research and are measures which demonstrate and communicate the rigour of research processes and the trustworthiness of the findings. Reliability focuses on the likelihood that a particular tool or procedure used during the research process will deliver a similar result. Validity is more subtle, addressing whether what was intended to be measured actually is (Roberts & Priest, 2006).

Myers (2013) states that grounded theory studies should be evaluated using criteria which address the rigour and validity of the qualitative data analysis, as well as the extent to which a theoretical contribution is made. The criteria against which rigour and validity are measured include whether a clear chain of evidence exists which links the findings to the data, proof of multiple data instances linked to the concepts produced, and demonstration of the

researcher's familiarity with the field of investigation. Chiovitti and Piran (2003) similarly emphasise that grounded theory studies must ensure and demonstrate its rigour through the dimensions of creditability, auditability, and fittingness. They propose the following research practices to improve the rigour of a grounded theory study, the bulk of which were applied in this study:

- i. Let research participants guide and inform the inquiry process.
- ii. Verify the theoretical construction generated against research participants' meanings of the phenomenon.
- iii. Use research participants' actual words in the theory.
- iv. Articulate the researcher's personal views and insights about the phenomenon explored.
- v. Specify the criteria built into the researcher's thinking.
- vi. Specify how and why the research participants were selected.
- vii. Delineate the scope of the research.
- viii. Describe how the literature relates to each category that emerged in the theory.

In regard to the application of these practices, Chapter 4 provides a detailed description of the processes and practices applied during the fieldwork of the study, while Chapter 5 demonstrates the outcomes of these practices.

3.7 Limitations

Studies based on grounded theory methodology are occasionally criticised because they produce middle-range rather than generalisable theories, the coding process introduces loss in research participants' context and disrupts the flow of their narrative descriptions, and an over emphasis on analysis reduces the rich descriptions of research participants, thereby reducing clarity of understanding. Constructionist grounded theory is imperfect and provisional, and it is influenced by dimensions like temporality, location, loci, action, and interfaces (Jones *et al.* 2015; Morse *et al.* 2009).

In regard to the delivery of a generalisable theory, this study has constrained its investigation to programme managers working in the context of the South African public sector. The results are therefore limited to this national public-sector context. It is likely that a middle-range substantive theory was delivered, which will not be generalisable to other organisational domains where programme management are used. Where practical, the researcher addressed the coding-induced loss of context and the need to maintain research participants' flow and richness of description. This was done with careful selection of representative codes and by including verbatim comments of the research participants in the discussion of the research results.

According to Morse *et al.* (2009), the pragmatist epistemological underpinnings of constructivist grounded theory introduces a level of bias with a researcher that is situated and embodied in the knowledge production process. Constructivist researchers enter the empirical world of the research participants to analyse and reveal transitional meanings, tacit actions, as well as explicit statements and meanings. This bias can be amplified through purposive sampling strategies when building the sample population from the target population (Kolb, 2012). The researcher, being a practicing programme manager in the context of a South African public-sector agency, might have suffered from bias in engaging with research participants, in the subsequent analysis of the data, and in the write-up of the

research results. Sources of researcher bias and influence in this context include personal experiences, perceptions, and observations in the workplace, as well as by expectations derived from prior knowledge gained through training and education.

3.8 Ethical Considerations

Ethical practice in qualitative research is founded on the moral principles of respect and protection for the research participants who consented to participate in the study (Myers, 2013). Table 9 summarises the key principles of research ethics that must be considered by researchers to protect research participants and the integrity of the research community.

Table 9: Key Principles in Research Ethics
(adapted from Easterby-Smith *et al.* (2015, p. 122))

Protecting research participants	Protecting integrity of research community
Ensuring that no harm comes to research participants	Avoiding deception about the nature and aims of the research
Respecting the dignity of research participants	Declaration of affiliations, funding sources, and conflicts of interest
Ensuring a fully informed consent of research participants	Honesty and transparency in communicating about the research
Protecting the privacy of research participants	Avoidance of any misleading or false reporting of research findings.
Ensuring the confidentiality of research data	
Protecting the anonymity of research participants	

In context of this study, the researcher applied the following practices to protect the research participants:

- i. Introduced the research participants to the purpose of the study and explain the value of their participation in the process. This was initially done at the first contact when appointments were made for the interviews. Clear statements related to the purpose of the research and what are expected from the research participants were included in the consent form, a signed copy of which was left with the research participants. Research participants were informed that they could, at any stage of the interview process, withdraw from the discussion if they felt any sense of discomfort or undue pressure.
- ii. Request research participants were requested to complete and sign a consent form indicating their willingness to participate in the interview process. They were further given the opportunity to indicate their consent for whether a digital voice recording of the interview could be made. In those cases, where research participants declined the making of a voice recording, the researcher resorted to making field notes during the interview process.

- iii. Protected research participants' privacy by not sharing their personal details or inputs provided during the research interviews with any other research participant or other stakeholders.
- iv. Maintained confidentiality in the research process by requesting at the outset that the research participants not share privileged or confidential information when responding to questions or discussing the topics raised by the researcher.
- v. Maintained confidentiality in the data by anonymising organisations and research participants in the data analysis steps and in the contents of the thesis document. Entities and respondents were assigned an alpha-numeric code and names were not included in the discussion of findings. Furthermore, the names or identifiers of specific programmes, projects, or other organisations that may have been mentioned by the researcher or research participants were not mentioned in the thesis document where direct statements of research participants are quoted.
- vi. Anonymity was maintained by not divulging the corporate or personal identities of research participants, except in cases where referrals to additional research participants are acted upon.

3.9 Chapter Conclusion

Chapter 3 presented and discussed the research design and methodology applicable to this research project. The chapter commenced with a discussion on the philosophical stance of the researcher as having an interpretivist ontology and constructivist epistemology. Next, the researcher's decision to adopt an interpretivist theoretical position and qualitative research philosophy was discussed. Justification was given for the selection of the constructivist grounded theory method as the preferred methodology to organise the research activities to develop and deliver the research objectives. The chapter proceeded to discuss the empirical data collection and analysis methods and techniques used in this research, with a focus on semi-structured interviews, narrative analysis, coding and memos, and reflexivity. The chapter concluded with a discussion on limitations and ethical considerations.

In the next chapter, the researcher will describe and document the fieldwork.

CHAPTER FOUR - FIELDWORK

4.1 Introduction

Chapter 3 outlined the intended research design and methodology for this study. Chapter 4 must be read against the backdrop of Chapter 3, where it was indicated that grounded theory would serve both as the mode of enquiry and as the methodology for data collection and analysis.

Engward (2015) implores researchers to embrace openness in how they approach and report their grounded theory studies. The inductive analysis process moves upward from the particular to the general, resulting in a theory developed from many observations. In this context, the researcher's interpretation of what is important to research participants demands of the researcher to reflect on personal motivations, as well as decisions on how data collection, analysis, and findings are shaped. The quality and credibility of the emergent grounded theory depends on this openness and reflexivity.

This chapter provides a detailed account of how the selected research methodology and strategies were applied during the research process to increase the study's trustworthiness.

4.2 Preparations for Data Collection

The research design observed during the study will be explained in detail under the headings of sampling, data collection, and data analysis.

4.2.1 Sampling

Chapter 1 introduced the study as aiming to explore the experiences and life worlds of programme managers delivering programme management services in South Africa's public-sector organisations. The target population or sample universe thus consists of individuals located in permanent, temporary, or contract programme management roles, in South African public-sector organisations.

The research initially focused on engaging with programme managers and their clients working in national departments only. The initial purposive sampling of this study commenced with the selection of public-sector organisations classified as national departments or organisations that have a national footprint or reach. This choice was based on the perception that these organisations have the highest likelihood of active enterprise transformation initiatives where socio-technical systems were employed. Upon identification of the target organisations, the researcher established contact with possible participants in each organisation for participation in the study.

The initial purposive sampling results were not satisfactory, given that a very limited positive response was forthcoming from the organisations that were approached. This forced the researcher to change tack, with a decision to engage programme managers in his network of historical programme manager colleagues and collaborators.

As the study progressed, the opportunity developed to engage with research participants in other public-sector agencies, as well as provincial and local public-sector departments. However, the research did not extend into all the national departments active in the South African context. The researcher expanded the universe of available research participants

through snowball sampling at the conclusion of each of the semi-structured interviews. This was done by asking participants if they were aware of members in their personal and professional networks of contacts who could be approached for participation. It was important that the research participants be selected carefully to ensure that the conceptual and informational needs of the study were preserved.

The study was conducted during a period where several public and forensic investigations were launched into the affairs of large-scale and long-running public-sector programmes. The programme managers assigned to these programmes consistently refused to participate in the study, perceivably due to limits of engagement placed on them during the public and forensic investigations. This resulted in a reduction of the sample of programme managers being available for the next planned phase of semi-structured interviews.

In total, 19 research participants were selected and engaged in the planned semi-structured interviews. Table 10 provides a view on the demographics of the research participants.

Table 10: Demographics of Participants (Individual Interviews)
(Source: Researcher, 2022)

Respondent	Race	Gender	Programme Management Role			Years' Experience	# of Programmes	Private Sector Exposure	ProgMan Education	
			ProgMan or Client	Pub Sect Employee	Pub Sect Supplier				Training	Certification
R1	White	Female	ProgMan	No	Yes	13	4	Yes	Co-specific	No
R2	White	Male	ProgMan	No	Yes	15	10	Yes	Co-specific	No
R3	White	Male	ProgMan and Client	Yes	No	40	15	Yes	No	No
R4	White	Male	ProgMan	Yes	No	25	20	Yes	No	No
R5	White	Male	ProgMan	Yes	Yes	8	15	Yes	No	PMP
R6	White	Male	ProgMan	Yes	Yes	15	1	Yes	No	No
R7	White	Male	ProgMan	Yes	No	20	8	Yes	No	PMP
R8	Black	Male	ProgMan and Client	Yes	No	12	5	Yes	Postgraduate	No
R9	White	Male	ProgMan and Client	Yes	No	19	>10	Yes	No	No
R10	White	Male	ProgMan	Yes	No	14	1	No	No	No
R11	White	Female	Client	Yes	No	23	>5	No	No	No
R12	White	Female	ProgMan	Yes	No	7	4	No	Project Mgmt	No

Respondent	Race	Gender	Programme Management Role			Years' Experience	# of Programmes	Private Sector Exposure	ProgMan Education	
			ProgMan or Client	Pub Sect Employee	Pub Sect Supplier				Training	Certification
R13	White	Male	ProgMan/Exec	Yes	No	20	>100*	Yes	Project Mgmt	PMP
R14	White	Female	ProgMan	Yes	No	15	1	No	Project Mgmt	No
R15	White	Male	ProgMan/Exec	No	Yes	20	n/a	Yes	Postgraduate	No
R16	Black	Female	ProgMan	No	Yes	7	n/a	Yes	ProgMan	Yes
R17	White	Female	ProgMan	Yes	No	12	3	No	No	No
R18	White	Female	ProgMan	Yes	No	14	8	Yes	No	PMP
R19	White	Male	ProgMan/Exec	No	Yes	10	3	Yes	No	PMP

4.3 Data Collection

The data collection process the researcher followed will be discussed under three main headings: finalisation of the data collection instruments, individual semi-structured interviews, and theoretical saturation.

4.3.1 Finalisation of the data collection instruments

One instrument was drafted and submitted to the researcher's academic supervisor, and one peer reviewer was chosen for the individual semi-structured interviews. The feedback received on the first drafts of the instrument was that it was sufficiently detailed and structured for an exploratory grounded theory study. The instrument included in Chapter 3 under Section 3.6.2.1 was the final instrument that was used after the initial inputs were received.

The instrument was subsequently piloted and adopted without changes as it proved to work well, both in terms of soliciting adequate and relevant responses and in terms of the clarity of the questions.

4.3.2 Individual semi-structured in-depth interviews

In-person interviews enable interpersonal contact between researcher and research participants, context sensitivity, and conversational flexibility during the engagement (Brinkmann, 2018). For this reason, the researcher elected to not conduct telephone or email-based interviews.

The research objectives required the researcher to carefully plan the setting, nature, and duration of the interviews. The researcher, when reserving appointments with research participants in the research participants' physical locations, requested that the interviews be conducted in meeting rooms that were private, intimate, and away from general disturbances. Where research participants were willing to travel to the researcher, the interviews were conducted in the researcher's physical office, behind closed doors and generally without disturbances. The interviews were conducted personally by the researcher to ensure that an early engagement with the data could be established. This also allowed the researcher to explore the nuances of meaning making and process effectiveness at an early stage (Charmaz, 2006).

Interviews were conducted using the interview guide described in Section 3.6.2.1. and at the outset were scheduled for approximately one hour at a location that was private yet convenient for the research participants. Interview durations ranged from 45 to 90 minutes. The interview guide remained constant during the timeframe in which the interviews were scheduled and conducted.

The interviews were structured to understand the lived experiences of the research participants during their delivery of programme management services and the inferences that they made based on those experiences. Brinkmann (2018, p. 998) emphasises that interviews are not conducted between unemotional intellects but are "a joint accomplishment of vulnerable, embodied persons with all sorts of hopes, fears, and interests." The research participants shared their experiences voluntarily, openly, and expressively during the interview process. The researcher did not rush the interview processes. Interviews were

estimated to require 90 minutes to complete when the reservations were made. Some interviews were concluded within 30 to 45 minutes, whilst others lasted for the scheduled time. A couple of interviews exceeded the scheduled 90 minutes. In all instances, the interview durations were informed by the willingness of the research participants to transparently share their experiences and understanding with the researcher.

The interview process followed a standard pattern where each research participant was welcomed, following which the researcher explained the study's aims, the purpose of the interview, the ethical aspects, and the confidentiality. Research participants were informed that they could halt the interview process at any time, should they feel compelled to do so. The interview process then commenced with an open, inviting question to the research participant to share a little about themselves. Upon conclusion of the interview, the researcher allowed the research participants to ask questions that they might have, requested confirmation of other possible candidates that could be approached, and thanked the research participant for their contribution. The researcher also offered to share the results of the study once it became available and closed the proceedings.

The researcher used the interview protocol consistently during the interview cycle – the same questions were posed to all research participants to minimise the researcher's bias and to enable the researcher to code the data in a meaningful manner. Research participants were invited to engage freely and contribute as much detailed information that they felt comfortable to share. The researcher did not interrupt research participants when they relayed their experiences but clarified or probed deeper in circumstances where research participants appeared not to understand the question or when they drifted from the subject at hand.

The interview process from the outset revealed that emotions could play a major role in programme managers' engagement with their work. Respondents occasionally became very animated in how they relayed their observations and experiences, with some resorting to thumping the table, snapping their fingers, and raising their voices in emphasis of certain elements during the discussions. The researcher responded with empathy and occasionally paused to allow research participants to regain their poise.

Where consent was given, digital recordings were made of the interviews. This ensured that all the responses of each willing research participant were captured accurately. By using the digital recorder, the researcher was able to focus fully on the interview, minimising the need to shift between taking notes and listening to the research participant. Upon finalisation of the interview, the researcher personally produced verbatim typed transcriptions of the recordings, which were shared with the research participants for final verification of contents and to enable coding and analysis. Research participants had the opportunity to request corrections, deletions, or additions to the content of the transcripts. Coding processes did not commence on the respective interview transcripts until the researcher received verification of accuracy by the research participants.

In support of the total data analysis efforts, the researcher established an audit trail to aid the validity and reliability of the study. This was done by keeping detailed field notes and memoranda, working to a schedule of activities, and diligently recording the data collection procedures.

4.3.3 Theoretical saturation

The interview cycles continued until theoretical saturation was reached. Although the details of individual research participant interviews are unique, the indicators for theoretical saturation include the emergence of similar theoretical concepts or themes that suggested that continued data collection would likely not add value to the findings.

Data collection and data analysis took place concurrently, with the process that was employed being described in the next section.

4.4 Data Analysis

The trustworthiness and authenticity of an inquiry are increased when a researcher explains in detail the analytical process followed and the resulting conclusions drawn (Elo *et al.* 2014; Guba & Lincoln, 1994). The data analysis approach adopted for this study is based on Charmaz's (2006) explanation of grounded theory data analysis. The transcription of data will be explained first, followed by an explanation of the coding process.

4.4.1 Transcription of data

The availability of digital recordings of the interviews greatly enhanced the transcription process. The researcher elected to personally transcribe every interview to ensure that they were accurate and complete. The initial transcription process was followed by a quality assurance process where the recordings were listened to and the transcriptions read several times. A final draft of their interview transcript was presented to its associated research participant. Research participants were invited to correct, add, or remove content from the transcripts. Generally, research participants accepted the transcripts as they were presented. Minor adjustments were proposed in a minority of cases. The responses received from research participants informed the researcher that the transcripts would be acceptable for entering into the coding process.

The benefit of conducting multiple readings of the transcripts in the quality assurance process enabled the researcher to remain close to the data and to limit the temptation of premature coding or development of broad categorisations of the data.

The next section describes in detail the coding process followed by the researcher.

4.4.2 The coding process and results

Grounded theorists should avoid expectations and assumptions when coding data, but they should rather examine the data in search of patterns (Charmaz, 2006). The coding process focused on defining and attaching conceptual labels to the experiences and observations raised by the research participants, developing these labels into categories characterised by the same or similar attributes, and finally collapsing these categories into interlinking themes to set the foundations for a theory.

4.4.2.1 Initial (open) coding

The first step in the analysis of the data focused on the initial or open coding of the interview transcripts. The coding was done by hand and followed the broad classification of the questions discussed during the interviews. Once done, the codes were captured per respondent in a Microsoft Excel spreadsheet. The coding process commenced with a

thorough line-by-line reading of the transcripts, searching for the experiences and observations raised by the research participants. Conceptual labels were assigned to these experiences and observations, resulting in a list of codes per participant.

Generally, conceptual labels were assigned based on an interpretation by the researcher. However, for certain experiences and observations where the researcher could not find better or more descriptive conceptual labels, the *in vivo* words, concepts, or phrases of the research participants were adopted as the conceptual labels of choice.

The coding process was augmented with the process of constant comparison. Conceptual labels assigned to specific experiences and observations were revisited by comparing them for similarities and differences as they emerged from the transcripts (Holton, 2010). Similar experiences and observations were grouped by assigning the same conceptual labels, thereby elevating uniformity across the data set. The initial coding process resulted in 160 conceptual labels.

Table 11 provides a summary of the initial concept labels loosely assigned and grouped per the broad classification of the questions discussed during the interviews.

Table 11: Summary of Concepts and Frequency
(Source: Researcher, 2022)

9.1	
Interview Theme: General Experience	
Code/Conceptual Label	# of Occurrences
“Programme manager action”	122
Disrupting	102
Planning and Definition	74
Sponsoring, Owning, and Driving	67
Emotions	65
Engaging, Trust, and Relationships	64
Budgeting and Funding	57
Programme Management Discipline	53
The Team	51
Time/Temporality	50
“Can-do attitude”	39
The Big Picture	38
Governing/Structures	33
Strategic Positioning	30
Politics of Delivery	29
Procuring and Contracting	25
Delivering	23
Roleplay/Role Assignment	21
Definition	21

9.1	
Interview Theme: General Experience	
Code/Conceptual Label	# of Occurrences
Multiple Departments	19
Revolving Doors	18
Complexity and Chaos	18
Prescripts	17
Decisions	17
Monitoring	16
Bureaucracy	15
Reporting	14
Starting Work	12
Risk	12
Autonomy and Authority	12
Conceptualising	11
Business Cases	10
Resolving Conflict	8
Projects	8
Accounting Officer/Director General	7

9.2	
Interview Theme: Strategy and Programme Management	
Code/Conceptual Label	# of Occurrences
"Programme manager action"	49
"Diverting attention"	41
Planning/Initiating (programme)	37
Implementing (strategy)	32
"Engaging stakeholders"	23
"Formulating strategy"	19
Contextualising Programme Management	18
Executing (programme)	17
"Politics"	17
Sponsoring	16
"Aligning strategies"	15
"Responding to external factors" (political/legislative)	14
Using Technology	14
Defining Outcomes	13
"Funding"	12

9.2	
Interview Theme: Strategy and Programme Management	
Code/Conceptual Label	# of Occurrences
“Understanding”	12
“Driving the business case”	10
Wasting Resources	10
“Annual performance planning”	10
Leading the Team	9
Devaluing Reporting	9
Realigning	8
“Expecting a programme manager to ...”	7
Quantifying	5
“Burning platform”	5
“Relationships”	5

9.3	
Interview Theme: Success and Failure	
Code/Conceptual Label	# of Occurrences
“Programme manager action”	88
“A team ‘that can’”	73
Blocking (programme progress)	58
“It remains a power game”	47
Relationships and Trust	35
Space to Execute	31
Programme Management Competence or Capacity	31
Organisational Sponsorship	30
Lead by Example	26
Finances	23
Measuring Performance	22
Destructive Management	21
Leadership	21
Leveraging Technology	20
Resisting Change	19
Contracting for Success	16
Pipeline	16
“Staying in the moment”	16
“Revolving doors or faces”	14
Organisational Culture	14

9.3**Interview Theme: Success and Failure**

Code/Conceptual Label	# of Occurrences
Communicating	14
"Facing the music"	10
Accommodating and Compromising	10
Responsiveness (?)	10
"Changes everywhere"	10
Starting Off	9
Support Systems	9
Bounded Autonomy	9
Fixing Mistakes	9
Complexity	9
Buying	8
Many Divisions	8
Unknowns	8
Self-belief	8
Understanding	8
The Director General	7
Fatigue	6
Pushing Through	6
Governance	6
Finishing	5
Newcomer	5

9.4**Interview Theme: Public-Private Comparison**

Code/Conceptual Label	# of Occurrences
Managing (the team)	42
Directing	36
Focusing (on value delivery)	32
Progressing the Programme	32
Disrupting Delivery	30
Drivers and Motivators	23
Empowering Delivery	22
Managing (programme management budget)	19
Adopting a Delivery-centric Approach	18
Deciding	18

9.4	
Interview Theme: Public-Private Comparison	
Code/Conceptual Label	# of Occurrences
Responding to External Environment	15
Governing	14
Supporting Political Imperatives	11
Innovating	10
Setting Up	9
Managing (contracts)	9
Expecting Quality	9
Focusing on IS/ICT	8
Remaining Calm	8
Understanding the Constraints	7
Solutioning	7
Communicating	6
Defining Accountability (for programme managers)	6
Figuring Out	1

9.5	
Interview Theme: Improve Programme Management	
Code/Conceptual Label	# of Occurrences
Progressing the Programme	43
Making Programme Management Accessible	32
Disrupting	27
Establishing Trust	21
"Programme manager profile"	21
Building Sustainability	20
Managing the Budget	20
Communicating	18
Starting Off	17
Learning	17
Understanding	16
Sponsoring	16
Mobilising	15
"Managing politics"	14
"Getting by"	14
Reframing	14
"Frustrating the programme manager"	13

9.5	
Interview Theme: Improve Programme Management	
Code/Conceptual Label	# of Occurrences
"Bringing them back"	10
Integrating	9
Contracting	9
Improving Ownership	9
Holding Accountable	9
Eroding Trust	8
Understanding Technology Complexity	7
Acknowledging Programme Dynamism	7
"Changing the guard"	6
Associating Projects and Programmes	6
"Sensing confusion and chaos"	4
Allocating	3
Scheduling	3

Upon conclusion of the initial coding process the researcher conducted an internal quality assurance step to verify that the conceptual labels were accurate and fair in their representation and were consistently applied across the data set. The next phase of the analysis process focused on axial coding to produce a next higher abstraction of categories.

4.4.2.2 Axial coding

The second phase of the coding process used the initial concept labels as input into an intermediate or axial coding process. Here, the emphasis was placed on the development of individual categories, connecting subcategories, and related linkages amongst these. Whereas the initial coding process focused on fracturing the data, the intermediate coding process recombined the data into a next level of conceptually abstract categories (Goulding, 2002).

The process entailed the establishment of categories wherein individual codes were logically grouped and inter-code relationships were defined. The intermediate coding process resulted in the initial 160 conceptual labels being regrouped into 34 category labels, as depicted in Table 12.

Table 12: Summary of Coding Categories
(Source: Researcher, 2022)

Category Labels
Properly seeding the initial programme definition/planning framework
Key stages of the programme delivery cycle
Managing the budgeting, finances, and business case development/reviews
Procuring, contracting, and managing contracts

Category Labels
The team environment
Governing the programme through structures/processes
Monitoring, measuring, and reporting performance
Managing the programme pipeline (resource allocations and schedules)
Delivery-centric approach
Dealing with/responding to bureaucracy and strict prescripts during programme execution
Actions taken/attitudes adopted/demands raised by programme managers to enable the progression of the programme
Actions taken/responses by programme managers in circumstances where things did not go according to expectations
Defining the 'ideal' programme manager profile and accountabilities, setting, and managing expectations placed on the programme manager
Decisions
Relationship to 'instructions' (giving/receiving)
The impacts on programme managers being newcomers to the programme and/or department(s)
Actions taken by departmental stakeholders that result in programme managers being less effective at delivering programmes
Engaging with and responding to the organisational politics/power relationships in play during programme delivery/execution
Understanding and managing the complexity and dynamism of programmes. Responding to how stakeholders exploit chaos and confusion for their own purposes
Actions/attitudes that typically result in enabling/empowering programme managers
Establishing an authority/autonomy/accountability framework that allows the programme manager defendable freedom to work
Managing relationships, building/breaking trust, and engaging with programme stakeholders
Actions taken/attitudes adopted to remain engaged with the programme stakeholders whilst managing conflict and ensuring that all stakeholders are keeping the focus
Establishing and maintaining understanding
Organisational attitudes towards programme sponsorship, ownership, and role assignments
Positioning and strengthening the programme management discipline in the department(s)
Relationships with/demands placed on the accounting officer or director general
Responding to the unique demands/impacts of running multiple projects in a programme approach

Category Labels
Understanding the frequency, type, magnitude, and impacts of changes introduced by and present in the business environment where the programme is executed
Multiplicity of departments and within a department (many divisions)
Conducting annual strategic and performance planning whilst being responsive to external factors/environmental demands
Understanding the time/temporality dimension of programme execution
Continuum of responses/actions taken by programme managers and programme stakeholders (negative/neutral/positive)

The aim of this secondary coding step was to reduce the large number of conceptual labels and codes to a more manageable volume. It also assisted the researcher to form a holistic view of the factors that contribute to or impact the experiences and observations of programme managers.

4.4.2.3 Selective coding

The third and final phase of the coding process focused on selective coding. It demanded that the researcher integrate the various categories and relationships to identify the centrally relevant themes contributing to the development of a holistic theory (Birks & Mills, 2015).

Table 13 reflects the resultant category-theme assignment outcome and is representative of the most notable elements impacting on the lived experiences of programme managers in executing their mandates.

Table 13: Summary of Category – Theme Assignment
(Source: Researcher, 2022)

Category	Theme
Properly seeding the initial programme definition/planning framework	Programme Execution Environment and Focus Areas
Key stages of the programme delivery cycle	
Managing the budgeting, finances, and business case development/reviews	
Procuring, contracting, and managing contracts	
The team environment	
Governing the programme through structures/processes	
Monitoring, measuring, and reporting performance	
Managing the programme pipeline (resource allocations and schedules)	
Delivery-centric approach	
Dealing with/responding to bureaucracy and strict prescripts during programme execution	

Category	Theme
Actions taken/attitudes adopted/demands raised by programme managers to enable progression of the programme	The Programme Manager
Actions taken/responses by programme managers in circumstances where things did not go according to expectations	
Defining the 'ideal' programme manager profile and accountabilities, setting, and managing expectations placed on the programme manager	
Decisions	
Relationship to 'instructions' (giving/receiving)	
The impacts on programme managers being newcomers to the programme and/or department(s)	
Actions taken by departmental stakeholders that result in programme managers being less effective at delivering programmes	Politics of Delivery (Positive/Negative/ Enabling/Disabling)
Engaging with and responding to the organisational politics/power relationships in play during programme delivery/execution	
Understanding and managing the complexity and dynamism of programmes. Responding to how stakeholders exploit chaos and confusion for their own purposes	
Actions/attitudes that typically result in enabling/empowering programme managers	
Establishing an authority/autonomy/accountability framework which allows the programme manager defendable freedom to work	
Managing relationships, building/breaking trust, and engaging with programme stakeholders	Relationships, Conflicts, and Understanding
Actions taken/attitudes adopted to remain engaged with the programme stakeholders whilst managing conflict and ensuring that all stakeholders are keeping the focus	
Establishing and maintaining understanding	
Organisational attitudes towards programme sponsorship, ownership, and role assignments	Organisational Attitudes to Programmes and Programme Management
Positioning and strengthening the programme management discipline in the department(s)	
Relationships with/demands placed on the accounting officer or director general	
Responding to the unique demands/impacts of running multiple projects in a programme approach	Change and Impacts of Adopting a Programme

Category	Theme
Understanding the frequency, type, magnitude, and impacts of changes introduced by and present in the business environment where the programme is executed	Management Approach
Multiplicity of departments and within a department (many divisions)	
Conducting annual strategic and performance planning whilst being responsive to external factors/environmental demands	Strategic Positioning and Time Impacts
Understanding the time/temporality dimension of programme execution	
Programme managers' most prominent work focus areas and attitudes towards stakeholders	Personal Engagement Approaches

4.4.3 Comparative analysis

Strauss and Corbin (1998) emphasise the importance of constant comparative analysis as a key feature of the grounded theory methodology. The researcher applied the constant comparative analysis technique by comparing all concepts to each other. This was done to identify similarities and differences, as well as to ensure consistency in the assignment of conceptual labels to the research participant experiences, observations, and concepts.

4.5 Chapter Conclusion

This Chapter described the fieldwork activities of the research project, commencing with the sampling and data collection processes. It described the data analysis process that iterated through three phases of initial, axial, and selective coding steps, and culminated in presenting the category-theme assignment upon which Chapter 5 is based. Chapter 5 will contribute to the making of meaning by presenting and discussing the themes identified through the selective coding process.

CHAPTER FIVE - DISCUSSION OF THE FINDINGS

5.1 Introduction

While Chapter 4 provided an overview of the fieldwork conducted, this chapter focuses on presenting and discussing the findings that culminated from the data collection and the analysis process.

The research findings are presented and discussed under eight key themes:

- i. the programme execution environment and its related focus areas;
- ii. strategic positioning and time impacts;
- iii. organisational attitudes to programmes and programme management;
- iv. change and the impacts of adopting a programme approach;
- v. relationships, conflicts, and understanding;
- vi. politics of delivery;
- vii. the programme manager; and
- viii. what the programme manager focuses on.

5.2 The Study's Findings

For each of the themes, one or more categories are identified that act as a summary to a range of findings. In discussing the findings, the convention that is applied is as follows:

Theme: Category (1-n): Finding (1-n): Applicable literature references in support or contradiction of the finding.

To emphasise the theoretical analysis, the researcher included verbatim passages and observations raised by respondents during the data collection process.

The first theme to be discussed addresses the programme execution environment and its related focus areas.

5.2.1 Theme 1: The programme execution environment and its related focus areas

The first theme to be discussed relates to the general programme execution environment. Figure 8 depicts the ten underlying categories which describe the experiences of programme managers in relation to the prominent attributes of the localised environment in which programmes are executed.

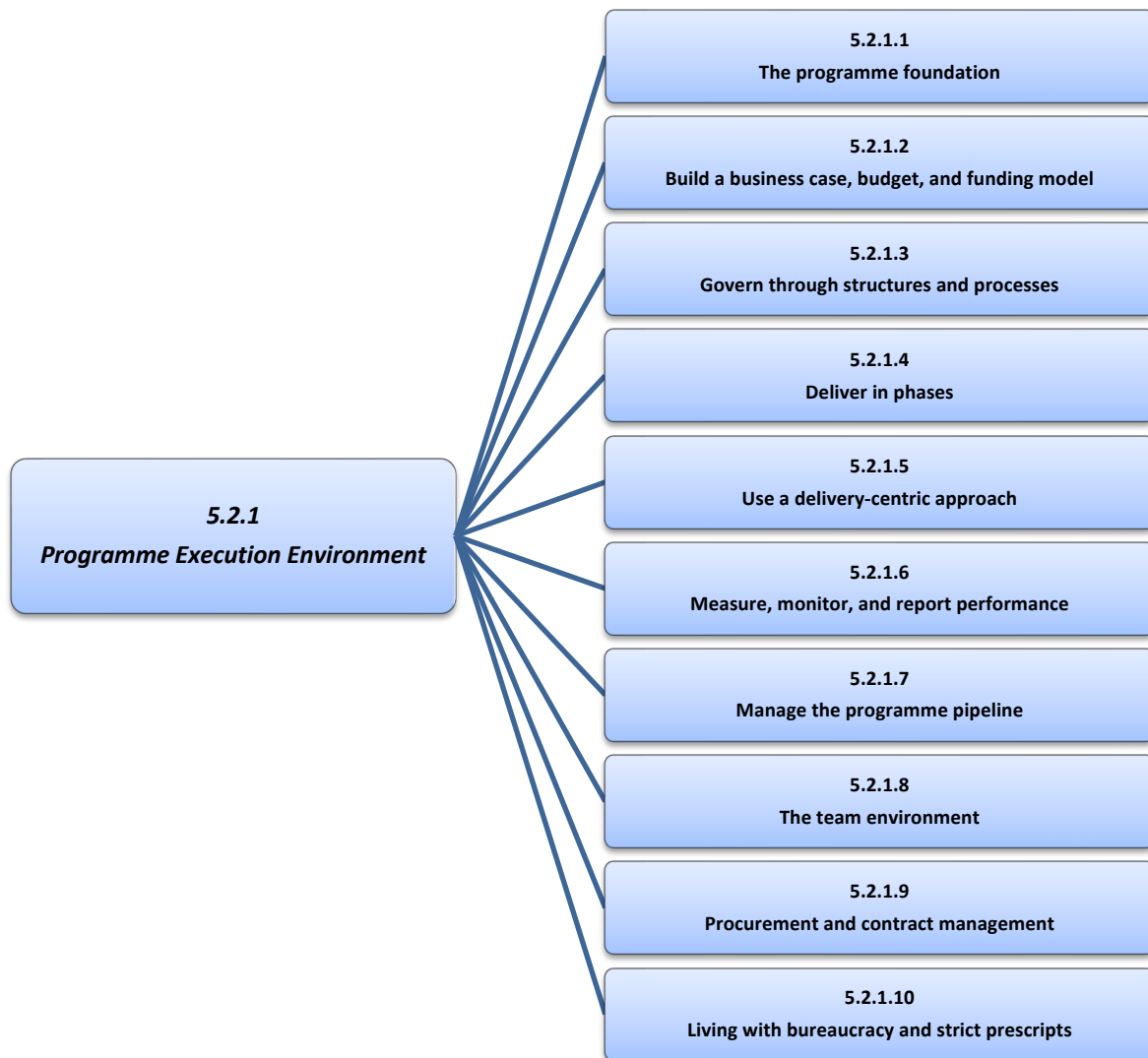


Figure 8: Theme 1 – The programme execution environment
(Source: Researcher, 2022)

5.2.1.1 Category: The programme foundation

This category comprises five key findings listed below.

- i. Public-sector entities use programmes to implement or realise business strategies.
- ii. Programme managers rarely participate in the definition of these business strategies but focus their energies on implementation.
- iii. Programme managers emphasise their need for a proper foundation to depart from.
- iv. Using foundational parameters established by the departmental stakeholders, programme managers will contribute to the establishment of an integrated programme conceptualisation.
- v. This detailed and integrated programme conceptualisation and definition establish the boundaries for the planning, quantification, and subsequent initiation of the programme activities.

5.2.1.1.1 Programmes to implement business strategies

The study found that public-sector entities use programmes to implement or realise business strategies. Didinsky (2017) and PMI (2017b) emphasise the utility of programmes to execute organisational strategy and to deliver strategic change. Ainsworth (2009, p. 1) stresses that “programs are often used to implement strategy, since they deal with very similar problems of ambiguity, uncertainty and innovation, and are also a good delivery system or method for ensuring strategy implementation occurs.”

In a changing business environment, programmes are strategic processes through which resources and competencies are mobilised to modify the conditions of the organisation in its environment. This is done to create competitive advantage and other sources of value (Bredillet *et al.* 2005; Lycett *et al.* 2004).

5.2.1.1.2 Programme managers do not define business strategies

Programme managers rarely participate in the definition of these business strategies but focus their energies on implementation. This finding is supported by Martinelli *et al.* (2014) who observe that it is the role and accountability of senior management to create mission and strategic goals.

Programme managers should actively shape the context in which programmes exist. They have the primary responsibility for establishing governance to successfully deliver the new capabilities and realise the expected benefits (Great Britain, 2011; Pellegrinelli, 2002).

5.2.1.1.3 Departmental heads establish programme foundations

In the South African public-sector context, the study found that departmental heads and functional business owners establish the programme foundation. This is done by appreciating and articulating the big picture, as well as by aligning business strategies with expected outcomes.

Respondent R7 emphasises the programme manager’s need for a proper foundation to depart from:

“Within our environment, we have short-term, medium-, and long-term planning from a strategic perspective. And everything that we’re achieving needs to align back to the delivery of a specific objective within our commitment to parliament at the end of the day.” (Respondent R7)

It is critical to establish, as early as possible, a connection between strategy and programmes, which frequently display high levels of uncertainty and ambiguity (Martinsuo & Lehtonen, 2007). Alignment involves understanding relative contributions of programmes to the organisation’s strategic objectives. It is also the degree to which the business strategy guides objectives and work outcomes of the programme delivery team (Hudson, 2017; Martinelli *et al.*, 2014).

5.2.1.1.4 Programme managers establish the integrated programme concept

Using the foundational parameters established by the departmental stakeholders, programme managers will contribute to the establishment of an integrated programme conceptualisation by using innovation and solutioning techniques. Subramanian (2015) emphasises the role of senior executives with programme accountability to engage in an

iterative visioning process to define the initial programme concept. Thiry (2004), Martinsuo and Lehtonen (2007), and Tam (2010) suggest that programme formulation is a proper decision-making process in an emergent and turbulent environment where sense-making, ideation, and evaluation of alternatives are used to formulate possible courses of action. It is a learning rather than a rationalised planning process.

5.2.1.1.5 The integrated programme concept establishes boundaries and context

This integrated and detailed programme conceptualisation and definition establish the boundaries for the planning, quantification, and subsequent initiation of the programme activities. This was observed by Respondent R13, a seasoned programme manager and head of an organisation's enterprise programme management office:

“... and the most important learning is that – it's probably the most important part of the programme – is the initial planning and scoping phase in order to manage expectations, because initially, you'll always have inflated expectation.” (Respondent R13)

Boundaries give direction to programme activities, explain exactly what the programme will deliver, and aid in the articulation of programme success criteria (Lycett *et al.* 2004; Martinelli *et al.* 2014). Lehtonen and Martinsuo (2008) asserts that the definition and shaping of the programme boundary creates legitimacy, requires scouting and negotiation for information, ensures continuity, and aids in guarding and isolating the programme from other organisational dynamics and influences.

