

**Adaptive leadership capacity in extreme contexts: The experience of
public-sector leaders in South Africa during the COVID-19 pandemic**

Natalie Therese Mayet
19407612

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ABSTRACT

Leadership practice in extreme contexts requires adaptation. There is a paucity of literature on leadership in prolonged extreme contexts such as the COVID-19 pandemic. This study intended to contribute to the understanding of leadership adaptation in extreme contexts aimed at building future leadership capability. Adaptive leadership theory has recently been recognised as an appropriate theoretical framework for leaders in extreme contexts, this study seeks to contribute to the nascent body of extreme context literature as it intersects with adaptive leadership theory.

This quantitative research explored the perceptions of public-sector leaders in South Africa of how they have adapted their leadership practices in the extreme context. Key themes fundamental to the adaptation of leadership practice identified by leaders are aligned with key constructs of adaptive leadership theory and include the process of analysis for adaptation together with the realisation of the importance of decisive decision-making.

The research reviewed factors that enabled and constrained the adaptation of leadership practice. The themes enabling the adaptation included having well-grounded leadership social-emotional competence and the strengthening of collaborative networks. There was an appreciation of the extreme context being an experiential learning opportunity not only for the leaders' adaptation, but also for team development. The understanding of political nuances was perceived as both enabling and constraining. A theme that constrained adaptation was the multiple resource limitations which is understated in extreme context literature. The findings of this research contribute to the nascent body of extreme context literature and builds on adaptive leadership theory for local contexts.

KEYWORDS

Extreme context, adaptive leadership, decision-making, social-emotional competence, network building.

DECLARATION

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

Signed: Natalie Mayet

Date

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CHAPTER 1: INTRODUCTION TO RESEARCH PROBLEM

1.1 Background to the research problem

This research seeks to understand how leaders in the public sector have adapted their leadership practices to navigate the extreme volatility, uncertainty, complexity, and ambiguity (VUCA) of the COVID-19 crisis. These leaders, located in the various organs of state in South Africa, were required not only to lead a sectoral response for health, security, science and technology, labour, and environment, but also to be part of a multi-sectoral response team addressing the complexity of all challenges that the COVID-19 pandemic presented. They had to provide routine and enhanced services within their own sectors as well as guidance for other sectors with unprecedented speed throughout the crisis. This research explores how these leaders adapted their practices and reviews the factors that enabled or constrained leaders' capacity to adapt during the prolonged extreme crisis of COVID-19.

The world has been disrupted profoundly since the World Health Organization (WHO) declared a global viral pandemic on 12 March 2020. Severe acute respiratory syndrome (SARS) caused by the coronavirus (CoV-2) resulted in a disease aptly named by scientific community as COVID-19 (WHO, 2020). Since the declaration, there has been widespread global transmission of the disease, with an exponential increase in the number of infections amounting to more than 100 million cases and a reported 2.2 million deaths (Dong, Du, & Gardner, 2020). The first case of the virus was reported in South Africa on 5 March 2020 and by the end of December 2020 the country had reported more than a million laboratory-confirmed cases with a crude case fatality rate of 2.7% (National Institute for Communicable Diseases, 2020).

Complex dynamic factors influenced global leaders' responses to the extreme COVID-19 crisis. These affected domestic and global leadership decision-making processes, which had a significant impact and often life-altering consequences for individuals, institutions, societies, and the globe (Dirani et al., 2020; Kohll, 2020; Veil, 2020; Wilson, 2020).

The World Economic Outlook report projected a -4.4% global economic growth in 2020 as a result of the COVID-19 pandemic (International Monetary Fund, 2020). A negative global economic growth fostered an environment of depressed consumer demand for non-essential products and services, which forced companies to downscale their

productivity, thus elevating unemployment rates and placing downward pressure on revenue streams across emerging and developed economies.

Individuals' responses ranged from immediate action to inertia – that is, from acceptance of the need for strong leadership to denial of the existence of the virus. South African President Cyril Ramaphosa assured the nation that “What we are witnessing is social solidarity in action, a defining feature of our nationhood”; Pope Francis “called into question the scale of values that sets money and power over all else”; and German Chancellor Angela Merkel committed to “do what is necessary” (Kickbusch, 2020, p. 1; Pullella, 2020). Contrarily, the former president of the United States of America, Donald Trump, emphasised that COVID-19 was “like a regular flu” and that the virus would disappear in the warmer months (McIlkenny, 2020). In the midst of this uncertain political leadership narrative, there were decisive leadership actions from the World Bank (2020) leadership “in delivering a fast-track facility” to assist countries to respond quickly to the virus by expressing the intention to distribute up to \$160 billion by June 2021 through the restructuring of existing operations. Scholarship on the impact of political leadership on lives and livelihoods is a topic of the extant study and future research as this is reviewed with hindsight.

In South Africa, the head of the National Disaster Management Centre of the Department of Cooperative Governance responded to the COVID-19 pandemic by rapidly declaring a national state of disaster legitimised by the Disaster Management Act No. 57 of 2002 (Republic of South Africa, 2020). The legislation called upon all organs of state to strengthen and implement contingency measures aimed at reducing the impact of the virus on society, health services, and economy. The disease and the drastic measures required to prevent its transmission startled communities, businesses, and institutions. The virus transformed the world and instigated seemingly inevitable economic mayhem, creating unprecedented human suffering. It has shattered the sense of omnipotence and forced a sobering reflection on the physical, emotional and spiritual frailties of leaders (A. Bhagwanjee, personal communication, June 22, 2020).

Under the leadership of the National Coronavirus Command Council, South Africa responded to the pandemic swiftly and adopted a risk-adjusted approach. This approach was guided by several criteria based on the level of infection, the rate of transmission of the virus, the capacity of health facilities, the extent of implementation of public health interventions, and the economic and social impact of combined restrictions. Level five or

“lockdown” was implemented in the country from 26 March 2020 to the 30 April 2020 (Government of South Africa, n.d.).

Market research by Ask Afrika (2020) demonstrated that the lockdown’s impact on individuals’ emotional factors caused high levels of distress and depression, with an increase in domestic and gender-based violence. As with other circumstances that were classified as VUCA changes occurred rapidly, the lockdown’s effects were unanticipated and the consequences were severe, with the need to balance lives and livelihoods.

The extent of the economic challenge that public-sector leaders had to manage was realised when, in October 2020, the South African Reserve Bank (SARB) revised its forecasted gross domestic product contraction from approximately 7% to 8.2% over 2020, as a result of recessionary economic conditions being exacerbated by the COVID-19 pandemic (Andersson, 2020). The pre-pandemic recessionary environment in South Africa was already driven by an unsustainably large fiscal deficit, low production output due to power shortages, and corruption. Therefore, these leaders had to manage the current crisis in the context of the existing pre-pandemic recessionary environment. The shrinking global and domestic economic activities resulting from the COVID-19 lockdown regulations saw South Africa’s recessionary conditions deepen, placing even greater strain on the organs of state and the government’s current account presenting significant challenges for public-sector leaders who had to perform in the context of the urgent increase in demand for services and severe resource constraints.

The countless COVID-19 regulations materially affected the traditional retail model. As consumer preferences shifted in favour of digital transactions, the profit margins of traditional retailers were threatened by lower transactional volumes, and the shift in consumer preferences resulted in the squeezing of profit margins, causing many businesses to close their doors. The COVID-19 transmission dynamic resulted in the demand for digital, contactless transaction methods to rise substantially, highlighting the need for adaptive leadership within the global pandemic economy.

Meanwhile, leaders in the public sector had to prepare the response and implementation plans in early January 2020 through various established and newly formed structures. The national Incident Management Team was established in January 2020 with the aim of formulating policy, providing the required technical guidelines, assessing the readiness of the country to respond, and providing support to provinces. Moreover, these

leaders took on a monitoring and evaluation role of the epidemiology of the disease and the state of preparedness for various aspects of the response plan. These leaders were required to rapidly mobilise teams and resources and to make considered decisions that impacted not only their institutions, but also the communities they serve. They had to do this with limited information and ensured the readiness of all state facilities to accommodate the outbreak and were responsible for managing the systems at ports of entry, the guidelines for tourism, and that there were uniform guidelines implemented across the country in workplaces. These circumstances met the criteria of an adaptive challenge posited by Heifetz, Grashow, and Linsky (2009) as being undefined, difficult and unclear.

Many of these leaders had never managed a crisis of this nature or scale before and were required to establish new teams, make new networks, and rapidly formulate partnerships. Many of the actions required new learning, a shifting of authority, and significant experimentation. Hayashi and Soo (2012) categorised a crisis as a technical or an adaptive challenge, where a technical challenge has a known solution that has been tested previously, while an adaptive challenge requires that a solution needed to be invented. The extreme crisis of the COVID-19 pandemic presented both adaptive and technical challenges with leaders requiring to oscillate between both sets of challenges in trying to find solutions.

This research draws focus on public-sector leaders who lead departments and institutions, and are the conduit for the crafting and implementation of policy through the organs of state that have been established for the delivery of services to communities. These leaders have “rarely been so visible and held so much responsibility” (Kickbusch, 2020, p. 2), and have never been so challenged to have the capacity to adsorb, adapt, and thrive (Castillo & Trinh, 2019; Heifetz et al., 2009; Northouse, 2018) under conditions of perpetual and sustained challenge.

In July 2020, the Institute of Strategic Risk Management (ISRM, 2020) brought together global expertise in the crisis management field at an annual conference to identify areas for improving leadership efficacy in crises. The collective leadership gaps identified included the lack of clarity of roles and the inability to make rapid decisions; lack of experience and willingness of leaders to say they do not know or their willingness to admit to making mistakes; a change of mindset from that of efficiency to resilience; and the need for enhanced competency in assessing, reviewing, and learning (ISRM, 2020).

Practical experience from this group suggests that one of the first things that a leader needs to do is to determine whether there is a crisis or not – in the words of Heifetz et al. (2009) “make a decision” – and then communicate with an understanding of what General Colin Powell advised as “tell me what you know, tell me what you don’t, tell me what you think, make clear which is which”. Leadership preparedness was emphasised and encapsulated in the populace phrase used by Snoopy in that: “five minutes before the party is too late to learn to dance”.

Functioning with interoperability and normalising the ability to work coherently together were highlighted. This interoperability related to the interdependence of internal teams and other departments or institutions as well as across private and public sectors. The need to be comfortable with discomfort was emphasised with many rhetorical questions remaining open for debate. These included “how to structure dissonance as well as convergence in decision support”, and “how to build the ability of people to be adaptive within the bureaucratic institutions that they operate”. The representatives at the conference repeatedly emphasised that people matter the most and that leaders have to “look after people very, very carefully” (ISRM, 2020).

1.2 Rationale for selecting the research

Drucker (1993, p. 4) conceived “the time of turbulence to be a dangerous time” where he purports that the greatest risk during turbulence is not the turbulence itself but it is to “act with yesterday’s logic”. The extreme COVID-19 crisis tested the capacity of leaders to respond to multiple competing demands at individual and organisational levels. This research seeks to have a deeper understanding of how public-sector leaders adapted their leadership to respond to the turbulence of COVID-19, as well as what enabled and what constrained the adaptation.

These “turbulent times” require adaptive leadership further defined by Heifetz et al. (2009, p. 14) as “the practice of mobilising people to navigate their way through tough challenges and thrive”. Typically, these challenges are not linear; they are interconnected and the solution to one may pose an unintended consequence on another, thus formal authority is insufficient to handle them and different stakeholders require different outcomes for the same challenge (Heifetz et al., 2009). Hayashi and Soo (2012) agreed, stating that one challenge requires technical intervention and solutions, while the other necessitates innovation. The extreme COVID-19 crisis presents a complex mix of

technical and adaptive challenges. Adaptive challenges required adaptive leadership (DeRue, 2011; Obolensky, 2014; Uhl-Bien, Marion, & McKelvey, 2007). There is a paucity of qualitative research in the field of adaptive leadership in South Africa and this study intends to provide further insight into leaders' adaptive capacity in resource-constrained environments.

The selection of this research is rooted in the need to understand the nuances of how public-sector leaders have adapted their capacity "to change and become more fit with the environment in which they operate, including how they modified existing procedures, adjusted to new circumstances and updated knowledge and skills to meet new situational demands" (Castillo & Trinh, 2019 p. 362). The research seeks to understand the enabling and constraining factors that supported the adaptation process during the prolonged extreme crisis, as well as to provide a conceptual framework for adaptive leadership on prolonged extreme crisis.

The world has not experienced a prolonged extreme crisis since the 1918 Spanish influenza outbreak (Cohn, 2020) and the 1914 and 1939 world wars. Therefore, there is an opportunity for research in prolonged extreme crises. Research has not been conducted in South Africa on adaptive leadership in extreme crisis situations, nor in a cohort of public-sector leaders who have had to adapt in a resource-constrained environment.

1.3 Research questions

Guided by the review of various scholarly articles and the opportunity to conduct research during the COVID-19 time of crisis, three exploratory research questions are proposed in this study. These questions are: How have leaders adapted their leadership practices during the extreme COVID-19 crisis to meet new demands? What factors enabled or facilitated the adaptation of leadership practice? What factors constrained the adaptation of leadership practice?

1.4 Research contribution

Extreme crises scholarship in the South African context is extremely limited. This study intends to contribute to the nascent body of research on adaptive leadership practice in prolonged extreme crises. It explores adaptive leadership practice in public-sector

leadership and is of particular interest as these leaders had to lead their own institutions and contribute across multiple sectors, whilst sustaining their own organisations and providing services to stakeholders and communities at a national level and, in some instances, also providing support at regional level within the Southern African Development Community and the continent.

This research intends to provide the opportunity to explore the factors that enabled adaptation and explores the factors that constrained effective adaptive leadership in the extreme crisis to make recommendations for leadership capacity building interventions to cope with future crises.

The study draws on adaptive leadership theory and aims to provide insight in its relevance for leaders who operate in resource-constrained environments. In addition, the research aims to contribute to the growing body of literature on crisis management in the South African context.

Furthermore, this research intends to identify priority capacity building interventions on crisis leadership for future leaders and the findings will be used for further engagement with the WHO and Africa Centres for Disease Control and Prevention to incorporate into existing leadership capacity building initiatives.

1.5 Roadmap of research

This research is structured in seven chapters and introduces the roadmap of the research. Chapter 1 provided the background to the research, the rationale for selecting the research topic, the research questions, and the intended contributions to the research. Chapter 2 provides a review of the literature and describes constructs of extreme context research, outlines leadership practice in extreme contexts, and explores the relevance of leadership practice in extreme context within the theoretical framework of adaptive leadership theory. Chapter 3 outlines the research questions and the purpose of each question based on the themes that arise from the literature review. The content of Chapter 4 explains the research design and methodology used in this study. It details the unit of analysis, sampling method and sampling size, the data collection tool used for data gathering, and outlines the analysis of data together with data validation and reliability. The ethics and limitations of the research are also discussed in Chapter 4. Thereafter, Chapter 5 presents the findings of the research conducted, while Chapter 6

provides the discussion of the findings in relation to the relevant literature. The paper concludes with Chapter 7 presenting the principal conclusions, the research contribution, as well as a discussion of the research limitations and recommendations for future studies.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The COVID-19 pandemic is undeniably an extreme context event defined as requiring adaptation of leadership practice to meet the complexity of the VUCA environment (Bennett & Lemoine, 2014; Hannah, Uhl-Bien, Avolio, & Cavarretta, 2009, p. 898). This literature review seeks to provide a descriptive overview of extreme context research and the intersection between extreme context research and adaptive leadership theory. In recognition of nascent scholarship, this chapter explores leadership practice in extreme contexts through the theoretical framework of adaptive leadership theory and draws attention to the constructs embedded in adaptive leadership theory of analysis, decision-making, social-emotional competence, network building, and developmental capability (Heifetz et al., 2009).

2.2 Method used for literature review

The literature was reviewed through the lens of leadership practice as “social influence” (DeRue, 2011, p.141) in achieving superior performance through others and with common purpose. Therefore, this literature review highlights the broader conceptualisation of leadership by DeRue (2011, p. 126) as being a “socially complex and adaptive process” complementing traditional traits and behavioural theories.

2.3 Extreme context research

Hannah et al. (2009, p. 897) introduced the notion of extreme contexts as the “environment where one or more extreme events are occurring or are likely to occur and result in extensive and intolerable magnitude of physical, psychological or material consequence”. These scholars posited a framework of the “dimensions of extreme contexts”, which are detailed in Figure 1. These dimensions are grounded in the traditional risk-based methodology formulated by the Athenians more than 2 400 years ago (Aven, 2016) and remain relevant and widely used today to determine risk and its severity or “consequence”, and likelihood or “probability” of an event occurring in a particular time.

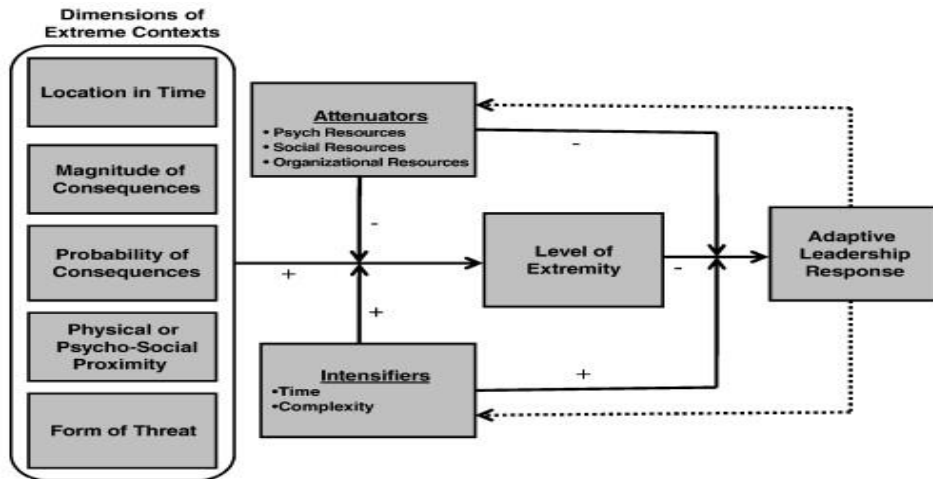


Figure 1: Typology of extreme contexts. Source: Hannah et al. (2009).

It has been argued that various terminologies associated with the “attenuators and intensifiers” have resulted in scholarship in extreme contexts straddling multiple disciplines (Hällgren, Rouleau, & De Rond, 2018; Hannah et al., 2009). The meta-analysis of more than 138 articles over the last 35 years by Hällgren et al. (2018, p. 111) confirms the multiple peppered terms used in extreme contexts and purports that definitions like “crisis, adverse events, rare events, emergency contexts, and disrupted contexts” have been used interchangeably to the detriment of advancing universal scholarship in the area.

The WHO (2007) defined a crisis as “a situation that is perceived as difficult. Its greatest value is that it implies the possibility of an insidious process that cannot be defined in time, and that even spatially can recognize different layers/levels of intensity”. This is expanded by the ISRM (2020, p. 33) to include organisational impact as the “abnormal” “unstable”, and “complex” threat to “strategic objectives, the reputation or in many cases the existence of an organisation. They [crises] truly are existential bad times”. Consequently, the ISRM considers the five prerequisites of an extreme context event (Geier, 2016; Hannah et al., 2009), which are listed in Table 1.

Table 1 provides a comparative matching of the five criteria (Hannah et al., 2009) of an extreme context event against the COVID-19 pandemic and its consequences.

Table 1: Criteria for COVID-19 as an extreme context event

Criteria for extreme context	Relevance to the COVID-19 pandemic
Location and time	Global outbreak announced in 2019
Threat	The pandemic is described as an epidemic occurring worldwide caused by the SARS COV-2 virus as causative phenomenon
Magnitude of potential consequences	Impact on household, national, and global economy; in excess of 98 million cases; more than 2.1 million lives lost; peoples' lives are affected by decisions
Probability of consequences occurring	High based on global spread and the documented and undocumented impact of lockdowns
Physical or psychological danger	Increased morbidity and mortality; fear, anxiety, and depression increasing; dealing with loss of loved ones; impact of job losses and social distancing

Source: Adapted from Hannah et al. (2009)

The multidimensional and interrelated nature of extreme context research (Hällgren et al., 2018; Hannah et al., 2009) also considers the purpose and reasons for existence of the organisation. Trauma organisations (e.g., trauma units or hospital casualties), critical action organisations (e.g., military teams), and high reliability organisations (e.g., police or fire services) will have different responses compared to naïve organisations. Most organisations find themselves in the latter group, as they have never prepared or their leaders have never trained for responding to extreme contexts.