5.2.1.1.6 Conclusion: Programme foundation

The literature reviews conducted in relation to the programme foundation findings confirm the experiences and expectations of programme managers in the South African public sector. The convergence between programme managers' experiences and the interrogated literature suggests that the importance of the programme foundation, as well as the relative accountabilities and processes to create it, are accepted and understood in the South African public sector.

Whilst interrogating the literature on programme conceptualisation, limited literature references were found on the use of ideation in the contexts of programme planning and general programme management. Ideation is frequently associated with project management and also appears in references that acknowledge that major innovation initiatives are sometimes structured or managed as programmes (Kerzner, 2013; Laine *et al.* 2016; Martinsuo & Lehtonen, 2007; Salerno *et al.* 2014; Tam, 2010; Thiry, 2004). Given that there is a strong relationship between programme and project management, the researcher proposes that ideation techniques could be applicable to general programme management and specifically to the initiation and planning phases.

Furthermore, since enterprise transformation programmes frequently include organisational innovation opportunities, the processes applicable to starting and planning the innovation cycle could also be of value in the enterprise transformation programme management context.

In addition to the need for a proper foundation and integrated conceptualisation, the study found that the South African public sector demands business cases, budgets, and funding

models for programmes, the findings of which are discussed in the next section.

5.2.1.2 Category: Building a business case, budget, and funding model

This category comprises four key findings.

- i. Programmes are dependent on approved business cases, which are developed by the departmental stakeholders.
- ii. There is inherent complexity in the budgeting and funding of programmes due to the multi-year nature of programmes being run in a public-sector environment, where budgeting and funding cycles are mainly focused on a single-year view.
- iii. The financial management legislative frameworks under which departments work (the PFMA, the Municipal Finance Management Act, and National Treasury regulations) impose strict constraints in respect of budgeting, expenditure, and risk management processes.
- iv. Programme managers emphasise the prudent financial management of their assigned budgets whilst being responsive to various emergent challenges in the financial management of programmes under execution.

5.2.1.2.1 Approved business cases precede programmes

Respondent R1 stressed the importance of approved business cases for programmes:

“At the end of the day, the programmes are driven ideally by a proper business case. Very often, it’s more of a qualitative business case than a hard numbers business case, but there is ... normally legislative reasons to drive some sort of change.” (Respondent R1)

Programme business cases are broader than project business cases. They include the wider strategic outcomes, and they holistically address the programme’s impacts and benefits to each individual business unit. Programme sustainability is measured by analysing cost elements, determining return on investment, and assessing risk associated with the intended transformation initiative (Al-Khouri, 2015; Great Britain, 2011; Makins, Nagao, & Bennett, 2012; Rajegopal *et al.*, 2007).

Programme managers are, or should be, actively involved during business case development (PMI, 2017c). This perspective is not aligned with the outcomes of this study. It found that in the South African public sector, departmental stakeholders are accountable for business case development whereas programme managers are generally not involved in the drafting of business cases.

5.2.1.2.2 Clashing horizons: Programmes and public-sector budgets

The study found inherent complexity in the budgeting and funding of programmes due to the multi-year nature of programmes being run in a public-sector environment. Budgeting and funding cycles are mainly focused on a single-year view, notwithstanding the adoption of a rolling three-to-five-year medium-term expenditure projection framework. The concern of Respondent R18 shines through in the following comment:

“So, the financial challenge of a yearly budget, and not understanding multi-year projects and programmes in a government situation, brings you to a halt. You stand dead until you have the approval to continue. ... Even if you

have a programme in motion, if that programme is not approved, it therefore doesn't have budget, it therefore halts.” (Respondent R18)

Programmes generally exceed the budget allocation period, therefore budget preparation is repeated regularly (Thiry, 2010). Government budgets generally follow ‘use it or lose it’ provisions, which require funds to be spent by the end of the financial year. Additionally, the process of motivating, approving, and subsequent implementation of the budget is lengthy. In this context, programme management could stimulate the combination of multi-year programmes across several dimensions: temporal sequencing and budgeting given the size and diversity of government entities and their projects; legal prescripts demanding fiduciary, managerial, and socio-political obligations; and expectations on programmes and projects to serve as stewards of the public interest (de Coning & Gunther, 2009; PMI, 2006a; Van der Waldt, 2011b).

5.2.1.2.3 Strict legal prescripts constrain programme budgeting, expenditure, and drives risk management

Respondent R3 bemoans the strict constraints in respect of budgeting, expenditure, and risk management processes demanded by the financial management legislative frameworks directing the activities of departments: *“In terms of resourcing and the acquisition of resourcing, things like the PFMA and the Preferential Procurement [Policy Framework] Act ... fetter progress significantly.” (Respondent R3)*

The PFMA and Municipal Finance Management Act are key pieces of legislation governing how South Africa’s public-sector entities should conduct budgeting and financial management. The application of these acts is further ‘empowered’ through National Treasury regulations and technical guidance documents. These clearly prescribe budgeting processes for projects and, by extension, programmes.

National Treasury budgeting guidelines also refer to ‘programmes/sub-programmes’ where these are directed towards how departmental budget votes are structured. They do not refer to the transformational and modernisation programmes that this thesis investigates. The budgets for these transformational and modernisation programmes are lower-level entries in the major programme or sub-programme budget votes.

In addition to these Acts, departments must also strictly adhere to the Preferential Procurement Policy Framework Act, 5 of 2000, the Preferential Procurement regulations (2017), tender processes, National Treasury regulations, and supply chain management guidelines when engaging in programme and project initiation and execution, outsourcing, and the procurement of programme and project resources.

National Treasury’s Framework for Strategic Plans and Annual Performance Plans directs departments to produce and table a strategic plan with a five-year planning horizon. It also directs the outlining of planned sequencing of projects and programme implementation and associated resource implications. This strategic plan must be augmented with the drafting and submission of an APP documenting a two-year forward-looking projection and consistent with the MTEF period, with annual and quarterly performance targets. The Framework also demands indicators to aid monitoring of institutional performance and quarterly reporting to executive authorities and political constructs (National Treasury (South Africa), 2010).

5.2.1.2.4 Local dynamics impact programme financial management

The study found that although a strong emphasis is placed by programme managers on prudent financial management of their assigned budgets, various challenges emerge in the financial management of programmes under execution. Key challenges include the alignment of the budgeting cycle with the programme duration, changes being made to the budgeting and funding allocation approach in any given year, stakeholders disengaging from programme execution given specific budget allocations, as well as negative budget and financial impacts due to programme extensions or delays.

Programme management executive Respondent R3 confirms the realities:

“Your budgeting process is annual. It’s discrete. It’s cash-based, and programmes don’t pay attention to 1st April to 31st March. They tend to cross those things, and ... so, your accounting systems are more complex. So, commitment accounting is what one needs for effective project, for me, for programme management. Whereas in the state, in general, they use cash accounting.” (Respondent R3)

de Coning & Gunther (2009) confirm the difficulty of programme managers being held accountable for financial expenditure when financial decisions are taken outside of their domains. It thus becomes imperative that budgets are earmarked in the relevant departmental contexts to ensure that accountability remains appropriately assigned.

Although not expressed by the interviewed programme managers, various reasons may be offered for cost overruns, programme extensions, or delays being incurred. According to Patanakul (2014), cost overruns are induced by initial cost estimates lacking realism, underprovided contingencies, insufficient consideration of changes to project specifications and designs, as well as fluctuations in exchange rates and prices. Problems at management level, lack of oversight, and deficient reviews also result in schedule delays, missed opportunities, and cost overruns.

5.2.1.2.5 Conclusion: Building a business case, budget, and funding model

The literature searches conducted in relation to the business case, funding, and budget findings mostly confirm the experiences and expectations of programme managers in the South African public sector. The convergence between programme managers’ experiences and the literature suggests that their concerns are real and are indicative of a complicated environment that might be less empowering than is ideal.

In addition to the complex financial governance parameters that programme managers must respond to, the study found another dynamic programme governance layer, discussed in the next section.

5.2.1.3 Category: Govern through structures and processes

This category focuses on the structures and processes used for programme governance and comprises seven key findings.

- i. Programmes require effective and efficient programme governance structures and processes.

- ii. Public-sector entities approve of programme steering and oversight committees (programme governance boards). Programme managers are concerned about committees being suboptimal in their functioning.
- iii. There appears to be a perceived lack of understanding by departmental stakeholders on the use and functioning of programme governance structures, whilst the need exists for governance structures to mature.
- iv. Personal attitudes of programme stakeholders towards governance impact the effectiveness of governance structures and processes.
- v. Composition (assignment and selection of participants to serve) of the steering committees or oversight committees influences effectiveness.
- vi. Programme governance is hierarchical, onerous, highly bureaucratic, and sometimes approaches being over-governed. Compared to private-sector governance requirements, public-sector governance approaches are more defined and highly specific.
- vii. Programme managers and programmes are impacted when changes are made to governance structures and processes during programme execution.

5.2.1.3.1 Programmes need effective governance structures

The study's respondents emphasised the importance of and need for effective and efficient programme governance structures and processes. Programme governance is a discipline directing the establishment of both the structure and practices necessary to strategically guide the programme and to provide executive leadership, oversight, and control. It establishes and maintains the link to the enterprise business strategy and direction, and it enables the political climate for stakeholder engagement. All roles and responsibilities, including decision-making responsibilities, are directed by the programme governance framework.

In the programme's political milieu, programme governance strengthens the commitment of knowledge and resources to the enterprise and should be adaptable to the environmental needs and to the needs of various kinds of programmes. Appropriate programme governance also empowers middle managers to apply practices of high-performing organisations to organise teams, and adapt to their organisation's internal and external environmental complexities (Didinsky, 2017; Hanford, 2012; Müller & Blomquist, 2006; Ward *et al.*, 2013).

5.2.1.3.2 Programme steering committees exist but need improvement

The study revealed that public-sector entities approve of programme steering and oversight committees, also called programme governance boards. Programme steering committees are useful to define and implement apt programme governance practices and are customarily staffed with insightful individuals with decision-making authority (PMI, 2017c).

Mabelebele (2006) emphasises that South African public-sector programmes are delivered in an unpredictable political environment amid contexts of power and authority. This environment exhibits a fluency involving political heads making political decisions which may not always be complementary to programme governance methodologies.

Watermeyer and Phillips (2020) advise accounting officers and authorities to appoint steering committees staffed with senior executives to maintain accountability for programme delivery,

guide prioritisation, and to effect project and budget control for the programme.

The study, moreover, found that steering committees mostly do not function optimally in the South African public-sector milieu, as emphasised by Respondent R17:

“In [the] public sector, my experience is, even though we have the capability to deliver that ..., it is complex because of our governance structures. Our governance structures almost inhibit a large, long-running programme.”
(Respondent R17)

Patanakul *et al.* (2016) confirm that governance is a significant concern in managing public-sector programmes. For most programmes, the lack of management control and oversight results in poor performance. This is in large part being influenced by steering committees facing numerous challenges impacting their effectiveness. Key challenges include:

- i. imprecise definitions of roles and responsibilities of committee members, programme managers, and project teams;
- ii. incompetence of steering committee and programme personnel to manage programme and project phases;
- iii. erroneous escalation of issues to the steering committee that should rather be dealt with in programme manager domains;
- iv. the steering committee misdirecting its focus towards operational matters rather than providing strategic direction;
- v. malformed steering committees as regards an excessive number of delegates and inflexibility of approach; and
- vi. overburdened delegates unable to spend sufficient time on their roles and responsibilities as steering committee members (Elonen & Artto, 2003).

5.2.1.3.3 Programme governance structures are misunderstood and immature

“Very often, if you come into a public-sector organisation, a lot of these governance structures don’t exist. There isn’t that ... maturity in terms of having established governance structures that a programme can fit in to.”
(Respondent R1)

This observation from Respondent R1 suggests a particularly negative locus in the continuum of observations on the need for governance structures to mature. Simultaneously, other respondents raised a perceived lack of understanding by departmental stakeholders on the use and functioning of programme governance structures.

PMI (2018) finds that a key obligation of steering committees is to offer an independent voice of reason while addressing the causes of a conflict from different perspectives. This benefit is diminished when steering committee members are unsure about their roles in environments where multiple levels of authority exist, as frequently found in the public sector (Marnewick & Labuschagne, 2011).

According to Khan *et al.* (2017), one way of improving organisational programme governance structure maturity is for the programme steering committee to engage with programme customers to promote mutual understanding and co-operation. Improvements in organisational programme governance structure maturity advance the culture of co-operation between the organisation, its programmes, and its projects, resulting in a reduced effort needed to maintain such engagements.

Another effective, but uncommon approach in the public-sector milieu, is to support steering committee members and other accountable programme stakeholders with training and mentoring arrangements, thereby improving steering committee effectiveness and maturity (KPMG, 2011).

5.2.1.3.4 Personal attitudes impact effectiveness of governance structures and processes

Respondent R1's next observation clearly demonstrates that the personal attitudes of programme stakeholders towards governance impact the effectiveness of governance structures and processes:

"People don't like the governance; they don't like the pressure to make decisions. ... People are almost incentivised to find ways as to why things shouldn't happen, rather than actually progressing a [programme] so that it does happen." (Respondent R1)

Most programme management literature references suggest that programme governance is of critical importance and offer broad, technical governance frameworks for consideration during programme execution.

The above finding, however, appears to be a knowledge gap in the programme management literature. No literature could be found that references addressing the personal attitudes of programme stakeholders towards programme governance.

5.2.1.3.5 Steering committee effectiveness: Choose wisely who serves

The study found that the assignment or selection of participants to serve in steering or oversight committees influences the committees' effectiveness. A base requirement for building an effective steering committee requires assignees to have organisational insight and decision-making authority. These are typically executive-level assignees and should be selected to contribute to the specific domains needed by the programme. Assignees should contribute with strategic insight; technical knowledge; contextualising of functional responsibilities, operational accountabilities, and organisational portfolios; and representing important stakeholders and functional support groups.

In relation to personal role behaviour, steering committee members ought to lead by example and exhibit commitment and direct involvement. A well-constituted steering committee will improve programme governance activities and be well positioned to resolve issues or questions emerging during the life of the programme (Crawford *et al.*, 2008; PMI, 2017b).

5.2.1.3.6 Overburdened by hierarchical, onerous, and highly bureaucratic governance

Although perceptions of governance effectiveness varied amongst respondents, the general observation that emerged during the study is that governance is hierarchical, onerous, highly bureaucratic, and sometimes approaches being over-governed. Compared to private-sector governance requirements, public-sector governance approaches are more defined and highly specific.

Respondent R18 summarises her experience:

"... and that's what's different in government to private, is the governance. The governance in government is longer, more specific, defined, and delegated. You have to go through a hierarchy. You have to have all the

paperwork... There's a lot more governance and red tape in government than there is in private." (Respondent R18)

Public-sector organisations mostly operate within hierarchical structures not conducive for programmes and projects which frequently require flatter, matrix-based structures. Hierarchical structures dictate accountability arrangements, span of control, delegations of authority, and priorities. It also commands the location of programme management offices, programme support structures, and steering committees.

Public-sector bureaucracy complicates the delegation of authority and assignment of responsibilities to lower-level managers. Responsibility is assigned to programme managers located on lower tiers of the hierarchy but without the authority to make resource allocation decisions. The resulting responsibility and authority gap particularly complicates programme management (Van der Waldt, 2007, 2011b).

5.2.1.3.7 In-flight changes to programme governance structures and processes are destructive

The study found that programme managers and programmes are impacted when changes are made to governance structures and processes during programme execution.

Respondent R17's thought captures the situation:

"The first thing that comes to mind is changing governance structures. So, you would start off with a specific instruction, only to find out additional committees, divisional committees, quarterly meetings are being instituted as you are in flight. ... I think the most frustrating is the time delays and the changes of those governance processes whilst you are busy with the process." (Respondent R17)

The Office of Government Commerce (2009) and Ward *et al.* (2013) confirm that programmes can be destabilised through uncertainty and delays when governance structures change. Changes made in programme personnel assignments is another impediment that should be carefully considered.

5.2.1.3.8 Conclusion: Govern through structures and processes

The literature searches in relation to the programme governance structure and process findings suggest that the experiences and expectations of programme managers in the South African public sector align with other research findings and observations.

The researcher suggests that programme stakeholders ought to carefully consider the needs for establishing and maintaining an enabling governance environment for programme success. The technical demands of establishing governance structures and processes need to be balanced with the human dimensions related to stakeholders' personal attitudes towards programme governance.

The selection, induction, and continued support to programme stakeholders in their governance roles appear to be particularly problematic. In this context, more research is required on personal attitudes towards programme governance, especially in the unique context of public-sector organisations.

The study found that, notwithstanding the need for and complexities around high-level

governance structures and processes, programmes in the public sector tend to follow a phased delivery process, discussed in the next section.

5.2.1.4 Category: Deliver in phases

This category reveals the finding that public-sector programmes generally use a phased programme planning and execution methodology.

Commonly used programme management industry standards and prominent authors (Didinsky, 2017; Great Britain, 2011; ISO/TC258, 2017; Ohara, 2005a; PMI, 2013; Thiry, 2004, 2010) acknowledge the occurrence of a programme lifecycle broadly aligned to this research finding. Respondents collectively confirmed that public-sector programme activities are mainly grouped into three macro phases that address: the primary focus areas of setting up and starting off, programme delivery and risk management, and finishing and closing the programme.

Programme phasing enables a continuous transitioning from commencement to closure, both for the programme and individual projects. Iterating through programme phases enables the underlying programme components to be organised, managed, and integrated. In respect of monitoring progress, different deliverables signify completion statuses and business benefit realisation markers during this phased transitioning.

Ohara (2005a) emphasises the importance of programme phases to breach uncertainty and maximise the use of programme assets in an unpredictable environment and under changing circumstances. This finding was not unexpected in the broader context of the public-sector organisations' existence and functioning, and it logically flows from the preceding three findings.

Adopting a phased planning and execution methodology in conjunction with a delivery-centric approach, the findings of which are described next, ostensibly address the demands of the legislative, regulatory, and governance frameworks directing the strategic and operational functioning of the organisations.

5.2.1.5 Category: Use a delivery-centric approach

This category highlights the importance of selecting a programme delivery approach compatible with the demands of the public sector. It comprises three key findings.

- i. There are clear differences between public- and private-sector programmes with respect to drivers, justifications, funding approaches, delivery impacts and outcomes, and programme failure implications.
- ii. Programme managers questioned the wisdom and practicality of embarking on multi-year programmes since some of those programmes appear to struggle for survival as time passes.
- iii. The adopted programme delivery approach needs to focus on enabling value and technical delivery and should be attuned to the realities of the public sector.

5.2.1.5.1 Different drivers for public- and private-sector programmes

The study found that there are clear differences between public- and private-sector programmes. This is with respect to drivers, justifications, funding approaches, delivery

impacts and outcomes, and programme failure implications. Respondent R13 forcefully highlights these key differences.

“I’d say the basic principles and philosophies stay the same. I think the bar for improvement in the private sector is maybe not as low as in the public sector. ... So, you don’t find that the programmes of radical change [are] as severe as in the public sector ..., and you find that the appetite for multi-year, large magnitude programmes are less in private sector than in the public sector because there’s a bigger focus on short-term profitability and sustainability. ... And you don’t ... necessarily always [find] the same amount of money assigned to projects than running the business. And the other big difference is, you tend to find a more capable operational management cadre in private sector that can absorb more of the workload than sometimes experienced in public sector, where a lot of the responsibility of the sponsor and the owner is dumped on the project manager, and for the sake of the interest of the programme there’s no option for the programme manager but to do a bit more than what is normally or what should normally be the case. And you find that sponsorship and the passion for project success is a bit higher in the private sector.” (Respondent R13)

Van Der Waldt (2011) found several factors that amplify the uniqueness of the public sector when compared against the private sector. These differences are likely to influence the selection of programme delivery approaches that directly impact on programmes and programme managers. Table 14 summarises these factors across general and specific dimensions.

Table 14: Key Differences Between Public and Private Sector
(adapted from Van Der Waldt (2011))

General Differences between Public and Private Sector	
<ul style="list-style-type: none"> • Political realities shorten the time horizons in which public-sector programme deliveries should be completed • Performance measurement is more complex in public sector • Public sector faces personnel constraints • Public-sector activities are more exposed to public scrutiny • Public-sector decisions are often anticipated by the media • A wider range of pressures influence a particular policy direction • Increased exposure to legislative and judicial impact • Public-sector managers are not driven by a ‘bottom line’, while private business managers face specific demands of profit, market performance, and survival 	
Specific Differences between Public and Private Sector	
<p>Entrepreneurs establish private businesses because they see the possibility of profit.</p>	<p>Government establishes public-sector institutions to satisfy the needs, desires, and demands of the public.</p>

Private businesses aim to maximise profit and minimal losses because the market will eliminate a continually loss-making business.	Public-sector institutions aim to provide the best service to the community within prescribed budgets.
Private businesses are self-serving by not having any moral obligations towards the community but rather to protect their own well-being and that of their investors.	Public-sector institutions generally strive for the well-being of the average community, irrespective of race, colour, or creed.
Private businesses risk their own reserves and obtain funds by means of loans, shares, and profit.	Public-sector institutions are predominantly financed from taxes, meaning that public-sector institutions are public property.
Private business activities are private, and they do not have to publicly report their transactions.	Public-sector institutions are established by government intervention and financed from taxes; therefore, they are responsible and accountable to the public.
Private businesses are distinct legal entities and are generally not directly affected by political movements, elections, or even political parties.	Public-sector institutions are politicised and institutional entities.
A private business is a legal entity and must in all respects comply with the letter of the law concerning its functioning and practice.	Public-sector institutions are generally responsible for the implementation of the law.

5.2.1.5.2 Questioning the practicality of multi-year programmes

A particularly interesting observation of this study is the perspective of programme managers who questioned the wisdom and practicality of embarking on multi-year programmes since some of those programmes appear to struggle for survival as time passes. Their concern appears to be informed by the variability in strategic focus during the annual prioritisation and budgeting cycle.

In-flight programmes become caught up in the loss of continuity between financial years when the annual process of setting priorities introduces new strategic and operational focus areas without considering the main concerns of the previous year or even years. Programmes therefore could be cancelled or face a diversion of resources to new initiatives, resulting in a slow and protracted demise. Respondent R18 verbalises the observation:

“I’m not sure that public sector delivers programmes because we work from year-to-year in our budget. ... Every year is a new budget speech, and the budget speeches don’t always continue with what was in last year. ... So, what happens is, they start off with a good intent: This is a programme of work we are going to do. And then in next year’s budget speech, there’s seventeen other things. ... What happens to those programmes that were started last year? They stop and re-start something different now. Or they drag out for thirty years because they’ve now gone to the backburner, and they leave just one person there just to keep it bubbling. ... Even though we must give an MTEF of three years, or five years, ... we change our minds in a year. And there’s very little continuity. ... But as programmes of thought, is there continuity in government?” (Respondent R18)

Mabelebele (2006) emphasises that a constricted public-sector planning cycle particularly challenges the planning and implementation of multi-year programmes. The annual adjustments to short-term priorities, although expected to be aligned with the organisation’s strategic plan and MTEF, introduce contextual changes that influence the long-term characteristics and trajectories of programmes.

The time-horizon and long-running nature of programmes significantly impact their manageability. Long-running programmes are particularly prone to failure and can become easy targets for internally and externally triggered challenges such as campaigns of critics, responses to which then find their way into the annual organisational strategy adjustment process, resulting in programme continuity challenges (Jiang, Klein, & Fernandez, 2018; Pellegrinelli, Murray-Webster, & Turner, 2015; PMAJ, 2005; Ritson, Johansen, & Osborne, 2012; Sauer & Willcocks, 2007; Thiry & Deguire, 2007).

5.2.1.5.3 Adopt a delivery approach attuned to the public-sector realities

Notwithstanding the differences observed between public- and private-sector contexts, as well as the perspective that questions the feasibility of long-running public-sector programmes, respondents to the study emphasised the importance of adopting a programme delivery approach that is attuned to the realities of the public sector and focuses on enabling business value and technical delivery.

Table 15 identifies factors that may potentially impact on a programme delivery approach’s efficacy or suitability for the public sector (Van der Waldt, 2011b). The selection of an approach to change the dynamics of a long-established and complex administrative system is difficult (OECD, 2017). Heeks (2003) suggests that the selected approach must enable the resolving of several challenges, such as the disconnect between institutional capacity and problems being faced, and the amount of change to close the gap between current realities and future designs. The selected approach particularly must enable closing large design-reality gaps across three major dimensions:

- i. Hard-soft gaps emphasise the disconnect experienced when a public-sector entity attempts to introduce a ‘hard’ technology into an environment that is dominated by ‘soft’ factors: people, politics, emotions, and culture.
- ii. Public-private gaps emphasise the disconnect experienced when attempts are made to introduce solutions and approaches with excessive private-sector influences into the public sector, which has very different dynamics.

- iii. Country context gaps emphasise the disconnects experienced when attempts are made to introduce changes and solutions designed in and for industrialised nations into a developing or transitional country.

Table 15: Factors Potentially Impacting the Efficacy of the Programme Delivery Approach
(adapted from Van Der Waldt, 2011)

- Political milieu
- Programme and project management maturity in government
- Developmental nature of programmes and projects
- Statutory and regulatory framework
- Public service ethos and management culture
- Organisational structures and practices
- Programme funding: feasibility and value for money
- Programme and project management standards: PMBOK's government extension and GAPPS
- Programme management competency profiles
- Programmes in a fishbowl: openness, transparency, and accountability
- The programme customer

5.2.1.5.4 Conclusion: Use a delivery-centric approach

The literature reviews conducted for this category highlight and support the demands that should be addressed when public-sector entities select a programme delivery approach.

The public sector fundamentally differs from the private sector in relation to organisational drivers and mandates. The long-term nature of programmes exposes them to risks, such as groups of critics and variability in the annual prioritisation and budget allocation process. The selected programme approach must therefore be able to deal with these emergent challenges.

A strict legislative and regulatory environment demands the delivery of business value with the minimum of wastage. Several design-reality gaps are prevalent in the public sector, to which the selected programme approach must be sensitive.

Apart from the need to select a delivery-focused programme approach, the study found that there is an interesting dynamic in the context of programme performance reporting. This finding will be discussed in the next section.

5.2.1.6 Category: Measure, monitor, and report performance

This category highlights the experiences of programme managers in relation to programme performance measurement, monitoring, and reporting in the public sector. It comprises three key findings:

- i. Programme monitoring, reporting, and performance measurement occur across several indicators, which extend beyond tracking programme delivery and execution to also include the impacts of the programme in the operational context.

- ii. Reporting occurs over regular intervals, across multiple organisational levels, and address multiple stakeholders.
- iii. In some environments, improvements were not tracked, nor were progress actively managed, resulting in perceptions of things not being under control.

5.2.1.6.1 Programme performance reporting indicators and frequencies

The study found that a comprehensive and regularly occurring monitoring, reporting, and performance measurement process exists in the public-sector programme environment. Reporting frequencies span monthly, quarterly, half-yearly, and annual periods across multiple organisational levels and address multiple stakeholders. Reporting contents include several indicators that track programme delivery and execution, as well as programme impacts in the operational context.

Amongst others, respondents identified expenditure, achievements and failures, progress against schedule, and alignment with macro indicators and strategic expectations as key metrics being reported on. Performance measurement in this setting involved instrumenting of information, establishment of dashboards, and the use of national league tables.

Programme managers must use contracted key value indicators to track and report progress as a critical element of programme communications, given that it supports both programme governance and stakeholder engagement (PMI, 2017c; Subramanian, 2015). According to ISO/TC258 (2017) and Great Britain (2011), comprehensive programme reporting enables stakeholders to monitor overall programme and programme element progress; issues, risks and opportunities; programme element deliverables; and progress on the delivery of expected benefits and associated business performance. While timely, complete, and relevant information enhances the monitoring of programmes, a balance needs to be struck between programme level and detailed project reporting.

Regularity in constituent project reporting helps to keep the programme on track (Great Britain, 2011; Thiry, 2010). Chapter 4 of the Framework for Strategic Plans and Annual Performance Plans (National Treasury (South Africa), 2010) defines the frequency and types of reporting needed to be submitted to National Treasury, and by extension, drives the programme reporting requirements and frequencies within departmental boundaries.

Schoen and Light (2013) and Martinelli, Waddell, and Rahschulte (2014) emphasise the value of simple executive dashboards relaying a programme's core execution and business outcomes metrics. When this is balanced with analytical rigour, it draws the attention of public-sector managers to where action and decisions are needed. This contrasts with the Presidency (South Africa) (2013), which positions an elaborate reporting and monitoring system in use by South African public-sector managers, decision makers, and other stakeholders. This national system is implemented for regular feedback on implementation progress and early indicators of problems requiring correction. The system collects and analyses data on inputs, activities, outputs, outcomes and impacts, as well as external factors that facilitate reporting on actual performance against what was planned or expected.

5.2.1.6.2 Some environments do not track progress

Surprisingly, and in complete contradiction to the earlier finding on maturity and frequency of reporting, respondents to the study revealed that they occasionally worked in environments where improvements were not tracked nor were progress actively managed. This resulted in

perceptions developing of a complete lack of control. One respondent's notion of 'flying blind' is an extreme example where the environment was not supportive of measuring performance, reporting, and monitoring in a programme context.

5.2.1.6.3 Conclusion: Measure, monitor, and report performance

The literature search results in context of this category confirm the observed practices related to measurement, monitoring, and reporting in programme contexts. The researcher notes that, although respondents confirmed the measurement, tracking, and reporting of progress in the programme context, most of the respondents relayed project-specific approaches in the interviews. The researcher submits that this does not invalidate the need for measurement, monitoring, and reporting in a programme context. Rather, this suggests that multiple approaches could be utilised to address this requirement.

In relation to the last reported finding of seeming dysfunctionality in measurement, monitoring, and reporting practices, no representative literature search results were found. This might be an opportunity or subject area for consideration in future research efforts.

The study found that programme managers approach the delivery of the programme by managing it as a pipeline in which demands, resource allocations, and priorities are organised using a progressive planning and scheduling approach. These findings will be discussed in the next section.

5.2.1.7 Category: Manage the programme pipeline

This category highlights the observations and experiences of programme managers in relation to them managing multi-variate programme delivery pipelines. It comprises four key findings listed below.

- i. The programme pipeline is influenced by priorities, temporal and functional requirements, and decisions on delivery approaches and sequencing.
- ii. A holistic approach is needed to determine programme resource allocations.
- iii. Preference appears to be given to a programme planning approach focusing on first establishing major building blocks and then perfecting these in later refinement iterations.
- iv. Project scheduling approaches aim to deliver individual projects as speedily as possible.

5.2.1.7.1 Factors influencing the programme delivery pipeline

The study found that several factors influence the programme delivery pipeline. These include priorities and the dynamics around agreeing to them, temporal requirements for problem analysis and resolution, decisions related to how and when to deliver, sequence of delivery, as well as understanding the function and importance of all the key building blocks.

Patanakul and Milosevic (2009) highlight the importance of building a proper pipeline by grouping projects, aligning their schedules, and harmonising them to available resources to minimise the unpredictability in programme manager workloads.

Brown *et al.* (2014) emphasise a different perspective on programme pipelines where transformation is facilitated through technology. In this context, the collaboration of multiple teams to progress one or more technology solutions from concept to deployment forms a

different and lower-level pipeline of activities, typically managed in project-specific circumstances. This creates an environment of pipelines within pipelines, each with specific emphasis, but working towards a greater outcome.

Programme managers collaboratively visualise and construct the programme pipeline by crafting and maintaining an integrated programme schedule. This encompasses projects, subsidiary programmes, and other operational efforts undertaken to deliver contracted programme outputs and outcomes. The integrated programme schedule also includes domains focusing on lifecycle costs, budget, funding management and expenditure tracking; assessments of change impacts; programme configuration management; legal issues not typically associated to project contexts; initial operations; and risk management (PMI, 2017c; Prieto, 2008).

5.2.1.7.2 A holistic programme delivery pipeline is needed

The study moreover found that effective programme pipeline management demands that a holistic approach is needed to determine resource allocations. In determining the resource requirements, respondents consider active project requirements, the multi-year programme timeframe, as well as whether resources are assigned part-time or dedicated for the total duration or portions of the programme in question.

A pitfall emphasised by Lycett, Rassau, and Danson (2004) is that there is an element of competition between projects in a programme environment, which leads to rivalries in securing specific resources and to achieve high prioritisation.

This unpredictability can be minimised by instituting a decision management process that facilitates prioritisation and allocation of resources in an environment characterised by multiple and possibly competing projects. The process is expected to compare projected results or benefits against the resources required to deliver the anticipated results. It involves a stepwise analysis of resource requirements and activity durations once major strategic milestones are agreed. Priority assignment follows, whereafter the planning effort is concluded with the scheduling of individual projects on a master programme schedule, confirming the time and resource windows needed to progress the programme (Prieto, 2008; Stretton, 2013; Thiry & Deguire, 2007).

5.2.1.7.3 Schedule projects to deliver at speed

Once a programme pipeline was established and the allocation of resources was concluded, respondents to the study appear to have adopted a planning and delivery strategy that focuses on first establishing major programme building blocks, which would then be perfected in later delivery phases or refinement iterations. In conjunction with this strategy, the study found that underlying project scheduling approaches were adopted that aimed to deliver individual projects as speedily as possible. These strategies correspond with the requirement of early and incremental benefit realisation and establishes a basis for changeover and integration of new capabilities (PMI, 2017c).

A mechanism for business-project alignment is established by combining the non-linear and concurrent strategy analysis and formulation process with implementing project outputs in a rolling wave comprising multiple project groups (Lycett *et al.* 2004; Thiry & Deguire, 2007).

Organisational agility is the ability of organisations to change or react quickly to changing environmental conditions. In the programme delivery context, it results in decreasing the time required to deliver a new capability, thereby improving the time-to-benefit advantage. Sequentially driven, or 'waterfall', development approaches are progressively being replaced by concurrent, or agile, programme and project management and technology development approaches. Agile approaches and tools place the focus on incremental and iterative delivery where change is embraced, stakeholders are constantly engaged, and the value is frequently delivered (Didinsky, 2017; Martinelli *et al.* 2014; Pellegrinelli, 2011).

As noted in the findings related to resource allocations and management, individual project schedules are consolidated into the programme schedule to determine distinct programme packages, forecast programme and individual project completion dates, as well as programme milestone finish dates (PMI, 2006d).

5.2.1.7.4 Conclusion: Manage the programme pipeline

The literature search results corroborate the findings related to adopting an overall pipeline management approach in programme contexts. The researcher submits that, although the use of the pipeline approach appears to be acceptable and prevalent in the public-sector programme context, no assumption should be made relating to the actual maturity or efficacy in the application of the pipeline approach.

As hinted in the findings related to programme pipeline management, the programme resources, and specifically human team members, require special attention. The next section will discuss findings related to how programme managers build, manage, and utilise teams in the delivery of programmes.

5.2.1.8 Category: *The team environment*

This category highlights the observations and experiences of programme managers in relation to the dynamics around building, managing, and utilising teams to enable the delivery of public-sector programmes. It comprises the six key findings listed below.

- i. There is a powerful expectation for programme managers to assume both management and leadership roles in the team context.
- ii. Emphasis is placed on using teams exhibiting a strong delivery focus ('a team that can').
- iii. Emphasis is placed on team empowerment, mobilisation, and maintaining forward momentum towards delivering the programme.
- iv. A highly unionised environment and stringent employment legislation complicate the management of programme teams and their related human resources.
- v. Programme managers must navigate programme delivery within the realities of a highly diverse human resource context.
- vi. Programmes receive the benefit of having highly capable public-sector staff members assigned.

5.2.1.8.1 Assuming management and leadership roles in the programme context

The study found that there is a powerful expectation for programme managers to assume roles directed at both managing and leading the team or teams participating in the programme delivery activities. Kreitner and Kinicki (2001, p. 6,551) define 'management' as

“the process of working with and through others to achieve organizational objectives efficiently and ethically.” Also, they define ‘leadership’ as “influencing employees to voluntarily pursue organizational goals.” First principles of programme management emphasise the delivery of business results to organisations. This can only be achieved with co-ordinating and integrating the work of others in managing the programme (Martinelli *et al.* 2014).

Bojeun (2014) submits that beyond programme management, programme success is contributed to by leadership and the ability of the team to trust in the leadership. Programme managers are increasingly expected to advance from managing the programme management process to becoming leaders who, through artful motivation and focusing of team members, deliver benefits and contribute to perceptions of the key stakeholders in order to ensure the programme is a success (Dettmer, 2006; Rayner & Reiss, 2013).

5.2.1.8.2 High-performance teams

“I think the quality of the delivery teams was undisputable. I mean, it makes a difference that you actually have a team ‘that can’, instead of a team ‘that cannot’. It was the team from the top to the bottom – ‘you can’. And that makes a huge difference.” (Respondent R18)

Respondent R18’s comment highlights the study’s finding that emphasis is placed on utilising teams exhibiting a robust focus on delivery or on high-performance teams. Al-Khouri (2015) stresses that an enabling environment must be established to allow high-performance teams in the programme context to be successful. Key characteristics include:

- i. clarity – common understanding about the purpose, goals, and programme direction;
- ii. culture – entrenched value system emphasising integrity, trust, honesty, and commitment;
- iii. alignment – team member interests must be aligned and focused;
- iv. people focus – sufficient focus on the ‘soft’, people-oriented issues that can disrupt a complex programme; and
- v. a core project team – concentrate accountability for decision making, scenario analysis and planning, team alignment, and escalations and resolution of programme issues in a small group of individuals.

High-performance teams thrive in well-structured environments that support effective communication of expectations amongst themselves and stakeholders and enable co-ordination of activities and interdependent outputs. According to Bojeun (2014), high-performance teams display common key characteristics:

- i. Common focus through clearly stated purpose and goals.
- ii. Vitality in willingness to experiment and be creative.
- iii. The ability to produce what is required when it is required.
- iv. A dynamic team clarifies roles and responsibilities for all its members.
- v. Activities commence with the definition of protocols, procedures, and policies. Team structure allows the team to meet the demands of any tasks it must handle.
- vi. Leadership that regularly records their team’s knowledge, skills, and talents.
- vii. Dynamic teams share leadership roles among members.

- viii. Synergy through team membership who enthusiastically work well together with a high degree of involvement.
- ix. Managing conflict and disagreements through honest discussion and tempered by mutual trust.
- x. Direct and honest communication in an atmosphere of trust and acceptance.
- xi. Well-established, proactive approaches to solving problems and making decisions.
- xii. Routine self-examination to direct “continuous improvement” and “proactive management.”
- xiii. Effective, productive, well-managed meetings that efficiently use team members’ time.
- xiv. Frequent recognition of individual and team accomplishments.
- xv. Enthusiasm about the work of the team, and each person feels pride in being a member of the team.
- xvi. Using conflict to build the team instead of destroying it.