Irrespective of the nature of an organisation, strong leadership is required in extreme contexts, with Hanna et al. (2009) questioning the most appropriate leadership for extreme contexts, confirmed by Geier (2016) who argues that there is little agreement on the effectiveness of leaders in extreme contexts.

2.4 Leadership practice in extreme contexts

Leaders have had to face natural disasters, man-made catastrophes, organisational collapse, and financial crises with varying degrees of scale for centuries (Hällgren et al., 2018; Yukl & Mahsud, 2010), hence the concept of leaders navigating in crisis situations is not new. However, the pace, global social and technological interconnectivity, virtual interaction, and overwhelming uncertainty required of leaders having to lead through the prolonged COVID-19 pandemic with the complex epidemiological intersection of man, virus, and environment has never been more profound (Dirani et al., 2020; Wilson, 2020).

Historically, most leadership studies of extreme contexts have been conducted in homogenous situations, such as the response to a large fire as a single event (Hannah & Parry, 2014; Hannah et al., 2009), making a compelling argument for “adaptive leadership”, particularly in ordinary organisations where the response to extreme events or crises is not the norm. Bennett and Lemoine (2014, p. 313) asserted that extreme contexts have VUCA aspects that require different leadership capabilities. The volatility of the extreme contexts requires leadership agility, uncertainty requires the need for information, complexity requires sensemaking (Weick, 1995, p. 49), and ambiguity requires “conscious experimentation”.

Yukl (2006) conceptualised extreme context leadership as:

adaptive and administrative processes of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives and purpose under conditions where an extensive and intolerable magnitude of physical, psychological, or material consequences may exceed an organization's capacity to counter and occur to or in close physical, social, cultural, or psychological proximity to organization members. (p. 8)

This construct differs from the crisis leadership rooted in military operations (Klann, 2003, p. 12), where the focus was on how leaders handle human responses, including their own. Canyon (2020) brings similarity to extreme context leadership in redefining crisis leadership as:

the capacity of an individual to recognize uncertain situations that possess latent risks and opportunities to ensure systematic preparedness, to discern necessary direction, to make critical decisions, to influence followers and to successfully eliminate or reduce the negative impact while taking full advantage of positive aspects within a given timeframe. (p. 7)

This definition embodies all the principles espoused by Heifetz et al. (2009) as adaptive leadership, which are discussed further in the following section. It is apparent from the literature that there is some convergence between the definitions of crisis leadership and leadership for extreme contexts.

2.5 Adaptive leadership theoretical framework

This section provides an overview of leadership theory relevant to extreme contexts. Table 2 summarises the leadership theories studied in extreme contexts. The details of each leadership theory summarised in the table below are not explored in-depth, but seek to provide an overview of the extant literature in the complex field of leadership in extreme contexts. The arrow represents the researcher's interpretation of the evolution and convergence of leadership theory relevant to extreme contexts and its convergence to adaptive leadership theory.

Table 2: Summary of leadership theory research relevant to extreme contexts

Theory	Scholar	Characteristics of leader
Trait	Bass and Stogdill (1981); Kirkpatrick and Locke (1991)	Intelligent, determined, sociable, self-confidence, responsible, insightful, energising
Authentic leadership	Avolio, Walumbwa, and Weber (2009, p. 423); George (2003); Luthans and Avolio (2003)	Strong values, purpose-driven, moral perspective, self-aware, trusting
Situational leadership	Hersey, Blanchard, and Natemeyer (1979)	Different situations require different leadership styles
Charismatic leadership	Barbuto (1997); House (1976); Northouse (2016)	The leader possesses inspired characteristics, self-confident, good role model, communicates high expectations
Transactional leadership	Bass, Avolio, Jung, and Berson (2003)	The leader agrees on the performance and the reward, administrative
Transformational leadership	Bass et al. (2003)	The leader motivates followers to perform beyond expectations, energises, high moral standards, influential
Servant leadership	Greenleaf (1998); Spears (2010)	Follower first and foremost, good listener, shows empathy, persuasive



Adaptive leadership	Boylan (2018); DeRue (2011); Heifetz, Kania, and Kramer (2004); Northouse (2016); Uhl-Bien and Marion (2009)	Ability of leader to assemble individuals to solve difficult problems and to thrive, leader as agent for change with ability to adapt to changes in the environment in light of complex environments
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Source: Author's own

The extreme context research genre has been grounded in “positivistic epistemology” (Castillo & Trinh, 2019; Obolensky, 2014), perceived through linear, rational and control constructs. Therefore, literature on the most effective leadership practices in extreme contexts has largely favoured qualitative methods dominated by case studies (Hällgren et al., 2018), using conceptual models of transformational and transactional leadership (Bass et al., 2003). Recently, charismatic leadership (Joosse, 2017) and its energising, enabling, and envisioning traits underpinned by strong ethical values were deemed to be the key behaviours required to navigate in a VUCA environment. Dirani et al. (2020, p. 386) contested that extreme context leadership demands the “integration of skills, abilities, traits, that allows the leader to plan, respond and learn from the crises whilst under public scrutiny”.

Uhl-Bien et al. (2007) called for the redirection of extreme crisis theory towards a more encompassing dynamic, social, and adaptable perspective. This was so as to avoid the myopic view of trait and behavioural theories of leadership that underestimate the “social complexities and bi-directional interactions of leadership” (DeRue, 2011). This construct is welcomed in the context of the VUCA world (Raguramapatrani & Kosuri, 2017).

Leaders have always been challenged with day-to-day crises of various scales (Geier, 2016), with the study of leadership in extreme contexts being conducted retrospectively in relatively stable contexts and leadership behaviour being theorised against traditional typologies of transformational and transactional leadership. Recently, Hällgren et al. (2018) identified the limitations of studies in extreme contexts as being conducted on small samples, with varying methodological approaches and “decidedly disjointed”.

When Northouse (2010) definition of leadership is grounded in a single individual or group of individuals influencing other members and this positional, oligarchic and traditional approach “of order” in leadership was appreciated but challenged by Obolensky (2014), who questioned the relevance of the definition for extreme contexts. Answering the call from Uhl-Bien and Marion (2009) for leaders to be capacitated for “adaptability”, Uhl-Bien and Arena (2017) espoused three types of leadership, namely operational, entrepreneurial, and enabling leadership. The first two constructs are grounded in the traditional behavioural constructs of transactional and transformational leadership (Geier, 2016), while the enabling leadership construct was positioned as distinctive in that these leaders nurture uncertainty, make network connections, and

demonstrate leadership practice that is of particular relevance to lead through complexity and uncertainty of extreme contexts (Uhl-Bien & Arena, 2017; Uhl-Bien & Marion, 2009).

Obolensky (2014, p. 202) advocated for adaptive leadership in extreme contexts and promoted a central role of the leader but who required the skills and the active participation of all role players. He applied a polyarchic view of the intersection of task, team, and individual leader clearly having the leader playing a central role. Obolensky's (2014) model of complex adaptive leadership in Figure 2 depicts the intersection required of the leader as central to multiple activities.

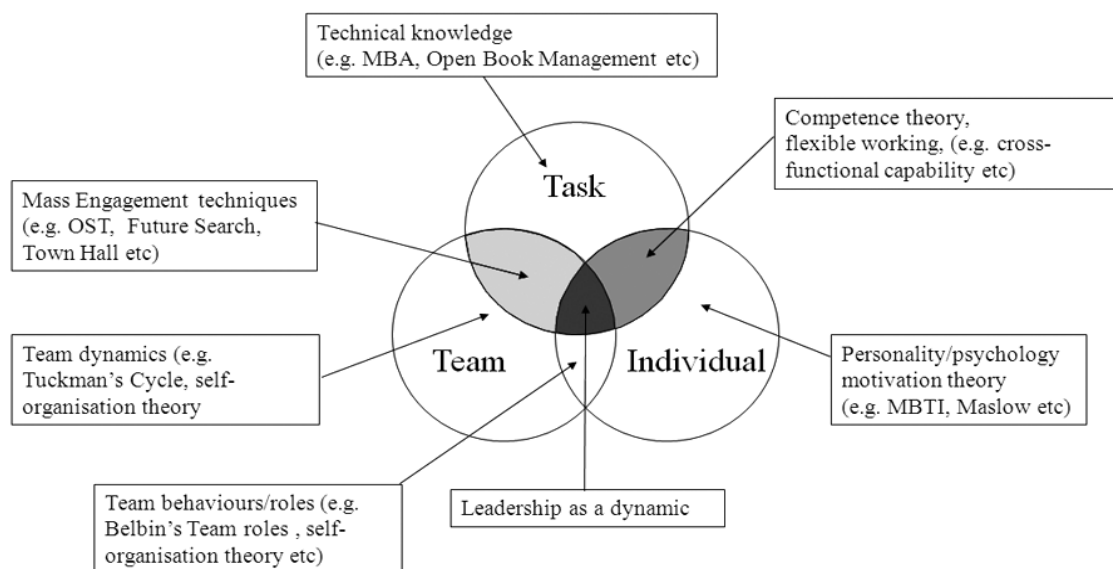


Figure 2: The central role of an adaptive leadership in complexity.
Source: Obolensky (2014).

The complex adaptive leadership model argues a leader could oscillate between the role of leader on one day and a follower on the next day (Bass & Stogdill, 1981) and a key principle is to move through these roles seamlessly and with ease (Obolensky, 2014; Uhl-Bien & Arena, 2017). The emphasis is on leaders “creating the context where solutions can flow naturally” (Obolensky, 2014), which requires flexibility (Bass et al., 2003; Castillo & Trinh 2019). Castillo and Trinh (2019) recognised that leaders are unable to understand everything and, when operating in the uncertainty of extreme events, should focus on providing the team support and development to enhance adaptive capacity.

Leadership practice in extreme contexts needs to be considered in the framework of adaptive leadership theory, where the leader is required to assemble individuals to solve difficult problems and to flourish by being agents for change with the ability to adapt to the VUCA extreme context (Boylan, 2018; DeRue, 2011; Northouse, 2016; Uhl-Bien & Marion, 2009).

Leadership practice in extreme contexts needs to be considered within the framework of adaptive leadership theory, where scholarship contributions have provided a pragmatic guide for leadership in extreme contexts. It was asserted that adaptive leadership theory is most appropriately placed for extreme contexts (Northouse, 2016), as its core purpose is aimed at helping people to reflect and deal with core systems (Miller, 2016). This is a fundamental requirement, where leaders have to assemble individuals to solve multiple difficult challenges and flourish by being agents for change and adapt to the VUCA extreme context (Boylan, 2018; DeRue, 2011; Northouse, 2016; Uhl-Bien & Marion, 2009).

2.6 Adaptive leadership in practice

Heifetz et al. (2009) heralded adaptive leadership theory as both an art and a science. The science of dealing with the technical issues and the art of dealing with the adaptive challenges in which Heifetz et al. (2009) recommended three approaches of creating the space where a leader can provide direction, the protection of the teams, set the stage to be productive and regulate “personal distress” (Northouse, 2016, p. 266). Although compartmentalised and presented in a linear fashion in Figure 3, each key construct is interdependent and is positioned as a matrix of leadership influence on teams and organizations of through effective analysis, decision making and communication; the reliance on social and emotional competence and its suite of competencies related to self-awareness, self-management, energisers, social intelligence, characteristics; network building and developmental capability (Heifetz et al., 2009).

Influence	Social - emotional competence					Network building	Development
	Self-awareness	Self-management	Energisers	Social intelligence	Characteristics		
<p>1. Analysis *Vision *Catalysing change</p> <p>2. Decision-making * Make a decision either technical or adaptive * Involve as many people as possible * Base decision on scientific information; anecdotes; news stories; media; experience, own initiative and intuition * Make the choices and manage consequences * Ask "what do you want to achieve rather than what you do?" * Lead from the front with others * Lead up, down and across with peers and partners</p> <p>2. Communication *Be first, be quick, be right * Acknowledge what you do not know * Audition for ideas * Create culture of psychological safety</p>	Emotional connection	Assertiveness	Motivation	Empathy	Credible	Teamwork	Lifelong learning
	Self-acceptance	Discipline	Initiative	Social responsibility	Honest	Collaboration	Distribution of leadership
	Self-esteem	Self-control	Drive	Communication	Conflict resolution	Influence	Developing others
	Confidence	Trustworthy	Resilience	Rapport	Service	Understanding others	Gaining additional perspectives
	Self-assessment	Positive thinking	Attitude	Tolerance	Builds trust		Gaining new skills
	Reflection	Self Care	Passion	Engaging	Fair		Thriving
		Integrity	Engagement		Listens		Growing
							Prosperity
							Generative capacity

Figure 3: Adaptive leadership practice matrix. Source: Adapted from Hannah et al. (2009); Heifetz et al. (2009); Obolensky (2014); Uhl-Bien and Marion (2009); Salovey and Mayer (1990); Yukl and Mahsud (2010).

The adaptive leadership process of “observe, interpret and intervene” (Heifetz et al., 2009, p. 14) is iterative, as with the organisational processes of planning, directing, coaching and implementing or acting (Al-Haddad & Kotnour, 2015). Drawing from adaptive leadership theory (Hannah et al., 2009; Heifetz et al., 2009; Obolensky, 2014; Uhl-Bien & Marion, 2009; Yukl & Mahsud, 2010), this study explores the constructs of adaptive leadership in extreme context relating to the process of analysis for adaptation, decision-making for extreme contexts, social-emotional competence prerequisites (Salovey & Mayer, 1990), network building contribution, and enhancing developmental capacity for adaptive leadership.

2.6.1 The process of analysis for adaptation

The first step in the adaptive process is the recognition that change is required and the determination that the challenge in the extreme context is adaptive (Heifetz, 2003). This process adopts “getting on the balcony” (Heifetz, 2003, p. 56) and making the diagnosis (Cojocar, 2011) by reviewing circumstances and determining the internal and external influences to “gain perspective” of the inter relationship between the variables (Dinh et al., 2014, Uhl-Bien & Arena, 2017). The separation of technical and adaptive challenges recommended by scholars is a technical process requiring situational awareness to frame a response (Baker, Irwin, & Matthews, 2020). This process requires monitoring, continuous evaluation (Heifetz, 2003), and is a necessary requirement for the decision-making process.

2.6.2 Decision-making for adaptive leadership in extreme contexts

Raghuramapatruni and Kosuri (2017) proposed that clarity is required in order to counter the effects of complexity. Therefore, the sourcing of as much information as possible is required to make informed decisions (Heifetz et al., 2009). This information can be obtained from available scientific information, anecdotes from internal teams, the public, news stories, experience, and the intuition of leaders (Cojocar, 2011). This view fits neatly into the absorptive capacity construct purported by Castillo and Trinh (2019, p. 356) as incorporating the ability of the leaders to “identify, acquire and synthesise data from multiple sources” and create value when formulating a response to the extreme context.

In extreme contexts where stress levels are high, decisions must be made quickly and at multiple levels (Janssen & Van der Voort, 2020) with multiple stakeholders. Cojocar (2011) drew on his experience in the highly structured military environment and posited a pragmatic approach to conventional research on adaptive leadership practice by arguing that decision-making is the most tedious and neglected process. He suggested that leaders simply draw from previous similar knowledge and rely on their experience whilst not spending adequate time making decisions, despite it being a crucial step in the process (Heifetz et al., 2009).

Decision-making for adaptive leadership is somewhat paradoxical, as decisions are required to consider social norms, “cognitive competencies, leadership styles and preferences” (Castillo & Trinh, 2019, p. 358), but must also be made rapidly (Cojocar, 2011). Adaptation takes time, is protracted, and requires perseverance and time for observation of the decision-making process (Doyle, 2017; Heifetz et al., 2009). Additionally, the decision-making process is most often compromised by a leader being reactive or focused on the immediate resolution of what is most urgent (Baker et al., 2020).

The sentiment of shared responsibility and dispersed leadership (Bolman & Deal, 2017; Heifetz et al., 2009) is relevant in extreme contexts considering the research on where solutions required to make decisions are formulated in organisations. Research on over 2 500 executives noted that only 10% of solutions originated from the top, 30% from middle managers, and a staggering 60% from the bottom echelons of the organisation (Obolensky, 2014, p. 35). However, decision-making in extreme contexts often legitimises the centralisation of the leadership decision-making authority in contrast with the theory of dispersed leadership (Heifetz et al., 2009). Evidence in practice is that there is a mix of centralised and decentralised decision-making that enables effective response in extreme contexts (Janssen & Van der Voort, 2020).

Another paradox for decision-making for adaptive leadership is that the adaptation does not guarantee that change will be effected nor does it necessarily lead to improvements (Castillo & Trinh, 2019; Cojocar, 2011). Comprehensibly, Head and Alford (2015) cautioned that leaders may come across situations where it is beyond their mental ability to provide direction. Therefore, in extreme contexts, leaders need to develop “cognitive competencies” (Castillo & Trinh, 2019, p. 358) that include sense-making (Weick, 1995), a nascent construct in the field of extreme context leadership where dialogue and

discourse become essential.

Furthermore, decision-making for adaptive leadership has to consider that, once a decision is made, it has to be communicated. This communication has to be done quickly, with honesty, sharing of factual information, and with strategic intent of what the message is and who the intended target audience is (Baker et al., 2020). Decision-making in extreme contexts is a significant and important step, in that the decisions made, or the lack thereof, can have far-reaching consequences including life and death consequences (Castillo & Trinh, 2019; Chow, Salleh, & Ismail, 2017).

2.6.3 Social-emotional competence prerequisites

Adaptive leadership requires deliberate social-emotional competence to minimise the impact of the “tough challenges” (Heifetz, 1994, p. 14) presented by the extreme context. This implies that it is essential for the adaptive leader to create an environment of psychological safety (Morrison & Milliken, 2000), with the leader possessing the prerequisite baseline knowledge, skills, personal attributes, behaviours, and styles for effective leadership (Ali, Wang, & Johnson, 2020; Dulewicz & Higgs, 2005).

The adaptive leaders in extreme contexts are required to serve as catalysts and promote dialogue (Heifetz, 1994; Northouse, 2016), with heightened sense of interest in others, empathy, tolerance, and social and emotional connection. Emphasising the need for self-awareness, includes the often-neglected aspects of self-care (Smith & Fraser, 2020) experienced in the relentless pressure of extreme events. The ability to interact with others with social awareness builds trust, creates an environment for discourse, promotes fairness, and bolsters confidence (Bar-On, 2000; Hayashi & Soo, 2012).

Considering that Saarni (1999) describes leadership as an inherent emotional practice with the need to connect with people in a deep and direct way (Salovey & Mayer, 1990), in extreme contexts, the leader is required to seamlessly navigate through “cognitive complexity, social intelligence, empathy, situational awareness, self-awareness” (Yukl & Mahsud, 2010, p. 89). In making a case for flexible leadership in extreme contexts, Yukl and Mahsud (2010) argued that building the capacity to proactively encourage adaptation when there is no crisis is challenging, thus leaders are often unprepared at the time of a crisis.

Specific competencies that relate to “psychological capital of having and providing a sense of hope and agency” (Castillo & Trinh, 2019, p. 366) highlight developmental techniques, such as mindfulness, in achieving humility (Schein, Kahane, & Scharmer, 2001) emotional vigour to tolerate self-doubt (Heifetz et al., 2009), and being attentive to things that are not verbalised is required to connect to purpose and people for the extreme context. (Northouse, 2016).

Nascent literature presents newer sense-making constructs as tools for leadership to adapt practice in extreme contexts, where leaders construct meaning by making “something sensible” (Weick, 1995, p. 13). This is achieved by simplifying complexities through a “sharpened curiosity” (April & Chimenya, 2019) of gathering information, conducting conversations, and internalising information from mentors and thought leaders (Weick, Sutcliffe, & Obstfeld, 2005). Additionally, emotions in extreme contexts run high and Dirani et al. (2020) endorsed the behavioural science perspective of the leader as a “sensemaker”, further building on the model of Kouzes and Posner (2007), where clarifying values, setting the example through finding own voice and reflection become more important for the adaptive leaders’ success in a dominant technological-driven future (Hayashi & Soo, 2012). Interacting with global leaders during the COVID-19 crisis, McGuinness (2020) observed that leaders are responding differently by having a more people-centric approach with the capability of being decisively adaptable in handling pressures productively and, when making strategic decisions, there is the consideration for everyone in a thoughtful, empathetic, and positive manner.