An enabling leadership style imposed by the programme manager also influences the level to which the high-performance team will drive for success without management intervention. This leads to such a team becoming ultimately self-sustaining and self-managed, whilst their members strongly associate with each other and maintain focus on the goals of the project and programme (Bojeun, 2014; Martinelli *et al.* 2014).

The nature of transformational development programmes is dependent on teams and teamwork. This creates fertile environments in which the programme participants must practically discover how to be team members and how to run effective teams as leaders (Stacey, 2012).

5.2.1.8.3 Empowering teams to maintain forward momentum

“In a programme, it’s very important to match individual profiles and build teams around people to match the demand for specific [types] of programmes and [to] make sure that you basically have a balanced and complete team ... That’s a very practical way to make sure that you have the right mix of skills on a programme.” (Respondent R13)

Respondent R13’s explanation of the importance of building teams by matching team members to the demands of specific programmes illuminates the study’s finding that team empowerment, mobilisation, and maintaining forward momentum towards delivering the programme are priority focus areas for the respondents. To be effective delivery agents, the programme managers have to build balanced teams. Technical team members need to be empowered to deal with the more political aspects of the programmes and their stakeholders. Team mobilisations demand that team members are continuously kept grounded in what is expected whilst efforts are made to instil a sense of urgency in them.

Maintaining forward momentum requires programme managers to work towards longer-term contracting of team members to reduce churn, and where necessary, to replace team members prone to demonstrating negative or destructive attitudes.

Lewrick, Link, & Leifer (2018) explain the value in building interdisciplinary teams: It enhances collaboration and common responsibility for what is being produced. In contrast, multidisciplinary teams tend to suffer from outcomes based on compromise driven by

individual experts advocating their specialisation.

Programme team empowerment is unlocked when programme managers are given authority and responsibility to make decisions (Martinelli *et al.*, 2014). In building their teams, programme managers need to help team members to embrace their unique strengths, talents, and weaknesses. And by assisting all team members to develop an appreciation for individual style differences, natural talents, and personal experiences, the foundations for mobilising and maintaining forward momentum is laid (Bojeun, 2014).

5.2.1.8.4 Disempowered by labour federations and employment legislation

The study found that respondents were particularly frustrated with the complications of managing programme teams in a highly unionised environment and under stringent employment legislation and related policies. Respondents expressed concerns of being constrained when recruiting new team members and felt disempowered in the disciplining, and eventual dismissal, of non-performing team members and other programme stakeholders. Respondents R3's and R17's comments emphasise their challenges:

"In public sector, you always have the very strict HR rules, the union ..."
(Respondent R17)

"So, over and above the bureaucratic stuff ..., you've got a fundamental issue around change management. And then when you talk change management you are immediately talking organised labour. And organised labour runs rampant in government. And it's very, very difficult to deal with them." (Respondent R3)

In the South African context, all employer-employee relationships are based on the Basic Conditions of Employment Act (75 of 1997), the Labour Relations Act (66 of 1995), the Public Service Act (Proclamation 103 of 1994), and all other related legislation that regulate the conditions of employment in the public service. A Public Service Co-ordinating Bargaining Chamber was established in 1996 to facilitate the important collective bargaining arrangement of determining salaries and conditions of service. With between 40% and 60% of the public-sector labour force belonging to unions and staff associations, the labour unions tend to be more relevant in these collective bargaining and consultation processes (Department of Public Service and Administration of South Africa, 2003, 2007).

Public-sector entities engaged in implementing technology-enabled transformation programmes must be prepared to engage with and respond to the hostility of unions – in both contexts related to impacts of major change and in the confines of the programme team dynamics (Silcock, 2001).

5.2.1.8.5 Working with a highly diverse human resource pool

The study found that programme managers must navigate programme delivery within the realities of a highly diverse human resource context. The diversity stems from a team and stakeholder environment characterised by differences in race, gender, personality, experience, and personal philosophy.

The South African public sector and general labour market composition is characterised for being highly diverse. This results from the application of employment equity principles in the

workforce to erase disparities in employment and disadvantages suffered by previously disadvantaged individuals or groupings (Republic of South Africa, 1998).

According to Pellegrinelli (2002) and Jalocha *et al.* (2014), being 'diversity aware' and able to create a strong team environment with a diverse group of people are essential people and resource management skills and competencies for public-sector programme managers. Furthermore, Martinelli, Waddell, and Rahschulte (2014) and Bojeun (2014) appeal to programme managers to consciously build a highly diverse team and to embrace the different experiences, backgrounds, behaviours, routines, values, and ideas brought to the fore whilst doing so. It is also incumbent on the programme manager to act as coach and a role model to help the team members themselves to embrace the value of diversity.

5.2.1.8.6 Conclusion: The team environment

The literature references in this section generally support and emphasise the findings that were made in relation to the complexity and dynamics of the team environment in programme contexts. There is, however, an interesting perspective where literature references are inconsistent with the perspectives of the respondents that programmes benefit from having highly capable public-sector staff members assigned. This appears to be a contradiction in experience as relayed by the respondents when compared to the literature references being sought – nearly all literature references took a dim view of public-sector staff capability and competency.

The literature expresses a need for highly capable staff complement to be available and appointed. There does not appear to be literature references corroborating the experience of respondents on the prevalence of highly capable public-sector staff members participating in or contributing to the programme context.

Programmes typically require items and services to be procured and for contracts to be managed. The next section will discuss findings related to how programme managers relate to the domains of procurement and contract management in the delivery of programmes.

5.2.1.9 Category: *Procurement and contract management*

This category highlights the observations and experiences of programme managers in relation to the complexities, challenges and dynamics around procurement and contract management during the delivery of public-sector programmes. It comprises nine key findings listed below.

- i. Procurement, buying, and contract management are key elements of public-sector programmes.
- ii. The public-sector procurement frameworks often cause serious challenges for programmes.
- iii. A major contributor to the complexity of public-sector procurement is the need to limit or curb the possibility of corruption.
- iv. Programme managers experience insinuations or accusations made against them of participating in corrupt activities when procurement decisions do not go according to certain stakeholders' expectations.
- v. Programme managers reported that they are expected to become contract managers.
- vi. The processing of work authorisations is impacted by delays in financial approvals or embargoes on expenditure until very late in the financial year. This coincides with

disallowing approved service providers to continue with conducting a predetermined quantum of work at risk.

- vii. Purchase orders are authorised on a yearly basis, potentially resulting in delays in multi-year programmes whilst awaiting authority to formalise acquisition of services or items needed by the programme.
- viii. Programme managers can be forced to leverage different procurement vehicles and approaches to maintain delivery momentum. Rotation of service providers negatively impacts programme execution.
- ix. Programme delivery is negatively impacted when contracts with service providers expire during the programme's lifetime.

5.2.1.9.1 Procurement and contract management characterise public-sector programmes

Respondents to the study confirmed that procurement, buying, and contract management are key elements of public-sector programmes. Mantzaris (2014) defines 'public-sector procurement' as the administrative actions taken in the acquisition of goods and services needed by government from the private sector.

Although not all related to programme expenditure, Fourie and Malan (2020) quantified public-sector procurement expenditure towards the procurement of goods, services, and infrastructural improvements aimed at developing the country in various ways to consume approximately one fifth of South Africa's gross domestic product.

5.2.1.9.2 Public-sector procurement complicates the delivery of programmes

The study found that public-sector procurement frameworks and the general complexity of public-sector procurement often cause serious challenges for programme managers. This is specifically in relation to the duration of procurement processes, as well as the unpredictability of procurement outcomes. Respondent R3's comment summarises the common opinion:

"The PFMA calls for stringent approaches in procurement. So, you'll have a procurement line that takes forever before you can buy anything, because if it's above five hundred thousand [rand], you must go through a tender process. That takes forever, and if you miss one step and it gets to a certain step, the whole thing must be cancelled, and you start again." (Respondent R3)

From Hanks, Davies and Perera (2008) and Fourie and Malan (2020), it appears that the public-sector procurement processes and its associated frameworks are challenged in the following ways:

- i. The Preferential Procurement Policy Framework Act is difficult to manage.
- ii. Regulation is an additional burden in procurement, resulting in slower, more complicated procurement processes and increased bureaucracy.
- iii. Black Economic Empowerment suppliers suffer from lack of effectiveness, quality, and reliability.
- iv. Public procurement contracts face cost premiums.
- v. There is over- and underspending of budgets.
- vi. Contract management is complex.
- vii. There is a lack of requisite capacity, skills, and knowledge.

- viii. There is inadequate planning and linking of demands to the budget.
- ix. There is inadequate monitoring and evaluation of supply chain management.
- x. There is non-compliance with supply chain management policies and regulations.
- xi. A lack of accountability and unethical behaviour results in possible fraud and corruption.
- xii. There are high levels of decentralisation of the procurement system.
- xiii. There is a lack of consequence management at executive levels.

5.2.1.9.3 Impacts of procurement corruption

At the time of conducting the study, the public sector was facing serious allegations of corruption and malfeasance in public procurement activities. With this as background, respondents revealed that their work became much more complex due to the elevated need to limit or curb the possibility of corruption in public-sector procurement activities. Respondent R10 sheds some light on the challenge:

“There were huge allegations of corruption in departments. There were huge allocations of contract fraud and preferencing of certain companies. ... So, from an approval perspective, they had to pull up the authority for approval.” (Respondent R10)

Public procurement plays a strategic and significant role in the management of public resources. Despite the expectations placed on managers to abide by best international supply chain management practices, the public procurement environment remains vulnerable to mismanagement and corruption (Ambe & Badenhorst-Weiss, 2012; Mantzaris, 2014).

The South African government established the office of the Chief Procurement Officer at the National Treasury to address public-sector procurement challenges. The Chief Procurement Officer is strategically mandated to minimise corruption and strengthen oversight and control of public procurement with the introduction of a new regulatory framework; optimising public procurement planning and execution, spending and cost savings by modernising procurement information systems; entrenching sustainable development across economic, social and environmental domains; improving public procurement governance, compliance and accountability; and improving capacity and performance of procurement officials (Munzhedzi, 2016; OECD, 2016).

In addition to the referenced procurement laws and regulations, South Africa also promulgated the Prevention and Combating of Corrupt Activities Act, 12 of 2004, as the chief anti-corruption statute. This Act contains several sections dealing specifically with public-sector procurement or tender corruption.

5.2.1.9.4 Programme managers are vulnerable to attack based on procurement outcomes

Whilst reflecting with respondents on how they were impacted by the need to minimise corruption during programme delivery, some revealed that they experienced insinuations and faced accusations of themselves participating in corrupt activities when procurement decisions did not meet certain stakeholders' expectations. Respondent R11's experience suggests that programme managers are particularly vulnerable to attacks by disgruntled stakeholders during high-value programme procurement initiatives.

“The quality requirements documented in procurement specifications resulted in a smaller number of potential suppliers that would be able to

deliver. We were pressured to lower some of these quality barriers so that more companies could respond. In these situations, we were frequently confronted with people asking ‘Do you receive some kind of gratification or kickback for this work? Are you somehow involved with these service providers?’ It becomes very difficult to reason with suspicious stakeholders. ... The distrust of the fringe-players has always been a problem, to such a degree that everybody eventually developed a level of distrust and [questioned] the agenda, approach, and who was reaping the benefits. ... I would never be able to do that programme again. There’s just too many people who are reading subtexts into everything, and do not hesitate to cast aspersions if they don’t like what you are doing.”
(Respondent R11)

In the same context, Respondent R10’s experience hints at the onset of paralysis in decision making and disengagement with the work, resulting in a general slowdown of planned programme activities.

“... because people are too scared to take decisions in this place. With the witch-hunt, which is currently taking place in this place, I cannot blame them. Everyone is too scared to put their hand on a piece of paper because tomorrow you will be questioned by the Hawks [the Directorate for Priority Crime Investigation]. That is another issue that creates a huge problem for an organisation like [ours] to execute projects and programmes. Because everyone is too scared to do what you are supposed to be doing and to stick out his neck because he, tomorrow, would be the topic of an investigation.” (Respondent R10)

5.2.1.9.5 Programme managers morphing into contract managers

Respondents expressed a concern about increasing expectations for them to accept contract management accountabilities whilst they were attending to the procurement-specific demands of their programmes. This finding is particularly interesting since dedicated supply chain management business units exist in the South African public sector to oversee and execute public-sector procurement and contract management under the direction of a broad legislative framework-guided supply chain management policy (Intaher & Badenhorst-Weiss, 2011).

Programme management literature correspondingly suggest that programme procurement management and contract administration are supporting programme activities in a broader programme resource management strategy and plan. The programme manager is responsible for requesting assistance from and collaborating with the procurement department and other relevant organisational functions to initiate, finalise, and review contracts to source required resources (Great Britain, 2011; PMI, 2017c; Thiry, 2010).

5.2.1.9.6 Embargoed work authorisations hamper programme delivery

The study found that the programme manager’s opportunities for successful programme delivery were diminished with extended embargoes on the raising of work authorisations. Respondent R6’s observation highlights some of the realities that programme managers must navigate:

“[The department] frequently embargoed the placing of orders and continued to extend the embargo deep into the financial year. Then, it is suddenly lifted, and the programmes, or projects within the programmes, must now be executed before financial year-end because the budget cannot be rolled into the new year. Simultaneously, the PFMA does not allow you to do work at risk. So, you are unable to do any work on those projects where there was a high level of certainty that it would be contracted for delivery.” (Respondent R6)

A review of the academic literature related to the frequency and impacts of embargoes on the raising of work authorisations and procurement orders did not deliver appropriate results. This was also the case for the incidences and results of already-approved service providers engaging in at-risk work in the context of public-sector programmes.

There also appears to be a lack of accessible departmental policies, operating procedures, and audit reports in this setting, which suggest that this finding might be a candidate for future research.

5.2.1.9.7 Single-year purchase orders result in programme delays

The study found that purchase orders are authorised on a yearly basis, potentially resulting in multi-year programmes facing delays whilst awaiting authority to formalise acquisition of services or items needed by the programme. PMI (2006a) confirms that the budgeting and procurement of public-sector programmes and projects face unique constraints with budgets allocated for specific time periods and having to compete for new funding at the commencement of each financial year.

In this environment, the likelihood of delayed procurement actions is expected; it is also not uncommon for programmes and projects to be terminated due to expired funding.

5.2.1.9.8 Service provider rotations result in programme delays

Respondents reported that they occasionally experienced negative impacts on programme execution when supply chain management policies resulted in the rotation of service providers from whom to source required services or items. Respondent R3’s comments reflect the impact of multiple back-and-forth interactions with a different service provider contracted to acquire information technology equipment.

“They rotate these small suppliers because it wasn’t a particularly big deal. It was R150,000 or something. ... It took me three-and-a-half months to commission two [transmission control protocol] switches. ... The knock-on effect from a programme management point of view is just massive.”
(Respondent R3)

A review of the academic literature related to the service provider rotation in the context of public-sector programmes did not deliver appropriate results. This suggests that the finding may be a candidate for future research.

5.2.1.9.9 Expiry of service provider contracts result in programme delays

The study found that programme delivery is negatively impacted when contracts with service providers expire during the programme’s lifetime.

Although the public-sector procurement governance process allows for contract extensions, there remains an element of risk that the authority to extend a contract will be withheld, thereby requiring the programme to take remedial steps, which normally impacts negatively on execution time and schedules. Manyathi (2019) acknowledges the negative impact of service provider contract expiry on programme execution and recommends the introduction of a periodic reminder to ensure that service provider contracts do not expire prior to new contracts being established. The emphasis is to minimise service interruptions.

5.2.1.9.10 Conclusion: Procurement and contract management

In conclusion, public-sector procurement and contract management is complex, multifaceted, and regulated by multiple legislative provisions, as well as common supply chain management policies (Intaher & Badenhorst-Weiss, 2011).

The literature references in this section generally support and amplify the findings that were made in relation to the complexity and dynamics of managing programmes. There was a strong linkage to and dependency on public-sector procurement and contract management.

Manyathi (2019) confirms that procurement legislation (in its broadest sense) is a source of negative impacts on programme and project deliveries. He also acknowledges the impacts and reasons of corruption in public-sector procurement, which supports the observations of programme managers that there is an increased focus on reducing corruption in public-sector programme procurement activities.

The respondents' emphasis on increased vigilance and the need to minimise procurement corruption likely stem from a multitude of high-profile criminal cases, the current 'State Capture' Commission, and publicly reported Auditor-General findings during the interview period.

Several opportunities for new research were identified. The key reason for this is lack of academic literature relevant to procurement embargoes and the rotation of service providers in the programme management domain.

Beyond the complexities associated with governance needs, budgetary and financial dynamics, procurement complexities and challenges with teaming, programmes need to survive in an environment that is traditionally known to be beset by bureaucracy and strict prescripts. The next section will discuss findings on how programme managers relate and respond to the realities of a highly regulated setting.

5.2.1.10 *Category: Living with bureaucracy and strict prescripts*

This category highlights the observations and experiences of programme managers in relation to the complexities, challenges, and dynamics around bureaucracy and adherence to strict prescripts during the delivery of public-sector programmes. It comprises five key findings listed below.

- i. Political imperatives and legislative demands influence the establishment and execution of public-sector programmes.
- ii. Legislative, regulatory, and procedural frameworks increase the bureaucracy, are experienced as impediments rather than enablers, and make it harder to 'make things happen' in public-sector programme delivery.

- iii. Decision making is hierarchical and delegation-based, resulting in multiple hurdles to be traversed.
- iv. Programmes can only progress under conditions where disproportionate volumes of administration are generated to facilitate progress.
- v. Public-sector entities are increasingly facing the threat of litigation; therefore, even more bureaucracy is demanded from programme managers. Programme delivery failures in extreme cases potentially result in constitutional implications.

5.2.1.10.1 Political imperatives and legislative demands

“People often ask me what defines my job. I say, ‘I manage the twilight zone between political expedience and practical public service delivery.’ So, for example, ... the Minister can stand in Parliament and make some commitments, and then he makes it my problem.” (Respondent R3)

This statement from Respondent R3 reveals the finding that political imperatives and legislative demands influence the establishment and execution of public-sector programmes.

Mabelebele (2006) and Van der Waldt (2011) emphasise the challenging nature of planning and delivering programmes in an unpredictable political environment. In this environment, power and authority prevail with political principals, exercising their authority to make political decisions, which may not always be compatible with the demands of managing the delivery of programmes. The combination of political dynamics, delivery challenges, resource constraints and financial risks, and the inability to conduct detailed upfront planning result in an environment that becomes increasingly hostile to the programme manager.

5.2.1.10.2 Bureaucracy impedes delivery

The study found that the prevailing legislative, regulatory, and procedural frameworks increase the bureaucracy under which programmes are executed. This impedes rather than enables programme managers by making it harder to ‘make things happen’. Respondent R11’s perspective sets the scene:

“We work within a legislative framework, first and foremost. And then, from there, there are certain regulations that form part of that, and then we have our own procedures also to supplement that.” (Respondent R11)

Respondent R3 elaborates further:

“Public sector tends to be very predictive. It’s very stuck in its way. It tends to be very bureaucratic ... the regulations, the processes, the procedures, ‘you do it like this’, ‘it’s by the book’, ‘it’s like this’. The legislation that governs what you do, ... the interesting thing about it is that it tells you what you can’t do; it doesn’t tell you what you can do. So, it makes it very complex. ... They want rapid delivery, but they’re not prepared to, shall we say, be a little more flexible in terms of ... degree of compliance. So, very often, compliance is more important than service delivery. In other words, [it is] more important to comply with legislation than to deliver services to ... the country.” (Respondent R3)

The former Minister of Public Service and Administration, Ms Fraser-Moleketi, (referenced by Van der Waldt (2008, pp. 739–740)), emphasised that “one of the biggest strategic

challenges public administration faces is how to reconcile the bureaucratic organisational form with its hierarchical characteristics and functional basis for structuring, with new organisational forms of networks.”

Public-sector organisations, generally seen as cumbersome bureaucratic structures, require innovative organisational design and arrangements, such as flat matrix structures to enable the delivery of programmes and projects.

Public-sector programme managers do not have the same latitude as private sector programme managers in managing people and resources. They are bound by strict legislative and regulatory guidelines overseen by the Public Service Commission and the Constitution of the Republic of South Africa. This makes it more difficult for public-sector programme managers to obtain the necessary authority to deal with all programme-related issues.

Kerzner (2017) concurs that programme and project management in non-profit-driven organisations are generally more difficult because:

- i. Initiatives may be limited in number and executed on an ad hoc basis with large intervals between them.
- ii. Individual programmes and projects have differing management requirements; therefore, they cannot be managed identically.
- iii. Executives do not have sufficient time to manage initiatives themselves, yet they refuse to delegate authority.
- iv. Initiatives incur delays because approvals frequently follow the vertical chain of command. As a result, project work stays too long in functional departments.
- v. Only a subset of the organisation understands programme and project management and sees the system in action because staffing is on a local basis.
- vi. There exists substantial dependence on subcontractors, consultants, and outside agencies for programme and project management expertise.

Failing to address these issues could result in poorly defined responsibility areas within the organisation, poorly defined performance criteria, and slow programme implementation.

Hierarchical and structural separation between senior policy makers and mainstream implementers, as well as typical public-sector bureaucratic arrangements, erect difficult-to-cross barriers which restrict the adaptability, decentralised decision making, and delegated authority and responsibility required for programme delivery (Heeks, 1999; Van der Walldt, 2008). Administrative shortcomings, general resistance to change, and public-sector institutions’ inability to respond quickly to change contribute to programme managers’ perspectives of being constrained in their efforts to deliver results (Knipe & Van der Walldt, 1999). This emerges in the performance measurement process where adherence to rules and “ticking the boxes” will consequently eclipse the delivery of services and impact of service delivery on intended beneficiaries (Holtmann, 2011, p. 63).

Heeks and Santos (2002), in conclusion, suggest that the work of programme managers are further complicated in African governments where work and decision-making processes are more contingent because of the more politicised and uncertain environment.

5.2.1.10.3 Delivery hurdles: Hierarchical- and delegation-based decision making

Respondents emphasised the hierarchical and delegation-based decision making, resulting in multiple hurdles to be traversed. Respondent R18's observation is apt:

"The governance in government is longer, more specific, defined, and delegated. You have to go through a hierarchy. You have to have all the paperwork. ... So, ... there's a lot more governance and red tape in government than there is in private." (Respondent R18)

As indicated above, a hierarchical model exists within the bureaucracy that emphasises control and manifests through formal structures and systems. Decision making and communication follow the hierarchical, top-down path and uses language to force a logic, order, and structure on a dynamic programme delivery process. The predominance of top-down hierarchical approaches is also partly attributed to managers who may feel threatened by the programme's introduction of new organisational structures and processes (Crawford *et al.* 2003; De Korte & Van Der Pijl, 2009; Eriksson & Goldkuhl, 2013).

5.2.1.10.4 Disproportionate volumes of administration

Respondent R15's observation highlights the study's finding that disproportionate volumes of administration and documentation begets progress. *"In the case of [that], we have a little more bureaucracy and need to generate more paperwork to make progress."* (Respondent R15). Respondent R19 emphasises the disempowering effect that this administrative burden places on programme managers at times:

"It is finding that balance between policies and procedures and guidelines, and this is the way that you're managing ... [the] total chaos on the other side. Because if you bog down everybody with too much paperwork and too much processes, then there's no innovation. There's no new things. And then you spend [so] much time just finding energy." (Respondent R19)

The administrative burden of compliance, both in regard to administration and documentation, for programmes across the public sector should be minimised. Implementation milestones must be linked to current capacity and the ability to build capacity over time. Reporting and sharing of information is vital, yet it needs to be streamlined to substantially reduce compliance costs (The Presidency (South Africa), 2007).

5.2.1.10.5 More bureaucracy: Countering the threats of litigation

The study found that public-sector entities are increasingly facing the threat of litigation; therefore, even more bureaucracy is enforced with a heightened expectation for programme managers to follow already-strict processes very diligently. In extreme circumstances, programme delivery failures may have constitutional implications. Respondent R11 explains:

"We're in a more litigious environment at the moment. ... You work under the pressure of the Constitution having to be changed if you don't make it. It's not a normal little milestone that's just there. For me, the pressures that we work under sometimes ... reaches crazy levels." (Respondent R11)

The threat of litigation generally emerges in the procurement and contract management domains. However, certain public-sector clusters, such as the entities involved in preparing

and staging elections, might face litigation from political parties when programmes dealing with preparatory actions in the run-up to elections are challenged.

In the context of procurement and contract management, instances of litigation commonly emerge when service providers and public-sector entities engage in disputes associated with badly managed contracts, disagreements based on procurement outcomes where procedural equity appears to be flawed, and conflicts due to poor quality of the finished work (Elder & Garman, 2008; Manyathi, 2019; Toor & Ogunlana, 2010).

5.2.1.10.6 Conclusion: Living with bureaucracy and strict prescripts

The literature searches in this section generally support and amplify the findings that were made in relation to how programme managers are impacted working under strict prescripts in highly bureaucratic environments. An overabundance of bureaucratic demands, hierarchical structures, and the need to conform to strict prescripts appear to retard programme managers in their day-to-day operations.

5.2.1.11 Conclusion: The programme environment

This theme focused on the general dynamics and nuances of the programme execution environment. It describes an environment beset with multiple hurdles and sometimes appears to be disabling rather than enabling to programme managers.

The next theme to be discussed addresses strategic and time impacts.

5.2.2 Theme 2: Strategic positioning and timetabling impacts

The second theme to be discussed relates to the strategic positioning and associated timetabling (temporal) impacts of public-sector enterprise transformation and modernisation programmes. Figure 9 depicts the two underlying categories which describe the experiences of programme managers in relation to how public-sector entities conduct strategic and annual planning, as well as to reveal the relationship that public-sector entities have with time as a resource in the context of programme delivery.

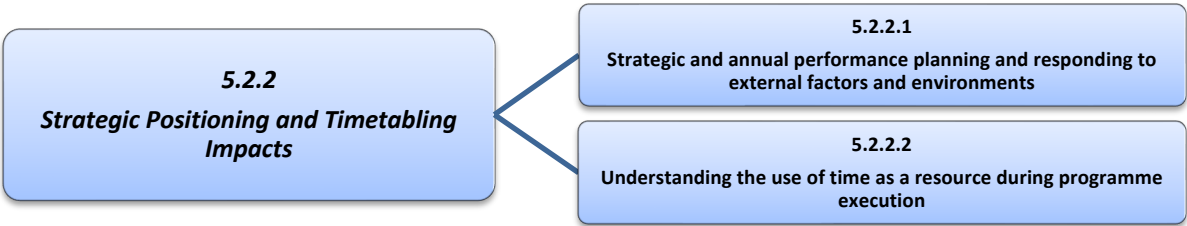


Figure 9: Theme 2 – Strategic positioning and timetabling impacts (Source: Researcher, 2022)

5.2.2.1 Category: Strategic and annual performance planning and responding to external factors and environments

This category comprises four key findings listed below.

- i. Strategic planning and the resultant positioning of programmes is a ritualised and cyclical process that repeats in five-yearly cycles for major strategies aligned to national electoral cycles, as well as annually for setting annual performance targets ('annual performance planning').
- ii. Strategic and performance planning is responsive to external political and legislative factors, as well as demands placed on the organisation by the external environments, such as court rulings or public opinion pressures.
- iii. Although there are structured processes in place, departments will occasionally adopt alternative approaches (burning platforms) to influence strategy development and budget allocation towards programme priority assignments.
- iv. The variability by which public-sector entities annually locate the strategic positioning of programmes in the broader departmental contexts negatively impacts programme managers.

5.2.2.1.1 Ritualised and cyclical strategic planning processes

The study found that public-sector strategic positioning and the resultant positioning of programmes is a ritualised and cyclical process. They repeat in five-yearly cycles for major strategies aligned to national electoral cycles, as well as annually for setting annual performance targets.

National Treasury (South Africa) (2011) demands the production of a strategic plan and an APP in terms of Treasury Regulations. These plans set out the organisation's goals and objectives, the strategies to achieve these objectives, and the annual performance targeted by programmes to achieve the identified goals. The strategic plans and APP usually do not provide details on specific enterprise transformation and modernisation programmes embarked upon in the organisations. They do, however, provide strategic direction on the priorities from which required programmes and related projects are defined.

Table 16 highlights the key attributes of strategic plans and APP, as required by the National Treasury's Framework for Strategic Plans and Annual Performance Plans.

Table 16: Key Attributes of Strategic Plans and Annual Performance Plans
(adapted from National Treasury (South Africa) (2010, p. 2, 6, 7))

	Strategic Plan	Annual Performance Plan
Purpose	Sets out an institution's policy priorities, programmes, and project plans for a five-year period, as approved by its executive authority, within the scope of available resources.	Sets out what the institution intends doing in the upcoming financial year and during the MTEF to implement its strategic plan.
Focus on	Strategic outcomes-oriented goals for the institution, objectives for each of its main service-delivery areas aligned to its budget programmes and, where relevant, also its budget sub-	Performance indicators and targets for budget programmes, and sub-programmes where relevant, to facilitate the institutions realising its goals and objectives set out in the

	Strategic Plan	Annual Performance Plan
	programmes.	strategic plan. Where appropriate, the plan should include a quarterly breakdown of performance targets for the upcoming financial year.
Timeframe	Should cover a period of at least five years, ideally from the first planning cycle following an election, linked to the identified outcomes of the presidency. Although plans may have a longer timeframe, they should be revised at least every five years, and a draft new or revised strategic plan should generally be prepared for consideration early in the final year of the prior planning period. Departments should table strategic plans within a month after submitting the budget relating to the first year covered by the plan. Public entities are encouraged to submit the plan to their executive authorities and responsible departments by the end of January prior to the start of the first financial year covered in the plan.	Covers the upcoming financial year and the MTEF period. In years four and five of the strategic plan, the APP's outer years will fall outside the period covered by the strategic plan – forward projections should nonetheless be provided. Departments should table APP within a month after submitting the budget in respect of the year to which it relates. Public entities must submit the plan to their executive authorities and responsible departments by the end of January prior to the start of the first financial year covered in the plan.
Updating	May be changed during the five-year period that it covers. However, such changes should be limited to revisions related to significant policy shifts or changes in the service-delivery environment. The relevant institution does this by issuing an amendment to the existing plan, which may	To simplify performance tracking, in-year changes to the plan should not be made. Where an institution's performance exceeds or misses targets due to in-year budget changes or for another reason, this should be noted in its annual report.

	Strategic Plan	Annual Performance Plan
	be published as an annexure to the APP, or by issuing a revised strategic plan.	
Linked To	Should take into consideration the MTSF, the provincial growth and development strategies, integrated development plans of municipalities, performance agreements between the president and ministers, and service delivery agreements entered in terms of the broad strategic outcomes and any other relevant long term government plans. The institutions' current resources and capabilities should be considered. The document lays the foundation for the development of APP.	Should be linked to the strategic plan, the budget, and the MTEF and should be informed by any updates to government's long-term plans, the MTSF, government implementation action, provincial growth and development strategies and local government integrated development plans, performance agreements between the president and ministers, service delivery agreements, and any other relevant long term government plans. In-year monitoring of the APP is conducted through the quarterly performance reports; end-year reporting is made in the programme performance section of the institution's annual report.

5.2.2.1.2 Planning is responsive to external, political, and legislative forces

Respondents confirmed that the organisational strategic and annual performance planning processes are responsive to external political and legislative factors, as well as to demands placed on the organisation by the external environments, such as court rulings or public opinion pressures.

Respondent R1 sketches the reality of being bound by a court ruling:

“One of the government agencies was being influenced by Constitutional Court rulings of what they needed to get in place before certain programmes could happen. And whilst you might have the best will and heart, in terms of your programme management structures and your project delivery and everything is on track, ... there's now a Constitutional Court ruling that [says] you need to get [certain things] in place. So, that's an external factor that, in this case, is not a lack of a decision, it's a new decision.” (Respondent R1)

Van Der Waldt (2011) emphasises that public-sector management is unique because it is “*more [subjected] to legislative and judicial impact.*” Knipe and Van Der Waldt (1999) confirm that the dramatic changes experienced by the South African public sector since the adoption of the 1996 Constitution and other legislation include continual changes in functional, structural, and legislative areas. These require deliberate and proactive management actions to transform an authority from a current undesirable state to a required state.

In this context, the Cabinet lekgotla (a colloquial term for the annual cabinet meeting which precedes the opening of Parliament) is the highest-level annual planning body to review progress made on the strategic priorities of government’s programme of action, to reprioritise where required, and to set the foundations for the new planning and budgeting cycle. Stemming from the lekgotla, the president’s State of the Nation Address and corresponding budget votes by political heads that follow all have varying degrees of influence on active programmes in the public-sector organisations.

At a practical level, Du Rand (2005) outlines the steps taken by the then-active Integrated Justice Systems Board to dynamically update and align its strategic plan and execution focus. This was done by taking into consideration various environmental factors like legislative changes, shifts in government policy, departmental projects, and other initiatives that could impact on the realisation of the Integrated Justice System and its constituent programme’s vision.

Goldfinch (2007) also emphasises that an unstable legislative environment particularly complicates the management of long-running technology-driven enterprise transformation and modernisation programmes where software, process, and systems requirements are subjected to legislative changes over the duration of the programmes.

5.2.2.1.3 Declaring emergencies to influence strategy development

It became evident during the study that, even though there are structured processes in place, departments will occasionally adopt alternative approaches – such as declaring emergencies or ‘burning platforms’ – to influence strategy development and budget allocation towards programme priority assignments. Respondent R15’s observation poignantly describes the challenge:

“The department was assigned an accountability to strengthen border control. Why? Because of smuggling, cross-border theft, rhino poaching, and many other reasons. And now, they have a massive problem. ... Now, they wish to throw money at the problem. How do you throw money? You establish projects aiming to solve these problems.” (Respondent R15)

National Treasury (South Africa) (2010) expects that the process around strategy formulation, prioritisation, and budget allocations follow firm guidelines to ensure that budget programme structures provide the key link between an institution’s objectives and its detailed operational budgets. The researcher did not conduct an in-depth interrogation of this finding after it was identified, and in the context of public-sector programmes, the literature appears to be limited.

As a programme management practitioner, the researcher suggests that the use of these alternative approaches is likely to be frequently used. These are probably influenced or

directed by prevailing organisational politics, stakeholder power bases, and having to respond to external influences.

This suggests a possible knowledge gap to be addressed by future research efforts to ascertain the frequency, contributing factors, organisational dynamics, and actual alternative approaches by which public-sector organisations influence strategies and budget allocations in the context of programme priority assignments.

5.2.2.1.4 Programmes in flux: Annual variances in departmental strategies

“... because we stop-start every year in government. We do, we stop-start on every budget speech, and we stop-start on every Estimates of National Expenditure publication. Even though we have to give an MTEF of three years, or five years, ... we change our minds in a year. And there's very little continuity. If you have a look at the last three years' budget speeches, highlight the ones that have continued ... as programmes, that could have had seventeen projects under them. But as programmes of thought, is there continuity in government?” (Respondent R18)

This comment from Respondent R18 summarises the finding that, by annually adjusting the strategic positioning of programmes in their departmental contexts, public-sector entities negatively impact the work of programme managers.

The researcher suggests that this finding is a possible knowledge gap since the literature review did not reveal any suitable references that reflect the impacts of annual adjustments to the strategic positioning of programmes.

5.2.2.1.5 Conclusion: Strategic and annual performance planning and responding to external factors and environments

Literature searches cited above suggest that the strategic positioning of programmes should be 'static' or relatively stable in the context of the five-yearly departmental strategic plans, with a related delivery focus described in the APP.

From a practitioner's perspective, programme managers generally experience negative impacts in any programme change situation. However, changes at the start of the financial or calendar year can be particularly severe. Discontinuity between successive APP, changes in strategic positioning in contrast to that documented in the strategic plans, the introduction of new priorities based on the state of the nation address, and departmental budget speeches or submissions lead to programme managers having to engage in revision of direction-setting questions. These changes also lead to a reconfiguration of programme plans to minimise the occurrence of a fragmented programme delivery approach.

In summary, the public sector has a rigid framework of legislation, regulations and guidelines directing the timing and frequency by which departments must conduct their strategic and annual performance planning. This planning framework also guides departments towards the actual programmes (and in many cases projects, where departments have not adopted programmes and programme management approaches). The programme-strategy alignment process is highly interactive and is influenced positively and negatively when annual adjustments are made to short- and medium-term strategies as documented in the three-year rolling window MTSF and budgets.

Programmes are executed within and influenced by a strategic and environmental context, as well as a timetable or temporal dimension. The next section will discuss findings related to how time as a resource is managed and used in programme deliveries.

5.2.2.2 Category: Understanding the use of time as a resource during programme execution

This category reveals the finding that public-sector programmes are not effectively and productively utilising time as a strategic resource. Respondents suggested that there is undue variability in how time as a resource is perceived, managed, and responded to in programme contexts. Time is effortlessly wasted during programme execution to the detriment of programme delivery and causes countless challenges to programme managers.

Whereas Halley and Catron (2008, p. 538) suggest that public administrators working across all government spheres are accustomed to “managing time” and in so doing view time as a resource just as their private sector counterparts do (“time is money”), a contrasting view emerged when the study revealed that stakeholders in extreme cases downright ignore time as a resource that need to be managed well – they easily disregard scheduled activity duration constraints. As a result, and at the extremes, programme managers then experience intense duress and pressure to complete work in the shortest possible time.

Programme managers must drive the programme execution through the management of activities in time. Pellegrinelli (2008) suggests that programme managers adopt different attitudes to time as a strategic programme resource. This attitude finds expression in how the programme manager relates to the schedules or duration of programme work, the pace at which the work proceeds, and the timetabling of the work.

The understanding of time progresses as a continuum from a very basic and mechanistic perspective (to view and determine the duration of activities, phases, and the overall programme) to comprehending time contextually with consideration given to the timeliness or timing of the programme in relation to other initiatives, expectations, pressures, and tensions. At this end, programme managers include notions of organisational readiness, constructing agendas and cultivating consensus, windows of opportunity, and opportunism to sense and pick the ‘right’ moment to raise a point, press an issue, or initiate a new stream of activity.

Apart from the attitudes of programme managers and other programme stakeholders to time as a strategic resource, several other factors exist that contribute to time being wasted in a programme (Patanakul, 2014; Patanakul *et al.* 2016):

- i. overly optimistic owners and programme managers,
- ii. insufficient or poor risk management,
- iii. lack of accountability held by officials,
- iv. reliance on contractors and consultants,
- v. governance challenges,
- vi. deficiencies in processes of requirements identification and systems integration,
- vii. insufficient consideration of changes in specifications and deliverables,
- viii. lack of ability to manage high-technology programmes,
- ix. lack of appropriate scheduling tools,
- x. underestimation of the complexity of requirements,
- xi. ambiguous and uncertain internal and external forces,
- xii. lack of project and programme culture, and

xiii. complex decision making with multiple partners.