2.6.4 Network building for adaptive leadership

In an extreme context, it is impossible for a leader to know everything (Castillo & Trinh, 2019). Consistent with the tenet of adaptive leadership theory (DeRue, 2011; Boylan, 2018; Heifetz et al., 2009; Northouse, 2016; Uhl-Bien & Marion, 2009), the concept of leadership being a “collective behavior resulting from a number of interdependent entities interacting with one another” (Cullen-Lester & Yammarino, 2016, p. 173) is promoted. Heifetz et al. (2009) encouraged the expansion of informal authority whilst staying connected and sharing common values with stakeholders. These collaborations, partnerships or networks can be achieved through formal and informal networks (Friedrich, Vessey, Schuelke, Ruark, & Mumford, 2009), and is applied particularly in resource-limited environments where the role of the focal leader selects expertise from the network to “fluidly share” leadership (Galli & Müller-Stewens, 2012).

The concept of leading “up, down and across” is more of a challenge in extreme contexts (Smith & Fraser, 2020), with leading across being particularly challenging where prior existing relationships were not established. Therefore, networks and collaborative relationships in extreme contexts become essential tools for the decision-making process (Ali et al., 2020). In the VUCA environment trust, honesty, and respect are value systems (Heifetz et al., 2009) underpinning successful network building activities of both internal and external teams.

2.6.5 Developmental capacity

Adaptive challenges of extreme contexts require continuous learning and innovation to keep up with the pace, to grow, and to thrive (Heifetz et al., 2009). Building “generative capacity” (Castillo & Trinh, 2019) seeks to innovate and capitalise on the learnt experiences of leaders not only for themselves, but also for the internal and external teams they lead. Cojocar (2011, p. 26) referred to this as the “leadership laboratory”. Consequently, leaders will be required to build capability for uncertainty for themselves and their teams where the required experience does not exist (Day & Power, 2009–2010, p. 25).

Heifetz et al. (2009) postulated that leaders should not only manage complex situations, but consciously aim to thrive, grow, and progress with the adaptive leader promoting change by building on past experiences through experimentation and the acceptance and appreciation of diverse views. By framing the need for adaptive leaders to reflect, as well as through continuous learning and taking the time for reflection, Cojocar (2011) posited that the most efficient adaptable leaders are comfortable entering unfamiliar environments and have the correct mindset by perceiving change as an opportunity. He suggested that the essential requirements for an effective adaptive leader include the ability to identify the critical issues that will enable performance, and the ability to change their own practice and to rapidly “capitalise on the strengths and minimise the weakness” of the teams they lead in deciding “what to adapt” and “how to adapt” (Cojocar, 2011 p. 25). Head and Alford (2015) cautioned that leaders may come across situations where it is beyond their mental ability to provide direction necessitating the need to “rest, recharge, refresh” (Smith & Fraser, 2020), and reflect.

2.7 Conclusion

This chapter provided a brief review of literature of extreme context research and the intersection between extreme context research and adaptive leadership theory. The chapter explored leadership practice in extreme contexts through the theoretical framework of adaptive leadership theory and highlighted the constructs embedded in adaptive leadership theory of the process of analysis for adaptation, decision-making for leaders in extreme contexts, social-emotional competence prerequisites, network building contribution, and enhancing developmental capacity for adaptation.

Whilst Heifetz (1994) proposed adaptive leadership theory more than two decades ago, Northouse (2016, p. 292) argued that the “theoretical concepts remain in the formative stage” and that there is insufficient empirical research to test the validity of adaptive leadership assumptions (Miller, 2016). The extreme context of COVID-19 presents the opportunity to test the assumptions contested by Northouse (2016) that adaptive leadership constructs are conceptual and too broad.

Despite the contestation, Northouse (2016) appreciated that adaptive leadership theory is unique in that its main purpose evolves around helping people identify, configure and normalise value systems. Adaptive leadership theory (Heifetz, 1994; Heifetz et al., 2009) presents a pragmatic suite of concepts for leaders referenced as the formula or recipe (Northouse, 2016) of how leaders should adapt to navigate extreme contexts. Adaptive leadership adopts a process orientated approach in place of the traditional hierarchical leadership traits and characteristics (DeRue, 2011) with extant scholarship (Hayashi & Soo, 2012; Miller, 2016; Smith & Fraser, 2020) recognising the relevance of the model to the VUCA world in the 21st century.

This literature review is intended to provide the theoretical framework and constructs in responding to the call from various scholars (Hannah et al., 2009; Heifetz et al., 2009; Uhl-Bien & Marion, 2009) for further research in the field of extreme context research. The prolonged VUCA environment of the COVID-19 extreme context presents the opportunity for exploratory research in the adaptive capacity of leadership.

CHAPTER 3: RESEARCH QUESTIONS

3.1 Introduction

The preceding literature review outlined the literature on extreme crises (Hannah et al., 2009; Heifetz et al., 2009; Uhl-Bien & Marion, 2009) and its intersection with the theoretical framework of adaptive leadership (Heifetz et al., 2009). The adaptive leadership model sets a framework for leaders to navigate through extreme contexts and gaps in the literature of leadership adaptation in the prolonged extreme context of the COVID-19 pandemic have been identified. The objective of this qualitative research was to understand the adaptive leadership capacity of public-sector leaders in South Africa by exploring their experience in the extreme context of the COVID-19 pandemic and was answered through the three specific research questions outlined below.

3.2 Research question 1

How have leaders in the public sector adapted their leadership practices during the extreme context of the COVID-19 pandemic to meet new demands?

The first research question sought to gain an understanding of whether the functional role of the leader had changed during the COVID-19 extreme crises. It also sought to clarify the leaders' perceptions of how successful they have been in their leadership practices during this crisis. The question intended to establish how leadership practice has changed from the pre-COVID-19 era to the current time of the interview and what aspects of the leadership practice changed during this time. If there was no change in leadership practice, the question was phrased to establish what aspects of the leadership practice assisted the leader the most during the time of the crisis.

3.3 Research question 2

What factors enabled or facilitated the adaptation of leadership practice during the extreme context of the COVID-19 crisis?

The second question explored what factors prompted the leaders to make the change, what were the good experiences, and what lessons they learnt about their leadership practices during the crisis. Moreover, the question sought to explore what skills the

leaders gained and if they had had any leadership crisis training in the past.

3.4 Research question 3

What factors constrained the adaptation of leadership practice during the extreme context of the COVID-19 crisis?

The final question sought to understand the factors that hindered, prevented, or constrained the adaptation of leadership practice. The question also asked the leaders for recommendations on what interventions they would advise for future leaders who might be required to navigate through extreme crises and was intended to generate a deeper understanding of the factors that constrained the adaptation process.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

This chapter outlines the research methodology selected for the study aimed at addressing the research questions. The research adopted a qualitative approach with a research philosophy of interpretivism (Saunders, Lewis, & Thornhill, 2016). An inductive approach was used for the methodological choice of a qualitative mono-method as the strategy of enquiry. This chapter outlines the process of the research (Bryman & Bell, 2015; Creswell & Creswell, 2017) and further presents the defence of the research methodology, expands on the research design, and elaborates on the research setting, study population, and unit of analysis. The sampling method and frame are discussed together with the elements of data collection and the data gathering process. Moreover, the data analysis methods and quality assurance of data validity and reliability are outlined. The chapter also discusses the ethical considerations and limitations of the research.

4.2 Research methodology and design

Saunders and Lewis (2018, p. 106) defined research philosophy as “a system of beliefs and assumptions about the development of new knowledge”. This research seeks to gather new knowledge on the experience of public-sector leaders as “social actors” practising in a specific environmental context of the extreme COVID-19 crisis, underscoring that the experience (Dewey, 1891, p. 519) is the interaction and transaction between the public-sector leaders and the complex environment of people, systems, process, and technology. An exploratory study provides the opportunity for more detailed research on the topic of leadership in extreme contexts and acknowledges that the findings and outcomes of this methodology will be interpreted with caution (Saunders & Lewis, 2018, p. 116).

The research lends itself to the philosophy of interpretivism, which studies social actors in their natural environment and draws on meaning within a specific context (Saunders & Lewis, 2012). The rationale is to conduct interpretivist research to develop new and in-depth understanding of the social worlds of the extreme context and different individuals (Saunders et al., 2016), whilst describing and explaining to understand new knowledge (Gioia & Pitre, 1990, p. 591). There is a paucity of scholarship in the field of

leadership in extreme contexts, so this research lends itself to interpretive philosophy in finding new knowledge. The interpretivism paradigm views information and its interpretation as subjective and as being influenced by the background, demographic factors, experience, cultural beliefs, and social contexts of public-sector leaders functioning in the COVID-19 crisis; these influencers will affect the leaders' own understanding of the subject matter (Blaike & Priest, 2017; Schwartz-Shea & Yanow, 2012). Based on individuals' construction of reality (Scotland, 2012), with "different people constructing meaning in different ways" (Crotty, 1998, p. 9), the interpretivism paradigm "accepts ideologies rather than questioning them".

The research was conducted through an assumption lens (Crotty, 1998), where public-sector leaders constructed meaning as they engaged with the extreme context of COVID-19 and interpreted and made sense of it based on their experience, background, culture, and "individual perspective". The essence of leaders' experiences and this design have strong philosophical underpinnings (Giorgi, 2009; Moustakas, 1994), resulting in a process that was reflective for the respondents and shaped by the interpretation of the experience and cultural context of the researcher (Crotty, 1998). Of deeper relevance to this research is the significance of the extreme context, wherein "an experience is always what it is because of a transaction taking place between an individual and what, at the time, constitutes his environment" (Dewey, 1891, p. 519) and, in this instance, an extreme VUCA environment.

The approach for this research was inductive and intended to provide additional insight and new ideas of leadership in extreme crisis situations. Inductive reasoning was used to generalise from the sample of 13 public-sector leaders to a larger population (Saunders & Lewis, 2018) by "observing repeated patterns" to formulate general conclusions of their adaptive capacity and compare this to existing theoretical constructs of leadership in extreme contexts.

A mono-method qualitative research technique (Saunders & Lewis, 2012) was used by applying a single data collection technique of semi-structured interviews. Selection of this methodology was determined by the research questions posed of the "how and what" in comparison to quantitative research methods of Rich and Ginsburg (1999). This methodology is aligned with the underlying interpretivism research philosophy (Denzin et al., 2017), maintaining the need to obtain deeper insights in an area of limited research where the interpretation and experiences of leaders in extreme contexts are drawn upon.

The research involved interviews with 13 public-sector leaders who enabled deeper insight on the research topic and shared observations based on their own experiences (Creswell & Poth, 2016; Saunders & Lewis, 2018). Aimed at having a conversation with a specific purpose the interviews in this qualitative research intended to obtain the in-depth perspective of the respondent (Robson, 2002).

The time horizon of this research was cross-sectional, where data was collected over a two-month period during the COVID-19 crisis. The nature of the research topic of adaptive leadership lends itself to tracking change in leadership practice over a longer period as per longitudinal studies. However, in this research, a cross-sectional time horizon was deemed appropriate based on the practical time constraints of the academic year (Saunders & Lewis, 2018). As the COVID-19 crisis evolves, this research will only provide insight at a particular point in time or a “snapshot” (Saunders & Lewis, 2018) overview of how leaders have adapted, and this contextualisation in time is recognised as a limitation, but also recognises the opportunity for further longitudinal studies in the future (Calman, Brunton, & Molassiotis, 2013).

4.3 Research setting and population

Saunders and Lewis (2012) defined a study population as a complete set of group participants available to the researcher or as a set of entities from which the sample is selected. The study population was drawn from the researcher’s professional network of leaders who were collectively involved in the COVID-19 response, in contrast with a convenience sample of a population who is readily available and are willing to participate at the time (Huberman & Miles, 2002).

The research was conducted in institutions or departments across various sectors of government located in Johannesburg or Pretoria in the Gauteng province of South Africa, which provided services at a national level before and during the COVID-19 pandemic. These public-sector institutions constituted through different ministries are responsible for specific functions, such as health, education or science and technology. All these public institutions were significantly disrupted and had to actively respond to the COVID-19 crisis for the entire country. These institutions may not have been involved in routine crisis responses in the past and many were naïve to crisis responses, but were all actively involved in the national Incident Management Team and National Joint Operations Centre team requiring some form of leadership adaptation.

4.4 Unit of analysis

The importance of the unit of analysis under study (Srnrka & Koeszegi, 2007) serves as the basis for the coding and analysis of data. The unit of analysis in this research was individual leaders in public-sector organisations, including heads of department, deputy director generals, chief directors, or directors. Five selection criteria were specified for participation – namely that the leaders held a position in a public institution, department, or organ of state; had been in a leadership role since the beginning of the COVID-19 outbreak; had knowledge and personal experience of the COVID-19 response; were available to participate in the research; and indicated their willingness to participate in the study and consented to the research.

4.5 Sample method and sampling size

Purposive sampling as a form of non-probability sampling (Saunders & Lewis, 2018) was used to select the study's participants. This method of sampling was used to select 13 leaders in the public sector. The sample was selected purposively on "information-rich cases" for a relatively small sample to achieve the objectives of the research. Saunders and Lewis (2018) advocated that this technique is the most commonly used form of non-probability sampling and is particularly relevant for small samples. Non-probabilistic purpose sampling equated to "judgement sampling" (Huberman & Miles, 2002) is deliberate and had set criteria against the selected leaders.

Table 3: Summary of departments/institutions and designations of participants

Department/Institution	Designation
Department/Institution 1	1. Director
	2. Chief director
	3. Director
	4. Director cluster
	5. Director
Department/Institution 2	6. Executive director
Department/Institution 3	7. Director
Department/Institution 4	8. Unit director
Department/Institution 5	9. Deputy director general
Department/Institution 6	10. Deputy director general
Department/Institution 7	11. Head
Department/Institution 8	12. Section head
Department/Institution 9	13. Head

Source: Author's own

For the purpose of this research, criterion sampling (Huberman & Miles, 2002) was preferred where the selection criteria listed above was used to select the leaders for participation in the research. However, the sample size depends on the research question, research methodology, length of interviews, and other factors like data saturation (Morse, 2015).

4.6 Data collection tool

Semi-structured interviews are used frequently in qualitative research (Creswell & Creswell, 2017, p. 181; Saunders & Lewis, 2018), thus the data collection tool used in this research was a semi-structured interview constructed by the researcher. This measuring instrument was used to systematically gather primary data as the main source of information for this exploratory research (Saunders et al., 2016; Welman, Kruger, & Mitchell, 2005). This semi-structured interview guide is detailed in Appendix 1.

The detailed interview guide included seven demographic questions on gender, age, educational qualifications, the length of time in a leadership role, and the size of teams managed directly or indirectly by the respondent. To ensure validity of the research, the interview guide was refined after it was piloted with a colleague in a leadership role within

the researcher's own institution. The pilot respondent was not a respondent in the final sample selection. The pilot was intended to ensure that the questions were appropriate and not leading (Saunders & Lewis, 2012; Welman et al., 2005). Furthermore, the pilot was used to assess the length of time required for the interview and the suitability of the technology for connectivity and recording the interviews.

4.7 Data gathering process

Ethical clearance was obtained from the university to conduct the research prior to the study's commencement (see Appendix 2). Twelve of the 13 interviews were conducted via Zoom and one was conducted telephonically due to connectivity challenges. As the unit of analysis was the individual leader, no authorisation was required by any of the institutions or departments that they were responsible for.

The participants were purposefully selected from public sector institutions that included health, environment, science, technology and security based on the selection criteria outlined in section 4.4. Fifteen participants were requested to partake in the study and 13 responded to the request for an interview. One participant did not reply to the request and the other had time constraints to schedule the interview.

The researcher interviewed participants in their own setting and gathered information based on content, nuances, and non-verbal behaviour. The interviews had to be conducted electronically due to the nature of the requirement for social distancing during the COVID-19 outbreak, which limited the interviewer's ability to solicit non-verbal information. Nevertheless, the semi-structured interview tool allowed participants to draw on their own experiences, perceptions, attitudes, reflections, and personal opinions (Yin, 2014, p. 106). Reflective notes, as recommended by Creswell (2016, p. 184), were made by the interviewer as part of the data collection process and included the participants' nuances, emotions, and deep reflections. These additional notes have been incorporated in the findings presented in Chapter 5. The flow of the conversation was dependent on the information volunteered by the respondents and the semi-structured interview allowed the flexibility to probe for new information or clarify any information not understood by the researcher (Saunders & Lewis, 2018).

The process of gathering information involved an initial telephonic request to assess the respondents' willingness to participate in the research. An explanation of the rationale of

the interview was explained on the call and, if permission was granted, the researcher scheduled a suitable date and time to conduct the interview with the participant. The consent form was sent with the meeting request or in a separate e-mail. An example of the e-mail correspondence can be found in Appendix 3. The interview questions were not shared prior to the interview so as to allow the respondent to provide a reflection and appreciation of their leadership experience (Silverman, 2015).

Permission to record the interview was sought before each interview. The research questions were framed in support of the qualitative research design, which accommodated subjective processes in the data collection to meet the research objectives (Blaikie & Priest, 2017). Analytical notes (Brodie, 2020) were taken to capture key lessons learnt, with the aim of understanding what the respondents really meant in their interviews. Each interview was concluded with a request that if there were any further questions or inputs, both the researcher and the respondent could make additional contributions or obtain any additional points of clarification. No additional inputs were made and the researcher had to contact one respondent to request the size of the team they manage.

Thirteen respondents shared observations based on their own experiences (Creswell & Poth, 2016; Saunders & Lewis, 2012). Each interview was conducted over an average period of 45 minutes, with interview length ranging from 35 to 60 minutes.

All interviews were recorded and transcribed using the services of a transcriber, who signed a confidentiality agreement. The transcriptions were validated for correctness by the researcher. The transcript content of the researcher was removed to facilitate coding and all documents were anonymised with code names allocated to each respondent. All data is being stored electronically as required by the university protocols. A total of 143 pages of transcripts and field notes were obtained after removal of the interviewer content in the transcript. The respondents' demographic details were captured and anonymised, and are presented with the findings in Chapter 5.

4.8 Data analysis

The data analysis for qualitative research requires detailed information of sequential steps, including the preparation, organisation, reviewing, selection, coding, classification, linking relationships, and presentation and discussion of data (Braun & Clarke, 2006;

Creswell & Creswell, 2017). The transcripts were read and the coding methodology proposed by Saldaña (2013) was used. Descriptive statements in the text of two or three words or phrases were assigned to codes and then an inductive logic process was applied, where codes assigned to similar groups of words, parts of the text or unit of meaning (Myers, 2020) were then categorised into themes (Braun & Clarke, 2006; Saldaña, 2013). Inductive logic ensured a deeper understanding of the research questions considering the limited existing theory on adaptive leadership in crisis situations. Codes were applied consistently and iteratively across all interviews, with coding, reflection and the use of analytical memos after every two or three interviews. ATLAS.ti was utilised as the data analysis software tool, together with a manual process of transcript review. In vivo coding was applied to capture phrases used by respondents in their own language, which is a method of coding relevant to most qualitative studies, but is also most appropriate for the novel qualitative researcher (Saldaña, 2013).

Groups of codes were abstracted into categories and then into themes classified as one or more categories with a relationship between them (Myers, 2020; Saldaña, 2013). A data saturation graph to improve quality of data and the rigour of data analysis (Myers, 2020) is presented in Figure 5. Thereafter, themes were formulated based on their relationship to the categories. Saldaña (2013, p. 362) defined a theme as “an abstract entity that brings meaning and identity to recurrent experiences and its variant”.

The 209 granular first-order codes were sourced from the transcriptions in the language of the respondent and were grouped into 66 second-order codes or concepts and then into 13 categories that were clustered into six themes, as illustrated in Figure 4. The 66 second-order codes are listed in Appendix 4.

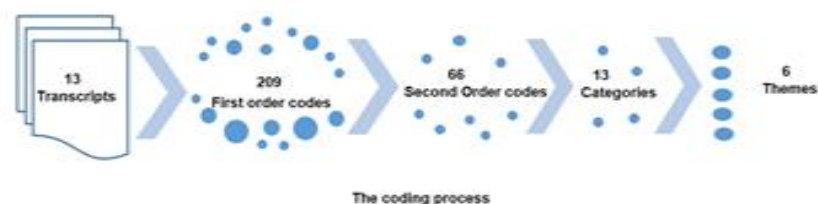


Figure 4: Coding process and number of new codes. *Source:* Adapted from Saldaña (2013).

The number of codes generated per respondent is detailed in Figure 5.