Public-sector entities have multiple levels through which they use time and influence how time is utilised. At the agency and institutional level, mission, statute, and socio-political context dictate appropriateness of timeframes.

Cyclical time is prevalent in the process level with rhythms of agency life influenced by the planning and budget cycle, as well as political time punctuated by electoral, legislative, and judicial events. Multiple time horizons characterise this level when creating and implementing a planning perspective along the intertwined complexities of overlapping budgeting cycles.

In the context and policy levels, different paces of time are encountered. Whereas social and moral change proceeds organically, there is rapid, exponential pace encountered with changes in information technology.

Different time horizons characterise the need to implement intergenerational equity policies. The challenge thus becomes one of being pragmatic in a situation where the size, scope, and duration of decision consequences increases, but the time for thoughtful decision making decreases (Halley & Catron, 2008).

Public-sector programmes are multi-year initiatives by nature, typically aligned with delivering outcomes associated with the political or service delivery imperatives of the administration. The opportunity arises for discontinuities in understanding, expectations, and emphasis. This creates fertile grounds for conflict when programme managers and departmental stakeholders differ in their opinions and approaches towards time as a resource.

Thus, the researcher advocates that one of the greatest challenges facing programme managers and public-sector managers is the need for simultaneous management of the different time frames of the diverse contexts within which programme delivery is expected to be managed.

The next theme to be discussed addresses the organisational attitudes to programmes and programme management.

5.2.3 Theme 3: Organisational attitudes to programmes and programme management

The third theme to be discussed relates to the attitudes of public-sector organisations to programmes and programme management. Figure 10 graphically depicts the theme and its three contributing categories. The first underlying category describes the experiences of programme managers in relation to how public-sector entities understand, embrace, and support programme sponsors and owners. This also looks at the complexities of programme manager role assignments. The second category addresses findings related to Programme Management as a technical discipline, which requires special attention. The final category sketches the unique position of the accounting officer or director general in the programme delivery process.

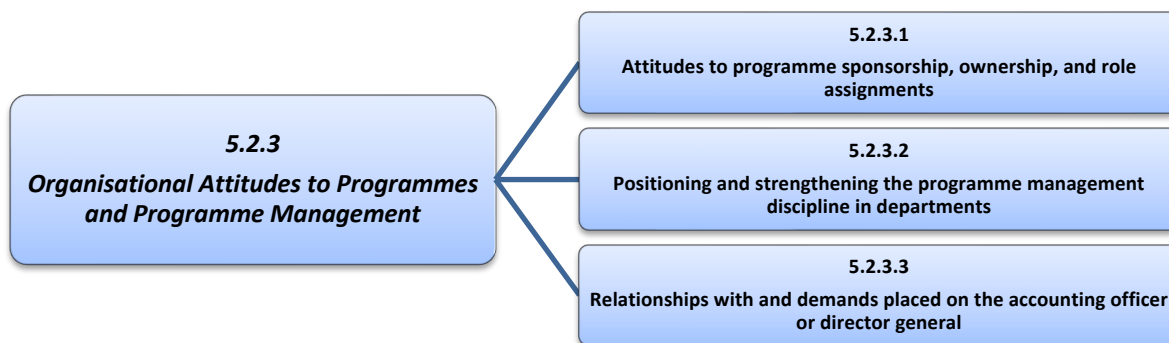


Figure 10: Theme 3 – Organisational attitudes to programmes and programme management
(Source: Researcher, 2022)

5.2.3.1 Category: Organisational attitudes towards programme sponsorship, ownership, and role assignments

This category comprises four key findings listed below.

- i. Attitudes to programme sponsorship vary across public-sector organisations.
- ii. Public-sector organisations use different strategies to remedy their limitations in programme ownership.
- iii. Programme managers are negatively impacted by inconsistencies in leadership competence and the unevenness of leadership availability and stability across key organisational levels.
- iv. Programme managers experience variability in their role assignments and must navigate carefully around misaligned role expectations.

5.2.3.1.1 Varying attitudes to programme sponsorship

“Where we are now, we don’t have that executive sponsorship at the moment. ... It all depends on your executive sponsorship and their level of involvement. So, where I have experience in the past as very involved, decision making was excellent, the political will was excellent versus where we are now, I do not see the same. But I think it’s the people, not the process.” (Respondent R12)

“What you typically struggle with is a group of executives at the top who [do] not properly understand or [fail] to provide appropriate guidance ... with goalposts – and even goals themselves – changing.” (Respondent R4)

The observations of Respondents R12 and R4 highlight the study’s finding that individual and collective attitudes to programme sponsorship vary over time and throughout public-sector organisations. Respondents stated that the usefulness of programme sponsorship is negatively impacted by inconsistent understanding and ineffective implementation approaches amid departmental stakeholders.

Programme sponsorship is a multi-faceted role involving responsibility for final success of the initiative, making of investment decisions, championing and endorsing the programme in a multitude of other priorities and investment opportunities, and determining a leadership style

suitable to the organisation and the nature of the change (Great Britain, 2011). The level of sponsorship support in how well sponsors anticipate and respond to requests for assistance from the programme is a factor that impacts programme management complexity (GAPPS, 2011).

Benalia and Khan (2005) and Schoen and Light (2013) emphasise that executive-level leadership and sponsorship from elected officials and top career civil service executives is often lacking. Executives struggle with the topic of sponsorship because they are usually directing their attention to other strategic priorities and operational issues.

Matafire *et al.* (2010) confirm the reality of programme managers having to work in public-sector environments where the sponsorship for enterprise transformation and modernisation programmes varies over time, locality, and from different sponsors.

5.2.3.1.2 Fostering attempts at improving programme sponsorship

The study found that public-sector organisations occasionally recognise their limitations in programme sponsorship and will then employ different strategies to remedy these limitations. Respondents to the study indicated that these strategies include an acknowledgement that weak ownership is damaging, instituting the use of programme charters, clarifying assignment of accountability, and minimising the occurrence of multiple owners for a single initiative.

Elnaghi, Alshawi, and Missi (2007) encourage public-sector senior executives to actively engage with the enterprise transformation and modernisation agenda to provide appropriate stewardship, sponsorship, clarity of responsibility, and resources to programmes.

To strengthen their ownership and sponsorship, public-sector organisations must ensure to select sufficiently senior, seasoned leaders as sponsors and delegate them with authority to provide leadership and take accountability. A single sponsor must be empowered to direct a programme and take decisions to ensure that agreed-to objectives are met and that the expected benefits are delivered (Great Britain, 2011; Schuster, 2015).

5.2.3.1.3 Public-sector leadership instability, competence, and availability

Respondents emphasised incidences of leadership instability, inconsistencies in public-sector leadership competence, and uneven availability of leadership across all organisational levels where programme managers are expected to work. By leading and directing a programme, departmental leadership provides a bridge between strategic objectives, business operations, and project delivery. This leadership requires a minimum level of stability and continuity to ensure that commitment to the programme is maintained (Great Britain, 2011).

GAPPS (2011) suggest that programme management complexity over time is impacted by fluctuations in the stability levels of key stakeholders, of which departmental leadership is a key grouping. These fluctuations are induced by changes to the stakeholders' levels of interest or commitment and changes in assignment.

5.2.3.1.4 Variability in programme manager role assignments

“At the time, part of our delivery had to meet the timelines because this was before the [key business event]. Quite a lot of our delivery had to be

completed before [then] because it was going to help in someone's campaign, and so in that situation when you have someone who is not skilled, it's more of a dual role I had to play. I had to programme manage and look after my project managers. I also had to coach this person that, whenever they decided they wanted to come to the party, you have to tell them, 'This is the objective of the programme, this is what we are trying to do. When we come with this problem, this is how you resolve it. These are the people that you need to talk to in your organisation.'" (Respondent R16)

Respondent R16 illuminates the study's finding that programme managers experience variability in their role assignments and must navigate carefully around misaligned role expectations. Respondents likewise criticised departments for regularly conflating programme accountabilities with departmental line-function priorities. Näsänen and Vanharanta (2016) confirm that programmes, as temporary structures, have unclear and unstable boundaries with parent organisations wherein programme team members are assigned multiple roles – holding full-time positions in the parent organisation and contributing part-time to the programme.

Ebbers and Wijnberg (2017) maintain that assigning distributed leadership accountability over multiple individuals introduces the risk of conflict between leaders themselves. There is also an increased likelihood that other organisational stakeholders engage in these leadership conflicts.

The introduction of an effective programme leadership structure can settle accountability and enforce checks and balances to enable successful programme delivery. In contrast, role confusion, inefficient resource utilisation, rework, cost increases, and missed commitments result from an ineffective leadership structure. Increased programme complexity, uncertainty, and goal ambiguity are significant factors that should be considered when determining appropriate programme leadership structures and arrangements (Nieminen & Lehtonen, 2008; Wills, 2014).

5.2.3.1.5 Conclusion: Organisational attitudes towards programme sponsorship, ownership, and role assignments

The literature search results suggest that the study's findings on organisational attitudes towards programme sponsorship, ownership, and role assignments are impactful, and that the experiences of programme managers are real. However, in contrast to the general notion that departmental actors need to sponsor, own, and assume leadership roles in the delivery of programmes, Wills (2014) emphasises the need for programme managers to also demonstrate ownership, leadership, and stewardship towards their programme assignments. Table 17 depicts the effects of inconsistent programme manager focus on these dimensions.

In conclusion, it is important to recognise the expectations of the Department of Public Service and Administration of South Africa (2015) in their Senior Management Service Competency Framework. They position project and programme management as a core competency for public-sector directors, chief directors, deputy directors general, and directors general.

Table 17: Impacts of Deficient Ownership, Leadership, and Stewardship by Programme Managers
(adapted from Wills (2014, pp. 56–60))

Programme Manager Focus			Impact or Effect
Ownership	Stewardship	Leadership	
✓	✓	✓	Full accountability and optimised results for the programme and company
X	✓	✓	Oversight and missed work because not on top of all work
✓	X	✓	Good for programme but inefficient – not continuing to improve
✓	✓	X	Inability to lead people and ineffective on programme due to morale and poor influence

Although the terms ‘sponsor’, ‘owner’, and ‘leader’ do not occur in this dimension of the Senior Management Service Competency Framework, an analysis of all the core competencies and their behavioural indicators suggest that the sponsor role could be assigned to either deputy directors-general or directors-general levels, the owner role would be relevant in the context of the chief directors, and leadership is expected from all the senior management service members.

This is supported by Van Der Waldt (2011, p. 79), who states that:

“In the public sector, projects are typically executed on the operational level of departments, where operational managers [i.e. assistant and deputy directors] report to programme managers [i.e. directors] under whom the project portfolio resorts. It should be noted, however, that the nature and scope of projects will, to a large extent, determine the placement of projects in a departmental hierarchy, as well as the seniority of the responsible project managers. Mega and large strategic projects (refer to National Treasury’s classification of projects, 2008) will therefore be placed much higher up in the management echelons than smaller projects.”

The findings suggest that sponsorship, ownership, and role assignments are key contributors to the general organisational attitudes to programmes and programme management.

The way programme management as a technical discipline is positioned in the public-sector organisations also influences organisational attitudes. The next section discusses findings in this regard.

5.2.3.2 *Category: Positioning and strengthening the programme management discipline in the public sector*

This category comprises five key findings listed below.

- i. Programme management as a discipline is facing a dual crisis of lack of credibility and needing to deliver to high expectations.
- ii. Programme management must be contextualised in response to various challenges raised against it.

- iii. Programme management competence and capability is inconsistent across public-sector entities.
- iv. Programme management needs to be made more accessible to public-sector organisations.
- v. There is a need to build programme management sustainability.

5.2.3.2.1 A dual crisis: Lack of credibility and high expectations

The study found that the programme management discipline is facing a dual crisis of lack of credibility and high expectations. The study's respondents suggested that the lack of credibility is emanating from their experience with some public-sector organisations' confusion and variability in understanding of what programme management is. In contrast, high expectations occurred in public-sector organisations where programme management was adopted, sometimes resulting in unattainable demands and delivery expectations placed on programme managers.

According to Great Britain (2011), the adoption of programme management during major organisational change should enable organisations to avoid pitfalls such as:

- i. insufficient support from oversight bodies,
- ii. weak leadership,
- iii. unrealistic expectations of the organisation's capacity and ability to change,
- iv. insufficient focus on expected benefits,
- v. no real picture or blueprint of future capability,
- vi. poorly defined or communicated vision,
- vii. failure to change organisational culture, and
- viii. insufficient stakeholder engagement.

As this research has shown in general, these pitfalls are pre-existing in the broad public-sector domain, thereby contributing to the emergence of the dual crisis as perceived and described by the respondents.

In addition, Thiry (2010) has shown that perspectives differ between programme management practitioners towards what programmes are. While some practitioners associate programmes with large complex projects, others associate programmes with managing change. This research has revealed that 68% of the respondents to this study categorise a programme as a grouping of projects or as large complex projects. The remaining 32% see programmes as strategic or major change initiatives. This difference in understanding by practitioners themselves might also contribute to the varying perceptions that the programme management discipline is generating in stakeholders.

5.2.3.2.2 Setting programme management context to respond to challenges

The study found departmental stakeholders raised several challenges against the programme management discipline. Respondents relayed that programme management is seen as a cumbersome and expensive overhead; its alignment with project portfolio management is not well understood and implemented; there are challenges in locating the role and function of programme offices; and attempts are made to temper the influential position that programme managers assume.

Respondent R6's comment highlights some of the stakeholder perceptions on programme management overheads when they said, "*What I experienced is that the managers initially*

were undecided whether they needed programme management or not. They saw it as an unnecessary expense.” (Respondent R6)

Thiry (2010) suggests that there is relative agreement on the focus and purpose of projects, programmes, and portfolios. Projects are reasonably well defined, occasionally complicated, and focus on tactical or operational delivery of a single product or service. Programmes are generally complex and deliver multiple deliverables to yield business benefits in alignment with business strategies. Portfolios have a corporate focus and may be built around projects or a total investment portfolio. They are ongoing and recurrent, rather predictable in terms of outcomes, but require constant adjustment to maintain alignment with corporate strategy.

The programme manager is expected to acquire resources and leverage relationship capital to smooth the programme delivery trajectory towards successful delivery. In doing so, programme managers should exert influence through the organisation by nurturing relationships and increasing trust. This could mean directing energies towards stakeholders that are easier to work with than others (Brown, 2008).

This research finding leads one to question whether there is indeed the relative agreement as suggested by Thiry (2010), as well as the proper management of relationships by programme managers in public-sector entities. It appears to be a progression from the previous finding, which indicates that the general understanding of programme management as a discipline is not well developed and commonly understood amongst stakeholders.

5.2.3.2.3 Inconsistent distribution of programme management capabilities

Respondents reported the existence of pockets of programme management excellence in some environments whilst also acknowledging that capabilities are lacking in others. These are sometimes exacerbated by historic imbalances in racial and gender profiles. The finding is that there is variability in the programme management competence, capacity, and capability across public-sector entities.

Naidoo (2008) asserts that, following the change to a democratic dispensation, the administrative capacity of the South African public sector was challenged in dealing with the expanded and varied development activities resulting from the country's major political transition. Public-sector entities fell short of a particular standard of capacity because they were challenged by lack of requisite or sufficient capacity and lacked efforts to increasing or strengthening capacity.

The Department of Public Service and Administration established the National School of Government to develop and strengthen general public-sector employee capacity and competence. This school offers a three-day non-credit bearing programme and project management workshop (School of Government, 2021) to address some of the needs of the Senior Management Service Competency Framework. The workshop learning outcomes focus on programme lifecycles in government, programme success and ministerial oversight, managing inherent and residual risks in programmes, the project lifecycle, project management knowledge areas, project documentation, and projects in a globally and culturally diverse setting. Considering the technically complex nature of programme management as a discipline and a vocation, it appears unlikely that a three-day workshop would result in delivering a sustainable, representative, and professionally competent programme management capability.

This finding is further informed by the demographics of the research participants themselves, as well as the observations made by the research participants in relation to their own experiences and observations in rendering programme management services across the South African public sector.

The study did not conduct an exhaustive quantitative analysis of the demographic, educational, and competence profiles of programme managers across all national, provincial, and local government departments. As such, this finding suggests a possible knowledge gap that could benefit from additional research.

5.2.3.2.4 Improving the accessibility of programme management

When turning to respondents’ perspectives on ways to improve the organisational attitudes towards programme management, the study found that programme management needs to be made accessible by ensuring that its context is properly defined and by evangelising its benefits. It demands understanding by stakeholders that programme management is not a ‘silver bullet’, but that it requires an enabling environment and is dependent on the adopting of flexible and appropriate programme management approaches, which may include so-called agile methods.

Table 18 summarises the expected benefits of programme management and the characteristics of an enabling environment (Ferns, 1991).

Table 18: Potential Benefits of Programme Management and the Characteristics of an Enabling Programme Environment (adapted from Ferns (1991, pp. 153–154)).

Potential Benefits of Programme Management	Enabling Environment Characteristics
<u>Meeting business needs</u> by ensuring that projects, which typically are inward-looking, are aligned with each other, and are implemented with close regard to business strategy and priorities	The effectiveness with which the programme manager is <u>integrated into the organisation</u> , including ensuring that the programme manager’s reporting line is not at too low a level in the organisation
<u>Savings</u> in the selection and use of tools, procedures and training, staff-related savings by streamlining resource assignment across projects thereby limiting ‘idle’ time and associated waste, and minimising corporate spending by applying common themes in development and techniques and applied to projects under the banner of the programme	Using a <u>programme manager selection approach</u> to ensure that candidate programme managers can operate within the organisation’s hierarchy, strategic focus, and communication needs
<u>Reducing risk</u> by managing interfaces and dependencies between projects, thereby	<u>Optimising programme designs</u> by grouping projects with similar potential benefits or commonalities

Potential Benefits of Programme Management	Enabling Environment Characteristics
<p>minimising costly redirection and reengineering efforts. Improving understanding of the process of programme management by senior managers leads to increasing awareness that projects are subjected to higher levels of control and co-ordination, and by appointing programme managers who conduct programme-planning control, this contributes significantly to reduced project overruns and overspend</p>	<p>including resource and skill sharing, engineering and software commonality, market-research commonality, and contractor commonality</p>

5.2.3.2.5 Build sustainable programme management capability

“What I would have thought would have been more sustainable over the longer term is if we reduce the pace of implementation, tackled less things and took more people along on the journey. And to make sure as part of each and every programme that we have executed, we built more internal capability to do subsequent things.” (Respondent R13)

Respondent R13’s comment summarises the finding that there exists a need to build a sustainable programme management capability, chiefly consisting of internal human capacity. This capability needs to be aligned to and supportive of the demands of public-sector programmes, and sufficient time needs to be allowed for this capability to develop.

Shehu and Akintoye (2009) emphasise the need for organisations with limited programme management capability and experience to allow time to be included in plans for development and learning of programme stakeholders.

5.2.3.2.6 Conclusion: Positioning and strengthening the programme management discipline in the public sector

This category appears indicative of the complexity associated with deciding whether, and how, to adopt programme management approaches in the public-sector context. The availability of documented approaches or ‘standards’ does not really assist public-sector entities to decide whether programmes and programme management are useful. This is especially given the plurality and diversity of definitions for programmes and programme management.

In the South African public-sector context, the term ‘programme’ is ambiguous. It is chiefly used to differentiate major categories of expenditure in public-sector entities’ budget vote submissions to Parliament and the National Treasury. It is also used to describe a grouping of related projects or initiatives in lower levels of departmental project delivery contexts.

In respect to the project management discipline, PMI published supplementary material and

extensions (PMI, 2006a) to PMI’s PMBOK, which acknowledges the uniqueness of projects and project management in the public sector, yet no such material is available to supplement or extend for public sector use PMI’s Standard for Programme Management (PMI, 2017c).

The South African Government Extension to the GTAC PPM Toolkit (Government Technical Advisory Centre, 2020) provides information on managing projects within the unique environment of the South African public service, which encompasses national government, provincial government, and local government.

Although the programme management approach described in *Managing Successful Programmes* (Great Britain, 2011) has its origins in the UK public sector, it also is not overly instructive to public-sector entities on the initial decision points required to determine whether programmes and programme management are suitable for their specific contexts. In this publication, emphasis is placed on programmes and programme management to aid and improve the delivery and management of benefits.

Ferns (1991, p. 149) suggests that programmes and programme management, when “understood and professionally implemented, provides a framework to help project managers ‘get it right first time’ within the business-strategy framework.” Accordingly, programme establishment requires executive-level support, without which programme managers will be unable to exercise the necessary control over projects. Senior management should appreciate the programme concept, as well as the realisation of benefits and savings that the adoption of programme management is likely to deliver.

Figure 11 summarises Thiry’s (2010, pp. 27–28) thesis that uncertainty and ambiguity are key factors that influence strategy development, decision making, and management practices across different contexts. Project management is a change process that is most effective in low ambiguity situations with clear deliverables and effective performance-based methods. Programme management empowers organisations during increased ambiguity and complexity to reduce the ambiguity, thereby improving the context within which project management can be effective.

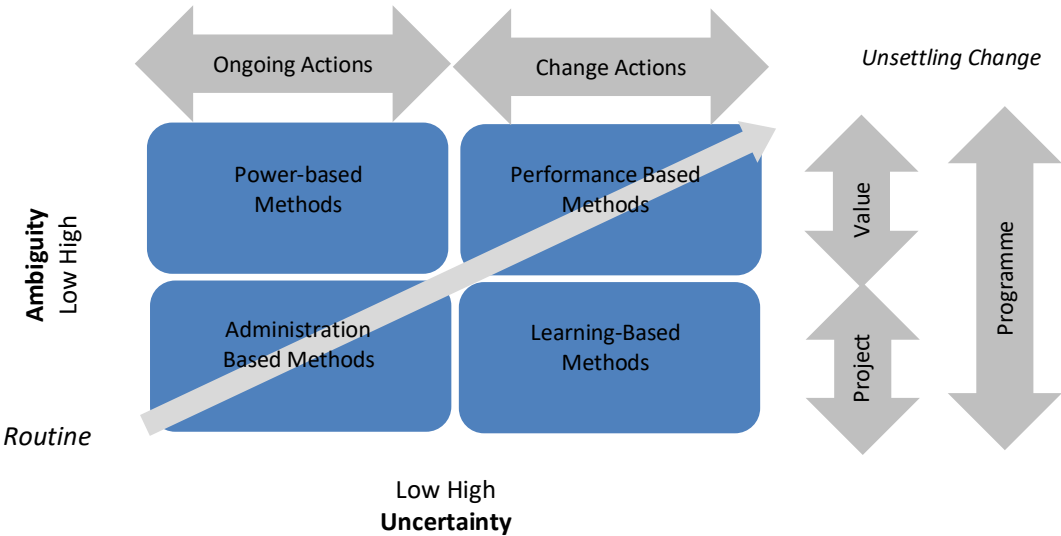


Figure 11: Ambiguity-uncertainty context (adapted from Thiry (2010, pp. 27–28))

The findings of this category suggest that the positioning of programme management as a technical discipline in public-sector organisations requires careful consideration to minimise negative attitudes and to maximise understanding and adoption.

The next section discusses findings on the impact and role of the director general, or accounting officer, as a key stakeholder that can materially influence this process.

5.2.3.3 *Category: The role of the Director General and Accounting Officer*

This category comprises three key findings listed below.

- i. Programme managers experienced variability in the access they had and support they received from the accounting officers and directors general.
- ii. The role, availability, and support of the accounting officer and director general impacts programmes and programme managers materially.
- iii. Programme execution is impacted in those circumstances where decisions need to be taken or ratified by the accounting officer and director general as the final step in a long series of decision-making submissions and committees.

5.2.3.3.1 Variability in access to and support from Directors General

The study found that programme managers experienced variability in the access they were granted to and support they received from the accounting officer or director general of the public-sector institutions where they worked.

A lack of literature on interactions between accounting officers or directors general and programme managers suggests that this finding is a knowledge gap that requires further research.

The researcher, as a practicing programme manager, suggests that three factors likely contribute to the findings of accessibility and related support:

- a. Public-sector entities differ in size and scope. Accounting officers of larger, more complex entities would be less likely to engage in programme oversight, given the multitude of strategic, operational, and stakeholder management priorities they need to manage.
- b. The relative positioning of programmes in the organisational hierarchy and budget. The oversight and execution of strategic change initiatives can be delegated to lower levels of the managerial hierarchy, organisational structure, and in the associated budget allocations, resulting in the programme disappearing from the accounting officer's direct line-of-sight.
- c. The management style and organisational imperatives of the respective accounting officers will influence the support granted to and their direct relationships with programme managers.

5.2.3.3.2 Programmes are impacted when Directors General leave

"It is really difficult and troublesome. ... It is not a matter of you implementing a project and being constantly assured of the support of your political principal or departmental director general to drive the delivery. The moment that the political principal or [director general] is replaced or changes, then people generally change their opinions on the subject and withdraw their support." (Respondent R14)

Respondent R14's comment highlights the finding that the role, availability, and support of the accounting officer or director general impacts programmes and programme managers materially. This is especially true in circumstances where the accounting officer or director general leaves the department whilst a programme with which they are closely involved is still in motion.

This finding also appears to be a knowledge gap with no applicable and supporting literature having been found.

In the current South African political dispensation, directors general usually are political appointees with the mandate to assist a minister in developing and implementing policy and laws. In this context, there is ample scope and evidence for volatility or frequent changes at the director-general level due to changes in political imperatives, adjustments to ministerial portfolios, and major differences of opinion or lack of trust between ministers and directors general.

Further research is required to investigate the real impacts on programmes and programme managers in circumstances where directors general leave a public-sector entity with programmes in full flight.

5.2.3.3.3 Programme delays: Waiting for decisions from the Director General

The study found that programme execution is impacted in circumstances where decisions need to be ratified by the director general or accounting officer as the final step in a long series of decision-making submissions and committees.

Respondent R10 explains:

"... coming back to the measures that [department] had to implement to try and curb corruption and that type of stuff, they pulled up the authority to a higher and higher and higher level. By ... 2011, 2012, each and every cent that you spent on the programme had to first go to the BAC, which is the Bid Adjudication Committee, with people from a different environment that's got no knowledge of what's happening in this space that needs now to approve something that we asked for.

"Can you now imagine how many questions can come out of that thing, and what delays are now being experienced? Because now we want to procure this and that, and these guys raise questions: 'But why do you need this? For what is this?' Everyone needs to re-explain their case again for that Bid Adjudication Committee. Then, as soon as the Bid Adjudication Committee approved something, it needed to be ratified by the director general. Each and every cent for the [this] programme, [that] programme, and for that matter, everything related to [the organisational unit], had to be sanctioned or ratified by the director general.

"Now, can you see how complicated this now becomes?" (Respondent R10)

This finding also appears to be a knowledge gap indicated by lacking literature references.

From the researcher's perspective and personal experience, this category reflects the realities faced by programme managers when directors general react to major perturbations in the organisational context. This is often done by instituting additional management controls through new enterprise-wide committee structures and temporarily removing delegations of

authority assigned to lower levels of the organisational hierarchy. These contexts range from major structural transformations, introduction of new players in the management structures, and responding to serious claims of corruption and criminality in domains where major technology-transformation programmes were under way.

In addition to the cumbersome information flows and other stakeholder-related complexities associated with the introduction of additional governance and oversight bodies, culminating in final decisions taken by the director general, the impact is also felt in the aggregated timeline of the programme when individual projects report unplanned delays or request extended timelines to be approved, part due to having been caught up in the extended approval processes.

5.2.3.3.4 Conclusion: The role of the Director General and Accounting Officer

This category's findings highlight that programme managers expect to have a special relationship with accounting officers. That access to and support from the accounting officers and directors general by programme managers appears to be contingent on a number of factors, the biggest of which are relative size or complexity of the department; the number of programmes active at any time; the profile of the programme (in respect of national priorities, budget or financial value, political implications); whether the initiative is run within the boundaries of the department, or whether it requires a level of alignment, co-ordination and collaboration across a number of departments for which a multi-departmental governance body is established.

It became clear that some accounting officers might occasionally assume the role of programme sponsor, yet this is not common. In most departments, the sponsorship role is delegated to other director-level managers lower down the reporting hierarchy.

Cotton and Dark (2017) suggest that, for a major information-technology implementation programme in a tax authority, although this could arguably also apply to other public-sector entities, the programme sponsor accountability is usually taken up by the commissioner or director general. In this role, the programme sponsor (director general) has four key accountabilities:

- i. delivering a successful programme to the minister,
- ii. ensuring that the programme governance structure is appropriately staffed,
- iii. chairing the business and the reform steering committee, and
- iv. soliciting and obtaining funds for the programme.

Accounting officers who have a direct accountability to implement policy can temper the stringent demands they face when major transformation programmes are introduced in their departments by shifting away from function-based ways of working toward programme and project ways of working. The co-existence of function-based and project-based organisations in the departmental context leads to complexity and arising conflict. This may be minimised for the director general by building a strong programme management capability and being available to engage with the programme managers as the situation demands (Schuster, 2015).

The next theme to be discussed addresses change and the impacts of adopting a programme approach.

5.2.4 Theme 4: Change and impacts of adopting a programme approach

The fourth theme to be discussed relates to change and the impacts of adopting a programme approach in public-sector transformation programmes. Figure 12 depicts the three categories address the experiences of programme managers and programme stakeholders. The first category describes typical ways in which these individuals and groups respond to the unique demands and impacts of running multiple projects in a programme approach. The second category summarises findings about the frequency, type, magnitude, and impacts of changes introduced by and in the business environment where the programme is executed. The last category in this theme explains the complexity of programmes where a multiplicity of departments – and within a department, many divisions – are involved.

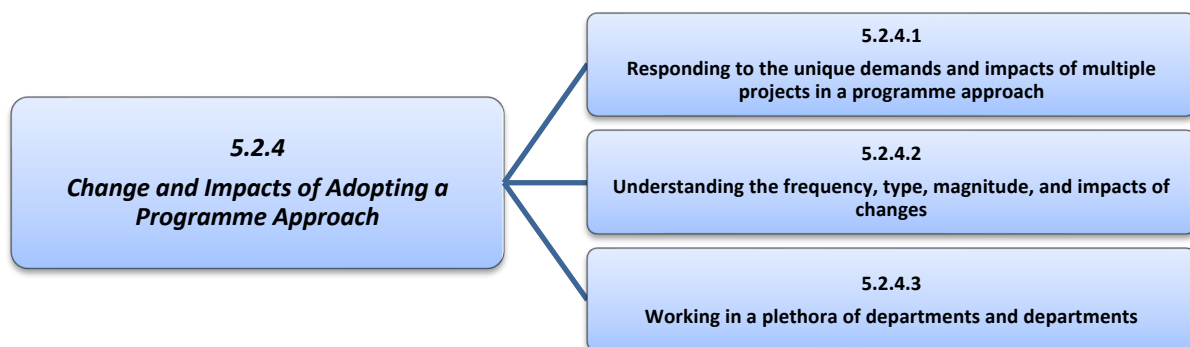


Figure 12: Theme 4 – Change and impacts of adopting a programme approach
(Source: Researcher, 2022)

5.2.4.1 Category: Responding to the unique demands and impacts of multiple projects in a programme approach

This category comprises two key findings listed below.

- i. Departmental stakeholders influence programme managers with the dynamic processes they utilise in associating and assigning projects to programmes.
- ii. Programme participants have difficulty in coping with the human impacts of participating in long-running programmes.

5.2.4.1.1 Opaque prioritisation and decision-making processes

“...the ability to, from time to time, merge certain things into the programme, or to let certain things go out of the programme. I think that for me would be something I would like to do different or get different on. In other words, as the programme [evolves], as the organisation [evolves], sometimes certain things become standalone projects outside a programme, ... but by absorbing that into the programme, we could have ... a greater benefit. ... It might not be as quickly – the delivery – but the nett result could be much better.” (Respondent R9)

Respondent R9’s observation frames the finding that programme managers are impacted by the results of the dynamic, sometimes chaotic, and occasionally opaque prioritisation processes applied by departmental stakeholders when they independently launch and merge

projects into active programmes and when projects are removed from programmes. Van Der Waldt (2016) emphasises that public-sector agencies' increasing use of multi-project environments to implement strategies often leads to project design and execution becoming haphazard. This is especially the result where there is a lack of programme and project alignment with core organisational strategies.

This research project did not conduct an in-depth interrogation of the lower-level prioritisation approaches and justifications used by departmental stakeholders to launch, include, and remove projects around programme contexts. It may thus be a possible knowledge gap that requires more research across the wider public sector into the prevalence, influences, and decision-making approaches pertinent in these scenarios.

This research has already shown in findings described in Section 5.2.1. 'Theme 1: The programme execution environment and its related focus areas' that the formal process required and generally applied to the strategic positioning, budgeting, and launching of programmes and projects may influence decision making at all levels.

The researcher proposes that another potential reason for the opaque prioritisation process that leads to erratic project initiation and merging into and removal from an established programme could be related to low organisational programme and project management maturity. There could also be other factors like external political pressures that leave decision-makers with very little choices other than to accede to demands for project adjustments to be accommodated beyond the 'normal' processes.

5.2.4.1.2 Coping with programme demands and related human impacts

The study found that programme participants, irrespective of whether they are contributors to or recipients of the programme outputs, have difficulty in coping with the demands and human impacts of participating in programmes. This research found that programme participants experience fatigue, become disheartened, and lose focus by the relentless demands to be constantly busy with complex programme activities for extended periods of time. Programmes, by their nature, are complex, long-running initiatives which result in organisations being subjected to major changes that can last several years. Wisse and Sneebo (2016) show a relationship between long programme duration and fatigue due to high levels of uncertainty, demanding work schedules, and significant pressure on team members to deliver under pressing circumstances.

Frequently, expansions in scope and the concomitant need for considerable additional resource commitment and management oversight leads to fatigue, resentment, and in extreme circumstances can be a major driver of organisational discontent (Ward *et al.* 2013, p. 18). Waddell (2005, p. 165) references Wijner and Kor (2000) who observe that, "Initiative fatigue' is a well-recognised, and potentially damaging response to the successive launching of new projects by a management that appears to have no overarching goal, other than to keep changing things."

Public-sector entities might occasionally fall foul of bad management, but they primarily exist in an environment that demands responsiveness to adjustments in political priorities, changing political actors, administrative policy amendments, and outcomes of court proceedings. All of these are sources of change, which induce more change in active programmes.

Technology-based enterprise transformation programmes generally are long-term endeavours and are particularly sensitive to strain and fatigue of programme team members and other stakeholders when they lose their motivation, neglect their duties, or even resign their programme roles. Incentives, performance regimes, continuous monitoring, and a tangible vision can contribute to maintaining long-term programme momentum (Teubner, 2018).

A compelling story communicated properly will aid in peoples' understanding and agreement of why change is needed. This can be crafted by acknowledging that stakeholders have different motivators, by allowing employees to co-create the rationale and approach to the change, and by ensuring that the story is balanced in addressing the change or opportunity. Not following these guidelines will likely result in drained staff members and the organisation at large.

Change fatigue, loss of urgency, and a general desensitisation to the need for change will probably follow (Martinelli *et al.*, 2014). Respondent R18 fittingly summarises the concerns of programme managers:

"I think if you run things as a programme, people ... get disheartened. People get fatigued, and they lose focus. Then you ask yourself, 'Well, maybe then programmes are not such a good idea?'" (Respondent R18)

5.2.4.1.3 Conclusion: Responding to the unique demands and impacts of multiple projects in a programme approach

Programmes are all about implementing complex change in organisations. Findings in this category suggest that, in these complex undertakings, the consequences of ad-hoc and sometimes laissez-faire approaches to programme-project associations result in adding more delays to already-long timelines and durations for project participants. Notwithstanding the existence of tangible visions, incentive schemes and robust monitoring, this increases the overall fatigue profile of participants.

The next section will address how programme stakeholders respond to changes introduced in programme contexts.

5.2.4.2 Category: Responding to changes in the programme context

This category comprises two key findings listed below.

- i. Programme participants become overwhelmed by the frequency, nature, and impacts of changes experienced in a programme context.
- ii. Programme managers are significantly impacted when they are introduced to a programme as a replacement for another programme manager who withdrew from the programme.

5.2.4.2.1 The overwhelming frequency, nature, and impacts of changes

The study found that programme participants become overwhelmed by the frequency, nature, and impacts of changes experienced in a programme context. Respondents relayed changes to delivery scope, people, political direction, sponsorships, new thinking, and ways of working as instances that materially influence their work. They summarised their observations with the phrase, "changes everywhere," which suggests that change is experienced as being pervasive.

Whilst programmes operate in a wider context of change that is everywhere and iterative, they must remain agile and flexible to always adapt to emergent and unpredictable changes in outcomes, demands and conditions. Technology-driven programmes face additional complicated changes due to the changing nature of technology and adjustments to the business needs in parallel during the life of the programme. For programme stakeholders, changes driven from responding to unfamiliar situations can be highly ambiguous and carry either low or high uncertainty. In this broader context of programmes as complex and wicked problems, the individual cycles of change experienced by programme stakeholders can become overwhelming (Great Britain, 2011; Teubner, 2018; Thiry, 2010).

One way of minimising these potentially overwhelming situations is to prioritise learning in the context of constant change to equip programme stakeholders to deal with the introduction of changes that extend beyond their past experiences (Waddock *et al.* 2015, p. 1006).

The observations of Buchanan (2003) on investigating the lived experiences of programme participants whose roles progressively change from ‘driven’ to ‘drivers’ could be indicative of the positive effects that learning in the context of constant change can bring. Table 19 summarises the observed themes of how programme participants assumed new ‘driving’ roles in response to these programme-level changes.

Table 19: Drift in ‘driver’ roles in context of constant change
(adapted from Buchanan (2003))

Theme Label	Description
Flexible drivers	Embraces the fluid, evolving nature of the change driving role and the need for constant flexibility
Determined contributors	Demonstrates a range of strong personal and organisational motives for involvement in change implementation
Pain absorbers (1)	Absorbs exposure to challenge, pressure, stress, and ‘pain’
Pain absorbers (2)	Deals with the pain of others
Political manipulators	Engages in influencing and negotiating with more senior staff and staff in other occupational groupings
Career enhancers	Builds significant personal knowledge and skills development leading to novel career opportunities

5.2.4.2.2 Being the replacement programme manager

The study found that programme managers face different challenges when they participate in a ‘changing of the guard’ by replacing another programme manager on a programme.

GAPPS (2011) suggests that long-running programmes could have multiple programme managers, with the replacement programme manager's role essentially being the same as that of the initial programme manager.

Scant literature sources only focusing on the issue of 'replacing the project manager' were found. The primary focus of these literature sources is on reasons for replacement, the decision processes towards selecting a replacement, and the effects of replacing project managers. The emphasis also appears to be on the effects on the projects themselves, whilst very limited attention is being paid on how 'being the replacement' is experienced by the new project manager.

With no additional literature references addressing the replacement of a programme manager, apart from GAPPS (2011) referenced above found, it suggests that this finding might be a knowledge gap that requires additional research and analysis.

As we have seen before, programmes primarily focus on facilitating and co-ordinating major changes in organisational contexts. Typically, there are three stakeholder groups impacted by programmes:

- (1) The wider organisational stakeholders at whom the change is being directed (recipients).
- (2) The programme participants or team members (direct or arm's length) who contribute to the change programme by delivering outputs, products, and interventions.
- (3) The programme managers who lead and oversee the programme delivery.

In all these instances, the nature, pace, and type of change directed at and experienced by the stakeholders differ, which introduces very complex variables into the overall delivery dynamic.

In this complex delivery dynamic, programme managers occasionally are replaced, amongst other reasons, due to promotion, unsatisfactory performance, organisational politics, and illness, death, or resignation.

For programme managers stepping into an in-motion programme, this is particularly challenging, especially if the programme stakeholders have not been properly informed on the reasons.

The researcher proposes that, at a minimum, the replacement programme manager should be afforded some protection from fielding questions, remarks, and antagonism due to them being 'parachuted' into the role. The performance and support needs of replacement programme managers in these contexts should be carefully monitored and attended to, to ensure that the programme manager can settle reasonably quickly and maintain a level of delivery performance commensurate with the demands placed on the programme.

5.2.4.2.3 Conclusion: Responding to changes in the programme context

Findings in this category suggest that the pervasive nature of changes introduced by, and within the workings of programmes, can become overwhelming to the stakeholders and participants. Programme managers themselves face uncertainty and low levels of acceptance when they join in-motion programmes as replacements for programme managers who became unavailable or unable to continue their duties.

The next section will address findings related to working in an environment characterised by multiple departments and related subdepartments.

5.2.4.3 *Category: Working in a plethora of departments and subdepartments*

This category comprises two key findings listed below.

- i. In programmes with multiple public-sector department participants, programme managers experience demands of institutional independence, dissimilar departmental mandates, and frequent adjustments to sponsor and owner groups due to politicking, agreed-to rotation, or other arrangements.
- ii. Programme managers of programmes involving multiple divisions within a single department need to traverse terrain characterised by differences in priority, misalignments of expectations, irregular commitment, unbalanced capacity, and limitations in available resource capability.

5.2.4.3.1 Impossible demands: Interdepartmental boundaries

The study found that programme managers overseeing joint programmes, where multiple public-sector departments participate in a single initiative, experience demands of institutional independence, dissimilar departmental mandates, and frequent adjustments to sponsor and owner groups due to politicking, agreed-to staff rotation, or other arrangements.

The South African government's Framework for Managing Joint Programmes (Governance and Administration Cluster, 2005, pp. 9–10) acknowledges that joint programmes "are often compromised because they are seen as the accountability of the co-ordinating department." The programme is seen as an 'add-on', or over-and-above, to the institution's core responsibilities which then easily falls prey to being ignored or sidestepped.

Formal acceptance, buy-in, and joint accountability – spanning from the political heads (executive authorities) through directors general to lower-level officials – is positioned as a remedy to this situation. Visible senior-level buy-in and promotion of joint work will influence other programme stakeholders to take crosscutting work seriously.

The Framework proposes the use of cabinet committees and, in exceptional circumstances, inter-ministerial task teams to provide strategic leadership, guidance, and direction to joint programmes. It is expected that directors general, or a delegated alternate, establish programme steering committees for joint programmes. As shown earlier in this research project, the relationship between the programme manager and the respective director general are at best strained, and at worst non-existent, resulting in very complex dynamics having to be navigated in these programme steering committees.

In respect of ownership of joint programmes, the Framework directs that accountability for departmental performance targets remain with the specific departments. From this follows the practice that certain elements of the joint programme are assigned to specific departments, with the concomitant accountability for delivery and expectations to report.

Programme managers will likely find it very difficult to direct programme activities across departmental boundaries without the assistance of designated departmental accountable managers with line-function responsibility.

Joint programmes are expected to establish partnering protocols to clarify objectives, roles, accountability channels, 'rules of engagement', communication plans, and to facilitate stronger inter-governmental relations and collaboration. Most of the elements expected to be addressed in the partnering protocols are generally also included in programme governance documentation. Joint programmes are likely to fail where the partnering protocols are not established or are ignored – the most common assumption being that all stakeholders know why they are participating and what their specific roles are.

Given the complex and dynamic relationships between departments, the implementation of the Framework recommendations is likely to be a source of contestation, politicking, power plays, and misalignment. These contribute to the observations of the study's respondents that programme managers find joint programmes very challenging to manage.

5.2.4.3.2 Impossible demands: Intra-departmental boundaries

Respondents to the study highlighted that, for programmes executed in a single department but involving multiple divisions within that department, programme managers need to traverse terrain characterised by differences in priority, misalignments of expectations, irregular commitment, unbalanced capacity, and limitations in available resource capability.

Braathen (2016) likens public-sector institutions to complex systems where the organisation concurrently exists on multiple levels. Each level, unit, or team integrates constant change and stable structures, all of which are dependent on the measure of perception. The patterns of interactions within and amongst these levels generate the differences experienced by programme managers – through social dynamics, power relationships, real lack of capability, and imbalances in available capability. According to Braathen, this is a natural property of structural hierarchies found in all complex systems.

From a programme management practitioner's perspective, the researcher sees the challenges listed in the category as general organisational realities and deficiencies with which senior and middle management are saddled.

The researcher did not conduct an in-depth interrogation of this category with the respondents after it was identified, and it might be classified as a knowledge gap to be addressed in future research across the wider public sector into the prevalence, real impacts, and management approaches associated with these challenges and deficiencies.

5.2.4.4 *Conclusion: Change and impacts of adopting a programme approach*

This theme suggests that adopting a programme approach has real consequences for implementing agencies and their programme managers. The frequency and magnitude of changes introduced with and to programmes, as well as the dynamics within and between departments, need to be carefully tracked and managed to ensure that programme managers can remain effective in delivering on the expectations of public-sector entities tasking them.

A key part of a programme manager's work is to establish and maintain good relationships, manage conflict, and nurture understanding amongst programme participants. The study's findings on this theme are discussed in the next section.

5.2.5 Theme 5: Relationships, conflicts, and understanding

The fifth theme to be discussed relates to actions and attitudes of programme stakeholders to relationships, conflicts, and maintaining understanding in programme contexts. Figure 13 depicts the theme and its contributing categories. The first of three underlying categories describe the experiences of programme managers in relation to managing relationships, building and breaking trust, and engaging with programme stakeholders. The second category addresses findings related to remaining engaged with the programme stakeholders whilst managing conflicts and ensuring that stakeholders are keeping the focus. The final category describes the strategies used to establish and maintain understanding.

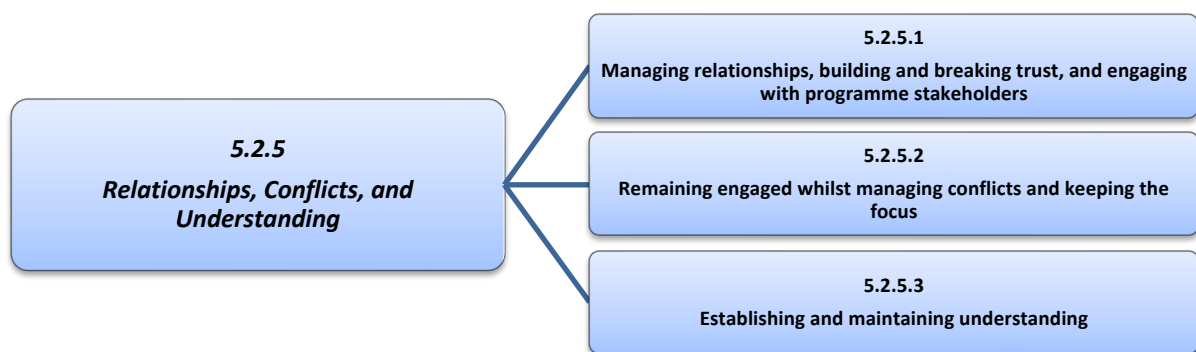


Figure 13: Theme 5 – Relationships, conflicts, and understanding
(Source: Researcher, 2022)

5.2.5.1 Category: Managing relationships, building and breaking trust, and engaging with programme stakeholders

This category comprises three key findings listed below.

- i. Programme managers are frequently challenged by strained relationships.
- ii. Programme managers experience distrust towards them and others in programme management contexts.
- iii. Programme managers are required to maintain awareness, nurture buy-in, manage commitments and expectations, and pre-empt forming of negative perceptions by constantly engaging programme stakeholders.

5.2.5.1.1 Programme stakeholders strain relationships with programme managers

The study found that, in contrast to programme managers' acknowledgement that establishing and maintaining productive relationships across a wide range of programme stakeholders is important, they are frequently challenged by strained relationships with self-same programme stakeholders. Shao and Müller (2011) and Pellegrinelli (1997) maintain that the organisational context (internal and external) and the programme configuration influence relationships between the programme manager, top management, functional departments, and stakeholders. The manner how the programme draws resources, compliments functional management, or encroaches on the functions of line managers influence relationships between the programme manager, functional managers, programme resources, and other stakeholders.

Lycett, Rassau, and Danson (2004) emphasise that effective programme management is relationship-based and must consider power dynamics. They maintain that challenged

relationships are triggered by ineffective management of three different relationship contexts that programme managers are subjected to:

- i. relationships between the programme manager and project managers in the programme,
- ii. relationships between constituent projects of the programme and the wider business context, and
- iii. relationships between individual project managers in the programme.

At a minimum, programme management should create the context that facilitates stakeholder relationships to support and enable project managers to be successful. In respect to power dynamics, it is important to understand that programme management is not always recognised as being in the best interests of individuals in positions of power. Relationships should be pre-emptively managed by anticipating potential challenges in the perceived power dynamic between sponsors, project managers, and the programme manager. Goal-drift can become a source of power dynamics when programme-level goals become incompatible as they are translated into project-level objectives, resulting in conflicting priorities and resultant dysfunctional relationships.

Wagner and Barkley (2010) and Curlee and Gordon (2013) offer possible solutions to minimise adversarial and strained relationships by recommending that programme managers devote time to build relationships with each team member. This can be done by adopting an effective 'partnering approach' when teams are established and ensuring that communication lines remain open and exercised. It also helps to craft a single set of goals and procedures for conflict resolution.

5.2.5.1.2 Departmental managers' distrust towards programme managers and others

*"When people know that you can be relied on, they tend to put their trust in you a little bit more every time to a point where strategic goals are being achieved. ... That trust is tested, and it is continuously tested as well."
(Respondent R7)*

Respondent R7's observation confirms that building trust requires time and effort and, by implication, that it can be eroded or broken very quickly. Although the need for trust amongst programme stakeholders was recognised, the study found that respondents frequently suffered distrust towards them and others in their respective programme management contexts.

Bolman and Deal (2008) emphasise that any change usually undermines structural arrangements, thereby creating ambiguity, confusion, and distrust. It could reasonably be expected that the distrust experienced by programme managers is induced by their assigned accountability to lead the introduction of major organisational change through programmes. As seen in the previous finding, power dynamics emerge when scarce resources and services are needed in programme contexts.

These opposing interests and competition amongst stakeholders lead to distrust and lack of co-operation (Van Dyk, 2002). A lack of trust leads to strained stakeholder engagements and ineffective teamwork. Organisational leadership, in their role as active programme stakeholders, stimulate trust by being open to challenge, leading with consistency and

transparency, and allowing issues to be debated freely and risks to be openly evaluated (Great Britain, 2011).

The programme manager also has an obligation to minimise distrust. This can be achieved by adopting a leadership style which promotes trust and collaboration. Of emphasis is the need to establish trust at the individual level between the programme manager and programme stakeholders. The programme manager must also focus on building trust in group contexts where group members must be taught to trust each other and the judgment of the group. Programme managers must engage in daily efforts to ensure that trust is earned (Curlee & Gordon, 2013).

Luhmann (2000) proposes that any system – economic, legal, or political – requires trust as an input condition without which it cannot respond to uncertainty or risk. Trust must be achieved within a familiar world, where changes impact the recognisable features of the world, which then affects the possibility of developing trust in human relations, thereby causing a vicious cycle.

The researcher suggests that programme management, as a system established to manage uncertainty and risk, is particularly dependent on the existence of trust. Furthermore, the proposition is that the distrust experienced by programme managers could be directed at either the programme manager themselves or at the discipline of programme management. In both cases, the unfamiliarity with and the lack of confidence in the person or the discipline results in diminished trust. This causes the programme manager to struggle in establishing and maintaining proper trust relationships.

5.2.5.1.3 Maintain awareness, nurture buy-in, and minimise negative perceptions

The study found that programme managers are required to maintain awareness, nurture buy-in, manage commitments and expectations, and pre-empt forming of negative perceptions by constantly engaging programme stakeholders.

Patanakul *et al.* (2016) observe that government programmes are characterised by multiple stakeholders. In this multiple stakeholder-context, programme performance can be enhanced by adopting a managerial focus on stakeholder engagement and by engaging stakeholders according to their influence on the programme performance.

According to Didinsky (2017), programme managers must engage stakeholders to maintain relationships and realise the required benefits effectively. Active stakeholder engagement helps to build and maintain ongoing support of the programme, with the programme manager managing the engagements based on an understanding of the dynamic human aspects of each programme stakeholder's expectations. Additionally, a key part of establishing an effective programme organisation requires designing appropriate levels of engagement between a programme and its stakeholders (Great Britain, 2011).

This research finding reflects the importance of and emphasis placed on 'engagement' with stakeholders as documented in standards documents, such as *Managing Successful Programmes*' Chapter 6 which deals with leadership and stakeholder engagement, PMI's *Standard for Programme Management*, and various other programme management texts. What is not evident from the referenced standards material, nor the research results, is the difficulty experienced by the programme manager to maintain good relations and

constructive engagements with the stakeholders due to some of the complexities around trust as referenced earlier.

On a personal experience note, the researcher confirms that the level of effort required to sustain productive engagements with a programme stakeholder group who experienced more than 30 key stakeholder changes over a 30-month period, is exhausting and sometimes quite disheartening.

Lehtonen (2014) supports the findings of this theme with the suggestion that the multiple accountability structures in the context of a programme and its environment are complex and contribute to breakdowns in relationships and trust amongst programme actors. Communicating, negotiating, and building relationships are key competencies for programme managers and are documented knowledge areas in programme management standards published by PMI and other institutions. Appropriate use of these competencies builds trust among stakeholders, clients, and team members (Levin & Ward, 2011).

Table 20 summarises the findings of Sohmen and Dimitriou (2015). These highlight the prominence of communication and engagement, and relationships and trust in the core competencies of a programme manager.

In the general, normative view, where ‘trust’ may be described as the ‘confident positive expectations regarding another’s conduct,’ and ‘distrust’ as the ‘confident negative expectations regarding another’s conduct,’ trust is ‘good’, and distrust is ‘bad’.

Maybe it is time for a movement away from old views of relationships for a fresh perspective on social relationships that allow for simultaneous trust and distrust (Lewicki *et al.* 1998). Lewicki *et al.* maintains that relationships are complex by being multifaceted and compartmentalised, often resulting in situations where partners in the relationship are trusting each other in certain circumstances, not trusting each other in other situations, and facing complete distrust of each other at times.

Table 20: Core Programme Competencies and Their Impacts on Relationships, Conflicts, and Understanding (adapted from Sohmen and Dimitriou (2015))

Competence	Impact Description
Leadership and Teamwork	The programme manager as the leader is responsible for engaging all the team members and creating collaboration, individual commitment, and accountability.
Ethics	Ethics builds trust and integrity.
Communication	It is important to build trust and respect to effectively build key relationships. Thus, effective communication involves working to break down barriers within and across projects, as well as functional departments.

Competence	Impact Description
Internal and External Stakeholder Management	The relationships programme managers have with customers is significant.
Political Understanding	With a solid understanding of the political environment, the programme manager will need to form positive relationships so that the full benefits of the programme can be realised when the activities are transitioned to gain leverage and buy-in for overall success of the programme. As PMI states in The Standard for Programme Management, well-managed stakeholder expectations and established buy-in can ensure success of the programme.

Luhmann (1979) articulates, “trust and distrust as distinct but potentially coexistent mechanisms for managing complexity” and furthermore argues that “both trust and distrust function to allow rational actors to contain and manage social uncertainty and complexity, but they do so by different means.” According to Luhmann, trust reduces social complexity and uncertainty by allowing specific undesirable conduct to be removed from consideration and by allowing desirable conduct to be viewed as certain. Similarly, distrust functions to reduce complexity by allowing undesirable conduct to be seen as likely, even certain.

In the programme management context, there is an overabundance of complexity that needs to be managed, and it is dependent on functioning ‘confidence relationships.’ The programme management literature emphasises building trust as the means to enter and maintain these confidence relationships. Given the complexity in programmes and the multi-faceted stakeholder groups, foundations for both trust and distrust abound. Managing social relationships in this context might thus contain undesired conduct and capitalise on opportunities made possible because of desired conduct.

If trust and distrust are conceptualised as separate but linked dimensions, and not seen as opposite ends of a single continuum where low distrust equates to high trust and high distrust equates to low trust, the notion of distrust as being ‘bad’ in the context of programme management needs a revisit. Both allow for movement towards certainty – trust considering expectations of things hoped for and distrust considering expectations of things feared.

Programme managers and programme stakeholders need to be equipped to see as productive the dynamic tension of trust and inevitable distrust given the complex environments and stakeholder dynamics. They also need to understand that this could be used to establish stable relationships.

Programme managers frequently find themselves having to manage conflict, and to communicate and engage with programme stakeholders to ensure that the stakeholders remain focused on the programme. These findings are addressed in the next section.

5.2.5.2 Category: *Remaining engaged whilst managing conflict and keeping the focus*

This category comprises four key findings listed below.

- i. Programme stakeholders need to be constantly engaged to ensure they remain focused on programme governance processes, goals, common direction, and the long-term journey.
- ii. To maintain progress, programme managers use conflict management and resolution actions with programme stakeholders and participants.
- iii. Programme managers adopt an attitude of being helpful, accommodating, and looking to compromise (compromise-seeking) whilst working to achieve the defined programme, group, and individual goals.
- iv. Programme managers emphasised the importance of communicating with programme stakeholders and, in doing so, adopt various strategies, approaches, and tools to improve timeliness, accuracy, and integrity of the messages being shared.

5.2.5.2.1 Constant engagement with programme stakeholders

“The programme manager keeps everybody’s eye on the ball, keeps the people grounded, keeps bringing everybody back to, ‘This is what we set out to do. This is where we are. This is where we’re going. If you are going to change direction, no problem, but let’s do it in a controlled manner.’”
(Respondent R18)

Respondent R18’s statement introduces the finding that programme stakeholders need to be constantly engaged to ensure they remain focused on programme governance processes, goals, common direction, and the long-term journey. Programme managers frequently must ‘bring them back’ to what was approved or agreed to.

Baugh (2015) submits that the delivery of programme benefits is directly dependent on strong stakeholder relationships. Programme managers must clearly identify, adequately engage, and keep stakeholders engaged through pervasive, consistent, and persistent activity for the life of the programme. It is not just a once-and-done event. Programme stakeholders must clearly understand the programme scope to minimise misaligned expectations leading to frustrations and causing a loss of support for the programme. This requires a continuous dialogue to validate the stakeholders’ understanding of key programme deliverables and outcomes, delivery schedule, investment and cost, quality, and general resource allocations.

Anticipated and emergent risks, as well as immediate issues arising from the programme’s progression also need to be discussed with stakeholders to maintain properly aligned expectations. Of crucial concern is the reluctance of key stakeholders to share knowledge, resources, or risks. Programme managers must use conflict resolution and engage in direct reminders about the programme’s focus to enhance communication with stakeholders.

Authoritative decisions regarding resources and risks can be very powerful when applied strategically by programme managers (Bojeun, 2014).

Kakabadse *et al.* (2011) justify the respondents' need to 'bring them back' by emphasising that issues need to be refreshed frequently in government departments. This ensures that alignment is maintained and remains operational with minimal friction in an often disconcertingly complex world.

5.2.5.2.2 Use conflict management and resolution to maintain momentum

The study found that programme managers use conflict management and resolution actions with programme stakeholders and participants to maintain momentum. They did not shy away from employing confrontational approaches when the situation demanded a more robust engagement.

Payne (1995) and Didinsky (2017) found that unstable relationships prevalent in multi-project and multi-programme environments generate conflict, chiefly in the domains of people issues, systems issues, and organisational issues. Conflict management is a tool available to the programme manager to ensure stakeholders' needed levels of engagement.

To be effective, a programme manager must develop and apply a leadership style that focuses on managing relationships and dissolving conflicts (Baugh, 2015; Didinsky, 2017). According to Pellegrinelli (2008), a programme manager's attitude and approach to conflict and divergence inform how the programme manager senses and responds to active and simmering differences of opinion, tensions, disagreements and conflicts during the programme's lifecycle. The programme manager's own views and attitude on the conflict's or divergence's nature, sources, and manners to address it will inform whether conflict management approaches are utilised in the respective situations, such as avoiding, accommodating, competing, collaborating, and compromising (Bojeun, 2014).

A competent programme manager is expected to assist in resolving conflicting interests and facilitate conflict resolution between multiple programme stakeholders with diverging interests. This becomes very difficult when the programme manager is disempowered and inhibited by organisational constraints to creativity and decision making, or when there is a mismatch between the programme manager's role definition and the incumbent's profile. This frustration reflects an alternative 'source' or 'origin' of conflict in regard to mismatches of expectations between stakeholders and programme managers and the boundaries that are defined in which programme managers are expected to operate (Thiry, 2010).

Respondent R9 accordingly emphasises the need for conflict management in a complex programme management context:

"It is a very diverse environment, very complex from time-to-time, especially with lots of role-players that you have to deal with. And that dynamic in itself takes a lot of effort, takes a lot of time that you have to consume and manage or resolve, if it's conflict or alignment matters like that. And that, sometimes, can become taxing so, in other words, to get everybody to toe the line, if that's the word I can use." (Respondent R9)

5.2.5.2.3 Sometimes, it is better to compromise to maintain momentum

The study found that programme managers regularly adopted an attitude of being helpful, accommodating, and looking to compromise (compromise-seeking). This is whilst working to achieve the defined programme, group, and individual goals.

According to Ejigiri (1994), compromise is the art of give and take, knowing when not to lose it all, and requires trade-offs to be made. For programme managers, knowing when to compromise is an essential skill.

Stakeholder commitment is more likely to be achieved when programme managers, having a clear vision of intended future outcomes, and business and organisational models allow compromise and trade-offs during implementation rather than attempt to enforce decisions or expectations (Ward *et al.*, 2013). Given the dynamic and emergent contextual factors of programmes, compromise and accommodation of stakeholders should be flexible while programmes are reshaped. The hard project management environment is much less accommodating of compromise (Shao & Müller, 2011; Waddell, 2005).

Although compromise is acknowledged as an approach towards managing conflict and facilitating progress, it is generally interpreted to be a lose-lose situation in which resentment about not being heard or acknowledged can be experienced. Compromise may lead to participants exiting with a negative result, thereby increasing feelings of hostility, leading to more downstream conflict, and resultingly diminishing the future use of compromise in the programme management context.

5.2.5.2.4 Maintaining open communication lines

Respondents to the study emphasised the importance of communicating with programme stakeholders and, in doing so, adopted various strategies, approaches, and tools to improve timeliness, accuracy, and integrity of the messages being shared.

According to PMI (2006), programme managers should focus on communication planning and execution to focus on the proactive and targeted development and delivery of key messages to stakeholders at the right time and in the right manner. This requires quality information being available to programme managers to effectively operate in their environments. Quality of information includes data integrity, focus and timeliness of information, and how the information is presented. Information is multivariate addressing four core themes: strategy, programme planning and progression, benefits management, and performance measurement (Wickes *et al.* n.d.).

Thiry (2010, p. 53) suggests that there should be a shift in emphasis from communication to marketing in programme management since marketing “encompasses strategic integration and not only follows strategy but drives it.” Thiry demonstrates that programmes that utilise communication management, as applied in projects, are much less successful than programmes that are well-marketed with an integrated marketing strategy. These strategies support stakeholder management and engagement as an essential element of programme planning and execution. In this context, communication and marketing management could be summarised as developing an interactive communication system aimed at gaining stakeholders’ support in terms of the strategy and delivery of the programme benefits. It includes the identification of the needs and expectations (expected benefits), clarification and communication of the way in which they will be delivered and measured, and the ongoing communication of their monitoring and delivery, both to maintain the stakeholders’ motivation and to make quick and sound decisions when required.

From a practitioner’s perspective in the public-sector context, the emphasis is mostly placed on communication management and to a lesser extent on marketing management.

The opportunity thus presents itself for programme managers and senior programme stakeholders to improve programme communications by using practices traditionally associated with marketing activities. To do so, programme managers would need to be afforded a basic introduction to marketing messaging and communication practices.

In conclusion, the literature searches suggest that there is an overabundance of material available that confirms the importance of communication in the programme context. As examples, the programme management standards literature (PMI Standard for Programme Management and OGC's Managing Successful Programmes) emphasises the importance of communication. PMI introduces communication management plans directed at addressing the communication needs of programme stakeholders and focusing on various subjects, such as planning, status, and benefits management. Managing Successful Programme's treatment of communication management is to deeply embed it in stakeholder management.

5.2.5.2.5 Conclusion: Remaining engaged whilst managing conflict and keeping the focus

This category's literature search results indicate that programme managers active in the South African public-sector organisations acknowledge the importance of communications and actively work towards constructive engagement with their stakeholders. The researcher's personal experience in context of this category is that the approaches adopted to facilitate engagement, conflict management, compromise-seeking, and communication are contingent on the contextual realities and nuances of each programme.

Public-sector entities have adopted, or require, the use of 'standardised' reporting templates to capture and communicate programme status updates internally. Reporting to external stakeholders, such as ministerial reports, also follow pre-set parameters. Being forced to communicate with stakeholders using a rigid templatised approach forces mechanistic reporting more suited to project-management parameters. It also removes or lessens the ability to convey subtle messages in a nuanced approach, especially in those circumstances where direct access to some stakeholders is not possible, only allowed with reports, or with communication having to be pushed up through the chain of command and organisational management layers.

Programme managers are generally consumed with engaging and communicating with stakeholders to manage conflict and keep them engaged. They also must work hard at ensuring that a general sense of understanding is developed and maintained during the programme lifecycle. The findings associated in this context are discussed next.

5.2.5.3 Category: *Establishing and maintaining understanding*

This category comprises two key findings listed below.

- i. Programme Managers emphasise the importance of establishing and maintaining their own 'inwards' understanding in respect of the programme through communicating with others and contemplation or higher-order thinking.
- ii. Programme managers build and maintain 'outwards' understanding in stakeholders through education, marketing, training, and communicating about the programme.

5.2.5.3.1 Maintaining an 'inwards' understanding

During the study, respondents emphasised the importance of establishing and maintaining their own 'inwards' understanding in respect of the programme through communicating with others, envisioning, and deep contemplation.

From Pellegrinelli (2008), it is apparent that asking questions and making inquiries are prominent activities in the communication, engagement, co-ordination, decision making, and direction-setting responsibilities of programme managers. Programme managers use questions or inquiry for multiple purposes:

- i. To ascertain the facts of a situation, and sometimes to request options and opinions for personal clarification and understanding
- ii. Sometimes using deliberate confrontational questions to challenge statements or information aiming to gauge their validity or reliability, and to test the conviction of opinion or belief, and to imply noncompliance in relation to policies, procedures, norms, or 'common sense'.
- iii. To clarify and challenge. Questions can be used to stimulate creative thinking and possibilities beyond the routine solutions or conventional approaches, and to stimulate another person's thinking, generate a richer set of options, prompt a discussion of their merits, and obtain feedback.
- iv. To redefine or reframe an issue or problem. Frame-breaking questions are directed at fundamental objectives, constraints, and assumptions, and inquire what the consequences or options might be if the objective, or constraint did not exist, or the assumption proved incorrect. The aim of reframing questions is to enable 'out of the box' thinking, to generate radical alternatives, and to prompt deep reflection.

This aligns with the observations of Dawes *et al.* (2009), who advocate that knowledge sharing requires actively developed shared understandings through social interactions over an extended timeframe. A basic level of trust, support, and willingness to compromise amongst stakeholders is necessary to engage in open dialogue and to minimise confusion, wasted effort, and costly missteps.

By developing and maintaining that 'inwards' understanding, programme managers can contextualise the programme's history, key outcomes and benefits, overall strategy and road map, and better lead programme resources in their activities. This is especially in circumstances where they are the only 'constant' in a changing business environment, as explained by Respondent R10:

"At some stage, when I presented this issue of moving back to an old strategy or old ... programme execution structure (if I can call it that), when I presented that, I specifically looked at who the audience [was] around the table when I presented it to the [programme] board. The only two people in that audience that were there from the start—Well, not even from the start, but at least who understood the programme how it should have been understood, was me and [one other]. All the other faces around the table were new. There was another exception: [One other] was gone for a while and came back again. ... [Those were] the only three faces that were there, around the table, that really understood where this whole thing comes from."
(Respondent R10)

5.2.5.3.2 Maintaining an 'outwards' understanding

The study found that programme managers build and maintain 'outwards' understanding in stakeholders through education, marketing, training, and communicating about the programme. This coincides with the work of Thiry (2010) who emphasises that the programme manager's work to build 'outwards' understanding is key in the context of stakeholder management. Here, the programme manager needs to communicate a vision for the need of change, specific programme objectives and resources required, as well as setting clear goals, assessing readiness, and planning for the change while monitoring the impact of the change. Thiry suggests that the role should be shared between the programme manager and the programme business owner since the programme is dependent on stakeholder support, funding, contributions to, and marketing of the programme.

In building this 'outwards' understanding, the programme manager draws on a personal approach to communications, which influences how information is reported, issues are discussed, recommended courses of action are proposed, and meetings and events are facilitated. This approach influences how stakeholder groups are informed, consulted, persuaded, or engaged whilst considering their interests, desires, and reservations. Programme managers are advised to adopt a coaching style to develop and support team members and other stakeholders in relation to an issue or problem (Pellegrinelli, 2008).

The nature of stakeholder engagements prevalent during the programme's definition or formulation stage is key to developing understanding for both the programme manager and other programme stakeholders. These early stages of strategy formulation and benefits realisation appraisals are group-based decision-making processes informed by learning cycles (Thiry, 2010).

Näsänen and Vanharanta (2016) found that the activities and practices used by programme managers are influenced by how they perceive their work environment and that their development of understanding the programme context is a product of social construction facilitated and influenced by discursive engagements and discussions amongst programme managers and stakeholders.

The researcher observes that, amongst others, publications like *Managing Successful Programmes* and PMI's *Programme Management Standard* demand or expect that programme managers and programme stakeholders understand multiple dimensions in context of the organisational environment, requirements, contexts, programme lifecycles, et cetera. These texts also relay the responsibility of the programme manager and other programme participants as to ensure that other stakeholders have a clear understanding of roles, responsibilities, expectations, and the like. There is very much an emphasis placed on 'the need to understand' in these standards, but, apart from referencing 'stakeholder engagement' and the use of strong communication and negotiation skills, they do not venture further in explaining how the understanding is or should be developed. It is implied that adherence to or knowledge of the material presented in the standards or literature reference should result in a programme manager understanding how programme management works. It appears as if there is an implicit assumption or expectation that programme managers know how to establish their own understanding and to inculcate understanding in others.

This study did not interrogate the process through which these perceptions of the environmental context are generated. It is proposed that more work be done in other research endeavours to determine how programme managers themselves make sense of the context during the emergent and ambiguous process.

5.2.5.4 Conclusion: Relationships, conflicts, and understanding

In conclusion, the researcher observes that communication and engagement between programme managers and their stakeholders is a common thread amongst all the categories in this theme. Although communication and engagement appear to be a requirement to progress the programme, it is also a major source of conflict, misunderstanding, and politics, given the variability in stakeholder relations, power, reporting arrangements, expectations, and approaches.

Bolman and Deal (2008, p. 172) suggest that managers adopt Argyris and Schön's Model II (1996) theory-in-use in guiding their actions towards engaging with others. Argyris and Schön's Model II emphasises the integration of action with inquiry and urges managers to "express openly what they think and feel and to actively seek understanding of others' thoughts and feelings." Applying the Model II guidelines, programme managers should:

- i. emphasise common goals and mutual influence in the context of what the programme is expected and what the programme manager is required to facilitate,
- ii. communicate openly and publicly test assumptions and beliefs by engaging with stakeholders and asking questions to test their own assumptions, and
- iii. combine advocacy (communicating actual thoughts, knows, wants, feelings) with inquiry (seeking to learn what others think, know, want, or feel).

The next theme to be discussed addresses the politics of delivery.

5.2.6 Theme 6: Politics of delivery

The sixth theme to be discussed relates to the impact of organisational politics on the delivery of programmes in the public sector. Figure 14 depicts the five categories that will be discussed under this theme, with the first highlighting the actions taken by departmental stakeholders that result in programme managers' effectiveness being impinged. The second category considers how the programme manager engages with and responds to the organisational politics and power relationships in play during programme delivery. Thirdly, a discussion follows on the complexity and dynamism of programmes, and how programme managers respond to how stakeholders exploit chaos and confusion for their own purposes. The fourth category describes those actions and attitudes that typically result in enabling and empowering programme managers. The final category will describe the need for establishing an authority, autonomy, or accountability framework, which allows the programme manager defensible freedom to work.

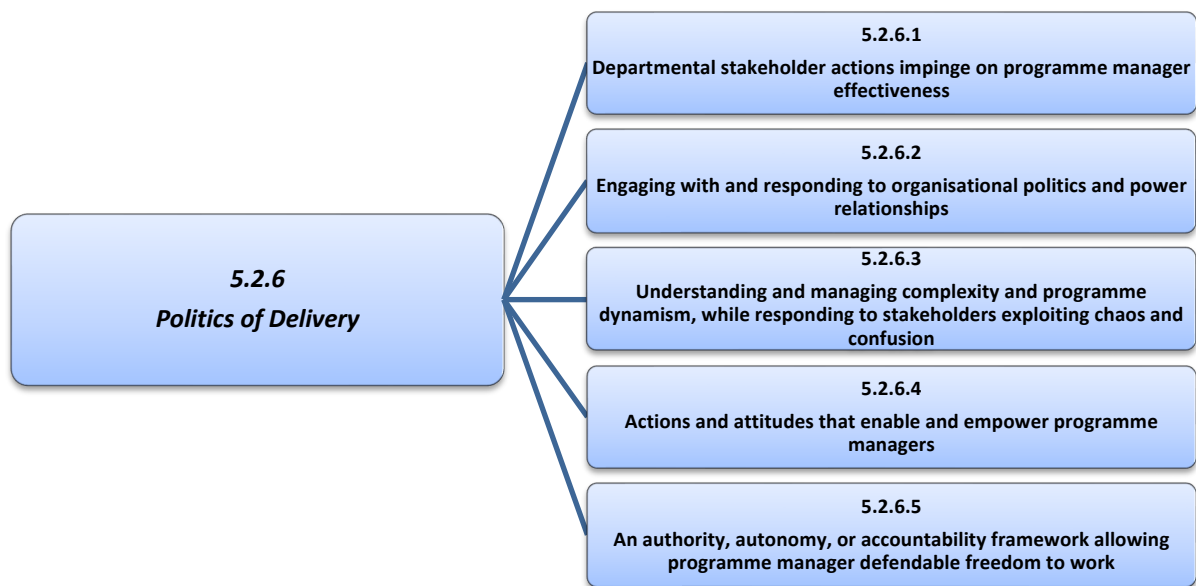


Figure 14: Theme 6 – Politics of delivery
(Source: Researcher, 2022)

5.2.6.1 Category: Departmental stakeholder actions impinge on programme manager effectiveness

This category comprises four key findings listed below.

- i. Programme delivery is disrupted by departmental managers diverting attention away from themselves and their accountabilities, and by sometimes engaging in destructive management behaviour.
- ii. Programme managers are frustrated by departmental managers who frequently change key programme stakeholders.
- iii. Programme progress is actively blocked by departmental managers devaluing programme reporting and by the wasting of resources that should otherwise be available to the programme whilst they appear to refuse to understand programme constraints.
- iv. Departmental managers' resistance to change could be influenced by the prevailing organisational culture.

5.2.6.1.1 Departmental managers' destructive management behaviour

"There's no responsibility or accountability up through the chains of command where it's very easy to make excuses for bad performance, as opposed to come to the table and be [held] accountable for bad performance." (Respondent R7)

"It is extremely difficult to deliver where you do not have the buy-in, the support, and the mandate for consequences should that division not deliver according to the intent of the programme. So, I think for me, it's a combination of politics, buy-in, non-alignment. It's a destructive intent, ... and it's very difficult to deliver when you hit that type of opposition, I would say." (Respondent R17)

Respondents R7's and R17's comments highlight the study's finding that programme delivery is disrupted when departmental managers divert attention away from themselves and their accountabilities, and intermittently engage in destructive management behaviour when programme managers challenge them.

Schilling (2009) confirms the prevalence of counterproductive, deviant, and destructive workplace behaviour by managers. Destructive leadership encompasses behaviour that directly or indirectly inhibits the attainment of organisational and programme team members' personal goals. Schilling states that these behaviours are often associated with insincere leadership, where organisational leaders work to achieve their personal goals at the expense of others through deceitful and clandestine schemes and strategies. Examples of this include blaming others for mistakes, stabbing people in the back, and deflecting blame by calling someone a liar after they themselves promised elements for delivery.

From a personal perspective, the researcher has also observed and experienced aspersions of racism being cast when programme managers raise demands for departmental stakeholders to realise certain commitments. This can be particularly damaging to all the individuals involved, and it invariably disrupts the overall programme delivery cadence while the claims are addressed through the respective grievance, employee relations, and corporate human resource management processes.

5.2.6.1.2 Departmental managers changing key programme stakeholders

The study found that programme managers are frustrated by departmental managers who frequently changed key programme stakeholders. Schneider (2016) explains that job stress in human resources is caused when managers, positioned to positively influence the elimination of politically induced stress, fail to create the enabling environment required to facilitate organisational production. A disempowered environment rife with poor social relationships, conflicts among employees, and a lack of social support amongst co-workers and managers produces extremely stressful workplace situations. The learning to be drawn from Schneider's observation is that the frustration experienced by programme managers is a form of job stress, which is exacerbated or induced by high pressure situations (programmes) where departmental managers fail to provide social support, or when they fail to demonstrate a lack of recognition in respect to maintaining a 'stable' stakeholder environment.

This finding is possibly a knowledge gap given that available literature focuses on emphasising the importance of managing and maintaining relationships with stakeholders. No literature was found on the impacts associated with frequent changes to programme stakeholders, especially when induced by departmental managers or executives.