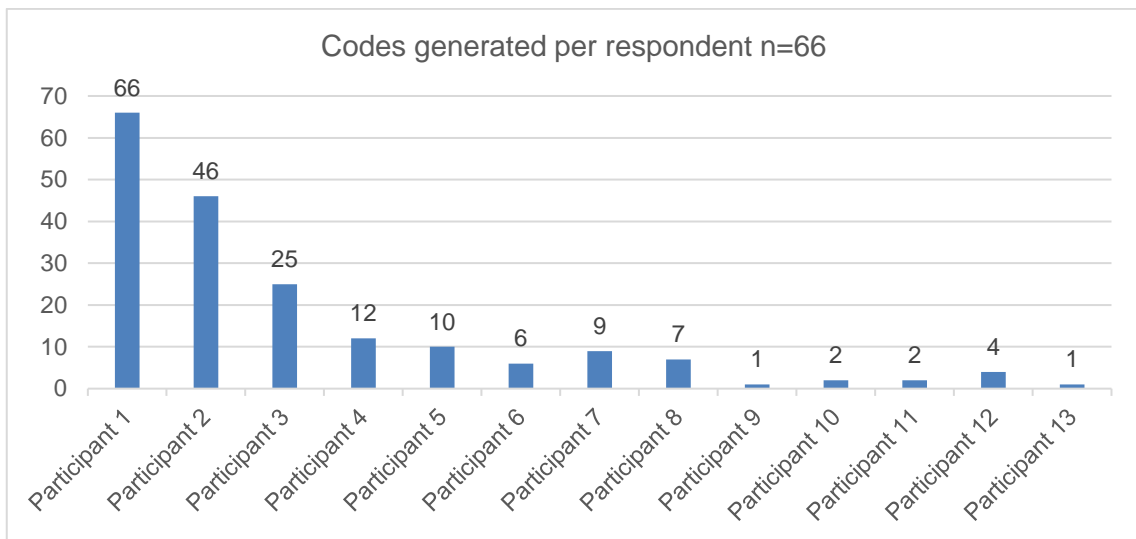


Figure 5: New codes generated per transcript. *Source: Author's own.*

Saturation was achieved after the 11th participant, where “no new information seems to have emerged during coding” (Strauss & Corbin, 1998, p. 136). It appears that participant 12 had additional information and, based on Strauss and Corbin (1998), there is always the potential for new information to emerge, but this may not add much value to the categorisation process. Thirteen categories were generated and clustered into six themes. These categories and themes are further discussed in Chapter 5.

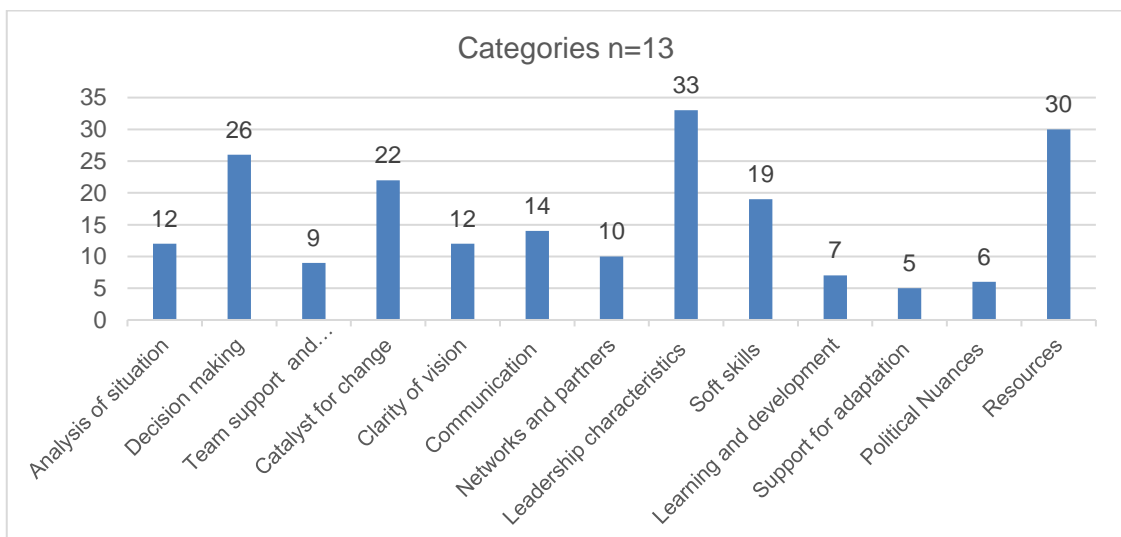


Figure 6: Categories generated from clustering of codes. *Source: Author's own.*

4.9 Data validity and reliability

Saunders et al. (2016) cautioned that qualitative research methodology can be inherently subjective. Consequently, in this study, various qualitative research approaches were applied to ensure data reliability and validity, which form part of quality assurance of research (Creswell & Creswell, 2017). Reynolds (2011, pp. 5–13) reflected on scholars' debates on quality assurance in qualitative research and suggested that both "output-orientated and process-orientated narratives be brought together to develop a flexible framework" for assessing quality in qualitative research.

Therefore, quality assurance and the principles to ensure validity or accuracy and reliability reflecting consistency were applied at the various steps in the research process (Creswell & Creswell, 2017; Morse, 2015). For the purpose of this research, a pre-data collection process of validation was applied by piloting the questionnaire to test the validity of the measuring instrument.

Bias that the researcher brought to the study and the process of self-reflection of this bias (Creswell & Creswell, 2017; Saunders & Lewis, 2012) were mitigated by using the interview guide, asking the same research questions, recording the interviews, making summary notes, transcribing all the interviews, and spending a prolonged time engaging with the data. Steps to ensure data validity commenced with the specified participant selection criteria, the pilot run of the interview (Saunders et al., 2016), the standardisation of how the interviews were conducted by using the interview guide, and the researcher's attempts at asking the questions in the same manner (Agee, 2009).

Morse (2015) acknowledged the various strategies used to ensure validity and reliability and argued that reliability to obtain the same results, primarily resides in the coding process. The process of checking transcripts for obvious errors, defining codes, ensuring no change in the definition of the codes, and having a qualitative codebook as part of the inductive coding process was used to mitigate bias. The iterative process of the coding methodology used the "thick description" of coding to ensure rigour (Morse, 2015). Qualitative generalisation is limited for this research and is not considered. However, data is presented in such a way that any qualified researcher with a copy of the relevant data could reproduce the results.

4.10 Research ethics

The fundamental principle of ethics is to do no harm (Denzin et al., 2017). Ethics are considered throughout the research – from prior to conducting the research to the reporting and storage of data phases (Creswell & Creswell, 2017). Ethical obligations, including how the research was designed, were considered. There were no incentives for participating, nor any conflict of interest in conducting this research. All attempts were made to ensure that the research was free of plagiarism.

Permission was sought from the participants for their participation in the research. Consenting to partake in the research was ensured through an informed and signed consent form. No respondents nor their organisations were in any way disadvantaged by the refusal to participate and no respondents felt the need to withdraw during, prior or at any stage of the interview or research process. Two additional invited participants did not participate due to time constraints and no pressure was exerted for their participation.

The interviews were conducted professionally and permission to record them was requested. There were no incentives offered for participation and no benefit was offered, nor withheld or withdrawn for lack of participation in the interview process. Anonymity of the data and findings was ensured and data storage has been anonymised and stored, in keeping with the ethical standards of the university.

4.11 Research limitations

Qualitative research provides the opportunity to be reflective (Agee, 2009). In this context of extreme crisis, the initiation of this research may have presented the first opportunity for leaders' reflections of their experiences in the prolonged extreme context of COVID-19, which may have impacted the findings of the research as a result of the participants' mental well-being.

In addition, other limitations have been considered. There may have been respondent bias created by the interviewer and response bias as many of the participants were known to the interviewer, since all participants were in the researcher's professional network. Bias was avoided by ensuring that the interviewer stayed on script and recorded the interviews. The need for a research assistant as an alternative was not required to accommodate the latter as participants' responses were "wanting to help" and with a

sense of purpose. However, response bias may occur if a respondent is sensitive to specific themes and may not want to reveal information or discuss (Saunders & Lewis, 2007), which was not detected in the interview process as participants volunteered information without reservations.

This qualitative research involves a small sample and applicability of conclusions to different situations and populations may not be transferable to other contexts or other sectors. The sample size was 13 respondents, which could be perceived as a limitation. However, in this case, saturation was achieved after 11 of the 13 interviews were conducted.

Every attempt was made by the researcher to overcome these limitations by remaining objective, discussing this with the supervisor, and putting in immediate corrective action. It is acknowledged that, as a novice researcher, there may be bias in the analysis and interpretation of the data, which has been minimised by following the stepped approach of data analysis recommended in literature and through formal training (Brodie, 2020; Myers, 2020).

There are limitations with mono-method methodological choices in that there was a single source of data collection, triangulation was not possible due to time limitations of the academic year to support the enrichment of data (Saunders & Lewis, 2007). Additionally, Tobi and Kampen (2018) cautioned that in social science research mono-methods may bring bias where the researcher is deemed to be part of the measuring instrument.

CHAPTER 5: RESULTS

5.1 Introduction

This chapter outlines the findings of the research based on the primary data analysis of the semi-structured interviews with 13 public-sector leaders. Descriptive results of the sample are presented, followed by a presentation of the results of the three research questions described in Chapter 3.

Consistent with a qualitative study, the results are presented sequentially for each research question, with a graphic representation of the perceptions of how participants have adapted their leadership practices, as well as what factors have enabled and constrained the adaptation. This is followed by the presentation of key constructs that have emerged, together with a detailed narrative collation of quotations from the respondents for each of the five constructs. The chapter concludes with a synthesis of the findings and presents a framework for leadership adaptation in extreme contexts.

5.2 Presentation of results

The interviews' findings were analysed inductively through a detailed coding process outlined in Chapter 4. The initial 66 second-order codes listed in Appendix 4 were further synthesised into 13 categories that have been constructed from the frequency of mention from the interviews with the respondents, with the emergence of five key themes.

5.3 Participant summary

The sample consisted of eight male and five female participants with an average age of 52 years – the youngest respondent was 40 years old and the oldest was 62. Eight of the respondents had PhDs, three obtained a master's degree in their respective disciplines, one had a bachelor's degree, and one had an advanced diploma.

The average length of time in a leadership role was 17.6 years, with a range of three to 30 years. The size of the team being managed by the respective leaders ranged from 18 to 170 employees, but this varied as many of the leaders were responsible for the co-ordination of other departments or institutions or partners at a national level. This was

determined by the nature of the work of the respective departments or institutions. A summary of the demographic data is reflected in Table 4.

Table 4: Summary of demographic data of participants

Respondent number	Gender	Age in years	Highest qualification	Years in a leadership role	Size of team being managed (directly or indirectly)
1	Female	48	Master's	6	60
2	Female	53	PhD	3	120
3	Male	62	PhD	24	80
4	Male	56	Master's	22	28
5	Female	52	PhD	4	170
6	Male	61	Master's	30	150
7	Male	50	PhD	15	50
8	Male	53	PhD	25	60
9	Female	40	Bachelor's degree	12	105
10	Female	44	PhD	15	42
11	Male	52	Advanced diploma	30	68
12	Male	59	PhD	24	21
13	Male	50	PhD	19	18

Figure 7 shows the distribution of participants by age and gender – 30.8% of the respondents are represented within the 51–55 age band, making it the most frequent age group amongst all respondents. It is observed that 40% of female respondents are represented within the 40–45 age band, 20% within the 46–50 age band, and 40% within the 51–55 age bands; there are no female respondents over the age of 55. Contrastingly, no male respondents are found in the 40–45 age band, while 25% are in the 46–50 age band, 25% in the 51–55 age band, 25% in the 56–60 age band, and 25% in the 61–65 age band. This indicates that there are more observations of the leadership experiences in crisis situations of older (56–65 years old) males and more observations of leadership experiences from younger (40–50 years old) females in this study than that of younger males.

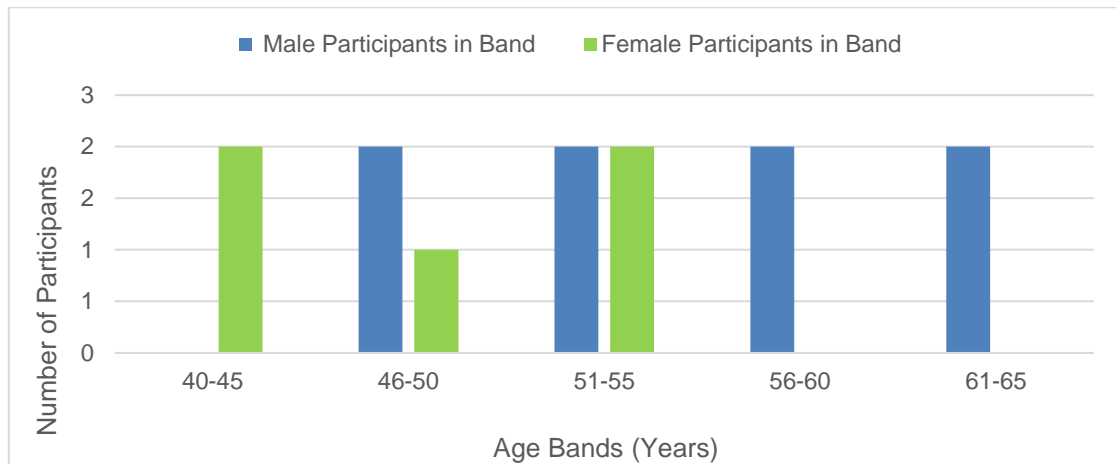


Figure 7: Distribution of participants by age and gender. *Source: Author's own.*

The distribution of the participants' age and gender is noteworthy within the context of this research, as previous literature does not study the effects of age and gender on leadership styles in crisis situations directly. More recent research by Coscieme et al. (2020) suggested that female leaders showed a higher propensity to act decisively in response to the COVID-19 pandemic, taking more precautionary measures than their male counterparts. These findings may affect the adaptive leadership principles based on gender. Although the study of gender and age distribution was not the focus of the study, it was observed that males were required to adapt more in the construct of social-emotional awareness and that the older respondents had a greater appreciation of the value of network building.

5.4 Interview findings

The findings of this research are presented based on the three research questions outlined in Chapter 3.

5.4.1 Research question 1

How have leaders in the public sector adapted their leadership practices during the extreme context of the COVID-19 pandemic to meet new demands?

The first research question sought to gain an understanding of whether the leaders' roles had changed during the COVID-19 crisis and to clarify the leaders' perceptions of how successful they have been in their leadership practices during this crisis phase. The question aimed to establish how leadership practice has changed from the pre-COVID-

19 era to the current time of the interview and what aspects of the leadership practice changed during this time. If there was no change in leadership practice, the question was phrased to establish what aspects of their leadership practices assisted the leaders the most during the crisis.

There were 13 common categories and areas that leaders felt they needed to adapt to meet the new demands of the COVID-19 crisis, including the recognition and starting the process of adaptation to meet the new demands, making decisions, supporting and developing teams, being a catalyst for change, providing clarity of vision, and communicating the vision. Network building was considered important, particularly in resource-constrained environments, whilst leadership characteristics, especially soft skills, were cited repeatedly by all respondents as a prerequisite for adaptation. The respondents viewed the extreme context as presenting learning and growth opportunities for them and their teams, and that support for the adaptation is required from both internal and external support of mentors and political structures.

Figure 8 summarises the perception of change for each of the respondents per code category. The upward-facing green arrow represents the need to adapt, enhance or improve; the yellow horizontal arrow represents the perception of the respondent where there was no or minimal adaptation required; and the absence of an arrow indicates that the respondent did not mention any aspect of the category. Of all the categories mentioned, there are no downward-facing red arrows, which would have represented an activity that leaders had to stop during the extreme context, proving that there were no aspects of their leadership practices that the respondents felt the need to stop. All categories represented in Figure 8 find relevance in response to the first research question and further detail is expanded for each of the themes supported by the respondents' quotations.

Code Category	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13
Process of analysis for adaptation	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Decision-making	↑	↑	↑	↑	↑	↑	↑	→	↑	→	↑	→	↑
Team support and development	↑	↑	→	↑	↑	↑	↑	→	→	→	↑	→	↑
Catalyst for change	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Clarity of vision	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Communication	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Network building	→	↑	→	↑		→	↑	→	→	↑	→	↑	↑
Leadership characteristics	↑	↑	→	→	↑	→	↑	→	→	↑	→	→	→
Soft skills	→	↑	→	→	↑	→	→	↑	→	↑	↑	→	↑
Learning and development	↑	→	↑	↑	↑		↑	↑	↑	→	↑	→	→
Support for adaptation	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Political nuances	→	→	↑	↑		↑	→	→	↑	→	↑	↑	↑
Resources	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑

Figure 8: Perception of need to change. *Source: Author's own.*

All respondents adapted their leadership capacity to respond to the extreme crisis of COVID-19 to varying degrees and for different aspects of the listed categories. The evidence presented shows that the leaders recognised the extreme VUCA context, assessed the need to adapt, and appreciated the need for rapid and definitive decision-making despite the uncertainty of not knowing all the facts.

These respondents are experienced leaders and instituted new teams within or outside their institutions or departments, or strengthened existing teams to ensure the collective response to the crisis. Their learning was self-directed and COVID-19 has required levels of heightened self-awareness.

Many of these leaders have exploited the crisis to catalyse change with a foundational sense of purpose as a strong driver to overcome the VUCA disruption. Respondents mentioned the need for effective communication with speed and consideration for the sensitivity of the messaging. These leaders have become more network-centric, with more than half of the respondents indicating the requirement to strengthen or formulate new networks. The other half of the respondents relied on existing partnerships and networks to ensure an adequate response to the crises.

It was observed that the respondents had well-grounded leadership characteristics, traits, behaviours and practices, but many found the need to focus on being more people-centric to lead with compassion. This observation was particularly relevant for three of the male respondents who had to make significant adaptations.

The respondents appreciated that COVID-19 has provided the opportunity for

experiential learning and the leaders recognised the potential to innovate and grow. They also acknowledged the experiential learning of the past, having to constantly deal with smaller leadership crises.

The respondents all operated with significant resource limitations, with these constraints being highlighted repeatedly. With this acknowledgement, the respondents used the crisis to mobilise resources through innovation with partners by making purposeful choices for intervention.

The participants indicated that political influence from bureaucratic structures or political and diplomatic ties are essential components that enable or constrain adaptation. All respondents indicated that the journey was fraught with time pressures, volatility, uncertainty and complexity, and many indicated that they derived value from the research interview, as it allowed them time to reflect on the journey they are still navigating. The findings below provide the detail per category and are substantiated with quotations from the respondents' narratives in support of the theme.

5.4.1.1 The process of analysis for adaptation

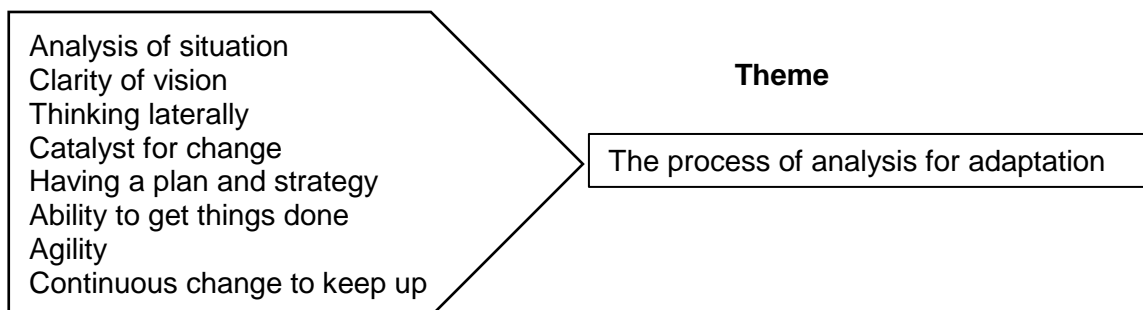


Figure 9: Second-order categories for the process of analysis for adaptation

This analysis of the situation category comprises a cluster of codes relating to how respondents evaluated the extreme crisis situation. It looked at how they perceived the VUCA environment that the COVID-19 pandemic presented, recognised the adaptive challenge, the drive to respond, the ability to get things done, agility, and the need for continuous flexibility and change to keep up.