From a personal perspective, the researcher experienced 36 changes to key programme stakeholders over a three-year period for a specific initiative. The negative, or frustrating, impacts that were experienced in this time include stop-start progress, near-constant education to newcomers on programme intent, strategy, approach, planning and delivery status, and frequently having to re-plan and change direction, given the fluctuating expectations and demands of the newcomer stakeholders.

In a different programme context, Respondent R10's remark reveals some of the frustration associated with frequent changes to their key programme stakeholders:

“It didn’t function properly. It didn’t function as it should have functioned. The real reason for that is of consistency of the role players that attended, that’s the first problem. And secondly, every now and then, there’s new faces, and that continuity of what this programme is actually all about gets lost.” (Respondent R10)

5.2.6.1.3 Blocking programme progress: Devaluing reporting, wasting resources, and ignoring programme constraints

The study found that departmental managers actively blocked programme progress through various tactics including the devaluing of programme reporting, wasting of resources that should otherwise be available to the programme, and ostensibly refusing to understand and acknowledge programme constraints.

This finding appears to be a knowledge gap that requires more research efforts given the lack of literature references on the attitudes of departmental managers towards the value of programme reporting, or their active refusal towards understanding of programme constraints.

The general resource wastage in the public sector is frequently reported by the Auditor General’s reports on fruitless and wasteful expenditure. Ample examples and references to the prevalence and impact of public-sector corruption exist, but this dimension was not raised by respondents to the study as a reason for wastage. The researcher did not engage the research participants in follow-up discussions once this finding emerged.

5.2.6.1.4 Conclusion: Departmental stakeholder actions impinge on programme manager effectiveness

In discussing the possible reasons for departmental managers engaging in actions that impinge on the effectiveness of programme managers, respondents frequently suggested that the departmental managers’ disruptive behaviour was likely triggered by their own resistance to change and could be influenced by their respective organisations’ prevailing organisational culture. Supporting evidence was found in the literature with Ntetha and Mostert (2011) and Noruwana (2015), suggesting that the large gap between policy and practice in the implementation of South African eGovernment services to the general public is driven by lack of capacity and by public officials demonstrating a powerful resistance to change. This creates a strong desire to cling to old service delivery methods.

Birnik (2014, p. 47) warns that “resistance to change” is a loaded term that reflects power and hierarchical relationships in situations where subsidiary managers react to changes imposed from a distant headquarters or central decision-making body.

Resistance, instability, and uncertainty are key features of transformation initiatives that cannot be simply addressed by adjustments to services, management hierarchies, or methods and processes. To be effective, transformation initiatives require a reduction in the forces that wish to maintain the status quo or an increase in the forces of change. In practice, both strategies are combined. Change is implemented through people, and without the skills of management to act as transformation leaders, the process will be contested, especially when departmental managers align with forces wishing to maintain the status quo, thereby increasing resistance. The impact of this resistance becomes particularly damaging in the extremely complex processes of implementing transformation programmes in public-sector

organisations with large staff complements, utilising limited resources in a given policy framework, and without jeopardising service (Knipe & Van der Waldt, 1999). Programme managers also experience resistance from those who have low levels of programme management understanding or who struggle with working in its formal structures (Series on Program Management Success in Government, 2014).

Organisational culture is often overlooked when programme and project governance is introduced. There must be a shift to accommodate a programme and project mindset. Programme team members must be provided with the authority and support they need to adjust to the new realities of running programmes. Key to maturing this culture shift is an adjustment to policies and organisational structures to enhance horizontal trust and co-operation amongst teams and to influence vertical communication through the organisational hierarchies. Executive management should also not evade their accountability to support and uphold the embedded programme and project governance frameworks that they established (Van der Waldt, 2008).

Eddowes (2004) suggests that organisations can minimise resistance by selecting a programme management approach that reflects the culture of the organisation. In this context, the culture espoused by an organisation may be to adopt evolutionary rather than revolutionary changes, which then requires the selection of a less formal programme approach. This attenuates the resistance to change demonstrated by departmental stakeholders and managers.

Beringer, Jonas and Kock (2013, p. 831) note that “surprisingly little research addresses organisational stakeholder behaviour in a strategic management or project [programme] context.” It is, however, notable that Schilling (2009) identifies a number of negative leadership categories that appear to be applicable in the context of this research setting. These include the categories of laissez-faire leadership, active avoidance of leadership, passive avoidance of leadership, failed leadership, restrictive leadership, exploitative leadership, despotic leadership, and insincere leadership, all with varying levels and types of negative consequences towards the leader themselves, interactions between leaders and followers and subordinates, and the environment or organisation in which the leader operates.

The researcher concludes by suggesting that it is possible that the experiences as relayed by the programme managers reflect imbalances in power and influence structures, either between the programme managers and the departmental managers, or amongst departmental managers themselves. This is influenced by the South African public sector having been subjected to several public administration reforms leading to fundamental changes in the demography and experience of its workforce, which may also create imbalances in expectations and approaches, ultimately leading to contestation and impacting relationships in the programme contexts.

Emerging from the previous section is the notion that organisational politics and power dynamics need to be acknowledged. The next section will address how programme managers engage with and respond to these dynamics.

5.2.6.2 Category: *Engaging with and responding to organisational politics and power dynamics*

This category comprises two key findings listed below.

- i. Programme managers are expected to be very responsive whilst delivering programmes initiated towards supporting or enhancing political imperatives.
- ii. Programme managers are carefully navigating and managing the politics of delivery, especially in those instances where 'it remains a power game' in the interactions amongst departmental stakeholders and programme managers

5.2.6.2.1 Responsiveness in context of political imperatives

From the perspective of public-sector programmes being executed in a highly politicised environment, the study found that programme managers are expected to be very responsive whilst delivering programmes, which are initiated towards supporting or enhancing political imperatives.

Buuren, Buijs and Teisman (2010) confirm that programme management in a political administrative planning environment face unique challenges since these programmes cannot be executed in a conventional business-like or hierarchical mode. The political-administrative environment is characterised by ambiguous, dynamic, conflicting, and unstable stakeholder preferences. Strategic planning resulting in long-term decisive objectives does not align with the logic of political planning where objectives are influenced by short-term expectations to maintain power by attracting many voters. In this context, tactical or operational planning for programmes is complicated due to the involvement of a diverse stakeholder group and the numerous interferences between the programme and its political, administrative, societal, and media environment.

KPMG (2011) emphasises that public-sector organisations exist in an environment characterised by complex and shifting networks spanning organisational and sector boundaries with multiple stakeholders. In an environment where boundaries between the public-sector administrators and political stakeholders have become increasingly permeable, programme managers must be flexible and responsive to ministerial direction and public consultation throughout their programmes. This requires the ability to deal with uncertainty, ambiguity, and change while continuing to exercise control, manage risk, and demonstrate accountability and transparency.

Respondent R3 explains the external political influences resulting in predicaments faced by public-sector programme managers:

"A lot about what this organisation has got to achieve is set by the political mandate. I would agree that it is different, ... especially when you have external factors like what Parliament has decided or what Cabinet decisions in a meeting are made." (Respondent R3)

5.2.6.2.2 Navigating and managing the politics of delivery: 'It remains a power game'

"I think that is where the power component comes in, ... it remains a power game, ... you can report on it, you can take it to the governance structures, but it never truly removes the obstacle because it's a personality thing more than a work-related issue that you need to resolve. So, it's a difficult, unpredictable ... almost a personality that you deal with." (Respondent R17)

In turning to reflect on an organisation's internal political influences, Respondent R17's observation frames the study's finding that programme managers need to carefully navigate and manage the politics of delivery, especially in those instances where 'power games' erupt in the interactions amongst departmental stakeholders and programme managers.

According to Sarantis *et al.* (2010), public-sector organisations must consider that public-sector transformation programmes have unique hard and soft issues, which require different management approaches and skill sets. In these contexts, programmes are dominated by politics with stakeholders being motivated by self-interest or a political situation favouring the programme. There might also be opportunities for corruption that move stakeholders to engage in flexing their power to steer the programme into a chosen direction.

Curlee and Gordon (2013) state that the politics endemic to any organisation finds its way into programmes. Politics is a behavioural aspect of programme management that the programme manager should deal with to succeed and emerge when programme stakeholders decide whether to support or oppose an initiative based on their political inclination – when they choose to either contribute or become a barrier. In these situations, programme managers ought to be politically shrewd and learn to navigate the political infrastructure of the organisation and the programme.

Didinsky (2017) advises programme managers to not be naïve and to understand the differing perceptions of value experienced by diverse stakeholders. A programme manager must be politically sensible by being sensitive to the interests of the most powerful stakeholders, and at the same time, demonstrate good judgment by acting with integrity. Active management of the politics adjoining the programme will enable the programme manager to protect against negative effects of political manoeuvring on the part of stakeholders and to exploit politically advantageous situations.

From a macro perspective, de Coning and Gunther (2009) advise public-sector organisations to pay attention to the orientation of leadership and senior management, regarding programme management. This will minimise unnecessary power games when the concept of programming and programme management is institutionalised in the normal annual planning and delivery processes and is no longer regarded as something over and above normal responsibilities.

In closing this finding, the researcher, as a practising programme manager, felt the managing of power games to be quite challenging when entering the programme or organisation as a newcomer. In this context, it takes time to establish a presence and an acknowledged level of authority, usually based on a consistent delivery track record. With limited formalised decision-making powers in a broader organisational hierarchy, the process of 'breaking through' any long-established relationships amongst stakeholders is a steep hill to climb.

Programmes are complex and have a unique dynamism in their execution. This leads to chaos and confusion, which frequently are exploited by stakeholders to further their agendas. The next section addresses findings in this regard.

5.2.6.3 Category: Understanding and managing complexity and programme dynamism, responding to stakeholders exploiting chaos and confusion

This category comprises four key findings listed below.

- i. Programme managers relayed working in environments displaying high levels of confusion and chaos.
- ii. Programme managers traverse the very fine boundary between 'complexity' and 'complicatedness' in how programmes are conceptualised and managed.
- iii. Programme managers questioned the feasibility and appropriateness of using programmes or programme management, when the nature of public-sector programmes are seemingly complex and chaotic, with stakeholders contributing to that complexity and chaos through their own actions or inactions.
- iv. The dynamism of public-sector programmes results in many factors or types of unknowns having to be addressed and managed by programme managers.

5.2.6.3.1 Chaotic and confusing environments

Respondents to the study relayed working in environments displaying high levels of confusion and chaos. "... and then, there are people that are quite happy with the status quo, within the sense of confusion and chaos ..." (Respondent R7)

Confusion, ambiguity, distrust, and transition amongst stakeholders characterise the initial stages of any major change intervention. During this time, structural arrangements and old ways of doing are challenged, resulting in people no longer knowing what is expected of them and what they expect of others. Perspectives might develop that management control has also changed, amplifying the confusion and chaos (Bolman & Deal, 2008; Makins *et al.* 2012).

As seen in previous findings, the public sector is beholden to political influencers, whose demands for immediate change and propensity to stifle debate can craft the delusion that public servants can be magicians. This opens avenues for operators to imagine transformation opportunities, seemingly influenced by unidentified principals. This feeds many staff members' confusion and lack of understanding on why transformation and modernisation are required. Staff members also experience confusion about relative priorities and doubts about the efficacy of how the modernisation transformation is introduced (Maddock, 2002).

The programme management discipline correspondingly is a source of confusion and perceptions of chaos for stakeholders. Excessive quantities of programme management methodological procedures, supporting templates, and other artefacts can be overwhelming, leading many teams deciding to follow their own advice. Confusion and chaos are further entrenched with the emergence of different standards within a single programme to capture and report metrics. This complicates programme-level consolidation, reporting, and controlling. In the confines of a programme team, confusion amongst team members and programme stakeholders can be reduced by adopting a responsibility assignment matrix that sets out the relative responsibility, authority, and accountability of stakeholder groups and individuals (Al-Khoury, 2015).

5.2.6.3.2 Traversing the fine boundary between 'complex' and 'complicated'

The Merriam-Webster Dictionary (Merriam-Webster, n.d.) defines the terms 'complex' and 'complicated' as follows:

"COMPLEX suggests the unavoidable result of a necessary combining and does not imply a fault or failure – a complex recipe.

“COMPLICATED applies to what offers great difficulty in understanding, solving, or explaining – complicated legal procedures.”

During the study, respondents highlighted that programme managers traverse the very fine boundary between ‘complexity’ and ‘complicatedness’ in how programmes are conceptualised and managed.

Sarantis *et al.* (2010) corroborate that public-sector transformation programmes are diverse in nature, encompass many highly complex and different elements, are unpredictable and multidimensional, and demand a different approach to what traditional programme management methods offer.

IS/ICT development frequently feature in public-sector transformation programmes, but the biggest complexity vests in other dimensions. These include policy development, process refinements, and organisational change.

According to Patanakul *et al.* (2016), public-sector programmes are difficult to plan, implement, and manage effectively because they tend to be lengthy, have large budgets, involve multiple stakeholders, and generate great uncertainties. Structural complexity (both in terms of the public-sector organisations themselves and how their programmes are organised), the large number of interdependent elements, and uncertain goals and means add to the general perceptions of complexity and complicatedness. Respondent R4 summarises as follows:

“I think the reality is just too complex. The world is too complex, and you just cannot do it all. So, if you ask me where we still fail, it is in trying to deliver certain deliverables and quantified outcomes within time and location boundaries that just cannot be met. It is not necessarily because the programme manager is incapable. It is just that the complexity of these initiatives [venture] beyond estimation and any planning efforts.”
(Respondent R4)

5.2.6.3.3 Questioning the feasibility of programmes in context of organisational complexity and chaos

“You look back, and you ask yourself, ... should you run things as a programme? ... I’m not sure that the public sector delivers programmes. ... Then you ask yourself, ‘So, do the programmes of work only work in the IT environment for a replacement of [this] or whatever?’ ... Yes. And is government really applying programme thinking? We live from year-to-year. We live, we have a strategic plan. Ask how many people have read it!”
(Respondent R18)

This series of statements by Respondent R18 sets the scene for the study’s finding that programme managers question the feasibility or appropriateness of using programmes and programme management. This is the case when the nature of public-sector programmes are seemingly complex and chaotic, with stakeholders contributing to the complexity and chaos through their own actions or inactions. In the discussions around this topic, it became clear that public-sector organisations experienced discomfort with large, multi-year, increasingly complex programmes. The reality of a discontinuous, sometimes messy, and chaotic

environment forced programme managers to occasionally fall back into chaos management mode when crisis situations emerged.

Public-sector programmes are characterised with a stakeholder group, many of which are unknown until initiation of the programme or, even worse, until their interests are being disputed. Perceptions of complexity and chaos develop with political or senior organisational leaders setting the goals they expect from the transformation programmes without themselves recognising how these goals should be achieved. Programme managers are left with the responsibility to identify, design, and implement the stages required to deliver the final goal. With this as background, programmes ultimately suffer delays and changed objectives when senior leaders institute major management changes because of their perceptions of inadequate planning being done by the programme managers (Sarantis *et al.* 2010).

5.2.6.3.4 Programme dynamics: Managing the many emergent variables and factors

The study found that public-sector programme managers must address and manage many variables and emergent factors because of the dynamism exhibited by the respective programmes.

Sarantis *et al.* (2010) advocate for the introduction of a transformation management system specifically tailored to supporting public-sector technology-enabled transformation initiatives since these programmes exhibit emergent peculiarities not found in commercial or private organisations. They suggest that the special challenges of public-sector transformation programmes need an approach where the total programme lifecycle is combined with hard and soft characteristics of programme management methods.

In their consideration of the South African public-sector landscape, de Coning and Gunther (2009) agree that programmes are appropriate vehicles where multiple public-sector entities can participate in joint initiatives to synchronise service delivery efforts. However, they identify peculiarities like a refusal by managers to release resources to partake in the teams of other entities, deeply entrenched preferences for working in silos, and budgets for multi-agency programmes being assigned to a lead agency, thereby placing a burden on accounting officers to answer for work done in other entities.

Patanakul *et al.* (2016) tabulates a list of variables and emergent factors impacting programme performance by programme characteristic. The key characteristics include the long-term service life or utilisation of established products; multiple stakeholders with diverging and competing expectations; complexity in regard to high risks and uncertainties, long durations and high complexity, lacking programme governance structures and appropriate programme management approaches, and challenges in planning and co-ordination of suppliers and subcontractors; a volatile political environment; and an overabundance of formal and intensive standard government processes, although being ineffectively used, improperly implemented governed and with programme audits tending to be inappropriately timed.

Table 21 compares the elements of complex systems as defined by Ramalingam *et al.* (2008) with the observed qualities of public-sector programmes.

Table 21: Comparison of Complex Systems Core Characteristics to Public-sector Programme Qualities

(adapted from Ramalingam *et al.* (2008) and researcher's own analysis)

Characteristics of Complex Systems	Qualities of Public-sector Programmes
Interconnected and interdependent elements and dimensions	Multiple stakeholders, lower-level projects, and shared resources
Feedback processes that promote and inhibit change within systems	Day-to-day dynamics of programme stakeholder interactions, political positioning amongst stakeholders, and hierarchical structures within which the programme functions
System characteristics and behaviours that emerge from simple rules of interaction	The application of the tools and methodologies used during programme management and delivery interactions
Non-linearity	Emergent political influences from the external and internal environments
Sensitivity to initial conditions	Programme definition, strategy, and ability to initiate properly
Phase space: the space of possibilities	Multiple routes to determine strategy and approaches
Attractors, chaos, and the edge of chaos	General dynamics of the public sector, its culture, and the prevailing political sentiments and priorities
Adaptive agents	Stakeholders, including programme managers, who change perspectives, opinions, agendas, and behaviours as influenced by the environment
Self-organisation	Depending on organisational maturity, flexible environmental constraints that allow teams to organically form and deliver
Co-evolution	Temporal refinement of the programme structure in response to collective learning across stakeholders

Notwithstanding the earlier negative findings, the research found that there are domains where departmental managers took steps to enable programme managers to be more effective in their work. The next section discusses findings in this regard.

5.2.6.4 Category: Actions and attitudes that enable and empower programme managers

The study found that senior departmental stakeholders, in their daily role of directing work and resources, are empowering delivery by simplifying management structures, participating in planning, scoping and impact analysis, contributing to individual projects, and by being accommodating of emerging dependencies. In addition, respondents to the study emphasised that the work of the programme manager is greatly enhanced when the departmental stakeholders clearly express their expectations of quality, as well as by holding accountable not only the programme manager but also the departmental resources assigned to the programme.

Both these findings may possibly be knowledge gaps that require more practical research. No literature references were found on the attitudes of departmental managers towards the concepts regarding empowering delivery, expectations of programme quality, or holding stakeholders accountable.

The generally available and frequently referenced programme management standards and key methodology references assign generic accountabilities or expectations to programme stakeholders, such as “*Senior Responsible Owners/Business Change Managers*,” in the case of *Managing Successful Programmes*, but not at the level as identified in the research results.

As a practicing programme manager, the researcher confirms that actively involved departmental management stakeholders considerably simplify programme execution. By being accessible and, most importantly, willing to consider options and take decisions, programme delivery activities are greatly enhanced and empowered. In as much as a programme manager is expected to provide quality service through proper documentation and effective engagement, the quality demands placed by departmental managers on their resources participating in programmes ensure that there is a comparable loading of effort on all team members. This simplifies enforcement of quality expectations by the programme manager since all stakeholders are equally informed of expectations.

Programme management standards refer to the use of accountability assignment matrices to ensure that all stakeholders know, understand, and can fulfil their roles. Proper enforcement of assigned accountabilities by departmental managers reduces the disciplinary burdens of a programme manager, especially in those environments where programme resources are not seconded into the programme.

In reference to the recent emphasis on accountability and authority, the study identified findings related to an authority or accountability framework, the details of which are discussed in the next section.

5.2.6.5 Category: An accountability framework allowing programme manager defensible freedom to work

This category comprises two key findings listed below.

- i. Programme managers felt hamstrung and expressed concern about their bounded autonomy whilst being held accountable for delivering major initiatives in a highly regulated environment high with prescripts, departmental policies, and sometimes unclear delegation parameters.

- ii. Programme managers, to be effective, require some autonomy and authority to conduct their day-to-day activities, and need space to execute their mandates without undue interference from internal and external stakeholders.

5.2.6.5.1 Programme managers are hamstrung with bounded autonomy

“I really believe that the few success stories that could be told about the [this] programme were stuff where we stuck out our own necks and took initiative and maybe decisions that was not a hundred percent. ... I won't say authorised, but we were not probably the delegated level for the approval where we stuck out our necks and took decisions just to get it done.” (Respondent R10)

This comment from Respondent R10 provides context to the study's finding that programme managers felt hamstrung. Respondents expressed concern about their bounded autonomy whilst being held accountable for delivering major initiatives in a highly regulated environment saturated with prescripts, departmental policies, and sometimes unclear delegation parameters.

According to Sarantis *et al.* (2010), public-sector technology-enabled transformation programmes exhibit elevated needs for formal decision making. Public-sector organisations embarking on these programmes tend to be less flexible and more risk-averse than private sector entities. This bureaucracy answers to the needs of monitoring groups, demands for accountability and transparency, and interdependencies with other public-sector agencies. Patanakul *et al.* (2016) explains the uniqueness of public-sector programmes where the use of formal management processes is mandatory. These include formal and intensive processes, standards, and procedures for budgeting, programme planning and execution, programme monitoring and control, programme governance, and internal audits and reviews.

Of key concern, as seen in earlier findings, are the demands around fiscal year budgeting and ensuring that the budgeted funds are spent within that fiscal year with the minimum allowance of money carried over. In addition to strict budgeting processes, public-sector programmes must follow public-sector standard processes for specific activities related to procurement.

5.2.6.5.2 Programme managers need more space and less interference to be effective

The study found that, to be effective, programme managers require some autonomy and authority to conduct their day-to-day activities. They also need space to execute their mandates without undue interference from internal and external stakeholders.

Respondent R17 recalls a time when the environment they worked in allowed more freedom of autonomy and authority and had less interference resulting in programme delays:

“If I think back to three, four years ago, [there] was a lot of autonomy, so you could operate and deliver, and you had very little constraints in the sense of stop-start-stop-start for additional governance processes. It ... seemed more seamless.” (Respondent R17)

The traditionally hierarchical bureaucratic arrangements of public-sector organisations are weak enablers of programmes that need adaptability, decentralised decision making, and delegated authority and responsibility (Van der Waldt, 2008). In this context, it might be

valuable to consider toning down the rigid application of complex methods and rather strive for the delivery of acceptable results with the intelligent use of principles from existing systematic or systemic methods to address the nature and scale of the task at hand (Sarantis *et al.*, 2010).

In conclusion, Partington (2000) suggests that three factors influence higher or lower feelings of control in managers. Firstly, when managers implement planned organisational change, their management action revolves around the use of a bounded collection of implementation processes. These processes are used variably and include:

- i. the use of external agents of change,
- ii. planning and control formality,
- iii. control of the pace of change,
- iv. staff participation in decisions,
- v. justification of actions, and
- vi. definition of individuals' roles.

Secondly, managers develop a unique perspective about their ability to implement a desired change on the environment. This perspective is influenced by views on:

- i. personal levels of autonomy,
- ii. availability of resources,
- iii. self-efficacy of the manager,
- iv. available opportunities, and
- v. the expected co-operation of staff.

Lastly, the manager formulates responses to environment stimuli. Prominent stimuli to which managers respond include:

- i. sense of ownership,
- ii. self-image,
- iii. level of group membership,
- iv. conformity,
- v. history,
- vi. orientation, and
- vii. technical expertise.

For programme managers, their management action is determined and largely constrained by the selected programme management approach and the regulatory prescripts in which they work. Their perspective on implementing change is influenced by the prevailing constraints on their autonomy, assigned resources, personal experience, and the labour environment. Environmental stimuli tend to be influenced by organisational culture, internal and external political influences, organisational hierarchies and networks, and power relationships amongst peers and their subordinates.

The next theme to be discussed addresses the programme manager.

5.2.7 Theme 7: The programme manager

The seventh theme to be discussed focuses on describing the profile of a programme manager in context of conducting their accountabilities and delivery duties. Figure 15 depicts the six categories that will be discussed under this theme.

The first highlights the actions taken, attitudes adopted, and demands raised by programme managers to enable progression of the programme. The second category examines the actions taken by and responses of programme managers in circumstances where things did not go according to expectations. Thirdly, findings discussed relate to a developing perception of what an 'ideal' programme manager profile looks like. The fourth category discussed focuses on how programme managers react to decisions. The fifth and sixth categories, although included for purposes of completeness in the diagram below, are not discussed since there appears to be a general deficit of available literature and supporting material on these topics.

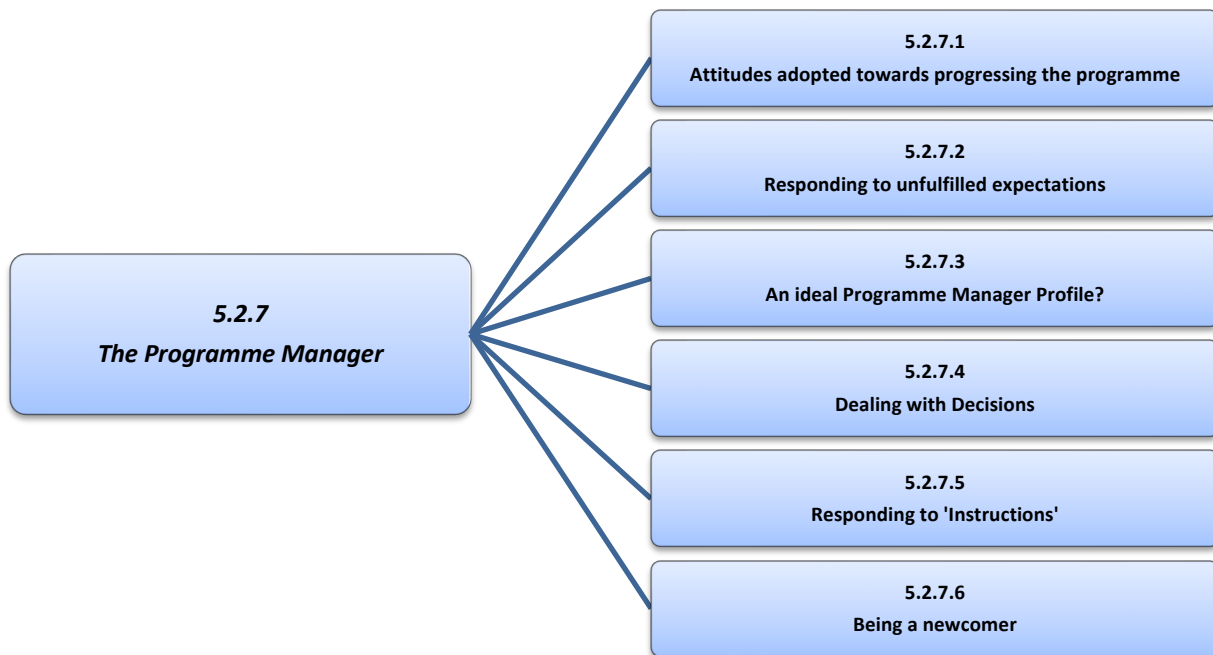


Figure 15: Theme 7 – The programme manager
(Source: Researcher, 2022)

5.2.7.1 Category: Attitudes adopted and actions taken towards progressing the programme

This category comprises five key findings associated with the programme managers' driving motivations, attitudes adopted, and actions taken whilst engaging with their work. Key triggers that elicit responses from them are also included. Lastly, findings about their specific demands are raised. The findings are listed below.

- i. Programme managers are driven to action by intrinsic and extrinsic motivations and a sense of self-belief.
- ii. Programme managers adopt a can-do attitude.
- iii. Programme managers focus on taking actions to maintain forward momentum.
- iv. Programme managers are impacted by fatigue and being overcome with emotions.
- v. Programme managers have a simple demand for the environment to positively respond to their dependency on and cultivation of support systems.

5.2.7.1.1 Programme managers: Motivations and self-belief

“Very often, especially ... of people more at the leadership level, there’s a real sense of purpose as to what they’re trying to achieve. ... I think, what’s often a pro in terms of getting people motivated around a programme is around making a difference – almost like a significance thing.” (Respondent R1)

The study found that programme managers were energised by intrinsic and extrinsic motivations as drivers and stimuli in their day-to-day engagement with their work. Examples of such drivers and stimuli reported by respondents include, amongst others, an emphasis on personal accountability, being responsive to situations of risk, and to keep working in pressured situations. This is whilst, sometimes, facing extremely negative consequences and having a general sense of knowing what is needed to build a delivery track record.

Programme managers conveyed a strong sense of situational awareness and personal self-belief as means to actively participate in their daily work responsibilities. This self-belief is exercised by believing in their skillsets and ability to deliver, addressing their own fears when they recognise that they are in a bad spot, being able to take control in difficult situations, and spending time to define things for themselves. As Respondent R9 states:

“I will have four or five different styles of project management in a programme. For me, it’s the nature of who I am. ... So, for me, I need to understand the detail. I need to understand exactly what is it that, if I were the project manager, what [it] is that I would have done. ... And that’s based on ... the outcomes I want to see delivered, that’s what I contract with. ... A lot of this ... takes extraordinary time of yourself because, [in] your normal programme management functions, there’s so much administration that [goes] with that, so much ... that you have to deal [with] at the programme management level, that you need to invest a lot of extra time to go down to that level ... and to steer, guide, and influence.” (Respondent R9)

A review of the literature on the intrinsic and extrinsic motivators of programme managers revealed very little usable results. An expansion of the search criteria to include ‘management’ and ‘managers’ also resulted in limited results. The most relevant results of the literature review point toward self-determination theory, which highlights a continuum of motivation starting with amotivation (no motivation) on the one end and intrinsic motivation (self-drive) on the other. Extrinsic motivation is the middle ground, where the locus of causality ranges from external to somewhat external, through somewhat internal, to internal. Self-determination theory maintains that an understanding of human motivation requires a consideration of innate psychological needs for competence, autonomy, and relatedness. All three of these needs are universal, regardless of the culture and the implication of the work environment (Ryan & Deci, 2000).

Mansperger (1976) conducted very early research into what motivates an individual to become a programme manager. Results suggested that programme managers selected their careers due to the challenge of the job and the opportunities for advancement, all appearing to be external and extrinsic motivations. These are also motivations that organisations are advised to consider towards increasing the motivation of programme managers.

This research did not, however, identify any intrinsic motivations expressed by programme managers themselves, which signifies that this is a knowledge gap to be addressed in future

research opportunities. Of key concern could be a review of on-the-job motivators, as well as an update on the broader motivations leading programme managers in selecting programme management as a career.

5.2.7.1.2 Embracing the power of a can-do attitude

“... you know, we can deliver. We have a delivery capability but, more importantly, a delivery mindset: ‘It can be done.’ ... And we think short, we think small profits, quick returns ... and before you know, it you’ve got all these building blocks. But we try and keep the end-goal in mind.” (Respondent R3)

“We were adamant and adopted an attitude of, ‘There is no way that we will be retreating.’ We were committed to conclude what we started. And ... the stakeholders subsequently relented and let us finish the initiative after they eventually realised that we weren’t going to fold under their pressure. We were under immense pressure, continually having to dodge bullets and evading obstacles the whole time.” (Respondent R14)

In moving to the most prominent attitude adopted by programme managers towards engaging with their work, Respondents R3 and R14 emphasise the finding that a can-do attitude was frequently the most effective. Respondents to the study emphasised that a can-do attitude manifested itself through programme managers acting with transparency, allowing team members independence and some room to manoeuvre. This attitude was also revealed by programme managers being approachable, working harder whilst collaborating with others, and expecting and dealing with the unexpected realities that emerged during the life of a programme. This attitude also found expression when programme managers inculcated and emphasised the importance of a positive attitude with team members, by nudging stakeholders into new directions, and by ensuring that programme momentum maintained a forward trajectory.

Programme managers have individual “dispositions for action” (Pellegrinelli, 2008, p. 63), an attitude which reflects their approach towards taking decisions and acting, either in responding to circumstances or proactively to influence them. Pickens (2005) from the literature review defines an ‘attitude’ as “a mindset or a tendency to act in a particular way due to both an individual’s experience and temperament.”

Levin and Ward (2011) maintain that programme managers who can exercise the key personal competency of being able to take calculated risks and being venturesome greatly enhance programme delivery efforts.

5.2.7.1.3 Taking actions focused on maintaining forward momentum

“Sometimes, it takes guts ... to make the very important decisions to get you over that bridge. And if you spend too long ‘umming’ and ‘ahing’, and not making the decisions, your opportunity is lost.” (Respondent R18)

“I think, sometimes in the entire project [programme] cycle, ... there has to be an appreciation that when things go wrong, acknowledge that they went wrong, and take the steps to go right. Sometimes, the steps to take right aren’t just far off.” (Respondent R19)

The statements of Respondents R18 and R19 are indicative of the study's finding that programme managers are focused on taking actions to maintain forward momentum. From the analysis, it appears that the most powerful actions taken include being decisive, leading by example, continuing to push for delivery, and when necessary, to not shirk from 'facing the music' when difficult questions are raised about the respective programme's history, execution, and closure. Respondents suggested that programme managers must remain calm and maintain a sense of focus by 'staying in the moment' in times of adversity, and if all else fails, they must do what they can to 'get by' and ride out the storms.

Managerial behaviour in the context of complex systems requires them to be flexible and resilient (Bol *et al.*, 2004). This is supported by Shao and Müller (2011) who found that programme managers' leadership style is contingent on the programme's situation or context and consists of three main groups of leadership competencies: intellectual, managerial, and emotional. This last dimension is interesting, given that programme managers revealed that as one of the elements which they sometimes felt disempowered to respond to.

5.2.7.1.4 Dealing with fatigue, burnout, and negative emotions

The study found that programme managers are impacted by fatigue, or burnout, and by being overcome with emotions stemming from the stimuli generated by their work environment.

"You end up getting very demotivated, very demoralised because you're pushing, you're pushing, you're pushing, but actually, there's nobody receiving. Also, the length of time – you end up with change fatigue, and then people just feel, 'Okay, this is now enough.'" (Respondent R18)

"... and you actually have control over neither. Because you are in the middle, you can't really influence strategy and future thinking. And you also don't have influence in the detail." (Respondent R12)

"Probably 'frustrated', I think, would sum it up. So, if I had to summarise it in one word: [for] programme management in my current environment ... the negative word would be 'frustrated'." (Respondent R17)

The interview process from the outset revealed that emotions could be playing a major role in programme managers' engagement with their work. Respondents occasionally became very animated in how they relayed their observations and experiences, with some resorting to thumping the table, snapping their fingers, and raising their voices in emphasis of certain elements during the discussions. The overall perspective is that of negative emotions stemming from, amongst others, being constantly under pressure and occasionally overtaken by events, frequent conflicts with stakeholders, dealing with negative consequences associated with work-induced sacrifices made in their personal circumstances, and a general sense of being disempowered and exposed, leading to doubt and stress.

Kerzner (2017) confirms that programme and project managers are disposed to experiencing stressful situations leading to an upwelling of emotions and becoming fatigued since they occupy positions where the following attributes transpire:

- i. responsibility without the authority or ability to exert control,
- ii. quality expectations translate into necessity for perfection,
- iii. the pressure of deadlines,

- iv. ambiguity, conflict, and overload in role definitions,
- v. the crossing of organisational boundaries,
- vi. responsibility for the actions of subordinates, and
- vii. the necessity to keep up with the information explosions or technological breakthroughs.

5.2.7.1.5 A few simple needs: Availability and cultivation of support systems

In probing respondents on what they needed most to settle their concerns, the study found that programme managers have a simple demand for the work environment to positively respond to their dependency on and support the cultivation of support systems.

“Well ... having people within the environment who believe in you, firstly. Believe in your skill set and [believe] in your ability to deliver, ... empowering you, because as you know, we form part of a structure, of people on the ground, all the way to senior and executive management. We’re part of that supply chain, and we can equate it to a delivery ... to a business where something is produced. We’re part and parcel of that supply chain ... albeit a critical one.” (Respondent R7)

This resonates with the observations raised by Martinelli, Waddell and Rahschulte (2014) that, notwithstanding having highly skilled, knowledgeable, and experienced programme managers, programme success will be impeded by severe organisational barriers. Senior managers are implored to address the organisational barriers and impediments, as well as to establish organisational enablers directed at supporting their programme managers. In this context, organisational enablers should create or proactively encourage a positive environment to provide the maximum opportunity for success, learning, and growth to occur in programme management. At its most basic, enablers range from environmental factors to organisational and managerial culture, philosophy, and actions.

This finding might be a knowledge gap, in that the actual support systems needed by programme managers have not been identified during the interviews nor found in the present literature.

5.2.7.1.6 Conclusion: Attitudes adopted and actions taken towards progressing the programme

In concluding the discussion on this category and its underlying findings, it is noticeable that appropriate material concentrating on the nuances of public-sector programme management domain was quite difficult to find. The literature references that were found and discussed were selected from general management themes. This generally suggests that more work is required to explore the experiences of public-sector programme managers.

All programme managers experience missed stakeholder expectations. The next category will uncover findings related to how programme managers respond to these disappointments.

5.2.7.2 Category: Responding to unfulfilled expectations

This category comprises two key findings associated with the programme managers’ perceptions and recovery strategies when programme failures and unfulfilled expectations emerged during the delivery of programmes:

- i. Programme managers acknowledged perceptions, feelings, and experiences of failing, which resulted in figuring out how to attempt to fix mistakes.
- ii. In these moments and occurrences where things did not go according to expectations, programme managers reflected on personal learning, focusing on realigning, and eventually reframing to recover and reset from the troubled circumstances.

5.2.7.2.1 Responding to failure: Figuring out how to fix mistakes

“I think, sometimes in the entire project cycle, especially with IT, there has to be an appreciation that when things go wrong, acknowledge that they went wrong, and take the steps to go right. Sometimes, the steps to take right aren’t just far off.” (Respondent R19)

The study found that when programme managers developed perceptions, feelings, and experiences of failing, they responded with a process of figuring out how to engage in attempts to fix their mistakes.

According to Curlee and Gordon (2013), weathered programme managers understand that limitations in resources, processes and procedures, management decisions, and time generally lead to programme failures. The perceptions of the study respondents suggest that programme managers might attribute some of these limitations to themselves. The process described by programme managers when they perceive a ‘failure’, attempt to ‘figure out’ what happened, and then engage in a process of ‘fixing mistakes’ has parallels with how Mitroff *et al.* (2004) address the management of a crisis.

They suggest that the crisis (‘failure’) marks a point of transition from a stable state into one of multiple possible alternative future states. Crisis managers subsequently use a sense-making process (‘figuring out’) to evaluate decisions and perceived actions. These processes primarily aiming to minimise future crisis events or negative states. While the consequences of a crisis must be addressed (‘fixing mistakes’), there is also a need for stability, reappraisal, or a temporary status quo to be maintained – introduction of the new sense of normalcy is usually supported by administrative reflexes.