All respondents retained their original functional role within their departments or institutions and were required to take on additional responsibilities in response to the COVID-19 pandemic. They were required to manage existing portfolios and the new

demands of the crises. Each respondent recognised the need to assess and adapt to the extreme crisis situation. This is reflected in respondent 4's answer: "When COVID came, it became clear that it challenged my current position, my current day to day of working". Respondent 6 "saw the need immediately", while respondent 5 succinctly summarised:

the volatility of COVID and the number of uncertainties... made me realise... ambiguity in terms of the things that were said and the changing around COVID... and based on that then I realised that the first thing that made me really, to really adapt and change was firstly that I had to personally think about learning to reorientate myself and to learn because for me COVID was something that I didn't understand.

This was echoed by respondent 7, who had to "reorientate himself", while respondent 8 "consciously had to do things differently". Respondent 11 mentioned that it "came unexpectedly... it was a bit different..." calling for a "relook at our roles" from respondent 12. Respondent 13 mentioned that, as leaders, they were required to be "thinking on your feet". The urgency for response and the anticipation for adaptation was reflected by respondent 10:

I saw the panic and, you know, I was in that space when all of that was happening. I think I got ... first-hand experience on the severity of this thing and looking at the president sombre in that time when the colleagues were explaining how this could escalate ... it was beginning and people were starting to be aware, I was already aware.

Respondent 3 spoke of the uncertainty of the crisis:

We can't really predict what this virus is going to do next or where it's going to pop up, so we had to change our strategy as the virus gives you some new clues of what's it going to do next, so you can't go there with too many prebaked ideas and because the way in which and people response to the virus is changing too and live with that uncertainty and figure out how to navigate that uncertainty, I think that sort of thing, I'm learning anew.

In addition, respondent 1 highlighted:

Because of the uncertainty, [I] think this was the time it tests a person and tests processes, and tested everybody and there was a time when, you know, if I look at my colleagues they were falling apart, they didn't know what they need to do

and I think for me it was just intensifying that step up... the people were very unsettled because [of] the unknowns... we didn't know stuff. So we were like shooting in the dark and hoping we hit a target.

All of the study's participants alluded to the need for clarity of vision, adapting the vision, thinking laterally, having a plan, and strategy action plan with a line of sight of implementation. This also included clarifying expectations and having a sense of purpose.

Although not expressly mentioned by all respondents, the researcher obtained the feeling that the respondents were driven by the sense of purpose and vision to improve and save lives before, during and after the extreme COVID-19 context. The evidence for this observation was endorsed by respondent 7: "as long as you are purposeful and you are passionate in terms of what you are doing". This sentiment was further validated by respondent 13, whose focus was on the "bigger picture and ability of making a contribution to public health". Respondent 1 expressed that "having a sense of know who you are, you know what you believe" provided the motivation for respondents to act and adapt, despite the lack of a clear vision in crisis situations. This "sense of purpose" drove the "clear vision, clear approach, everybody [is] clear about their roles, that's really what's needed in a crisis" recorded by respondent 3, who added how important it is "to remember that it is about the beneficiary, the employee or whoever must benefit". Respondent 6 concurred, stating that the "credibility of leadership, a vision and then the ability to convene" supported the adaptation.

All respondents perceived themselves to be catalysts for change. As respondent 1 indicated, "you know what you believe, you know you going to do the right thing, so you just do it, you know, you just do it ... you just needed to intensify that step up", but also shared the intention that "they were going underground ... and [kept a] low profile". Respondent 2 commented that they had to "sit back, analyse and say that this was not business as usual... and bridged more into the private space". Respondent 3 advised that:

to get things done... you got to make a plan to do things around others, because they, for one reason or another are either too slow or not committed enough or will have a range of excuses... so you have to show you are making a difference, move the needle wherever you are working

Respondent 4 said that he “had to be at the forefront of opening doors, breaking frontiers and, exploited people with skills”. Respondent 5 had to be “very responsive” and also acknowledged that this was “complicated”. Respondent 6 indicated that there was a need “to intervene” and that he was “on the ground not just theoretical”. Being at the coalface was also mentioned by two other respondents as being of value.

The “intersection of managerial and leadership” responsibility assisted respondent 8, who used the “tight-loose-tight leadership approach to get things done”. Respondent 9 was more involved in “operational decisions”, while respondent 10 presented a dogmatic response to:

give yourself that space to know that change can happen and you can also be very uncertain during that time of the change and groom yourself over the years to trust your gut when those times of uncertainties happen and have enough grace to forgive yourself if you didn’t respond well enough when you look back you know. So that for me is the critical thing.

Respondent 11 “put in contingencies” to address some of the structural issues, while respondent 12 redirected activity to “strategic planning with new partners”. Respondent 13 relied on “quickly mobilising resources” to enable response.

All respondents found that the VUCA circumstances prompted them to make the change based on innate drive. This is reinforced by respondent 13’s statement: “There’s a personal calling and it [is] a personal world view to make a contribution”.

It is evident from the sentiments expressed by all respondents that the initial step was a self-assessment and evaluation of the VUCA extreme context in determining the appropriate response in the midst of the uncertainty. At an early stage, the respondents appreciated the potential impact of the extreme context and recognised not only the need for adaptation and change, but the fact that they were responsible for catalysing that change. There was also an observation that, despite the extreme context, there was a tolerance of the VUCA circumstances and a sense of commitment to make the change. Overall, respondents demonstrated the ability to analyse the VUCA extreme context, identify the adaptation, and implement the required adaptation for the extreme context by having a deep sense of purpose, a clarity of vision, and the ability to get things done.

5.4.1.2 Decision-making for adaptive leadership

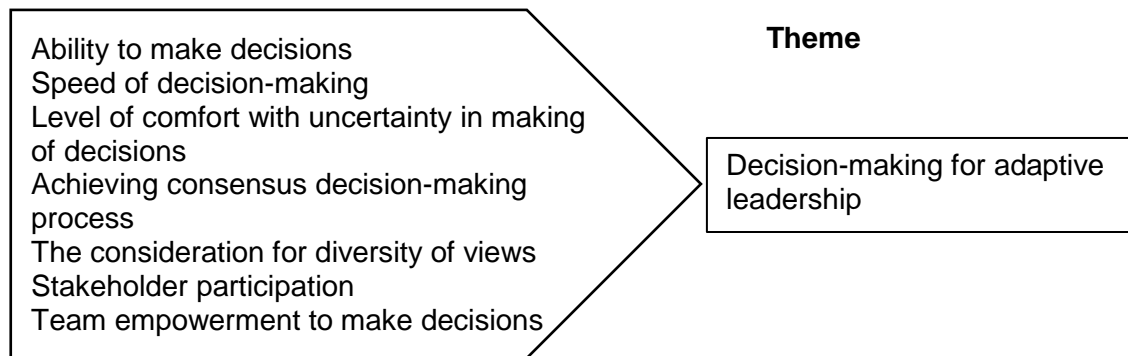


Figure 10: Second-order categories for decision-making for adaptive leadership

The category of decision-making incorporates a cluster of codes, including the ability to make decisions, the speed at which decisions are made, the level of comfort with uncertainty of the decision-making process, achieving consensus in the decision-making process, and the consideration of options and diversity of views for decisions. Moreover, it comprises stakeholder participation in the decision-making process and team empowerment of the leaders helping teams make decisions during the crisis.

The decision-making category was a striking observation, as all respondents highlighted the significance of the decision-making process in enabling or inhibiting progress and their ability to adapt. Respondent 1 moved from having an “ostrich mentality” to facing each problem, “you know when a problem came up, you put your head in the sand, but now with COVID, I changed it and I said no, every problem that comes must have a solution”. Respondent 2 “convened discussions with colleagues at [her] level... to take decisions and move with them and hope that they’re right or apologise if you made a mistake as you went along”. Whilst sharing the sentiment that “indecision of leadership is a constant frustration”, respondent 4 made key decisions to “be led and to reorganise his team”. Respondent 5 was particularly distraught about the fact “that people were very afraid to make decisions”, and “adopted a School of Practical Philosophy approach to... see if I can use any of those principles to navigate because there were no easy answers, or mentorship coming from anywhere else”.

Respondent 6 relied on “wisdom and intellect” to make decisions together with “convenorship that overcame bureaucracy”, where there “was not the understanding they did not have to do everything through the structures in order to get things done on the ground”. Respondent 7 did not mention anything specific about making decisions,

but alluded to needing “the hardware and software” to enable him to be effective with reference to having the technical knowledge for decision-making, but also the motivation to execute the decisions. Respondent 8 had an interesting perspective, in that he felt that decisions were not being “made from first principles”, and that adaptation is about “knowing at a high level what is it that you aiming to do”.

Respondent 9 had a pragmatic approach, as decisions had to be “prompt and rapid where previously was more strategic, now had to make spur of moment decisions, there was no red tape in making decisions and had to get involved in operational decisions”. Respondent 10 was already “decisive” and had to make decisions with available information when she:

felt like the organisation wasn’t moving fast enough, I was like, I’m not having it in this unit and felt that as a scientist, straight-minded, sometimes I do not have the data, facts and figures that are needed to move. It might change next week.

As respondent 11 pointed out, “We put... contingencies in place”, but the gravitas of the decisions was tangible, with respondent 12 advising that the information they provide was “being used to make very critical decisions, such as decisions for the country”.

The respondents recognised the significance of the decision-making process in support of adaptation or as a major hindrance to adaptation. The participants recognised the urgency of making decisions and, although there were so many uncertainties, they had to make decisions and have some risk tolerance for the decisions made. The gravitas of the impact of the decision-making process was tangible for the respondents and many made decisions with and in teams to enhance the process. In conclusion, respondents positioned decision-making as the most crucial aspect of the adaptive leadership process and cited that the lack of or delay in decision-making as the most limiting aspect of the response.

5.4.2 Research question 2

What factors enabled or facilitated the adaptation of leadership practice during the extreme context of the COVID-19 crisis?

The second question explored the factors that prompted the leaders to make the change, what good experiences they had, and what lessons they learnt about their leadership

practices during the crisis. The question also sought to explore what skills were gained and if the leaders had had any previous leadership crisis training.

The respondents were enthused by the enabling factors that supported their adaptation in challenging times. The enablers for change include inherent factors, such as the characteristics of the leader, and external factors like mentorship support. The inherent factors that dominated the feedback were grounded in respondents having a deeply rooted sense of purpose, practising in an environment where decisions are rapidly made, mentoring, guidance and support from above, catalysing change as calling, support from networks, self-care and self-awareness, continuous learning and political buy-in for interventions, and most notably the socio-emotional prerequisites.

5.4.2.1 Social-emotional competence prerequisites

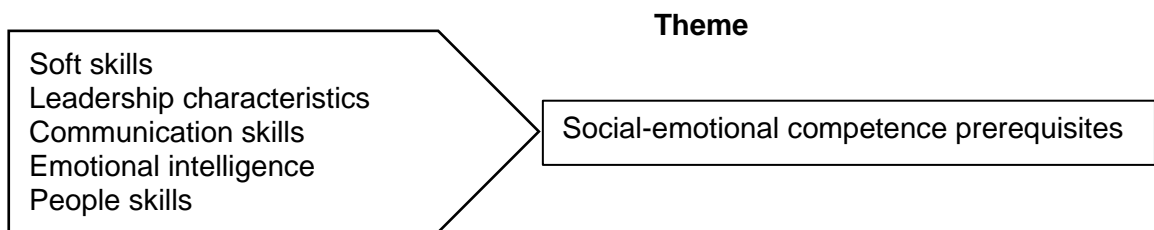


Figure 11: Second-order categories for social-emotional competence prerequisites

This category clustered codes that included self-awareness, self-reflection, and introspection, spirituality recognition of personal limitations, self-management, self-care and coping. Respondent 1 chose to “weather the storm and, as a reluctant leader, listened to others and evolved”. Respondent 2 was admitted for anxiety and fortunately recovered, but focused on “family support and spiritually” to get her through the challenge.

The continuous learning process was appreciated by respondent 3: “If you stop learning, then you can’t share anything, any new insights with anyone else either. There’s never a good time to do anything, you must just do what you need to do”. Respondent 5 reflected that “things that really came into play were the softer skills”, which were also called “people skills” by respondent 7. This respondent was appreciative of the softer skills, as he was the only respondent trained in diplomacy skill:

So the area of diplomacy is part of my DNA and in diplomacy you have to learn,

firstly, to listen, but also you have to learn to read behind or between the lines... that skill of being a diplomat... has actually helped me a lot.

Respondent 9 reflected that she was amazed she was “soldiering on”. Self-care was mentioned by all participants and it included activities like exercise, meditation, continuous learning, spending time with children, “living in day tight compartments” (respondent 12), and having a mentor in the past or currently. Respondent 10 advised:

It is that consciousness that change will happen, and it may not happen in the way that you envisaged it. Most of us know that change is good, change is hard, change is, but you always subconsciously think, if change happens it will happen this way and you're not even aware that you think like that until change happens and it happens in a completely different way from anything you've ever imagined. So my advice is that leaders must [be] gracious to [the] self, you know give yourself that space to know that change can happen and you can also be very uncertain during that time of the change and groom yourself over the years to trust your gut when those times of uncertainties happen and have enough grace to forgive yourself if you didn't respond well enough when you look back, you know.

Respondent 13 stressed the people component: “For me, [it] is absolutely vital and critical. No matter how skilled you are, if you don't understand people in terms of the... behaviour, the attitudes to be more responsive rather than being reactive”. Respondent 12 advocated that:

in terms of self-management, you've got to learn how to manage your emotions, that's a learnt behaviour. The second thing with trust and honesty you've got to learn not to lie and keep to your word. So that's also learnt behaviour. And the same with relationship management, how do you build relationships and the key thing, having empathy and understanding the person from their point of view. Then you can go for win-wins and not compromise, because if you compromise, you lose. So the softer skills... takes you 20 to 30 years maybe.

Respondent 13 summarised his adaptation with soft skills as the capacity to “absorb; pause and then respond”. All respondents acknowledged that the broad range of inherent leadership characteristics supported the navigation through the crisis, with these including skills, traits, behaviours, and practice. Furthermore, the characteristics comprised flexibility, honesty, humility, fairness, ability to influence, credibility,

consistency, inspiring, demonstrating value leadership, and being respectful, disciplined, calm, purposeful and committed.

From observation, all these leaders demonstrated absolute commitment to working long hours and finding innovative solutions to get the job done – most of the leaders had not taken a single day's leave in 2020. The below statement from respondent 3 was a stark reminder that these were experienced leaders:

You don't suddenly become a different person with different skills when you're faced with the pandemic. You've got to use the skills and the experience and the networks you built over time, you know and that's the key thing. You know, that's something that I think you learnt in the last 20 years.

This view was shared by respondent 1: "It's hard as a leader and if you don't build that relationship, before a crisis, it's hard, to build it in a crisis is doubly hard". Nevertheless, it is still required, as argued by respondent 7: "You have to build trust and people need to believe that they are part of a team... so that together we can do more". Respondent 1 expanded that:

The team looks to you because you are the senior manager, they look to you not to panic. So even though you're panicking, you've got to have somebody that you can go panic with, but not your team... contain yourself and project confidence even though you yourself are scared – that for me was a big change, because normally you're kind of confident, you know, when you say this is business as usual, but this was a situation where we didn't know. It was uncertain and how do you maintain that calm, make plans even though you don't know if it is going to work, but you had to do something.

"Being scared" was a characteristic shared by respondent 10, who stated that, "Understanding that you as a leader can also be scared, when your team is scared and remembering that when you are scared also, the team, as scared as they are, need you more than ever".

Respondent 1 expressed the need for leaders to let their teams know:

that you've got their back and they will have your back. But you have to be genuine; you can't be a fake leader, you can't be a scandal monger, for example. You [are] not doing yourself favours, you [are] not going to get that loyalty that you [are] looking for.

“Fairness” was emphasised by respondent 2:

One of the few things that helped me at least sleep well at night was exercising fairness, being fair and being fair to everybody... if the organisation flourishes, we all flourish; if the ship sinks, we all sink with it. I was able to isolate facts from emotions, my team cherished the fact that I was fair.

Respondent 3 cautioned against “pre-baked ideas” and recommended a:

bottom-up approach with a link to a top-down approach. And, unless you take people on the ground along with you, you can’t keep having a militaristic or an authoritarian approach to including epidemic almost a counter argument to the commanded control approach that is typically the pandemic response.

Other leaders had to “sharpen their listening skills”, as respondent 4 advised:

particularly for a diverse team of strong-willed people, highly opinionated people. I mean as educated as you can imagine, no one [was] willing to listen to the other, but I had to make sure that they still recognise each other, as individual members of the team. I had to declare loyalty to leader and surrender to leader, keep on asking, endear myself to leader and ask how I can assist you.

Respondent 7 endorsed the need to:

humble yourself and have the ability to listen during a crisis, because during a crisis, people say you have to do this thing quickly, quickly, quickly but what really made me to succeed, where I think I have succeeded, I think, it is the ability to go to people and begin to say together we can make a contribution and just listen.

Both respondents 8 and 9 focused on team motivation, to “keep persisting”, and “keeping people focused on particular objectives”. Respondent 13 highlighted the importance of “being able to delegate and... don’t say instruct but also guide” and “be there with the team in the trenches with leadership... not in the boardroom”. He underscored “the need for teams to understand that you are part of this journey and not just sitting and giving instructions”. Respondent 13 poignantly summarised leadership in a crisis situation: “you manage things and lead people”.

The respondents recognised that various aspects of communication played a crucial role in enabling their adaptive practices. This included communication with teams, partners,

internal and external stakeholders, clarity of information shared and direct connections with teams. It also included diplomacy skills and value-based communication required to inspire teams during the time of crisis.

All respondents cited the importance of effective communication with both internal and external stakeholders. The first respondent provided guidance in being:

genuine about what you do. So the first thing that you need to, you know, make sure that when you do something, when you say something, when you offer support, [it] must come from a genuine space. So you have to be genuine and, I think, because you know the messaging was consistent, the actions matched the words.

Respondent 5 “spent hours on the phone” for a “lot more engagement” and emphasised the need for “clear communication in word-to-word rather than on e-mail or Zoom calls”. The same respondent reiterated the need to communicate and take on a “guiding role”, but also indicated the limitation of not “openly communicating our shortcomings”. This was with particular reference to not knowing in the face of uncertainty. Respondent 11 advocated for “talking and sitting down with people on the social side, having good communication skills, sharing... on a daily basis”; whilst respondent 13 “had to communicate at a very high level at regular frequency”, which was the “sharpened growth area” the respondent experienced. It was evident from all respondents’ answers that effective communication had to be empathetic and values-based.

In summary, there was a predominant emphasis from all respondents for the need for heightened social-emotional competence. This competence included intra- and interpersonal skills, emotional intelligence, and empathetic communication. The study’s male respondents had a greater adaptation in their leadership practices, compared to the female participants. From this section, it can be concluded that high levels of social-emotional competence are required for adaptive leaders in extreme contexts and that there are opportunities to further develop skills in this area for leaders navigating extreme contexts.

5.4.2.2 Network building

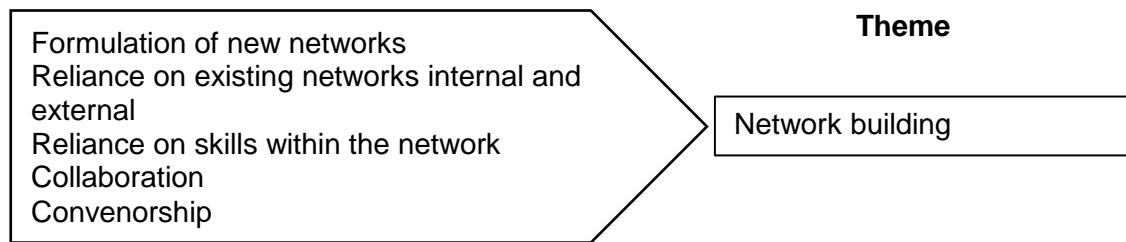


Figure 12: Second-order categories for network building

This category included the formulation of new networks, reliance on existing internal and external networks, and the reliance on the skills within the network support. In addition, it included building collaborations and the importance of convenorship and team support.

Ten of the 13 respondents alluded to the value of these networks to support the adaptation, particularly in the public-sector context where resources are constrained. Respondent 2 “realised that there were stakeholders that, for some reason, were able to access funding... and spoke with a few organisations to partner with them so that we can leverage on their resources”. Respondent 3 had “robust engagements” and respondent 6 identified the “need immediately to convene... in the beginning there was a lot of obstacles to be overcome”. Leveraging networks and understanding other people, with people believing that “together we can do more” was the philosophy that respondent 7 applied. Respondent 8 capitalised on already-established networks, but noted that they too were “going through their own changes”. The value of networking with peers and other leaders was appreciated by respondent 11 to “share skills” applied to different contexts. Respondent 13 emphasised the value of an “understanding of who the players are, who the stakeholders are...”, while respondent 1 highlighted the soliciting of “technical support” from networks.