Opportunities emerge for fundamental reforms to be made to the system in play; however, these reforms do not always occur immediately after the reform. Mitroff *et al.* (2004) emphasise that crisis management is inherently political and subject to persistent discussion in an unstable environment with many factors, which include how crisis impacts are framed, people being held accountable, and the assigning of blame influencing the outcome.

From a practitioner’s perspective, the researcher relates to the finding and submits that perceptions of failure develop from stakeholder feedback and negative experiences in context of governance committee meetings or other progress feedback forums. The action of figuring out involves retracing of steps and decisions taken, as well as determining the reasons for any disappointed stakeholder expectations. Fixing mistakes encompasses negotiating new mandates, reaffirming commitments, and in extreme circumstances, replanning the programme within the newly established constraints.

Given the relative lack of applicable literature references, the researcher proposes that this finding is likely a knowledge gap that could benefit from future research into how programme managers perceive and respond to failure, what strategies they adopt in their response to

figure things out, and subsequently, how they approach fixing mistakes whilst reflecting on minimising the opportunities for future failures derived from their current actions.

5.2.7.2.2 Responding to failure: Personal learning, realigning, and reframing

“Firstly, I need to understand why there is a failure. You probably will understand better through a root cause analysis with interviews and an analysis of the indicators and measurables. Only once this is understood will you be able to identify and institute remedial actions and measures.”
(Respondent R4)

The study found that, in those moments when dealing with perceptions of failure and responding to unfulfilled expectations, programme managers resorted to personal learning, and focused on realigning and, eventually, reframing to recover and reset from the troubled circumstances.

From the literature, it emerges that the control activities during programme execution require a flexible, dynamic decision process to enable plan reviews and changes, an analysis of resources, contingencies and key performance indicators against deliverables and outcomes, and resultant decisions to continue, realign, or stop individual projects in a programme (Müller & Blomquist, 2006; Thiry, 2004; Thiry & Deguire, 2007).

In the context of ill-defined problems, re-characterisation can be an essential tool in the problem-solving process. A re-characterisation of the problem, in terms of relevant domain rules and concepts, and a moving away from impractical standards in determining future solutions will likely result in the problem becoming more manageable. This will also help to focus the stakeholders on a confined domain of relevant concepts, rules, and relations (Lynch *et al.*, 2009).

Havermans *et al.* (2015) emphasise that programme participants’ understanding of scope, priorities, and actions can be focused by a dynamic and reflexive process to co-construct the narratives framing a programme. By exposing the different narratives within and around the programme in a wider conversation, the programme manager plays an important role to facilitate the co-creation of a common narrative for the programme. A programme’s trajectory and approach to solving complex emergent problems can thus be determined when shared narratives are leveraged in the framing of the programme.

The results of the literature searches primarily focus on the use of learning, realigning, and reframing at the programme level with examples referring to realignment of programme plans and projects to new realities. However, no material was found on the personal recollections or experiences of practicing programme managers. Geraldi *et al.* (2010) state that, unlike with general management, there is a dearth of information in the literature on how project (programme) managers respond to unexpected events, even project and programme failures. Quoted exceptions include crisis management in the construction industry and circumstances where mutual trust is threatened or missing in moments of crisis.

One can argue that general management practices and approaches to problem identification and resolution might prevail in these circumstances. When considering the programme management standards literature, there are ample references to strategies and approaches utilised in the dimensions of programme control and programme risk management. However, these are all at process-level, not at the individual or human perspectives.

The work by Partington *et al.* (2005) on understanding programme management and associated competence of programme managers suggests that, in combination, the attributes of “*emotional attachment*” and “*disposition for action*” lead programme managers to commit to achieving the programme outcomes and to intuitively reconfigure and realign the programme organisation when required.

In the context of programme managers progressing to figure out what contributed to failure or unfulfilled expectations, Stacey (2012) suggests that complex conversations can be used as a technique to elicit reasons and develop further understanding of the situation at hand. One must also acknowledge the dissimilarity between reflectivity and reflexivity in these complex conversations. Reflective practice involves lifelong learning by professionals when they reflect on the situations encountered in their professional work. These are used when discovering different approaches to framing a situation, thereby aiding to explore similarities and dissimilarities to past experiences. In contrast, reflexivity encompasses the noticing and thinking about how we participate with others as we do things together. It can only be done when we acknowledge that we create experiences with others, therefore it is inherently social. By taking a reflexive stance, questions focus on how our thinking developed. Answers emerge when we consider the traditions of thought inculcated in the communities that we engage and interact with. Organisations can extract value from reflexive inquiry by using it as a tool to stimulate discussions about co-operation in ambiguous and uncertain situations, such as enterprise transformation programmes.

5.2.7.2.3 Conclusion: Responding to unfulfilled expectations

In conclusion, the researcher suggests that this finding is a knowledge gap and opportunity for future research to investigate how programme managers in general respond in learning, realigning, and reframing to recover and reset from difficult or troubled circumstances.

As the data analysis concerning the programme manager progressed, a notion developed that there might be expectations for an ‘ideal’ profile given the demands and nuances of programmes undertaken in the public sector. The findings associated with this idea are discussed in the next section.

5.2.7.3 Category: An ‘ideal’ programme manager profile

“If you want to be a programme or portfolio manager, you have to have more than straight-line project experience. You cannot be a project manager on steroids and think you are a programme manager.” (Respondent R18)

This category highlights that there are high expectations placed on programme managers, who need to conform to a high-performance profile whilst working in a specifically defined accountability framework.

Respondents revealed that a wide range of expectations were placed on programme managers in the public-sector context. The most prominent of these demand that programme managers:

- i. be technically proficient and experienced in implementing major technology-driven programmes;
- ii. can anticipate multiple waves of unintended change, and be sensitive and responsive when changes emerge in the environment;

- iii. demonstrate a balanced approach to the details required in individual project plans versus the programme's big picture view;
- iv. be creative in problem solving and finding new ways of working;
- v. have strong interpersonal skills to engage and manage multiple different personal agendas and personalities; and
- vi. be a good facilitator to resolve misalignments amongst programme stakeholders and team members.

According to Shehu and Egbu (2007), the demands placed on programme managers are deeper and more strategic in nature when compared to those of project managers. Beyond technical expectations, PMI (2006) demands of programme managers to demonstrate a commitment to ethical and professional conduct with responsibility, respectfulness, fairness, and honesty as cornerstones. Programme management practitioners must also comply with laws, regulations, and organisational and professional policies.

Respondents to the study also raised a different set of expectations. These lean more towards the personal profile of the programme manager. In this perspective, programme managers are expected to be agile, multi-skilled, and multi-talented with more than straight-line project management experience. Knowing one's limits and acting with humility also appear to be valuable qualities. From the respondents, it appears that wide exposure to different leadership styles, business operations, management, and technical delivery practices, and thinking and mental models allow programme managers to better straddle the space between business and programme and project delivery.

Given that they generally are the single constant on the programme team and have an intimate understanding of the programme's intricacies, programme managers must ultimately be able to grow into executive or senior organisational management roles once programme delivery is complete. Martinelli, Waddell and Rahschulte (2014) emphasise that the individual knowledge, skills, personal qualities, and experiences determine the competence of a programme manager.

In the context of building a pipeline or succession system of programme managers, Partington, Pellegrinelli and Young (2005) implore responsible departmental managers to answer three key questions:

- i. What are the qualities that distinguish an effective programme manager?
- ii. How can one assess whether the manager possesses these competencies?
- iii. Can competence of programme managers be developed, or is the solution to rely on processes to select or deselect these managers?

The study proposes that efforts must be made to define and establish an appropriate accountability framework to address the work domain of programme managers. It includes guidance in acknowledgement of the public sector's unique environmental dynamics.

Respondents suggested that public-sector programme managers are generally expected to do more than their private-sector contemporaries and that there are higher expectations for programme management specialisation in the private sector than in the public sector. Occasionally, public-sector programme managers are saddled with the sponsor or owner role, which conflicts with generally accepted programme governance conventions and requirements. Inconsistencies in the current accountability frameworks also result in public-

sector directors occasionally taking on project management roles, thereby increasing the opportunity for widespread role confusion.

The main management activity for programme managers should be the delivery of a coherent set of interconnected projects. In contrast, the main management activity of line management should be the establishment and implementation of well-defined procedures and a clear accountability structure (Bol *et al.*, 2004). In defining the accountability framework, executive and senior management must distinguish the programme management roles, responsibilities, accountability, and limits of authority to enable the organisational changes and delivery of programme benefits. This should be directed at the acquisition and provision of required resources, capabilities, processes, and tools, with the programme manager responsible for the overall performance and co-ordination of the programme components (ISO/TC258, 2017).

A good measure of honesty and truthfulness is expected of organisational leaders in the definition and adoption of this much-required accountability framework. It is important for organisational leaders to trust their team members and to resist the urge to fall back on old ways to manage programmes, while simultaneously expecting responsibility, reliability, and accountability in return (Uys, 2006).

Programme management is a technically and socially demanding vocation, with many seemingly incompatible challenges all simultaneously being in play. Rayner and Reiss (2013) suggest that programme managers must navigate the following challenges in their day-to-day engagement with programme delivery:

- i. transform the political into reality,
- ii. deliver across multiple organisational cultures and models,
- iii. balance the need for flexibility with the need for control,
- iv. satisfy a broad range of stakeholder needs,
- v. create synergies between projects,
- vi. accept and work with the inevitable resistance to change and complexity inherent in many programmes,
- vii. make resource allocation trade-offs,
- viii. be responsible for finding answers to any conflicts,
- ix. accept responsibility and accountability without having the organisational authority over what must be accomplished,
- x. ensure that projects are controlled and governed,
- xi. be both advocates for and sceptics of the projects within their programmes
- xii. ensure that the projects work well with projects in other programmes, and
- xiii. finally, and potentially most importantly, consider and satisfy end-customer requirements.

This begs the question whether it is possible to define a coherent and integrated definition of the minimum set of competencies, abilities, and qualities required of programme managers to do their job well.

Amongst others, Pellegrinelli (2008) offers an analysis of the key attitudes, attributes, and competencies of programme managers in a competence framework that could be considered in the crafting of this view. It is, however, important to acknowledge that programme managers rarely are fully competent to fulfil all aspects of a role with such a broad and

encompassing set of required attitudes, attributes, qualities, and skills. Directed and specialised training becomes a valuable tool to continually enhance and strengthen the abilities of practicing programme managers (Sohmen & Dimitriou, 2015).

Making and responding to decisions is a key part of the programme manager's accountabilities. This is discussed in the next category.

5.2.7.4 Category: Dealing with decisions

This category highlights that there are key dynamics and many actors that are involved around decisions or acts of decision making.

"I am convinced that people are too scared to make decisions because they do not necessarily know about their decision-making rights. So, for them it is a matter of ... 'I'd rather not make a decision than make a mistake that could land me in trouble.' A lot of the problems around decisions centres around the notion that, 'I need to protect myself.'" (Respondent R5)

"I think that, at the end of the day, significant decisions have always got to be endorsed by the head of the organisation or even the political, influenced by the political mandate of the organisation. They may also not be keen to make ... any decisions [because] it's easier to delay decisions." (Respondent R1)

The observations of Respondents R1 and R5 frame the finding that programme managers are acutely challenged with the dynamics around decision making in their daily activities. The key hurdles that programme managers face in this domain include:

- i. Inconsistency in the use of decision-making criteria and methodologies.
- ii. Departmental stakeholders who refuse to make decisions or retract previously made decisions when stakeholders apply pressure.
- iii. Influential stakeholders and stakeholder groupings applying pressure to sway decisions to their benefit.
- iv. The stringent regulatory environment surrounding public-sector programmes.
- v. Decisions taken with a focus on short-term or immediate impacts.
- vi. Delays in decision making, where programme sponsors and owners adopt a committee-based decision-making protocol rather than exercising their decision-making accountabilities.
- vii. Programme managers themselves being disempowered due to badly defined programme accountability and decision-making boundaries.

It appears that decision-making processes for public-sector programmes are particularly sensitive to political influences and results are used for positive and negative reasons. The decision-making processes also appear to be impacted by personal agendas and beliefs and, in this context, become a tool in the political processes in play around the programme manager.

Programme management is positioned as a powerful tool to speed up decision making and improve productivity with its ability to manage work across organisational lines. To fully leverage this power, organisational leaders must align expectations and embed appropriately defined roles, responsibilities, and decision-making boundaries for all stakeholders (Martinelli *et al.* 2014).

Pellegrinelli and Murray-Webster (2011) submit that it is valuable to conduct a comprehensive analysis of the programme decision-making process. Special emphasis is put on included and excluded stakeholders; an analysis of stakeholder agendas, position, and power; and how agendas are combined and resolved in the decision-making process.

At the most basic level, the decision-making responsibilities of senior programme stakeholders, such as programme sponsors, should impact the programme. Those of programme managers should focus on directing the programme management team (ISO/TC258, 2017) because “decisions made, or not made, at the programme level can have far-reaching impacts” (Prieto, 2008, p. 20).

In an analysis of the decision-making competence of programme managers, Pellegrinelli (2008) recognises that programme managers exhibit unique approaches to how they approach decisions and actions – either reactively in response to circumstances or proactively to influence them. Programme managers of different types of programmes require different competences in regard to decision making. Programme managers of portfolio-type programmes have less formal authority over their projects as their primary function is to provide decision-making support to their superiors (sponsors). In contrast, programme managers of goal-oriented programmes require stronger directing and decision-making skills. These programme managers have a clear mandate to make decisions and are judged by sponsors on their results (Miterev *et al.*, 2016).

The fluid dynamics of the public sector demands of programme managers to be willing and capable of making and influencing many daily decisions that impact the outcomes of a programme. Given the complexity of the environment where programme goals and powerful stakeholder interests must be balanced, it is improbable for programme managers to make decisions entirely based on rational, stepwise decision making to deliver clear outcomes. Wood (2009) suggests that in this dynamic environment, programme managers’ approach to decision making is better explained by behaviour theory. This is where complex decisions result from organisational behaviour factors, such as the partial resolution of conflicting programme goals and avoidance of uncertainties that create programme risk. People are complex, frequently using non-linear decision-making processes; their motivations stem from many different factors, some of which are unrelated to the programme (Curlee & Gordon, 2013).

The next theme to be discussed addresses the unique concerns elicited from the data that ascribe where and how programme managers engage or disengage during the life of a programme.

5.2.8 Theme 8: What does the programme manager focus on?

The eighth theme presents the concerns of the programme manager from an alternative perspective. It has a different focus to Theme 7 since it reveals some of the prominent interests that programme managers focus on when they perform their daily activities, as well as a range of mindsets present in their engagement with their work and stakeholders. Figure 16 presents a graphical view of the two categories that will be discussed in the next sections.

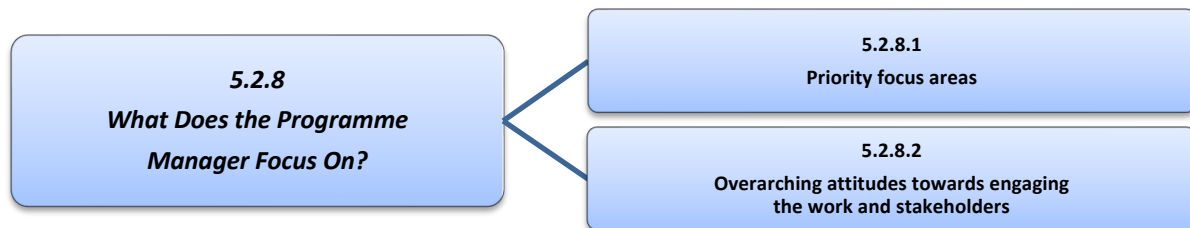


Figure 16: Theme 8 – What does the programme manager focus on?
(Source: Researcher, 2022)

5.2.8.1 Category: Priority focus areas

This category suggests that there are four areas of focus that programme managers place special emphasis on when they engage in their work. These areas of focus comprise of communicating, conflict, resource management, and sensemaking. These areas of focus parenthetically also emerged as themes or categories within other themes and have been discussed in earlier sections of this chapter.

- i. Communicating, amongst others, comprises such actions as asking, calling, confirming, convening, convincing, deflecting, disagreeing, discussing, hearing, interacting, listening, presenting, promising, requesting, responding, and talking.
- ii. Conflict encompasses actions like arm-wrestling, blaming, blocking, evading, frustrating, politicking, satisficing, and witch-hunting.
- iii. Resource management involves the actions of allocating, appointing, contracting, funding, guiding, helping, incentivising, instrumenting, and managing.
- iv. Sensemaking includes actions such as aligning, analysing, challenging, choosing, combining, considering, cross-referencing, documenting, explaining, formulating, innovating, integrating, learning, reasoning, revisiting, segmenting, strategizing, structuring, and thinking.

The significance of these areas of focus was not tested with the research participants. The researcher's proposition is that these are likely the domains where programme managers must work the hardest to minimise negative influences exerted by the environment and stakeholders. Alternatively, it is also possible that focusing on these domains will positively influence the programme's delivery trajectory.

Figure 17 presents a causal-loop diagram of how these areas of focus might be related, as well as how they influence others in their interrelationships and interactions. Except for the interaction between communication and conflict, all interactions between the areas of focus result in similar or the same directions or outcomes, meaning that more focus given to sensemaking likely leads to beneficial outcomes in communication and resource management. Similarly, a greater focus on resource management will likely lead to a greater focus on conflict. This would be due to the delayed impacts of managers responding to increased resource utilisation by programme managers. Heightened conflict will likely result in heightened attempts towards making sense of what is happening. Lastly, an increase in focus on communication will likely result in a delayed reduction in conflict. A self-reinforcing

loop exists between sensemaking, resource management, and conflict. A balancing loop exists between sensemaking, communication, and conflict.

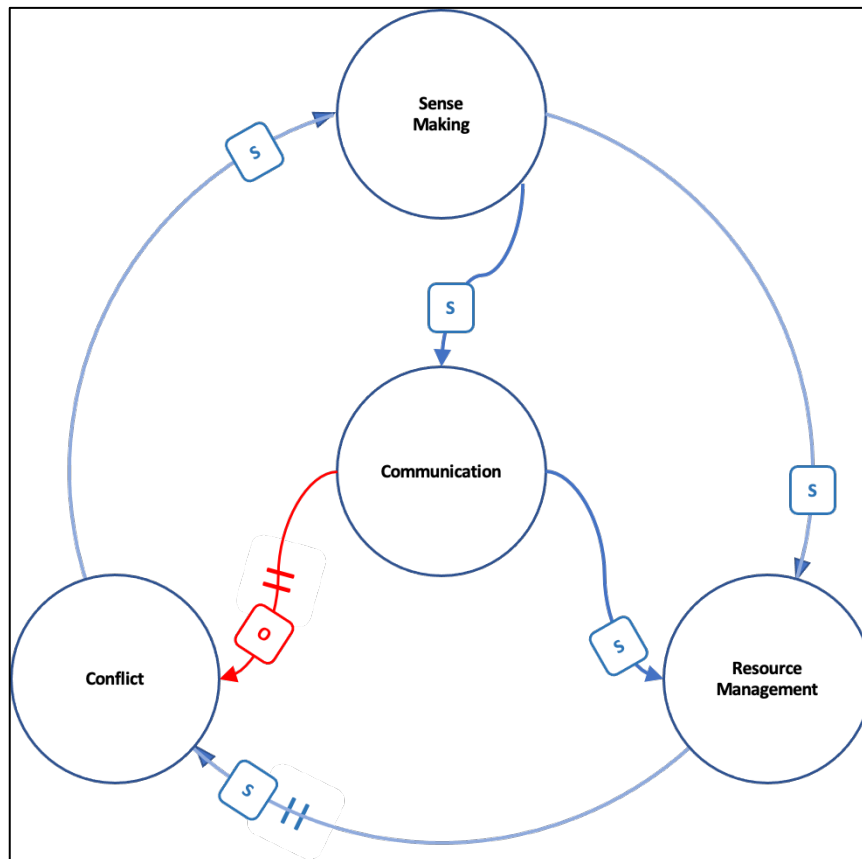


Figure 17: Priority focus areas of the programme manager
(Source: Researcher, 2022)

5.2.8.2 Category: Overarching attitudes towards engaging the work and stakeholders

This category suggests that programme managers display discrete attitudes and mindsets along a negative-positive or disengaged-engaged continuum towards their work and engagement with stakeholders. These attitudes include withdrawing, diminishing, neutral, and contributing.

- i. Withdrawing describes a state where the programme manager is deeply negative or disengaged. They are informed by actions and attributes including doing things under duress, doubting, exiting, leaving, retiring, standing back, walking away, and withdrawing.
- ii. Diminishing designates a growing negative or disengaged state and is largely informed by the actions of stakeholders. It includes the attributes of bureaucratising, cancelling, defrauding, delaying, demotivating, disappearing, disappointing, disempowering, failing, halting, lacking, misrepresenting, and stopping.
- iii. Neutral illustrates a growing positive or engaged state and comprises attributes like attending, becoming, chairing, featuring, materialising, merging, moving, placing, reaching, repeating, transferring, transitioning, using, waiting, wanting, and working.
- iv. Contributing appears to be a positive or engaged state that includes aspects like accepting, achieving, adding value, administering, adopting, approving, building,

buying-in, committing, compensating, consulting, co-ordinating, creating, deciding, delivering, developing, doing, empowering, enabling, establishing, executing, focusing, implementing, investing, leading, partnering, progressing, pushing, reminding, replacing, reporting, scheduling, solutioning, steering, supporting, trusting, trying, and understanding.

These attitudes and mindsets displayed by programme managers appear to be induced by stressors emanating from the environment, and they influence the programme manager's work engagement. Sonnentag *et al.* (2010, p. 26) define 'work engagement' as "a state characterized by vigor, dedication, and absorption." At the negative extreme, programme managers could withdraw as a consequence of burnout, with a work engagement state characterised by low vigour, low dedication, and low absorption in what they are expected to do. At the positive extreme, they would be contributing to a full work engagement state characterised by high vigour, high dedication, and high absorption in their daily activities. Sonnentag *et al.* suggest that, by focusing on the predictors of work engagement state, the overall work engagement levels of individuals can be increased to better respond to very complex tasks, cope with situations characterised by heightened uncertainty, and situations where the need exists for individuals to perform above their average level of engagement. These are all very descriptive of public-sector enterprise transformation programmes. The predictors include self-efficacy, self-esteem, positive affect, high autonomy, and time for recovery after prolonged periods of intense activity.

5.2.8.3 Conclusion: What does the programme manager focus on?

This theme differs from the preceding themes in that it emphasises the priority focus areas that programme managers focus on. It also provides a perspective on the most prevalent attitudes, mindsets, and coping strategies that emerge when programme managers engage with their work and with other stakeholders.

The next section presents a summary of the findings presented in this Chapter.

5.3 Summary of the Findings

This chapter discussed eight themes. Each theme consists of one or more categories. Each category acts as a consolidation of a range of individual findings. In summary, the findings for each of the themes are as follows:

Theme One describes the programme execution environment and its related focus areas as the direct environmental context in which programme managers work. The theme describes an environment that appears bureaucratic and demands conformance to strict prescripts. This milieu has institutional requirements driving the conceptualisation, establishment, and funding of individual programmes. Therein, programme governance, monitoring, and oversight is applied with varying levels of success, and staged delivery lifecycles exist within which delivery pipelines are maintained to facilitate resource allocations and scheduling. Complex procurement and contract management realities abound in a setting where the team environment has unique nuances that impact on programme delivery.

Theme Two addresses strategic positioning and time impacts. There is an emphasis on how the strategic planning processes impact programme definition, prioritisation, and execution. The theme also explores the organisational impacts of long-running programmes.

Theme Three deals with the organisational attitudes to programmes and programme management by discussing how organisations respond to the demands of programme sponsorship, ownership, and related role assignments. The theme also positions the requirements for and steps to be taken to properly position and strengthen programme management as a discipline in the departmental context. The theme concludes with a discussion on the relationship that Directors General have with programmes and programme managers.

Theme Four discusses how departments respond to change and the impacts of adopting a programme approach. The theme highlights the unique demands and impacts of running multiple projects in a programme approach. Emphasis is also placed on the frequency, magnitude, and impacts of changes introduced by the programme and in the business environments where the programme is executed. The theme concludes by discussing the complexities of running programmes in a multi-agency context, where each agency also has multiple departments participating in the initiative.

Theme Five focuses on how relationships, conflicts, and understanding shape the delivery of programmes. The theme addresses relationship management, implications of building or breaking trust, and specific strategies programme managers use to maintain engaged with stakeholders whilst managing conflict and maintaining a productive level of focus.

Theme Six addresses the politics of delivery. In this context, there is an acknowledgement that there are actions and postures that enable or disempower programme managers. The theme highlights some of the strategies and approaches used by programme managers to manage the political and power relationships in play. The need is expressed for an accountability framework to be developed through which programme managers are empowered with a defensible level of freedom to conduct their work.

Theme Seven addresses key dimensions surrounding the programme manager as a key stakeholder. The theme reveals actions, demands, and attitudes of programme managers to positively progress their programmes, as well as how they respond when things do not go according to plan. How they relate to decisions and decision making contribute greatly to programme managers' success. There is also an acknowledgement that giving or receiving instructions can be challenging. The theme concludes with a discussion on the requirement and definition of an 'ideal' programme manager profile.

Theme Eight addresses the most prominent interests that the programme manager focuses on. It reveals that programme managers display a range of discrete attitudes and mindsets along a negative-positive or disengaged-engaged continuum towards their work and stakeholders.

5.4 Chapter Conclusion

This chapter presented the study's findings in detail across eight themes.

The next chapter will discuss the conclusions drawn by the researcher based on the findings.

CHAPTER SIX - CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

While Chapter 5 reported the findings that culminated from the data collection and analysis process, this chapter presents the interpretation and conclusions of the study. The chapter aims to portray the researcher's efforts to construct theory from the study's empirical findings, and to create a framework to explain and influence the betterment of public-sector programme managers' lived experiences.

Since the study was undertaken in the context of a Mode 2 learning environment, the researcher must demonstrate the contextual application of the knowledge produced during the study and then craft a result that can lead to appropriate management action (Partington, 2000a). Commentary will be presented as notes on the practical implications of the study for public-sector organisations that apply programme thinking and programme management to govern their IT-enabled enterprise transformation and modernisation programmes.

This study emanated when the researcher, in his role as a practicing programme manager in the public sector, started questioning how other public-sector programme managers experienced their work environment. The researcher wondered whether there was anything that could be done to shed light and improve the situation. Recalling the data gathering process and how research participants portrayed their experiences, feelings, and observations leaves an impression that the lived experiences of programme managers is a struggle between themselves and other actors, locked in a complex dance of relationships and interaction. This is whilst they are embedded in an environment characterised by high regulation and disparate maturity levels in relation to programme thinking and programme management practices.

In light of the researcher having positioned systems thinking as a conceptual framework for the study, a holistic perspective must be taken on the interconnectivity and interactions between multiple components of the system under review. In this regard, the study suggests that the system encompasses the actors, the local execution environment, the external context influencing the local environment, the personal and organisational attitudes, and the relational artefacts emerging from the interconnections and interactions amongst the respective actors in the public-sector programme management environment.

Figure 18 presents the identified themes in layers with interconnections and interactions implied within and between them as components of this system. The bracketed numerals in the diagram indicate the Theme Numbers presented in Chapter 5 and of those following in Section 6.2.

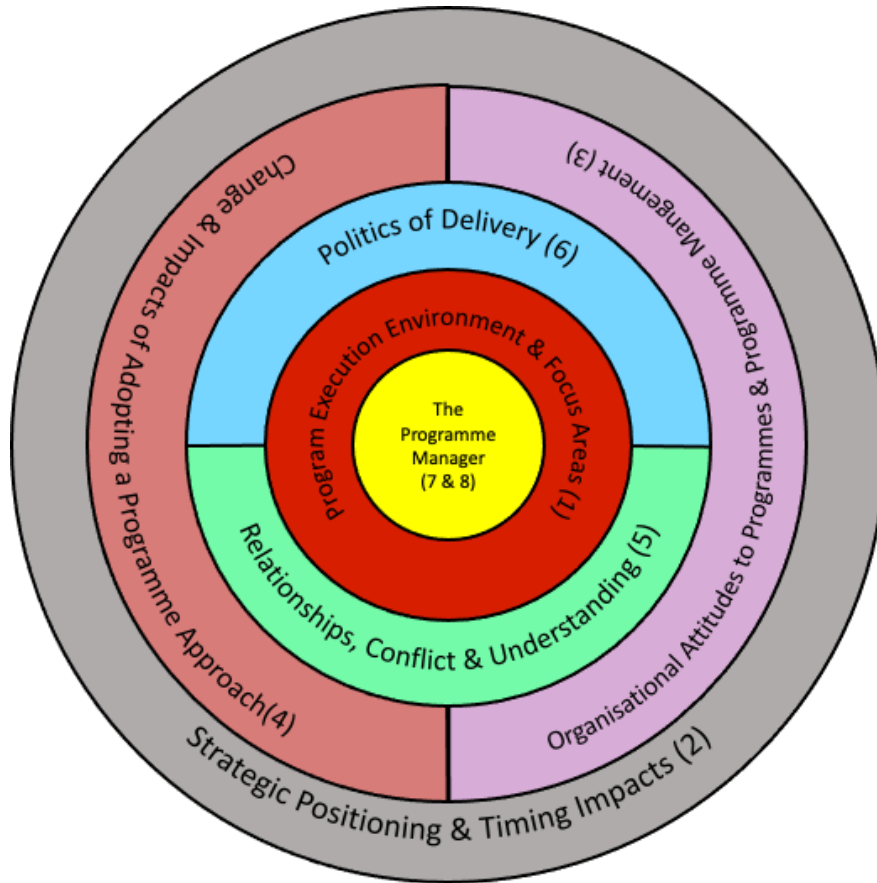


Figure 18: Themes as elements of the programme management system
(Source: Researcher, 2022)

The next section will present conclusions drawn per theme.

6.2 Conclusions per Theme

As discussed in Chapter 5 and graphically depicted in Figure 18, eight themes emerged from the research study, each with a specific impact on the programme managers. The researcher will present the conclusions of the study as a discussion of each of these themes.

6.2.1 Theme 1: Programme execution environment and its related focus areas

The research revealed that the programme execution environment and its related focus areas considerably constrain programme managers in the execution of their accountabilities. The environment is both empowering and debilitating at once.

The foundational aspects of programme formation and the related role and accountability assignment appear not to be a cause for concern, with the approaches adopted by the public-sector organisations being generally accepted and supported.

The research established the importance and utility of programme business cases to define envisioned business benefits and minimum financial investment required to launch and deliver individual programmes. However, the budgeting and financial management practices

of public-sector organisations cause considerable distress for programme managers, especially since public-sector programme durations generally exceed the annual budgeting window. Public-sector organisations should consider leveraging the current MTEF processes, which allow for multi-year budget projections to be raised. This would then elevate the visibility of their multi-year enterprise transformation programmes' budgetary requirements. Consideration should also be given to improve alignment between financial managers and programme managers to minimise detrimental decisions regarding operational programme budgeting and financial management.

Programme governance structures and processes exist, but these need to be strengthened to improve their efficacy and maturity. Public-sector organisations should balance the technical demands of establishing governance structures and processes with the human dimensions related to stakeholders' personal attitudes towards programme governance, technical competence, and strategic contribution. There is also value in ensuring that the selected programme governance stakeholders are appropriately inducted and continually supported in their governance roles.

There appears general agreement on the adoption and use of a phased programme delivery strategy in alignment with programme management industry standards and bodies of knowledge. The differences in drivers, justifications, funding approaches, delivery outcomes and impacts of programme failures between public- and private-sector organisations demand that public-sector organisations select and implement programme management and delivery methodologies that are aligned with and tailored to their specific demands. Notwithstanding the technical use of phased programme delivery approaches, the need exists for public-sector organisations to maintain consistency and minimise drift in their medium-term organisational strategies. Programme managers are disempowered when they need to respond to the unintended consequences imparted on programmes by annual drift in organisational strategies and its resultant adjustments to priorities and budgets.

Programme performance measurement, monitoring, and reporting appears to be done comprehensively. This is in alignment with the general requirements of the regulatory frameworks under which auspices the public-sector organisations are expected to operate. The reporting appears generally to be done at individual project levels, not consolidated programme levels. In exceptional circumstances, no reporting at any level is done, which results in impacted programme managers experiencing perceptions of complete lack of control.

Although there is evidence of a phase-based approach and some formality to the use of programme management methodologies, the research established that the introduction of programme pipelines to sequence contributing projects is dependent on organisational dynamics related to prioritisation, temporal requirements for problem analysis and resolution, directives on delivery timing and mechanisms, as well as understanding the function and importance of key programme building blocks. Programme pipelines require a holistic view on currently active projects in the organisational landscape, envisaged programme duration, resource availability, and models of assignment appropriate to the requirements. Anecdotally, public-sector organisations prefer a pipeline approach, focusing on establishing major programme building blocks, which are then adjusted and refined in multiple following iterations.

Programme delivery occurs in an environment characterised by the need for well-functioning teams and constrained by complex labour relations. In addition, the human resource pool is highly diverse in relation to race, gender, personality, experience, personal philosophy, and political affiliations. In this context, programme managers are expected to be both strategic leaders and tactical managers to ensure that the programme delivers across all fronts.

There is a definite preference for high-performance teams with a strong self-management and delivery ethos. Public-sector programme teams operate in a highly unionised environment and under stringent employment legislation and related policies. In addition to constraining programme managers inwardly in how they engage with programme resources when they plan and execute their programmes, the delivery of programme outputs into an environment also subjected to the same unionised and regulated realities become compromised. Given the near permanence of labour unions and the employment legislation governing public-sector employment practices, public-sector organisations should consider building strategic relationships with appropriate stakeholder bodies to smooth the programme delivery trajectory, as well as to strengthen programme managers with appropriate stakeholder managers and structures to whom issues of concern can be escalated.

Procurement and contract management are frequently key elements of public-sector programmes. The complexity, duration, and unpredictability of public-sector procurement processes are a source of great concern for programme managers because it markedly complicates the planning and delivery process. In addition, an increased focus on curbing procurement corruption adds to the difficulty of managing public-sector programmes. This is especially the case in circumstances when localised decision-making delegations are withdrawn and replaced with centralised decision-making processes and structures, whose functioning require additional time and effort to be included in the programme schedules.

High-value procurement efforts delivering results contrary to the expectations of certain programme stakeholders leave programme managers vulnerable to attack through accusations of malfeasance and corruption. This also leads to programme managers having to respond to the onset of paralysis in decision making and disengagement with the work due to departmental stakeholders developing a reluctance to engage. Delayed issuing of work authorisations following the procurement process and limited duration work authorisations further complicate the delivery accountabilities of programme managers. In the context of procurement and contract management, public-sector organisations can strengthen their programme managers by the assignment of procurement specialists to the programme team. They could also ensure that the procurement and contract management processes are configured to support the dynamics of IT-enabled enterprise transformation and modernisation programmes.

The programme execution environment is characterised by a bureaucratic culture and is influenced by powerful political imperatives and legislative demands, as well as deep-rooted hierarchical and delegation-based decision-making approaches. In certain cases, copious volumes of administration are needed to facilitate programme progress and to guard against the threat of litigation raised against the public-sector organisations, or to respond thereto. Regulatory and audit disclosure requirements demand from public-sector organisations to not dilute proper record keeping and tracking of decision making in the execution of programmes. However, public-sector organisations should simplify hierarchical structures,

and they should minimise needless bureaucracy and administrative requirements, thereby lightening the load of public-sector programme managers.

6.2.2 Theme 2: Strategic positioning and timetabling impacts

The research revealed the dynamics in play when public-sector organisations conduct strategic planning exercises. The theme also highlighted how public-sector organisations relate to the use of time as a strategic resource in the delivery of programmes.

Public-sector strategic planning is a prescribed and ritualised process that repeats itself in five-yearly cycles for major strategy development and annually for short-term (annual) performance planning and reporting. Since this process needs to be responsive to political influences and legislative factors, the possibility emerges for strategy and priority drifts to be introduced that might impact in-flight programmes. Public-sector organisations sometimes utilise the declaration of emergencies or burning platforms during the strategic planning process to force through changes to earlier priorities and budget allocations, thereby introducing additional changes to in-flight programmes. Through these processes, programme managers face sometimes far-reaching changes to programmes, which might include far-reaching scope adjustments and material reductions in the priority assignment of programmes.

Public-sector organisations do not use time effectively and productively as a strategic resource during the delivery of IT-enabled enterprise transformation and modernisation programmes. Programme managers are hamstrung by inconsistencies in how stakeholders understand, manage, and waste time in the programme context. The reasons behind the wastage of time in this context is not clear but might be linked to organisational culture and the bureaucratic nature of the public sector in general.

6.2.3 Theme 3: Organisational attitudes to programmes and programme management

The theme addressing organisational attitudes to programmes and programme management suggests inconsistencies in the attitudes displayed by public-sector entities towards programmes and programme management. Public-sector programmes suffer due to leadership instability, incompetence, and non-availability. Furthermore, variability in role definitions result in programme managers having to navigate carefully around misaligned role expectations between themselves and departmental managers.

Public-sector agencies should ensure that their understanding of programmes and programme management is properly developed to minimise the incidences of dismissive attitudes towards programme managers. In this regard, it is incumbent of public-sector organisations to heed the Department of Public Service and Administration's expectations in relation to the positioning of programme and project management as a key competency for job roles in the public-sector senior management service. It is noted that some entities have taken remedial steps when they recognised limitations in their understanding and application of programme sponsorship and ownership demands.

The programme management discipline is facing a dual crisis in the public sector with it simultaneously being expected to deliver to high expectations whilst having to face claims of a lack of credibility. This is exacerbated by inconsistencies in the understanding of the basic tenets of programme management. With an improved understanding of what the programme

management discipline offers, public-sector organisations will more than likely adjust their perceptions about programme management being a cumbersome and expensive overhead staffed with all-powerful and highly influential programme managers. The opportunity exists to improve the general perspective towards programme management and to build sustainable programme management capabilities. This can be done through the enrichment of current training courses presented by the Department of Public Service and Administration's National School of Government. The established government-wide programme management guidance and support capabilities in the National Treasury's GTAC already provides specialised consulting and support services on public-sector project management approaches. The simple act of clarifying terminology in regard to programmes and programme management in the public sector should also contribute to better understanding, acceptance, and utilisation.

Some programmes have visibility at the highest levels of public-sector organisations, placing the relationship between accounting officers, directors general, and programme managers into relief. Programme managers might expect priority access to accounting officers or directors general, which in the ordinary business of the public-sector organisation might not be feasible. This requires careful consideration at the programme conceptualisation stage of the role assignment of accounting officers and directors general in the respective programmes.

Operational demands of managing public-sector organisations sometimes result in the decision-making privileges of line managers being withdrawn. In such instances, they could be replaced by a centralised decision-making regime, where the accounting officers or directors general are engaged in high-value, high-impact decisions. Programme schedules require adjustment when this occurs, given the lengthy decision-making process that accompanies centralised decision-making regimes. The practicality of burdening accounting officers or directors general with programme oversight and governance accountabilities should generally be avoided, except in circumstances where there is a specific demand from the accounting officers or directors general to be involved.

6.2.4 Theme 4: Change and impacts of adopting a programme approach

The theme addressing change and the impacts of adopting a programme approach reveal that change in the context of programmes can become all-consuming, with stakeholders responding in multiple ways to it. Beyond the actual change being implemented in the business context, there are also inter- and intra-programme changes which need to be accommodated by programme managers.

Programme managers are occasionally at the mercy of departmental line managers who use opaque prioritisation and decision-making processes in relation to how projects move into or out of in-motion programmes. Beyond decisions forced due to political factors, where little choice may be had in how to respond, public-sector organisations should integrate programme managers in their decision-making structures when broader priority changes and new project opportunities are discussed. This should assist in creating early awareness of downstream impacts in both the business and programme management domains.

Programme recipients at all levels of involvement have trouble in coping with the operational demands and human impacts in assimilating and responding to what programmes deliver. Overall programme duration and the real impact of the programme outputs on people's lives

appear to be key contributors to the onset of fatigue, feelings of disheartenment, and loss of focus. Public-sector organisations should consider the use of organisational change management and training approaches tailor-made to the unique requirements of programmes in the organisation. Where strategically and operationally feasible, crafting programme schedules to allow short periods of relative calm after intense periods of change should result in a more positive experience for programme recipients.

'Changes everywhere' became a catchphrase for describing the frequency, nature, and impacts of change to programmes that programme managers and their teams are expected to tolerate. Whilst programmes frequently involve technology components with their own inherent challenges, public-sector organisations should reduce programme turbulence by minimising other changes once the programme definition and planning stages reach conclusion.

Programme managers face different challenges when they become the object of change during programme manager rotations in active programmes. Public-sector organisations should facilitate a controlled landing for the replacement programme manager by preparing programme stakeholders with reasons for the change. A support infrastructure should also be established around the newcomer.

Public-sector programmes frequently traverse multiple sub-departments within a single entity and occasionally extend outwards beyond their boundaries into other organisational contexts. Both situations result in programme managers having to respond to challenges related to independence (institutional and sub-departmental), organisational politics (inter- and intra-agency), irregular commitments, unbalanced capacity, and limitations in available resource capacity. Whilst these matters cannot realistically be solved, public-sector organisations should facilitate strategic-level governance structures, operational agreements, and joint priorities to minimise strife.

6.2.5 Theme 5: Relationships, conflicts, and understanding

The theme of building and maintaining relationships, managing conflicts whilst remaining engaged, and ensuring that stakeholders have proper understanding of the various programme dimensions uncover some of the most important concerns of programme managers.

Insofar as programme managers acknowledge the importance of building and maintaining trustful and productive relationships, they find the experience of stakeholder-induced strained relationships difficult to manage. This is further exacerbated when high levels of distrust from departmental managers become primarily directed at programme managers and secondarily at other programme stakeholders.

Public-sector organisations should be sensitive to the debilitating impacts of strained relationships amongst key programme stakeholders. It is recommended that independent organisational climate assessments are conducted during the programme delivery lifecycle to ascertain relationship health statuses and the factors contributing to strained relationships. Organisational leadership should also establish and encourage the use of escalation paths through which programme managers can safely raise concerns.

The research positively suggests that programme managers are taking constructive steps to engage programme stakeholders to maintain awareness, nurture buy-in, and minimise the

development of negative perceptions. Occasionally, this coincides with the need to ensure that programme stakeholders remain focused on programme governance processes, goals, common direction, the long-term journey, and generally staying aligned to what was approved. In this process, conflict inevitably needs to be managed and resolved to maintain progress. In contrast to the frequent use of direct confrontation, programme managers periodically err on the side of using compromise to maintain momentum and the attainment of programme, group, or individual goals.

Major investments are made by programme managers to develop and maintain a requisite level of understanding for both themselves ('inwards') and for programme stakeholders ('outwards'). Public-sector organisations should support programme managers by sharing the accountability with a designated departmental programme owner. This can also be done by facilitating access to education, marketing, training, change management, and communication resources to ensure that they are as effective as possible.

6.2.6 Theme 6: Politics of delivery

The theme addressing the politics of delivery reveals an environment characterised by an overabundance of organisational politics. This impacts the effectiveness of programme managers in public-sector enterprise transformation programmes.

The actions of departmental stakeholders impinge on the effectiveness of programme managers. Programme delivery is disrupted when departmental managers divert attention away from themselves or their accountabilities and when they engage in destructive management behaviour. Frequent changes to key programme stakeholders increase the frustration experienced by programme managers. General programme progress becomes gridlocked when departmental stakeholders seemingly refuse to understand programme constraints, waste and redirect resources that should be available to the programme, and devalue programme reporting efforts. The research revealed that individual resistance to change and the predominant organisational culture might be possible contributors to the disruptive behaviour of departmental managers. Public-sector organisations should benefit from change management and leadership realignment interventions directed at different managerial levels. This is in addition to the measurement and introduction of remedial steps in the context of a prevailing organisational culture found to be generally dismissive of programme management.

Organisational life coincides with, and in many instances is determined by, organisational politics and power dynamics. Programme managers, therefore, are expected to be very responsive when delivering programmes that are positioned or conceived to support or enhance political imperatives across internal and external organisational milieus. This extends to programme managers having to carefully navigate and manage the politics of delivery with stakeholders determined to leverage and wield their relationships and positions of power. Realistically, there is very little that can be done at the macro-systemic level to minimise the negative impacts of politics in a public-sector context. However, public-sector organisations are advised to pay attention to the orientation of leadership and senior management regarding programme management. Small gains in positive attitude can dramatically counter the negative consequences of misdirected political posturing.

Some environments appear to suffer more from unmanaged levels of confusion and chaos. When programmes with complex delivery dynamics are executed in these contexts, the

opportunity presents itself for deceitful stakeholders to exploit the confusion and chaos for their own purposes. In this context, programme managers questioned the feasibility and appropriateness of adopting a programme approach, especially with stakeholders who deliberately add to the chaos and complexity through their actions. Programme managers also felt they must traverse a fine balance to ensure that a programme concept is neither too complicated nor too complex. This is particularly so in the public-sector context, where multiple emergent variables and factors require management attention. There is value in simplifying strategic programme concepts to reduce sources of chaos and complexity. Organisations should also simplify the language, processes, and administrative overheads ascribed to their selection and use of programme management methodologies. A reduction in jargon in this context will also minimise chaos and complexity.

Despite these problems, evidence was found that senior departmental stakeholders are already taking remedial steps to empower programme managers by inculcating the demand for positive actions and attitudes. This is also being seen when an empowering accountability framework is established with defensible operational freedoms and clear boundaries. These steps are augmented with renewed focus by organisational leadership on simplifying management structures; participation in planning, scoping, and impact analyses; and being accommodative of emerging dependencies. The opportunity for political manoeuvring can be reduced more when leadership emphasises quality expectations and holding accountable not only the programme manager but also departmental stakeholders and delegated programme participants.

6.2.7 Theme 7: The programme manager

The programme manager theme places a more personalised view on some of the attitudes, traits, and reactions of programme managers in their day-to-day activities. It also raises the question whether there is a possibility of an ideal profile for programme managers.

Programme managers generally adopted a forward-looking attitude to progress the programmes they were accountable for. They appear to be driven by intrinsic and extrinsic motivators, as well as a strong personal sense of self-belief. The general perception amongst programme managers is that a can-do attitude is very effective. Considering that public-sector enterprise transformation programmes are complex, long-running, and operate in environments fraught with politics and challenged service delivery, programme managers remained focused on maintaining forward momentum. However, the drive for forward momentum comes at a price for programme managers with fatigue, burnout and, sometimes, serious negative emotions having to be overcome. Public-sector organisations should pay attention to the emotional well-being of their programme managers. Reinforcement of programme managers can come in the establishment and cultivation of support systems and organisational enablers, such as adjusted environmental factors, organisational and management culture, philosophy, and actions.

Inasmuch as programme managers must work towards establishing and maintaining expectations with their stakeholders, they also have expectations that occasionally are left unmet. When these situations unfold, programme managers generally experience perceptions of failure, which are met with a response directed at figuring out what happened to allow them to fix any mistakes that they might have made. In these moments when events did not unfold according to their expectations, programme managers also drew on personal

learning so that they could realign and eventually reframe the situation to recover from the troubled circumstances.

Programme managers are generally not deeply embedded in the decision-making 'machinery' of public-sector organisations. Whereas programme management is expected to simplify and streamline decision making, the lack of properly defined roles, responsibilities, and decision-making boundaries substantially diminishes the effectiveness of programme managers. The environmental constraints and dynamics of public-sector organisations place more unique challenges on programme managers. Political agendas and personal beliefs are prominent in the political processes surrounding programme managers. It is recommended that public-sector organisations craft a decision-making and role-assignment framework to direct stakeholders on process, accountability, and limits of engagement.

Programme managers must deliver to high expectations and conform to a high-performance culture whilst working in a constrained accountability framework. These expectations range from demands that programme managers are technically proficient and experienced in the programme management domain and delivery of technology-enabled programmes, that they must be adept at managing multiple unpredictable waves of change, and that they actively balance the emergent with the immediate in relation to programmes and projects. Furthermore, the need exists for programme managers to have very strong interpersonal skills to manage the personal agendas, power relationships, and political minefields generally surrounding the delivery of high-stakes programmes.

Similarly daunting expectations are placed on the personal profiles of programme managers. There is a strong emphasis placed on individuals possessing strategic skills and agility, and who are multi-skilled and multi-talented with more than straight-line project management experience. Public-sector organisations are advised to carefully match their expectations on programme manager profiles with the probable profiles of their programmes to ensure that they are realistic and attainable. There is undoubtedly much value in the definition of a generic programme manager accountability profile and associated training and education curricula that are aligned with the unique public-sector environmental dynamics. This should include a minimum set of competencies, abilities and qualities required of programme managers to do their job well.

6.2.8 Theme 8: What does the programme manager focus on?

This theme addresses the programme manager from a different vantage point. It reveals that there appears to be a focused area of concerns that they pay attention to when engaging in their daily activities. These concerns comprise communicating, conflict, resource management, and sensemaking.

They also appear to move across a negative or positive continuum of attitudes in their levels of disengagement or engagement to their work and their stakeholders. These attitudes include withdrawing, diminishing, neutral, and contributing.

6.3 Theory Building

The themes discussed in the previous sections present a rich conceptual analysis of programme managers' lived experiences in their social world of public-sector IT-enabled enterprise transformation and modernisation programmes. The final step in this study is to generate a substantive theory grounded in this data (Charmaz, 1996).

This study was aimed at the development of an institutional framework to contextualise and influence the betterment of public-sector programme managers' lived experiences. This chapter's introductory section raises the notion of a system comprising an external context, a local execution environment, actors, attitudes, relational artefacts, and the influences that flow between these domains. The next sections will develop the conclusions drawn in Section 6.2 into a substantive theory and, in the process, build the picture of the system.

The factors that influenced the theory building process and the framework for institutional intervention are discussed next.

6.3.1 Conclusions from the data that informed the theory

Scholars in the field of public-sector programme and project management seem to agree that programmes and projects are increasingly becoming the preferred tools to operationalise strategic objectives and policy programmes (Van der Waldt, 2009). By implication, this requires research on programme and project success, as well as on the perspectives of practitioners.

The framework proposed by the researcher is informed by the conclusions reported in this Chapter. These are broadly categorised as follows:

- i. conclusions pertaining to organisational interfaces as related to legislative and regulatory frameworks, strategy, and policy;
- ii. conclusions pertaining to technical interfaces as related to the programme manager and their immediate execution environment; and
- iii. conclusions pertaining to interpersonal interfaces between the programme manager and their broad stakeholder groups.

The literature that informed the theory (framework) of this study will be discussed next, whilst the framework will be presented and explained later.

6.3.2 Literature that informed the theory

This study and the resulting framework were informed by a systems thinking framework, which served as the conceptual framework for this study, and assumed interconnections between numerous components and complex relationships and interactions (Gharajedaghi, 2011; Sherwood, 2002) pertaining to the programme manager, the environment in which they work, and the various internal and external stakeholders active in a programme context.

In finalising the conclusions and proposed framework, the researcher identified correspondence between the findings of this study and the work of Heathcote and Ben Baha (2020), that need to be acknowledged. The correspondence between the current study and Heathcote and Ben Baha's (2020) work lies in overlapping findings related to strategic alignment, value determination and delivery, governance requirements and hierarchical structures, and the impacts of disruptive relationships that can be ascribed to blame culture in organisations.

Heathcote and Ben Baha (2020) confirm that programmes should be important mechanisms to deliver strategic value to organisations, but that in certain environments they are not, due to organisations measuring the wrong things. Project and programme assignment and prioritisation also appear problematic in certain contexts.

In relation to value determination and delivery, Heathcote and Ben Baha (2020) suggest that there is a debate about what value is and where it lies. This problem finds expression in how projects are selected, determinations of acceptable project and programme risk, and failures of benefits tracking in programme contexts. Linked to this, is the observation that organisations struggle to develop proper practical understandings of what programmes and projects are.

Heathcote and Ben Baha (2020) emphasise the importance of governance to support strategic decision-making in projects. However, dysfunctional hierarchical structures with deep layers of bureaucracy and politics result in decisions that do not always put the organisation as a priority.

According to Heathcote and Ben Baha (2020) stakeholder relationships are impacted negatively by adversarial relationships and blame cultures fuelled by the prevailing hierarchical structures. There is also an acknowledgement that disconnects occur between programme managers and senior leaders located at the top of the governance structures, which negatively impacts on motivation and resultant delivery effectiveness.

The next section will discuss the researcher's proposed framework for institutional intervention.

6.3.3 The proposed framework for institutional intervention

The study and resultant framework are impacted by systems thinking that serves as a conceptual framework. In this context, it is concluded that there are structural and behavioural interconnections between the organisational environments, the programme manager, and programme stakeholders (Meadows, 2002). The framework aims to influence public-sector organisations to enhance the lived experiences of programme managers, thereby enhancing the probability of successfully delivering IT-enabled enterprise transformation and modernisation programmes.

The framework positions the programme manager as a microsystem within a broader ecosystem. Programme stakeholders are in a mesosystem. The immediate environmental context where the programme manager and programme stakeholders work is the exosystem, and the whole organisation is the macrosystem. The programme manager (microsystem) is influenced by interactions with stakeholders (mesosystem), the immediate programme execution environment (exosystem), and the broader organisational context (macrosystem).

The public-sector programme manager (microsystem) enters the environment with an educational and experiential profile, as well as expectations related to organisational support, empowerment, and role clarity. They have an attitudinal disposition that influences how they engage or disengage with the environment and stakeholders. Stakeholders in context of the mesosystem include organisational managers, programme team members, programme and organisational support staff, strategic implementation partners, and other suppliers. In certain contexts, the macrosystem's political principals may also form part of the stakeholder group.

The mesosystem of interpersonal or relational interfaces between programme managers and stakeholders are directly influenced by the governance and technical requirements of the exosystem. The attitudes espoused and decisions taken by the macrosystem also indirectly affect these relationships. In this context, where there is misalignment between the worldviews of programme managers (microsystem) and stakeholders (mesosystem), the

relational aspects that are most likely to be experienced include conflict, politics, and differences in understanding.

The programme execution environment, or exosystem, is the environment where the assumptions and decisions taken in the macrosystem find their biggest impact. It is the domain where the relational interfaces between programme managers and stakeholders are exercised. Yet, it mainly encompasses organisational and technical interfaces incorporating reporting structures, governance arrangements, technical directives, and operational policies and procedures.

The organisation (macrosystem) develops and espouses attitudes and decisions that influence the immediate programme execution environment, as well as the programme manager and the programme stakeholders. Attitudes are formed and decisions are made in relation to strategic planning approaches and priorities, time as a strategic resource, if and how to leverage programmes and programme management for enterprise transformation initiatives, as well as strategies to manage organisational change and the impacts of adopting a general programme approach.

Some of the study's findings are noteworthy but are likely very difficult or time-consuming to implement, especially given the political-administrative context surrounding the public sector in general. Individual public-sector organisations have some control over entity-specific legislative and regulatory frameworks being administered by them but very limited influence over others, such as general, financial, procurement, and human resource management. Public-sector organisations also do not have direct control over the historic experiential profile and attitudinal disposition of programme managers, except in instances where the programme manager is a long-term employee that progressed through a developmental trajectory over which the public-sector organisation has control. The public-sector organisation should, however, consider the individual profile of programme managers when making assignments into programme contexts to ensure that there is a general matching of abilities to expectations.

Notwithstanding the general legislative and regulatory limitations, public-sector organisations do have direct control over institutional management and administrative policies, procedures, and conventions that directly and indirectly influence programme managers. This extends to internal accountability arrangements, governance frameworks, mechanisms to monitor progress, and disciplinary remedies. The public-sector organisation, thus, can positively impact the lived experiences of public-sector programme managers.

The application of systems thinking as a conceptual framework allows problems to be analysed and presented in a holistic manner. It facilitates developing a perspective on how challenges could be addressed. In the context of vast, complex, and chaotic public-sector enterprises, the absolute solving of problems is very unlikely. In the context of this reality, the framework presented in Figure 19 below, therefore, submits proposals to dissolve some of the challenges that contribute to the lived experiences of programme managers. The framework proposes the following:

- i. Public-sector organisations should strategically clarify their assumptions and decisions relating to programmes, programme management, and their uses in the delivery of enterprise change initiatives. They also need to ensure that there is a

- strategic and general understanding of the benefits, disadvantages, and requirements of adopting a programme approach.
- ii. Public-sector organisations should leverage the cyclical strategic and annual planning and budgeting process to ensure visibility and continuity of current and future enterprise transformation programmes.
 - iii. A holistic approach should be adopted to support and enable programme managers in their activities, with specific emphasis on specialised training and development interventions. This must also include the cultivation of programme manager communities of practice and other support structures. The selection and adoption of a programme management methodology and accountability framework should be aligned to the specific needs of the public-sector organisation.
 - iv. Managerial levels should be empowered with programme representative governance structures, targeted stakeholder engagement, and change management interventions to build and maintain strategic-level alignment on current and future programmes.
 - v. There should be refinement of anti-corruption, financial management, human resource, and procurement policies to better align with the demands of adopting a programme approach. This should include escalation heuristics and paths to accountable senior management representatives to minimise preventable delays.
 - vi. Refinements to programme plans and delivery schedules should include periods of 'relative calm'. This is required to minimise general burnout of programme managers while delivering the major change programme outcomes. Scheduled breaks in the delivery planning will also benefit the business units impacted by the programme delivery, allowing them to assimilate the change and prepare for future waves of change.

While the framework is focused on individual public-sector organisations, the opportunity exists to establish a public sector-wide role and accountability profile for programme managers. This is in addition to a technical support capability in the National Treasury's Government Technical Advisory Centre (GTAC) structure, thus becoming a general programme management resource to the wider public sector.

This framework was developed based on empirical research done in the public sector. The researcher believes that it may be generalised to the broader programme management domain and, in particular, the strategic positioning of programmes, refinements to organisational operational policies and procedures to better enable programme managers to be successful, and efforts to better manage managerial-level stakeholder relations and change management to minimise opportunities for destructive conflicts and political manoeuvres.

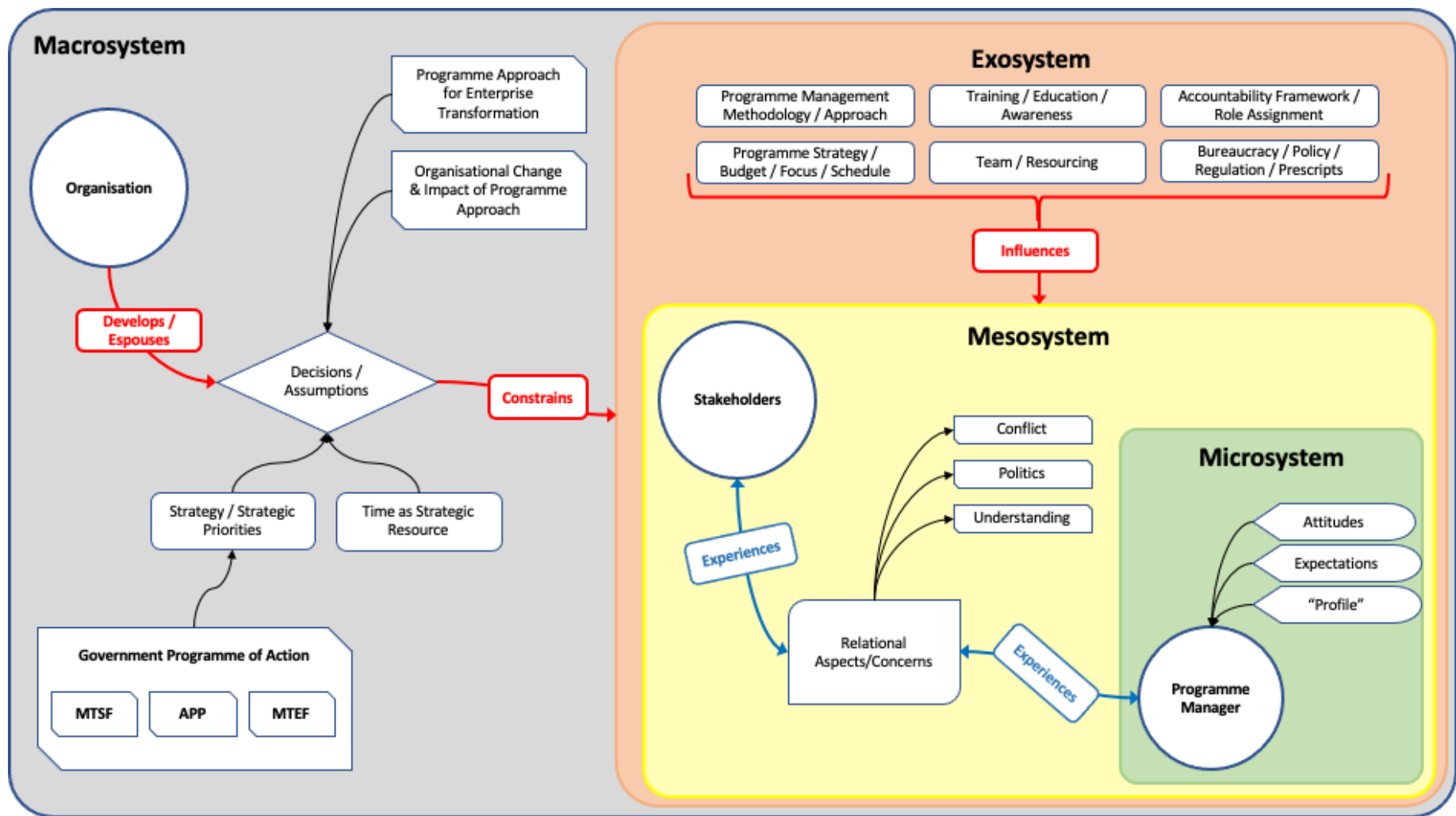


Figure 19: Institutional framework for programme success
(Source: Researcher, 2022)

Several limitations and subsequent recommendations for further research have been identified during this study. The next section discusses the limitations, following which the recommendations for further study will be outlined.

6.4 Limitations of the Study

Section 1.5 and Section 3.7 outline the anticipated limitations of this study. This section presents the concluding comments of the research regarding the limitations of the study now that it is completed.

The first limitation relates to representation beyond the South African public-sector context. While the researcher regarded national departments where enterprise transformation initiatives are or have been engaged with as representative, this is not conclusive. The applicability of this study to the rest of the public sector may have to be tested with a wider audience.

The second limitation relates to the sample size and demographic representation of the respondents. The initial sample was carefully selected to provide the richness required in a grounded theory study, but given the practical limitations experienced to engage with the intended sample, the proposed theory requires further investigation.

In view of the stated limitations, the next section will address recommendations for further study.

6.5 Recommendations for Further Study

The theory presented by this study is situated in a specific time and location, which requires testing in further research. Further research pertaining to the reality of public-sector programme managers in general programme management roles, beyond the implementation of IT-enabled enterprise transformation and modernisation initiatives, is also recommended.

Given the close relational contacts between programme managers and departmental managers in the delivery of enterprise transformation programmes, this may be the topic of another study, with a view to proposing a framework for enhanced delivery collaboration.

6.6 Achievement of the Study Aim and Objectives

The aim of the study was to create a framework to explain and influence the betterment of public-sector programme managers' lived experiences for those public-sector organisations engaging in IT-enabled enterprise transformation and modernisation programmes. This aim was supported by four research objectives:

- i. to understand the main practical complexities related to the programme management of IT-enabled enterprise transformation and modernisation initiatives in the South African public sector;
- ii. to analyse theory pertaining to enterprise transformation and programme management as theoretical foundations for the research;
- iii. to gather relevant data and arrive at findings and logical conclusions after analysis of the gathered data, to deliver a scientific response to the research problem;
- iv. to develop a descriptive framework that could be applied to positively influence the

programme management of public-sector IT-enabled enterprise transformation and modernisation programmes.

It is the view of the researcher that this study achieved the objectives in the following manners:

- i. The study shed light on some of the challenges and factors that contribute to the lived experiences of programme managers in public-sector organisations. Several institutional factors exert negatively on the performance of programme managers, especially the bureaucratic demands of stringent legislative and regulatory regimes in respect of finances, procurement, and human resources.
- ii. The study established that programme managers generally experience difficult relationships with programme stakeholders, of which departmental line managers are the most complex and possibly the most disruptive.
- iii. Lastly, the study determined that strategic assumptions and decisions around organisational change and the adoption of a programme approach for IT-enabled enterprise transformation and modernisation initiatives impacts programme managers in sometimes unexpected ways.

6.7 Conclusion

The researcher embarked on this study whilst actively engaged in the delivery of a major public-sector IT-enabled enterprise transformation and modernisation programme. It was through this experience that he started questioning whether his lived experiences were relatable to other public-sector programme managers.

During the study, it became clear that the lived experiences of other public-sector programme managers were impacted and comparable in uniquely similar and sometimes different contexts to his personal situation. The purpose of the study thus became very real and urgent.

One of the key factors of the model is the frequently strained relationship between the programme manager and the programme stakeholders, specifically departmental line managers. This is an area where the programme manager, beyond the frequently quoted approaches to relationship and stakeholder management, appears to have limited influence. This is also where the organisation must step in to ensure that programme delivery is not scuppered due to destructive political posturing and manoeuvring by their line managers.

Public-sector organisations have a responsibility to create an enabling environment when they embark on complex, long-running and very expensive socio-technical enterprise transformation programmes. It appears their senior management must be reminded of this responsibility.

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ANNEXURE A: DA VINCI LETTER OF CONFIRMATION

The Da Vinci Institute for Technology Management (Pty) Ltd
PO Box 1045 Rivonia Gauteng 2128 South Africa
Tel + 27 11 608 1331 Fax +27 11 608 1332
www.davinci.ac.za



MEMORANDUM

TO: Whom it may concern

FROM: Mr. Raymond Toga, Key Account Manager: Postgraduate Programmes,
The Da Vinci Institute for Technology Management

DATE: 05 April 2016

**RE: Registered PhD student and permission requested for access to
research information for a doctoral thesis**

The memorandum serves to confirm the following information:

Student: Van Rensburg, Henk
Student Number: 8065
ID Number: 6711105016089

Title of study: *Programme Management of Social-Technical Change in the
Public-Sector: A critical systems thinking view*
Academic supervisor: Dr Anton Maneschijn

This is to confirm that the above-mentioned student is a registered PhD candidate of The Da Vinci Institute. Your assistance is requested allowing him to gather information for study purposes and writing of his doctoral thesis. The Institute requires the student to adhere to the code of conduct as set out in its policy during the process and completion of the research study.

The Institute invites you to contact us if necessary. The contact details are Raymond Toga 011 579 4428, or raymond@davinci.ac.za.

Kind regards,

A handwritten signature in black ink, appearing to read "Raymond Toga", written over a horizontal line.

Raymond Toga
Key Account Manager: Postgraduate Programmes
Tel: +27 11 579 4428
Cell: +27 79 224 2941
The Da Vinci Institute for Technology Management

Directors: EC Kleswetter (President), B Anderson (Vice-President and Chief Executive Officer)
Company Registration No. 2001/009271/07
Registered with the Department of Higher Education and Training as a private higher education institution under the Higher Education Act, 1997.
Accreditation No. 2004/HE07/003

ANNEXURE B: REQUEST FOR ACCESS TO PROGRAMME MANAGEMENT SPECIALISTS

PO Box 2277
Xanadu Crossing
Hartbeespoort
0279

Dear Sir / Madam,

PHD STUDIES: REQUEST FOR ACCESS TO PROGRAMME MANAGEMENT SPECIALISTS IN THE PUBLIC SECTOR

1. Background

I am a PhD (Management of Technology and Innovation) candidate enrolled at the Da Vinci Institute for Technology Management currently conducting research in the subject area of Programme Management of Information Technology / Information Systems / Software Intensive Systems delivery in the broader Public Sector.

2. Request

I herewith request your assistance with access to contact details of programme management professionals and specialists, with specific reference to programme management professionals with experience in the field of information technology / information systems / software intensive systems delivery initiatives. I wish to engage with said programme managers in order to conduct my research through interviews and where required, questionnaires.

3. Motivation

I am fortunate to, for a large part of my career, having been a Programme Manager in a number of public sector organisations. In this role, I experienced many of the trials, tribulations and triumphs associated with programme management as a professional discipline.

Historically, varying levels of success are achieved in the delivery of major Information Technology / Information Systems / Software Intensive Systems delivery programmes in the Public Sector. The purpose of my research project is to develop practical theory by interpreting the perceptions, experiences and concerns of Programme Managers and their respective clients in the Public Sector (which include National, Provincial and Local Government and State-Owned Entities) related to real-world programme management delivery dynamics.

The reality of constant pressure to deliver faster, cheaper, and more complex information systems solutions to a highly dynamic public sector requires that programme management, as a professional discipline, be used to its fullest extent, while understanding the nuances, limitations and uniqueness of public sector organisations.

The research approach follows the Qualitative tradition, with Grounded Theory selected as the research methodology and Systems Thinking as the theoretical lens.

The intention is not to disclose any details of the information systems delivery programmes or the organisations themselves, but rather to understand the lived experiences of the programme managers in the context of the delivery dynamics and the programme management approach(s) / methodology / standards adopted for the respective initiatives.

The sampling methodology is purposive, in that I need access to potential candidates / respondents with the following profile:

- Type: *Programme management professionals (not necessarily certified, but being able to demonstrate at least 5 years' experience)*
- Specialisation / experience: *Large-scale Information Systems / Software Intensive Systems Implementations*
- Implementation Domain(s): *Public Sector (National / Provincial / Local Government / State-Owned Entities)*

Your consideration of this request is highly appreciated.

Kind regards,

Henk Van Rensburg

Student # : 8065 (PhD LEO19) (Da Vinci Institute of Technology Management)

Mobile # : 082-653-8047

Office # : 012-422-4038

e-Mail : henk.vanrensborg@telkomsa.net

ANNEXURE C: SUBJECT CONSENT TO TAKE PART IN A STUDY

Subject Consent to Take Part In A Study

Title of Study

Program Management of Socio-Technical Change in the Public Sector: A Critical Systems Thinking View

Name of Researcher(s)

Henk van Rensburg, Doctoral Candidate, The Da Vinci Institute of Technology Management

Supervisors to the Researcher

Academic Supervisor: Dr Anton Maneschijn (PhD)

Description of Research and Your Involvement

I am requesting you to take part in a research study on the use of Programme Management in the delivery of Software Intensive Enterprise Transformation initiatives in Public Sector Organisations. Your perceptions and experiences of Programme Management will be elicited in order to discover individual and organisational variables and factors that enable, or pose barriers, to successful application of Programme Management in the delivery of software intensive socio-technical change.

If you decide to take part, I will:

Ask you to provide background data including:

your age, gender,

confirmation of academic background (entry level degree into project / programme management and/or information systems, highest degree obtained in project / programme management and/or information systems, highest degree obtained),

years of experience as a Programme Manager, span of control as programme manager.

in the event that you are the recipient of products / services delivered using Programme Management, the background questions will be similar to, but specific to your role / position.

Ask you to provide basic information about your current organisation including the type of organisation, a short description of the organisation, and an organisational structure.

Ask you to participate in an interview that will be conducted face-to-face or via telephone conference. The interview will explore your perspectives on Programme Management and will last approximately one to two hours. The possibility of conducting the interview using email can also be considered as a practical alternative to the earlier-mentioned methods of engagement.

You may be asked to participate in follow-up engagements to clarify and affirm information that was given during the initial interview.

Risks and Discomforts of Participation

There are no known risks for you. However, discomfort could occur because of the sensitive nature of some of the interview questions.

Efforts to Minimize Discomforts

If discomfort occurs during the interview related to questions that you perceive may be too sensitive, you may indicate if you would like to go to the next question or stop the interview entirely.

Expected Benefits

Although you may not receive direct benefit from your participation, others may ultimately benefit from the knowledge obtained in this study. The information learned from this study will be used to identify particular issues faced by Programme Managers and their clients. This data may help in the design and development of education, training, and coaching programs to facilitate the adoption, use and efficacy of programme management in public sector organisations.

Payment for Participation

There is no compensation for participating in this study.

Cost for Participation

The only cost to you for participating in this study will be the cost of your time.

Confidentiality of Data and Records

Everything I learn about you and your organisation will remain confidential. The data will not be provided to anyone except the researcher and the members of his dissertation committee. The data may also be subject to monitoring by the Ethics Review Board of The Da Vinci Institute of Technology Management.

Your name and the organisation's name will be coded and code names will be used to identify transcriptions and any further data that is generated or used. Transcribed recordings will be kept in a secure location by the researcher. The data will be held for five years and will be destroyed at the end of that period. The data will be used for research purposes in the production of a PhD thesis only.

If I publish the results of the study in a scientific book or magazine, I will not identify you or your organisation in any way. Your decision to take part in this study is entirely voluntary. You are free to choose to take part in the study or stop taking part in the study at any time.

Further Information and Contact Information

If you have any questions, feel free to ask me during the interview. If you have additional questions later or wish to report a problem which may be related to this study, please contact Henk van Rensburg, Doctoral Candidate at The Da Vinci Institute for Technology Management at +27.82.6538047 or at henk.vanrensburg@telkomsa.net.

You may also contact The Da Vinci Institute at 16 Park Avenue, Modderfontein, 1618, telephone +27.11.6081331 or email Mr Simon Gathua (simon@davinci.ac.za).

I will give you a signed copy of this form to keep.

Consent of Subject to Participate

YOUR SIGNATURE INDICATES THAT YOU HAVE DECIDED TO TAKE PART IN THIS RESEARCH STUDY AND THAT YOU HAVE READ AND UNDERSTAND THE INFORMATION GIVEN ABOVE AND EXPLAINED TO YOU.

ADULT SUBJECT OF RESEARCH

Printed Name Consenting Signature Date/Time

SIGNATURE OF PERSON OBTAINING CONSENT

HENK VAN RENSBURG _____

Printed Name Signature Date/Time

Audio Recording Consent

In order to maximize data collection and analyses, your interview will be recorded. Transcribed recordings will be kept in a secure location by the researcher. The recordings will be held for five years and will be destroyed at the end of that period.

PLEASE SIGN BELOW IF YOU ARE WILLING TO HAVE THIS INTERVIEW RECORDED. YOU MAY STILL PARTICIPATE IN THIS STUDY IF YOU ARE NOT WILLING TO HAVE THE INTERVIEW RECORDED.

Printed Name Consenting Signature Date/Time

ANNEXURE D: INTERVIEW SCHEDULE

**HENK VAN RENSBURG
STUDENT 8065 (PHD COHORT LEO 19)
PHD (MANAGEMENT OF TECHNOLOGY & INNOVATION)**

**PROGRAM MANAGEMENT OF SOCIO-TECHNICAL CHANGE IN THE PUBLIC
SECTOR: A CRITICAL SYSTEMS THINKING VIEW**

Semi-Structured Interview Schedule

General introduction:

1. Thank you for participating in this session, I appreciate the time taken by you to share your experience with me.
2. The purpose of my study is to better understand the dynamics of programme management in the context of enterprise transformation programmes supported / enabled by major information systems / information technology in the public sector.
3. The format of this interview is to engage in a discussion about your lived experience in the delivery of programmes.
4. With your approval, the interview will be recorded. You will be provided with a transcript of this interview for verification and corrections.
5. You don't need to share / divulge the details of any programme (name / budget / sensitive information).
6. You have the right to refuse to answer any question, or to request that the interview be stopped if at any stage, you feel pressured / under duress / uncomfortable.
7. The possibility exists that one or more follow-up interviews might be required to elicit further clarity on certain elements, themes or categories of information gleaned from interviews with you and other interviewees.

We will start with a couple of demographic / descriptive / general background questions:

1. Are you a Programme Manager or a client / recipient of Programme Management services?
2. Are you an employee (permanent / temporary / fixed-term contract) of the public-sector organisation or a service provider (contractor / consultant) to the public-sector organisation?
3. How many years of experience or exposure do you have in the Programme Management discipline?
4. Have you also delivered / been involved with Programmes in the private sector?
5. Where is the majority of your experience focussed – Private / Public Sector?
6. Please indicate with how many Information Systems-related / Enterprise Transformation Programmes you were involved during your career as a programme manager / recipient of programme management services?
7. Do you have formal training in the discipline of programme management?
8. Do you have a formal programme management certification from an industry body such as Project Management SA, Project Management Institute of SA?

Experience-specific questions – provision of programme management services.

1. Can you describe / define what a programme is? And the discipline of programme management?
2. Do you use industry standard approaches / bodies of knowledge to guide the delivery of programmes in the organisation? If so, can you confirm which standard / approach / body of knowledge is applied? If not, can you describe or give me an example of the approach / internal standard / policy being used?
3. Tell me about your general experience in the delivery of programmes in the public-sector environment?
4. Can you describe how alignment is established between organisational strategy and the definition & execution of programmes?
5. What were the biggest challenges you faced in the delivery of the programme(s) in the public sector?
6. What do you think contributed to success in the delivery of the programme(s) in the public sector?
7. Do you think there are similarities between programmes delivered in / for public-sector and private sector organisation? If so, what do you think are the similarities?
8. Do you think there are differences between programmes delivered in / for public-sector and private sector organisation? If so, what do you think are the differences?
9. If you were given the opportunity to re-do any of the programmes you were involved in, and specifically focussing on the programme management actions / activities, what would you focus on to improve the delivery?

Closure:

1. Is it possible for you to refer me to other programme managers, clients / recipients of programme management services in the broader public sector that would be able to share their experience with me?
2. Do you have any questions or concerns that we need to discuss or clarify?
3. Thank you again for participating in this process.