This category also included the acceptance to be led, leadership support and mentoring from line management or colleagues, support in the social network, advice, and information sourcing, research, and self-development. Respondent 1 indicated that she had support from mentors within her direct line of management and from partners, but added that she also:

self-taught. I used TED talks, Google... on how to do this, how to cope with that, just trying to build that emotional intelligence that people need to be, you know, in a leadership position, because I didn’t have that, I must be honest.

Respondent 2 “negotiated support” from family, whereas respondent 3 relied on an “extensive network built over the years; you know having the right connections and being able to just call up anybody, I could call up ... while I was in that role, because they knew me”.

Respondent 4 remarked that his support was:

going to have to use more of our brains more than the resources, but the few resources we have got, we’ve got to put them into correct use, direct them correctly. So which means every resource that you get must be rationally utilised to make sure that you use the least to achieve the maximum impact... and harness opportunities.

Respondent 7 advised that his adaptation was assisted by a “system-thinking perspective, a person who can be able to have different capabilities and skills of looking at a number of entities and as long as we don’t deal with a leaking tap then we will forever mop the floor”.

Six of the respondents had a strong sense of spirituality and relied on religion as a source of support. The team support and development construct was a composite of setting up new teams, sharing common vision and goals, recognition of team strengths and weaknesses, engagement and involvement of teams, developing teams, and allowing teams to take more responsibility. From the study’s respondents, 75% indicated that team support and development was an important component in responding to the crisis. As a leader, respondent 1 adapted to support and develop teams to respond to the crisis:

You sound board off them, you think the things through, you write it down on a flip chart ... when we think something through, we put it on a flip chart... and then when you go to your team, you have to consult with them.

Whilst respondent 2 looked to the “strengths of the people [she] had”, three respondents had to convene new teams. Respondent 13 mentioned that he had to put together teams he could “trust and rapidly respond”, which was a view endorsed by respondent 7 who:

had to do and do faster was to establish and develop a team and this is not a team that works with me under normal circumstances... these are people that are coming from different units, different directorates but having that ability to provide... influence... it has really helped me a lot.

Respondent 5 had varying experiences with her teams: “some were performing well and others just perceived you as not trustworthy”. Respondent 6 repeatedly referred to his role as a “convenor” of multiple teams across sectors. There was an appreciation of the diversity of the teams and respondent 11 noted with concern how the COVID-19 pandemic highlighted the “technical skills gaps” of teams. Respondent 13 “entrusted” his team and devolved much responsibility, and respondent 4 concluded that he had to be “a team builder, a team leader and a team player” all at the same time.

There was a strong emphasis and recognition in the value of network support, as the leaders felt that the only way they could function successfully and efficiently was through formal and informal network structures. The formulation of new networks, reliance and strengthening of existing networks, and capitalising on the skills sets in the network were identified as essential enabling factors for adaptive leadership practice. Overall, networking building together with team building in the network is deemed an enabling factor for adaptive leadership practice, particularly in resource-constrained environments.

5.4.2.3 Enhancing developmental capacity

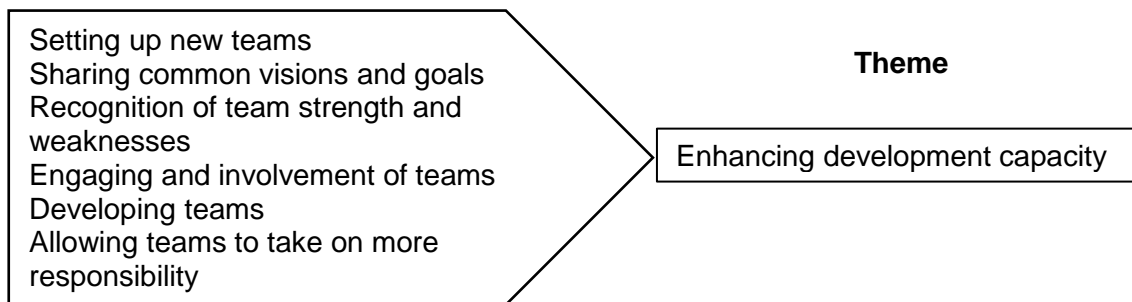


Figure 13: Second-order categories for enhancing developmental capacity

The codes in this category included learning, experiential learning, coaching, personal and team development. All respondents indicated that they have grown exponentially with the experience in managing the crisis, that they were “open to learning”, as reflected by respondent 2, but that they have also provided the opportunity for their teams to grow. Respondent 1 “flipped the switch to those who want to learn” and respondent 3 made the:

conscious decision... that... this is a complex environment and so you can’t come up with a simple solution, you know, and recognising that this is a complex and...

that you have to learn from past experience. I think that's the thing, and I think what's true is that managers should never stop learning, right, if you stop learning then you can't share anything, any new insights with anyone else either. There's never a good time to do anything, you must just do what you need to do.

Respondent 6 shared his experience with mentoring: "There is the art and science of medicine the art comes from mentoring. The science you can always pick up in the literature, but the art part just doesn't happen and that's why [we] need mentors". Respondent 7 endorsed the bringing of "teams into your space and to know your world view"; respondent 11 "learnt from his children in how to use technology"; and respondent 13 concluded that "boundaries in terms of my ability, my strength has definitely been increased".

To account for good experiences that influenced leadership practice during the outbreak, respondent 1 advised that mentorship and support from the immediate line manager was already in place and they "get along famously", could "disagree and then find each other", and felt that there was not "anything that could have changed that would have made it better". Despite his "current position being challenged", respondent 4 accepted "the balance between science and experience because the two had to meet somewhere". He also appreciated his opportunity for learning "financial management skills... because financial management was not my strong point". All respondents nested "experiential learning" as a positive experience – from "working remotely" for respondent 8 to learning "softer skills" for almost all the respondents. The positive experience for respondent 9 was learning how important it was to "get to the root causes of challenges and put in place plans to address the root causes from previously very slow responses to policy decisions". Respondent 2 outlined that, "One of the few things that helped me at least sleep well at night was exercising fairness, being fair and being fair to everybody"; while respondent 13 appreciated his newfound confidence in "communicating to very senior levels at a higher frequency" and his "boundaries in terms of his ability... and strength has definitely been increased".

All respondents recommended further training for leaders in existing positions or for emergent leaders on how to adapt to a crisis. A strong case was made that the leaders required "both context and content knowledge" (respondent 1) and experiential learning (all respondents). Respondent 2 stated:

From my own personal experience in this role... need to be trained in negotiation

skills somehow, negotiation skills is the number one which I lack and I am trying to see if I could get training in crisis management as well. Not all of us are resilient. Some managers might actually break not knowing what to do. So I think that is crucial, very, very important for them to be trained in crisis management.

Respondent 3 recommended, “you got to pick the right people who are the right fit and know why they are there”, with the proviso that “you have to have the right teachers, the right mentors and the right supervisors”. Moreover, respondent 3 indicated that he is exploring “twinning” arrangements to compensate for the “one-dimensional” teaching aspects.

Respondent 4 advocated for experiential learning, saying that:

Not all what is written in the book that you find in the field because the book teaches about, I call it an urban/metropole style of work, but in the workspace you confront the real life and calls for tenacity, not mediocrity.

This view was supported by respondent 12, who advised that learning is “largely experiential, so you have to locate the training within the work environment and have problem-based learning, relevant today in their own environment”. Respondent 7 made a compelling case for training in “diplomacy skills”, which respondent 6 stated should commence at “undergraduate level”, with “mentoring to train on the art, the science ... can always be pick up in the literature, but the art part just doesn’t happen and that’s why need mentors”. Respondent 5 recommended “case study” training and “a buddy system” to build adaptive leadership capacity, while respondent 10 suggested “executive coaches”, with the “benefit of assimilation exercises”, as suggested by respondent 11. Political nuances were seen as both enabling and constraining contributors to leadership adaptation, since diplomacy skills were viewed as essential enablers and political support as facilitating an effective response.

In summary, all respondents recognised and appreciated the need to set up new teams and to strengthen or expand those that were already established. The sharing of a common vision and team goals provided momentum for an effective response. The engagement and involvement of the teams promoted the development of both the teams and the respondents. Allowing the teams to take more responsibility was a growth and developmental opportunity for the leaders and the team members. In conclusion, the respondents recognised that their own development and the growth of the team

members enhanced the capacity to respond to the extreme context and that experiential learning was an essential component for enabling adaptive response.

5.4.3 Research question 3

What factors constrained the adaptation of leadership practice?

5.4.3.1 Resourcing

The final question sought to understand the factors that hindered, prevented or constrained the adaptation of leadership practice. Furthermore, the question asked the leaders for recommendations as to what interventions they would advise for future leaders who will be required to navigate through extreme crises.



Figure 14: Second-order categories for resourcing

The cluster of codes into the resource category comprised resources relating to infrastructure, finances, tools, human resources, skills, and political nuances, such as bureaucracy. Undoubtedly, this category was the most mentioned by the respondents and some mentioned it more frequently than others. All respondents responded to the resource constraints by innovating and utilising existing networks or formulating new networks. For instance, respondent 2 stated:

We didn't have enough manpower. You know, it was around the time where a lot of people had to be sort of allowed to work from home, so we didn't have enough warm bodies. One of the biggest things that could have helped me if it had changed was if the organisation had realised that we don't have enough people on the ground and there's a lot of work that we have to deal with even outside our scope just to add a few human resources.

For respondent 4, mentioned that the "inability to distribute the resources was the major

constraint for me”. Respondent 5 cited time as a resource:

because I don't think I've been as busy ever in my working career. I have been so busy... the number of emails that are coming into my inbox are enormous and people expect you to read everything and you can't. I can't, I just don't have the time.

Respondent 4 added that he:

battled for a budget for the surveillance system with again if you had to look at the parallel structure... you don't have the human resources, you don't have the technical structures, you don't have the surveillance system in place, and lastly you don't have a budget. So I was part of the budget discussions.

Respondent 8 referred to resource limitations of “information systems in place and in communication”; and respondent 10 cited that, “working in government, we were challenged, long procurement processes, when some things cannot wait for your comfort zone to operate. Leaders need supportive structures”. Respondent 13 acknowledged that “as a leader demanding more than what the capacity is ... challenging”.

Four respondents mentioned the effect of political influence or structure on their adaptation capacity. Respondent 3 agonised that:

the provinces moving at their own pace and the provincial leadership wanting to do things at their own pace, as they see fit, rather than having a strong steer from the centre is key... and the minister is struggling with that too... that is because of our constitutional democracy and the key question is how can COVID change the way in which government behaves or reacts.

During the interview, respondent 6 expressed his frustration of:

a bureaucratic framework, that anything that needs to be done... you need some kind of bureaucracy but there was not the understanding they did not have to do everything through the... or the leader so then on the structural issues, the pillars of power are very important.

Respondent 7 shared how bureaucracy was a limiting factor, but overcame this with his training as a “diplomat so the area of diplomacy is part of my DNA and in diplomacy you have to learn firstly to listen but also you have to learn to read behind or between the lines and so forth”. The hardship expressed by respondent 2 prompted the following

feedback:

It was difficult... because I... didn't get any external help at all. It was just the circumstances, the situation I found myself in and I had to sit back, analyse and say this is not business as usual, there was no other way, and we just have to produce.

The maturity of adapting leadership to overcome obstacles through the extreme crisis was evident from respondent 1's statement: "There wasn't real obstacles. We had challenges with suppliers and that type of thing, but I didn't have obstacles." On the other hand, respondent 2 expressed the limitation:

"We didn't have financial resources... we could have bought some of the right things that we needed, included human resource capacity only if we had money. So we were limiting by financial means as such we couldn't even do some of the things that we needed to do at the time. So one of the things we realised that there were stakeholders that for some reason were able to access funding. So then I went ahead and I sort of spoke with a few organisations to partner with them so that we can leverage on their resources.

Respondent 3's perspective of his constraints of "not having a line of sight of what's going on, that's a very important level... not having real time data is another one" and cited the "pace" at which key stakeholders responded. The majority of respondents shared the experience of respondent 4 as "the lack of decision and inability to distribute the resources was the major constraint for me", which was echoed in respondent 5's view that "people were very afraid to make decisions". Respondent 8 verbalised that this was "an ever-dynamic changing environment and [he] ... was trying to join the dots of the processes and then be self-aware about your capabilities and skills".

As respondent 10 expressed, "Bureaucracy within an organisation... is a big limiting factor... and being in an organisation that doesn't embrace change and self-introspection and self-reflection that to me has been a challenge". The limitations of the "regulatory environment" and the time it took to find a new way of doing things was positioned as a restriction. Respondent 9 reiterated that policymakers were "too far removed from the ground" to have leadership influence.

The skills limitations of operating electronic meetings, and infrastructural limitations, such as space and availability of hardware, were constraints that respondents expressed as

constraining factors. In summary, the constraining factors that inhibited change are abstracted as the delay in decision-making, lack of adequate training and skills for teams and leaders, infrastructure limitations, lack of budget, no access to data, and human resource capacity. The respondents concluded that the multitude of resource limitations were significant constraining factors for adaptation, but also presented the opportunity for innovation and strengthening of networks.

5.5 Summary of research question results

The interviews conducted with the 13 respondents on how they adapted their leadership capacity during the extreme context of the COVID-19 crisis was an opportunity for self-reflection, as expressed by six of the respondents. It is evident from the participants' responses that public-sector leaders responding to the outbreak perceive they have been successful in adapting their leadership practice to accommodate the new demand. This was achieved at the cost of a hospital admission for anxiety for one respondent, with 92% of the respondents advising that they had internal or external support mechanisms to help them cope. All respondents reported the need to catalyse change with a shift in the way they made decisions along with an expressed need to have others be more definitive in making decisions. All respondents articulated the prerequisite to have a unified vision and implementation plan by finding consensus with an appreciation of the diversity of views of teams and stakeholders.

Twelve of the 13 respondents reported having the necessary leadership characteristics, traits, and practices that allowed them to be effective leaders, with having to draw on pre-existing leadership strengths and enhance these to meet specific circumstances. One of the respondents recognised that, although she had these qualities, more training and mentoring would have been useful. All respondents indicated the dominance of soft and people skills required to support the interactions with individuals, teams and stakeholders, and some had to focus more attention on this pre-existing capacity.

Moreover, most respondents found that self-care and spirituality positively influenced their ability to practise their leadership, but the importance of having "someone that you could just bounce ideas off" (respondent 4) was beneficial. This view was reiterated by respondent 11, who acknowledged the benefit of senior leadership "on the ground". The strength of networks and partner relations as a positive influence was highlighted by all participants. Respondent 9 optimistically indicated that "COVID by itself enabled me...

to do more strategic long-term planning focus for... not only my department but for all the departments; the big thing was that you learnt to work with other people, in other disciplines”.

None of the respondents had formal crisis leadership training, but five had significant experiential learning exposure to crises on a smaller scale. Respondent 1 had to deal with a threat of having “dead bodies put on the doorstep”, with respondents 3 and 6 involved in quelling “civil unrest or strike” activities. Respondent 7 had previous exposure to the Ebola outbreak crisis management within and outside of South Africa. Respondent 11, who has more than 20 years’ experience in crisis management, succinctly expressed that “not everybody went through that experience... this case now is totally different. This is a totally different crisis management, is a softer crisis management and is more personal”. Respondent 1 acknowledged that she “wasn’t groomed, wasn’t prepared but proactively trained and was self-taught... on how to do this”.

5.6 Conclusion

The results of the three interview questions outlined in Chapter 3 were presented in this chapter. Key themes have emerged in understanding how leaders have adapted their practice in the extreme context of COVID-19. The research question sought to understand how leaders in the public sector have had to change or adapt their leadership practices during the COVID-19 crisis to meet the demands of the extreme context. The summary in the figure below presents the dominant categories of the most significant aspects of leadership that had to be adapted. Figure 15 also summarises the enabling factors that facilitated the adaptation and the constraining factors that inhibit adaptation.

Code Category	Enabling factors for adaptation	Constraints in influencing change	Respondent													
			R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	
Analysis of situation	Purpose		↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Decision-making	Rapid decisions	Delay or no decisions	↑	↑	↑	↑	↑	↑	↑	→	↑	→	↑	→	↑	
Team support and development	Mentors and support	No training	↑	↑	→	↑	↑	↑	↑	→	→	→	↑	→	↑	
Catalyst for change	Calling		↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	
Clarity of vision			↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	
Communication	Speed		↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	
Networks	Support from networks		→	↑	→	↑		→	↑	→	→	↑	→	↑	↑	
Leadership characteristics	Self care and self awareness	Absence of training	↑	↑	→	→	↑	→	↑	→	→	↑	→	→	→	
Soft skills	Requirement		→	↑	→	→	↑	→	→	↑	→	↑	↑	→	↑	
Learning and development	Continuous learning	Insufficient time	↑	→	↑	↑	↑		↑	↑	↑	→	↑	→	→	
Support for adaptation			↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	
Political nuances	Political buy in	Bureaucracy	→	→	↑	↑		↑	→	→	↑	→	↑	↑	↑	
Resources		Financial, Human resources, Skills, infrastructure, systems, lack of data	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	

Figure 15: Framework of factors that influenced adaptation. Source: Author's own.

These dominant categories have been organised into themes, as displayed in Figure 16, which have been discussed in the chapter.

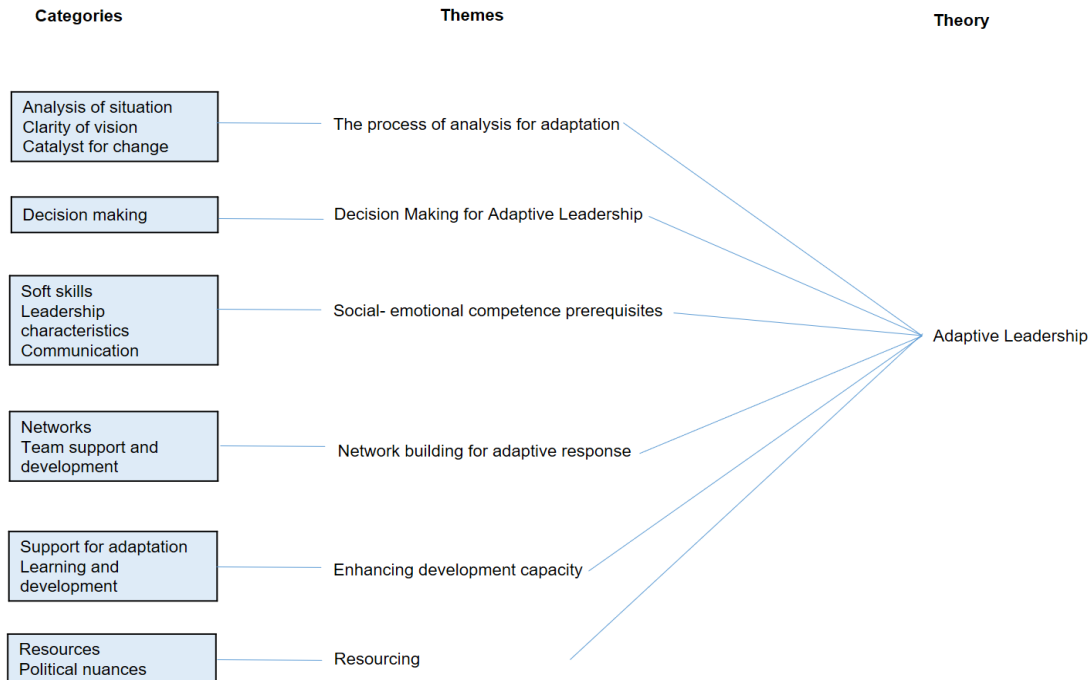


Figure 16: Summary of the codes used to formulate construct. *Source:* Adapted from Saldaña (2013).

It was observed that leaders in the public sector at the forefront of the COVID-19 pandemic have adapted their leadership practices within the context of the extreme VUCA environment. Although aspects of leadership practice are interlinked and interdependent, the respondents cited that the important influences on their leadership practice adaptation included the ability to analyse the situation, clarify the vision, and catalyse the change. The leaders' and others' decision-making was a dominant theme, together with people or soft skills. Reliance on networks and partnerships, particularly in a resourced-constrained environment, was emphasised. Mentoring and enhancing developmental capacity of individual leaders and the teams is beneficial to the adaptation process. Political nuances influence the adaptation positively and negatively. Within resource-constrained environments, networking played a significant role in driving innovation, whilst providing the opportunity for experiential learning.

Leaders in the public sector responding to the outbreak perceived that they have been successful in adapting their leadership practices to accommodate the new demand and

reported having the internal or external support mechanisms to help them cope. They reported the need to catalyse change with an adjustment in the speed and ability to make decisions despite the uncertainty.

Public-sector leaders articulated the prerequisite of a unified vision and implementation plan by finding consensus with team and network partners, acknowledging the diverse views of stakeholders. The leaders reported having the necessary leadership characteristics, traits, and practices that allowed them to be effective during the COVID-19 crisis, and had to draw on pre-existing established leadership strengths and enhance these to meet the extreme VUCA demands.

There are no differences in the adaptation of leadership practices between the various age categories, with minor variations in the gender approach to socio-emotional competence. All respondents indicated the dominance of soft and people skills required to support the interactions with individuals, teams and stakeholders, and leaders had to be more diligent in adapting these leadership skills.

Research question 2 explored the factors that enabled the adaptation of leadership practice. The enablers included having a deeply rooted sense of purpose, practising in an environment where decisions are rapidly made, mentoring support from line managers or partners, and the ability of the leader to catalyse change and solicit support from networks. Interventions for self-care and the importance of self-awareness and reflection were contributors to adaptation, while the need for continuous learning and training was found to be an enabler.

Research question 3 explored the factors that constrained or inhibited the adaptation of leadership practice. These constraining factors related to the delay in decision-making, lack of adequate training and skills of teams and leaders, infrastructure limitations, lack of budget, and no access to basic data for decision-making. The lack of human resource capacity was also cited as a major limitation and drove the need for expansion of networks.

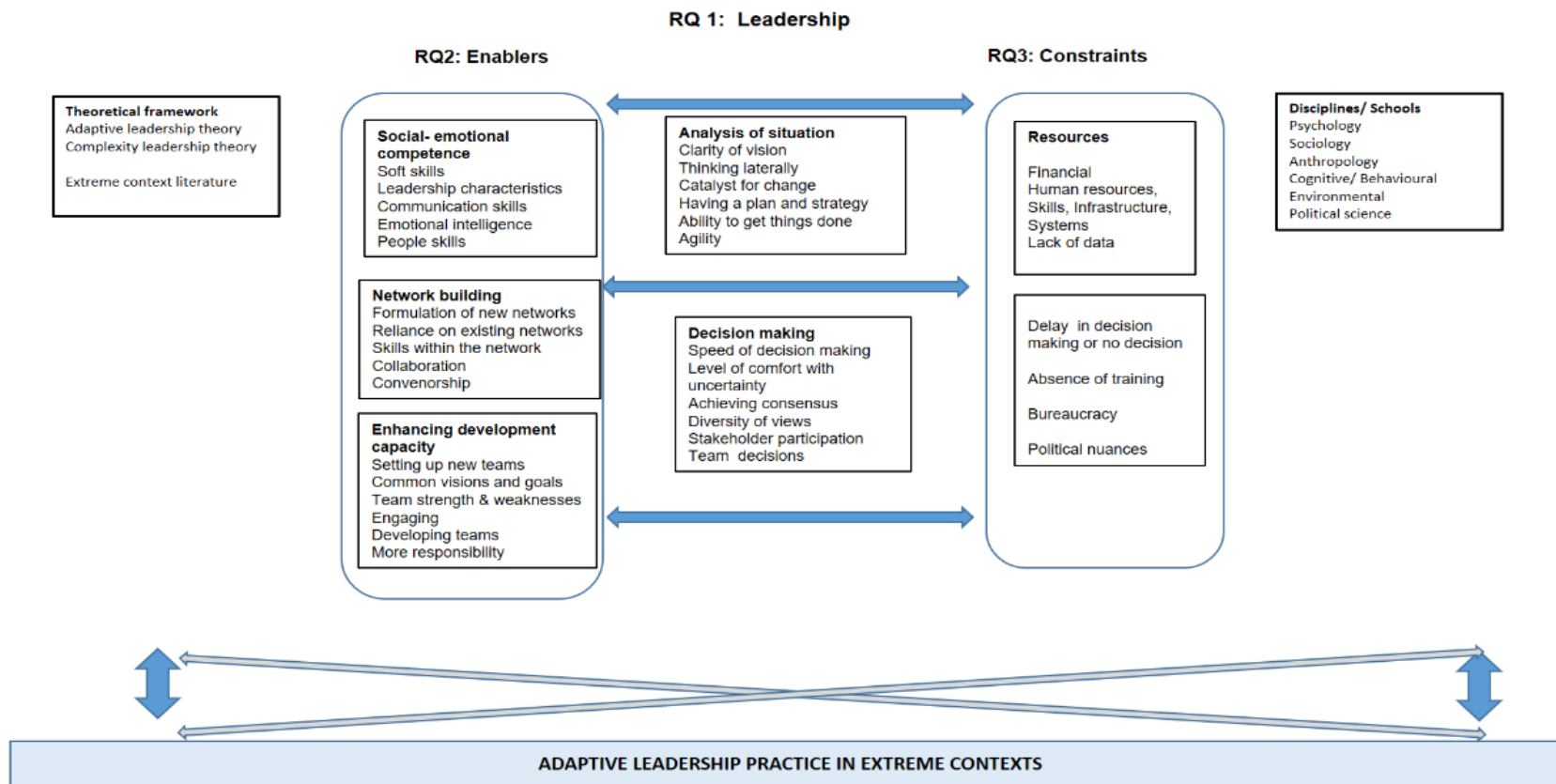
CHAPTER 6: DISCUSSION OF RESULTS

6.1 Introduction

This chapter presents a detailed discussion of the results of the study. The results and analysis of the findings from the interviews presented in Chapter 5 are compared and contrasted with the concepts and constructs of the extant literature reviewed and presented in Chapter 2. The augmentation of the discussion aims to develop a richer understanding of adaptive leadership practice of public-sector leaders in extreme contexts in comparison to literature on extreme contexts and adaptive leadership theory.

The discussion of the findings of each of the three research questions are presented in the same sequence and structure as they are presented in Chapter 5. The key themes constructs observed for adaptive leadership in extreme contexts are discussed and include the process of adaptation, decision-making for adaptive leadership, social-emotional competence prerequisites, network building, enhancing developmental capacity, and resourcing. Figure 17 presents a summary of the findings used to inform a conceptual framework.

Figure 17: Conceptual framework for the research. Source: Author's own .



6.2 Discussion of results for research question 1

How have leaders in the public sector adapted their leadership practices during the extreme context of the COVID-19 pandemic to meet new demands?

Based on the intensity of response and the reflective articulation from respondents, it appears that the leaders lived through the theoretical construct of extreme contexts posited by Hannah et al., (2009) of multiple events occurring simultaneously. This underestimates the extent of the multiple complexities and challenges that public-sector leaders had to endure during the extreme context event caused by the COVID-19. The intersection of extreme context literature and complex adaptive theory mirrors but a small segment of the multiple diverse activities, tasks and people that had to be managed (Obolensky, 2014; Uhl-Bien & Arena, 2017) in the VUCA (Raghuramapatrini & Kosuri, 2017) extreme of the COVID-19 crisis.

It is evident from the responses of all 13 respondents that they almost immediately recognised the need to adapt and change (Bass et al., 2003; Castillo & Trinh 2019) to effectively respond to the extreme crisis. Whilst literature is silent on the influence of demographic profiles on leadership responses to extreme crises, consideration has to be given that the respondents' average age was 52 years and the mean leadership tenure was almost 18 years. These seasoned leaders all indicated that they had managed small leadership crises of varying degrees in the past, which made it easier for them to practise their leadership skills, endorsing foundational principles of leadership being "a practice and not a position" (Heifetz et al., 2009, p. 23). Nascent research (Coscieme et al., 2020) suggests that female leaders demonstrated more precautionary responses with more social and emotional awareness during extreme contexts. This was not a specific focus of the study, nor was it overtly mentioned by the respondents, but it was evident that half of the male respondents had to be conscious about becoming more socially and emotionally astute (Bar-On, 2000; Hayashi & Soo, 2012).

The findings of the interviews identified 13 leadership categories that the respondents perceived to significantly influence their leadership practices, where "the dial" underpinning the principles of complexity had to be moved (Hinson & Osborne, 2014) to accommodate the move from "certainty to uncertainty". In response to research question 1, the construct of the process of analysis for adaptation and decision-making for adaptive leadership are further expanded.

6.2.1 The process of analysis for adaptation

The respondents all evaluated and assessed the situation, however, a single respondent indicated that she had anticipated the extreme context and had prior consideration for her response. Recognising that pandemic preparedness has been on the health agenda for the last 10 years, it is expected that there was some level of prior preparation, acknowledging extreme context literature purporting that predictability is not present in VUCA contexts (Raghuramapatrani & Kosuri, 2017).

All respondents indicated that they assessed, reviewed, and evaluated the situation, although none verbalised or considered a conscious “getting on the balcony” (Heifetz, 2003 p. 56) to do the assessment. Hence, it appears that there is a nuance of difference with literature, as this process may happen unconsciously and effortlessly. This observation could be substantiated by respondents being more attuned to the “complex phenomenon that operates” with “rich interconnectivity” (Dinh et al., 2014, Uhl-Bien & Arena, 2017) of interaction between people, process, and technology. However, it may also be attributed to respondents not consciously compartmentalising their leadership practices. In contrast to Uhl-Bien and Arena’s (2017) exposition of leadership being “operational, entrepreneurial and enabling leadership”, this study’s findings show that, out of necessity, leaders have had to shift between the traditional transactional and transformational leadership forms (Geier, 2016), and simultaneously adapt to meet the new demands. In a single hour, the respondents had to oscillate in determining the “adaptive and technical” (Heifetz et al., 2009) challenge of the extreme context, leaning heavily on the strength of the leadership characteristics of flexibility and agility (Yukl & Mahsud, 2010).

After recognising the need for both adaptive and technical solutions to frame a response (Baker et al., 2020), the respondents found the innate drive to respond. Rooted in behavioural science and trait theory, this is discussed further in the social-emotional theme that incorporates inherent leadership characteristics (Ali et al., 2020; Dulewicz & Higgs, 2005). Recognising that the individual leader (Obolensky, 2014) plays a dynamic and central role in a matrix of interconnected activity, all respondents acknowledged the need to be catalysts for change (Cojocar, 2011; Heifetz, 1994; Northouse, 2016), with the need to steer and provide clarity of vision with purposeful objectives similar to the technical or administrative tasks (Heifetz et al., 2009).

Aligned with a plethora of leadership scholarship, all respondents indicated that in extreme contexts they have had to provide clear direction, think laterally, and formulate a plan of action. This is in keeping with sentiments expressed by Heifetz et al. (2009) that similar adaptive change builds on the past rather than abandoning it.

All the respondents had an appreciation for the urgency of the response required and time limitations were mentioned repeatedly. On the one hand, Heifetz et al. (2009) purported that adaptive leadership takes time. On the other hand, none of the respondents had the luxury of time to distinguish the field of action by having a bird's eye view from above (Heifetz et al., 2009; Smith & Fraser, 2020).

In conclusion, the findings demonstrate that in the process of analysing leadership practice for adaptation all respondents followed key theoretical principles of adaptive leadership theory. However, there appears to be a nuance of difference in that the leaders did not have a deliberate and conscious approach in distinguishing the technical and adaptive processes. Contributory factors for this nuance of difference may have been the overwhelming sense of competing priorities and not having the time to distinguish adaptive challenges from technical challenges. This observation did not appear to have any impact on respondent effectiveness, acknowledging that more time will be required to corroborate the latter statement in other research.

6.2.2 Decision-making for adaptive leadership

Undoubtedly, all respondents highlighted that the decision-making process in the extreme context had a significant impact on their responses. Comparing this with extant literature, there is concordance that decisions must be made with speed (Janssen & Van der Voort, 2020). Nevertheless, it is also recognised in literature that the quality of decisions must be informed by gathering as much information from as many sources as possible (Cojocar, 2011; Heifetz et al., 2009). The respondents lamented that the information in the extreme context was ambiguous, with a range of varying strong opinions originating from different credible sources. This made the decision-making process arduous and decisions that were appropriate one day were inappropriate the next, which is typical of a VUCA extreme (Bennett & Lemoine, 2014; Raghuramapatruni & Kosuri, 2017). The respondents mostly developed a level of comfort with uncertainty as the extreme context progressed and indicated that they tried various things, in keeping

with the adaptive leadership theory of change through experimentation (Heifetz et al., 2019) and experiential learning.

The majority of respondents indicated that consensus in the decision-making process was achieved through conscious deliberation in tandem with extreme context literature (Boylan, 2018; DeRue, 2011; Northouse, 2016; Uhl-Bien & Marion, 2009). Many decisions were made on review of available national and international information, albeit incomplete. It was recognised by respondents that when decisions were not made rapidly, others filled the space often with incorrect or misinformation. This emphasises the importance of quick decision-making and the need to expand the decision-making process beyond use of data (Baker et al., 2020) to anticipate the next decision (Heifetz et al., 2009).

Adaptive leadership theory encourages diverse views and collaboration in the decision-making process that generates a wide range of inputs (Cojocar, 2011; Heifetz et al., 2009). These principles were applied consistently for all respondents with their own teams, across multifunctional teams, and within existing or newly established networks. The distributed decision-making concept is attuned to that of leading “up, down and across” (Smith & Fraser, 2020), where respondents advised that this was an area with the most discomfort, but also the area where there was the most growth requiring “skilful diplomacy”.

The respondents referred to stakeholder participation theoretically linked to adaptive leadership principles of driving system change (Heifetz et al., 2009) and having the connections (Hinson & Osborne, 2014) for leading across functional teams. The respondents acknowledged that their success was intricately linked and intertwined with the success of other leaders. Moreover, there was a sense of comfort from respondents that they could relinquish their decision-making to others (Cojocar, 2011; Heifetz et al., 2009; Smith & Fraser 2020), with the proviso that the decision was purposeful, considered and aimed at “doing good”.

In keeping with adaptive leadership theory, the respondents all indicated that the teams were empowered to make decisions and were an essential aspect of capacity building for an adaptive response. With his experience of adaptive leadership in the military, Cojocar (2011) voiced his concerns about teams in highly bureaucratic structures accepting an adaptive leader. This perception was not shared by respondents and thus

was not measured in the research. The building of capacity in teams to make decisions goes hand-in-hand with the adaptive leader creating a psychological safe space (Morrison & Milliken, 2000) for the team to make mistakes, learn, and build confidence. Respondents alluded to using their “leadership skills” to create a space of psychological safety (Morrison & Milliken, 2000), mainly with reference to discussions at a team level and not at an organisational level.

6.2.3. Conclusion of findings for research question 1

In response to research question 1 on how public-sector leaders have adapted their leadership practices during the extreme context of COVID-19, the leaders drew on their experiences and reflected on the findings that there are key constructs that influence their practices, as presented in Figure 17. Although there is recognition that these constructs are an artificial divide from integrated leadership practice, the two constructs that dominate are those of the analysis of the situation and decision-making.

Based on the discussion of the findings in relation to extreme context literature and adaptive leadership theory, it can be concluded that leadership practice in extreme contexts is aligned with key constructs of adaptive leadership in relation to analysis of the situation or “identifying the adaptive challenge by getting on the balcony” (Heifetz et al., 2009, p. 56). However, there are two areas of further contribution to the pragmatic approach of building adaptive leadership capacity, including building a consciousness of the need to distinguish between an “adaptive and technical challenge”. The adaptive and technical challenges are so intertwined that the process often happens seamlessly and unconsciously, and in extreme contexts there may not be the luxury of time to segregate the two processes. This will require further research and training.

With relevance to the construct of decision-making, the respondents endorsed the sentiments of extant literature on extreme contexts that decision-making is a major factor that influences their leadership practices and ability to respond. The decision-making process and tools and, importantly, the acceptance of making decisions in uncertainty are subjects for building future leadership capacity.

6.3 Discussion of results for research question 2

What factors enabled or facilitated the adaptation of leadership practice during the extreme context of the COVID-19 crisis?

In concordance with extant literature, the respondents identified and highlighted three dominant themes that enabled the adaptation of their leadership practices. These themes include having established social and emotional competence as prerequisites, the building and strengthening of networks, and enhancing the developmental capacity of the leaders and teams.

6.3.1 Social-emotional competence prerequisites

In keeping with adaptive leadership theory that requires deliberate and conscious social and emotional competence (Ali et al., 2020; Dulewicz & Higgs, 2005; Heifetz, 1994), all respondents emphasised and underscored the need for soft skills and emotional intelligence. The study's four male respondents had to make the greatest change in this construct, but saw this as an opportunity for growth and adaptation.

The respondents are experienced leaders and strongly endorsed that social awareness builds trust (Hayashi & Soo, 2012) and cements the view (Bennis & Thomas, 2002; James & Wooten, 2010) that the leaders know through their own analysis and intuition which characteristics they need to draw on to navigate the extreme context. Leaders had to enhance their inherent characteristics to connect with people in a deep and meaningful way, as purported by Salovey and Mayer (1990).

In extreme contexts, the need for social awareness should include the often-neglected aspects of self-care (Smith & Fraser, 2020). In keeping with literature, most respondents recognised the adverse effects of the long, demanding hours and implemented self-directed measures to cope – some exercised, most relied on social support from families, and a third became more spiritual. For 85 percent of the respondents, the interview was viewed as a means of reflection and this aspect could be a topic for further research, as many of the respondents cited that this study's interview process was the first opportunity they got to be reflective. Further research would be required in this area (Weick, 1993), with longitudinal studies to determine in what specific aspects they have adapted the most.

The sense of compassion and purpose articulated by the respondents was almost tangible and, whilst some respondents had fatigue, some had no emotional stamina to tolerate insecurity (Heifetz et al., 2009). This value was recognised as being essential to remain focused and people-centric (Northouse, 2016). Summarising this succinctly, a respondent indicated that “you manage things and lead people”, noting that this consciousness is heightened in the extreme context (Dirani et al., 2020)

6.3.2. Network building

Castillo and Trinh (2019) made a compelling argument that it is impossible for leaders to know everything in extreme contexts. With humility, the respondents all conceded that this limitation is best addressed by building and enhancing networks (Cullen-Lester & Yammarino, 2016; Smith & Fraser, 2020). The study’s findings indicate that every respondent was either part of a network, had to collaborate or set up a network through formal or informal means (Friedrich et al., 2009; Heifetz, 2009). Undoubtedly, this was a priority for the respondents who relied on technical expertise as well as financial and other support in the resource-constrained environment. Extant literature is silent on the advancing of networks in extreme contexts in resource-constrained environments and further research would be required in this area to provide empirical evidence on the long-term sustainability of networks formed in extreme contexts.

Aligned with adaptive leadership theory (Heifetz, 2009) and leading “up, down and across”, the findings of this study differed slightly from extant literature, as the leaders were reflected as having the maturity to navigate the crisis with ease. Nevertheless, the findings suggest that the long-term sustainability of “leading across” was questionable.

6.3.3. Enhancing developmental capacity

The “generative capacity” (Castillo & Trinh, 2019, p. 363) was realised by all respondents, in keeping with adaptive leadership theory (Heifetz, 2009). All respondents felt that they had significant growth in knowledge, skills, and gained new approaches in dealing with challenges.

In the process of setting up new teams, respondents exercised the social-emotional competencies required for effective leadership (Bar-On, 2000; Hayashi & Soo, 2012).

Consistent with literature on adaptive leadership, the respondents shared their appreciation of the strengths and weaknesses of the teams they led and were involved in. However, two respondents expressed that leadership was exhausting and the opportunity to reflect, as recommended in literature (Head & Alford, 2015; Weick, 2005), may reduce the risk of leaders having fatigue and burnout. The respondents allowed teams to take on more responsibility, but indicated that this was not always welcomed by overstretched teams. This is an aspect that is not overtly documented in extreme context literature.

6.3.4 Conclusion of findings for research question 2

Three themes emerged as enablers for leaders to adapt their leadership practices, which are grounded in traditional leadership theory and find their way in enhanced fashion in extreme context research. The themes include very strong social-emotional competence as prerequisite knowledge, network building, and enhancing team development. These findings align with extant literature, but the findings suggest that there may be a possible extension of literature, as there may be a substantial increase in the need for networks, where the extreme context is in resource-constrained environments. Further research in network formulation to support leadership adaptation in resource-constrained environments is recommended.

6.4 Discussion of results for research question 3:

What factors constrained the adaptation of leadership practice during the extreme context of the COVID-19 crisis?

The final question sought to understand the factors that hindered, prevented or constrained the adaptation of leadership practice.

6.4.1 Resourcing

Resourcing constraints were cited as the most common sentiment shared by all respondents. This aspect is not specifically mentioned in extreme context literature and is understated in adaptive leadership theory. Although it may be argued that the lack of resources in a crisis situation is itself a crisis, this could be a topic for future research.

The study's respondents made reference to the lack of resources relating to basic issues like infrastructure to have virtual meetings, finances to implement solutions, and inadequate human resource capacity to execute solutions. The lack of skills to innovate and project-manage are areas that limit the "capacity to thrive", as suggested by Heifetz et al. (2009). This is a potential area to build on extant literature, focusing on building teams for adaptation and the influence of the leader on the capacity building for these teams. Furthermore, the respondents alluded to their own skill limitations, with some expressing the need to improve their diplomacy skills, which would assist them in overcoming bureaucracy and enhancing capacity for communication.

6.4.2 Conclusion of findings for research question 3

Whilst the enabling and enhancing factors are interchangeable depending on which aspects are up or down regulated, respondents focused predominately on the lack of decision-making as a constraint, political nuances in overcoming bureaucracy, and the fundamental lack of basic resources. This finding suggests that there needs to be a closer evaluation of leadership adaptation in resource-constrained environments, which is then compared and contrasted with leadership adaptation in well-resourced environments.

CHAPTER 7: CONCLUSION AND RECOMMENDATIONS

7.1 Introduction

The purpose of this research was to explore how leaders in the public sector adapted their leadership practices during the COVID-19 crisis to meet the demands of the extreme context. This research was conducted through qualitative (Robson, 2002) research methodology, as outlined in Chapter 4, and the rich insights of the semi-structured interview findings were presented in Chapter 5. Thereafter, the theoretical framework and models of extreme context research (Hällgren et al., 2018; Hannah et al., 2009) as they intersect with the adaptive leadership theory introduced in Chapter 2 were compared and contrasted with the research findings in Chapter 6.

The final chapter provides an overview of the principal conclusions of the research, positions the theoretical implications, frames the research contribution, and considers the implications of the research. Furthermore, in this section, the limitations of this research are detailed and recommendations for future research are suggested.

7.2 Principal conclusions

A review of the extant literature demonstrates that research on extreme contexts (Hällgren et al., 2018; Hannah et al., 2009) is emerging rapidly and that, despite the construction of the adaptive leadership theory (Heifetz, 1994) more than two decades ago, the relevance and application of the theory is only now being appreciated in the context of the prolonged COVID-19 crisis. The need for adaptive leadership practice is being acknowledged increasingly (Hayashi & Soo, 2012) for the reconceptualisation of the role of leaders in a VUCA world (Miller, 2016). The “socially complex and adaptive process” (DeRue, 2011, p. 141) of leadership extending beyond the traditional leadership role has been validated by the findings of this research. The emergent constructs identified in this study are aligned with the adaptive leadership theory and practice posited by Heifetz et al. (2009). This section further outlines the emergent constructs and their contributions to extreme context literature.

7.2.1 The process of analysis of adaptation

The research concluded that public-sector leaders recognised the adaptive challenge at

an early stage through self-assessment and self-evaluation of the VUCA extreme context. The leaders acknowledged that not only was there a need for adaptation, but that they were responsible for catalysing this change. The research concludes that public-sector leaders demonstrated the ability to analyse the VUCA extreme context, identify the adaptation, as well as implement the required adaptation for the extreme context by having a deep sense of purpose, clarity of vision, and ability to get things done by the reliance on inherent leadership qualities.

Aligned with extant literature, this research concluded that after recognising the need for both adaptive and technical solutions to frame a response (Baker et al., 2020), the leaders found an innate drive to catalyse change (Cojocar, 2011; Heifetz, 1994; Northouse, 2016). Heifetz et al. (2009) made the case for leaders to distinguish between technical and adaptive processes, and it can be concluded that there appears to be a nuance of difference in that the leaders did not have a deliberate and conscious approach in distinguishing between the two processes. Contributory factors for this nuance of difference may be a lack of understanding of adaptive leadership principles, the overwhelming sense of competing priorities, and not having the time to distinguish adaptive challenges from technical challenges. This observation did not appear to have any impact on respondent effectiveness and it can be deduced that further research is required in this area to assess if an intervention of bringing awareness for the distinction of technical and adaptive challenges will impact leadership effectiveness in extreme contexts.

7.2.2 Decision-making for adaptive leadership

The research concludes that the decision-making process, involving the ability to make decisions, the speed of decision-making, the level of comfort with the decision-making process, harnessing the diversity of views for decision-making and stakeholder involvement in the decision-making process, had a significant impact on leadership adaptive practice and response. This conclusion is concordant with extant literature (Janssen & Van der Voort, 2020).

In addition, it can be deduced from the research that leaders empowered to make decisions were essential for an adaptive response and building capacity in teams to make decisions should be premised on the creation of a space of psychological safety

(Morrison & Milliken, 2000). This research recommends future capacity building for decision-making in extreme contexts.

7.2.3 Social-emotional competence

In keeping with adaptive leadership theory, the research concludes that social and emotional competence is an enabling factor for leadership adaptation in extreme contexts. However, this requires deliberate and conscious social and emotional competence (Ali et al., 2020; Dulewicz & Higgs, 2005; Heifetz, 1994). Moreover, this research has demonstrated that leaders have inherent leadership characteristics, traits, and behaviours that need to be enhanced with the promotion of authentic, honest, and open communication. Northouse (2016) purported that value and purpose-based leadership is most appropriate for extreme contexts, corroborating the findings of this research. Consequently, it can be concluded that leaders in extreme contexts must focus on self-awareness, self-management, engagement, empathy, fairness and, importantly, self-care.

7.2.4 Network building

From this research, it can be deduced that significant enabling factors for adaptive leadership are the formulation of new networks, reliance on existing internal and external networks, and reliance on the skills within the network support. These enabling factors together with building collaboration are essential for leaders to adapt to the extreme context. In resource-constrained environments, there appears to be a nuance of difference in that reliance on networks is undervalued in literature for extreme contexts and is understated in adaptive leadership theory. This research concludes that the value of formal and informal networks is an enabling factor for adaptive leadership practice, thus capacity building for promoting the establishment and sustaining mutually beneficial networks within teams and across departments and sectors is recommended.

7.2.5 Enhancing developmental capacity

The research concluded that an enabling factor for adaptive leadership in extreme contexts is the opportunity for experiential learning, growth, and development for the leader, network partners, and teams. Active engagement and involvement of the teams promoted the development and enabled teams to take more responsibility, which in turn

enhanced the capacity to respond to the extreme context. Hence, it can be concluded that the process of setting up new teams requires social-emotional competencies for adaptive leaders (Bar-On, 2000; Hayashi & Soo, 2012). Consistent with literature on adaptive leadership, it is deduced that extreme contexts provide the opportunity for experiential learning, but it is cautioned that as respondents allow teams to take on more responsibility, there is a risk of fatigue and burnout of teams in resource-constrained environments.

7.2.6 Resourcing

The research concludes that a major constraining factor that inhibits leaders' abilities to adapt are multiple resource limitations. The constraining factors include basic infrastructural limitations, lack of adequate financing, and lack of human resource capacity and skills. This limitation is underplayed in the literature, but provides the opportunity for innovation and building networks.

Other factors have the potential to enable and constrain adaptive leadership capacity, such as the lack of decision-making and political nuances. Rigid bureaucratic structures that public-sector leaders are accustomed to operating in were also seen as a constraint, although this was overcome quickly by forming matrix inter-sectoral network structures to achieve common goals. From the study, it can be deduced that there is a need for further training in adaptive leadership principles to prepare leaders for extreme contexts.

7.3 Research contribution

The research contributes to the understanding of adaptive leadership practice in the extreme context of COVID-19. Based on available literature at the time of the research, this was the only qualitative study conducted on adaptive leadership for public-sectors leaders in the local context of South Africa.

A framework presented as an adaptive leadership practice matrix is presented in Figure 18. The framework grounded in extreme context literature and adaptive leadership theory positions core themes that supported leadership adaptation in extreme context of the ability to analyse the situation, and make decisions. Enabling factors that enhanced the adaptation included social and emotional competence, network building and enhancing development capacity to grow and thrive. Resourcing was a major constraint for

adaptation and this included financial constraints and lack of decision-making, bureaucracy and the absence of skills. The framework straddles multiple disciplines of schools of psychology sociology, anthropology, cognitive and behavioral science. This is a dynamic process of constant adaptation as reflected by the arrows represented at the bottom of the diagram.

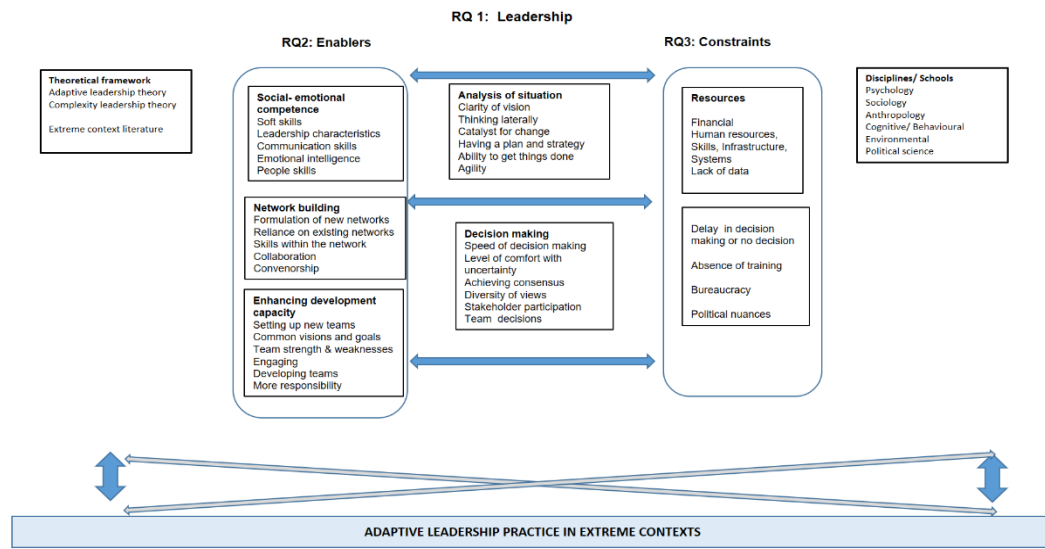


Figure 18: Adaptive leadership practice matrix. Source: Adapted from Hannah et al. (2009); Heifetz et al. (2009); Obolensky (2014); Uhl-Bien and Marion (2009); Salovey and Mayer (1990); Yukl and Mahsud (2010).

This research has deepened the understanding of how leaders in the public sector have adapted their leadership practices during the COVID-19 extreme context and has contributed to the understanding of the enabling and constraining factors that influence the adaptation. By enriching this understanding, the capacity building interventions required for adaptive leadership in extreme contexts have been identified.

7.4 Limitations of research

This research study had an exploratory qualitative research design with semi-structured interviews. The limitations of the methodological approach were outlined in section 4.11. Additional limitations that were identified in this study are outlined below.

Although the research explored the lived experiences of public leaders, it focused on leadership practice from memory. Consequently, with fatigue still actively participating in the extreme context response, there may be recall bias. The responses may have needed to change over time, thus the response itself may have altered – the paradox of having to adapt but ensure stability. The research was a cross-sectional study representing a static perspective of adaptive leadership (Antonakis & Day, 2018; Yukl & Mahsud, 2010), which provides the opportunity for further longitudinal study. The research was limited in not capturing the impact of the adaptive leader on systems, processes, and followers (Yukl & Mahsud, 2010). The sample was limited to leaders in the public sector and therefore cannot be generalised to all leaders. The impact of any specific adaptive activity is not measured against any other adaptive activity and it cannot be determined which adaptive practice is most effective. Lastly, leaders may experience the endowment effect (Pitelis & Teece, 2010), where there is an overestimation of the value of their own resources, resulting in the sentiments they expressed and outlined in this study not being true reflections of reality.

7.5 Suggestions for future research

Not all leaders function optimally and can thrive in extreme contexts. Consequently, further exploration into the inherent qualities in leaders that promote optimal functioning during extreme contexts is suggested. Moreover, it is recommended that the prolonged nature of the COVID-19 pandemic presents the opportunity for further qualitative longitudinal studies be conducted on a more representative group of leaders across sectors. Future research should focus on expanding the current body of knowledge to triangulate the findings with other data sources and to corroborate the findings through focus group discussions.

Future research could benefit from further exploring the techniques employed for decision-making, what processes are followed in extreme environments, and how these can be improved. Further research is required in the sensemaking construct in times of crises. In addition, further research is required to determine the most effective training interventions to promote adaptive leadership capacity and how these capacity building interventions could be delivered in a non-linear fashion by transdisciplinary expertise.

The research confirms that the adaptive leadership theory is relevant and appropriate for leadership practice in extreme constructs and provides further insight of the significant

constructs of analysing the situation, decision-making, social-emotional competency, networking building, and enhancing of developmental capacity to overcome that enable the adaption of leadership practice in the midst of resource limitations.

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APPENDIX 1: SEMI-STRUCTURED INTERVIEW GUIDE

Introduction and welcome

Thank the respondent for agreeing to participate.

Explain rationale for research.

Emphasis that this research is about their experience

Expand on how outcomes of research can add value to the participants' own lessons learnt.

Discuss the estimated time that it will take.

Confirm that the consent form is still valid and ensure it is signed, ensure that the respondent receives a copy of the consent form.

Explain that if they are not willing to participate, it will in no way disadvantage them.

Explain procedure that the interview will be recorded and that occasional notes will be made.

Ask if they are willing to be interviewed and emphasise anonymity of reporting and findings.

Proceed with demographic questions first.

Demographic information

Q1: Gender

Q2: Age

Q3: Highest level of education?

Q4: What is name of the organisation that you work in?

Q5: What is your designation in your organisation?

Q6: How long have you been in a leadership role?

Q7: What is the size of the team that you lead?

Research question 1: How have you had to change or adapt your leadership practice during the COVID-19 crisis to meet new demands?

These questions are deliberately left very broad so as to capture as many facets of leadership practices as possible.

Has your role changed in the COVID-19 crisis and if so what is the new role and position?

Prompting questions if required:

1. In your own perception how well have you been successful in your leadership practice during this phase?
2. Can you share how your leadership practice has changed from the pre-COVID-19 era to now and what aspects of your leadership have changed during this time?
3. If nothing has changed in your leadership practice, what aspects of your leadership assisted you?
4. What could have changed that would have made things easier to navigate?

Research question 2: What factors enabled or facilitated the adaptation of your leadership practice?

Prompting questions if required:

5. What prompted you to make the change?
6. Can you share your good experiences good about those factors influencing your leadership practice?
7. What lessons have you learnt about leadership practice during this phase?
8. What skills have you gained?
9. Have you had any crisis leadership or crisis management training before?

Research question 3: What were the constraining factors that influenced the adaptation of leadership practice?

Prompting questions if required:

10. Can you share those factors that hindered your adapting your leadership practice?
11. What intervention would you recommend for future leaders navigating crises?

Your insights have been invaluable.

Will it be acceptable to you if I come back to you if I need more information?

You have my contact details, so if you would like to add anything please e-mail.

Thank you

APPENDIX 2: CONSENT FORM

RESPONDENT INFORMATION SHEET AND INFORMED CONSENT DOCUMENT

RESEARCH TITLE: Adaptive leadership capacity in extreme contexts: The experience of public-sector leaders in South Africa during the COVID-19 pandemic

Dear [Name of participant]

I am in the process of completing an MPhil at the Gordon Institute of Business Science (GIBS) and I am conducting research aimed at understanding how leaders in the public sector at the forefront of the COVID-19 response have adapted their leadership practice through the research titled “Adaptive leadership capacity in extreme contexts: The experience of public-sector leaders in South Africa during the COVID-19 pandemic”

The research aims at having a better understanding of how leaders have adapted to this new normal and what enabling factors have supported the adaptation. Your experience during the extreme crisis will be invaluable in contributing to the nascent theory of adaptive leadership in crises situations and will also contribute to our understanding of what developmental interventions need to be put in place to prepare future leaders for new crises.

We welcome your participation, but highlight that your participation is **voluntary and you can withdraw at any time without any consequence or penalty**. The interview duration is about 60 minutes and will be semi-structured with me asking a few open-ended questions.

All data will be reported without any identifiers. Therefore, both you and your organisation will remain anonymous.

I thank you for the consideration

If you have any concerns, please feel free to contact me as the researcher or my supervisor using details below:

Researcher

Name: Dr Natalie Mayet

E-mail: nataliem@nicd.ac.za

Tel: 082 905 2595

Supervisor

Name: Dr Gloria Mbokota

E-mail: Mbokotag@gibs.co.za

Tel: 083 452 7488

Signature of respondent

Date:

APPENDIX 3: INVITATION E-MAIL

Dear [Name of participant]

As discussed telephonically, I am in the process of completing my MPhil at the Gordon Institute of Business Science (GIBS) and I am conducting research aimed at understanding how leaders in the public sector at the forefront of the COVID-19 response have adapted their research practice, through research titled “Adaptive leadership capacity in extreme contexts: The experience of public-sector leaders in South Africa during the COVID-19 pandemic”.

The research aims at having a better understanding of how leaders have adapted to this new normal and what enabling factors have supported the adaptation. Having been in a leadership position during the extreme crisis, your experience will be invaluable to contribute to the nascent theory of adaptive leadership in crises situations, but will also contribute to our understanding of what developmental interventions need to be put in place to prepare for future leaders for new crises.

I acknowledge the time pressure you face and would appreciate your contribution to this new field of research. The interview will be semi-structured and should be about an hour.

All interviews will be conducted by myself, as the researcher, are confidential and the anonymity of yourself and our organisation will be ensured through the data analysis and data storage process.

Attached is the **consent form**, kindly complete this document prior to the interview so that the process can be facilitated. Please confirm if your institution requires a letter of authorisation.

I confirm that we have scheduled the interview for [date and time]. On confirmation I will send you an electronic meeting request.

I thank you for the consideration and look forward to collectively shaping the future of leadership with you. Let me know if you require any further information.

Regards

Dr Natalie Mayet (electronic signature)

APPENDIX 4: LIST OF CODES

- 1 Ability to influence
- 2 Acknowledging uncertainty
- 3 Adapting to change
- 4 Analysis of situation
- 5 Bottom-up approach
- 6 Build coaching
- 7 Bureaucratic
- 8 Catalyst for change
- 9 Coaching
- 10 Collaboration in decision-making
- 11 Communication
- 12 Complexity
- 13 Consensus building
- 14 Consultation
- 15 Convenorship
- 16 Creating environment
- 17 Decision-making
- 18 Delegation
- 19 Diverse views
- 20 Drive to respond
- 21 Efficiency
- 22 Establish new teams
- 23 Explore options
- 24 Fairness
- 25 Flexibility
- 26 Giving others a voice
- 27 Hierarchical support
- 28 Innovation
- 29 Inspiration
- 30 Leadership capabilities
- 31 Leadership support from above
- 32 Listening
- 33 Mentors and advisors
- 34 Micromanaging
- 35 Networking
- 36 New methods
- 37 Ownership of challenge
- 38 People skills
- 39 Personal attributes
- 40 Political sensitivity
- 41 Previous experience
- 42 Previous knowledge
- 43 Prioritisation
- 44 Purpose
- 45 Reflection
- 46 Relationships

- 47 Research
- 48 Resources
- 49 Seek advice
- 50 Self-awareness
- 51 Self-learning
- 52 New skills
- 53 Spirituality
- 54 Structure
- 55 Support to teams
- 56 System thinking
- 57 Task and role clarification
- 58 Team capabilities
- 59 Team learning
- 60 Team support
- 61 Tenacity
- 62 Time
- 63 Tolerance
- 64 Transparency
- 65 Uncertainty
- 66 Vision and goals

APPENDIX 5: ETHICAL CLEARANCE

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

**Ethical Clearance
Approved**

Dear Natalie Mayet,

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

You are therefore allowed to continue collecting your data.

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

[Ethical Clearance Form](#)

Kind Regards

This email has been sent from an unmonitored email account. If you have any comments or concerns, please contact the GIBS Research Admin team.