

Adaptive resilience as a process: Evidence from an extreme event

by

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Abstract

Some organisations prosper during extreme crisis events, whereas others never recover. Extant scholarship on organisational resilience development does not address how organisations develop adaptive resilience during extreme crisis events. This research study investigated how adaptive resilience – as a type of resilience on a spectrum of organisational resilience – developed in response to an extreme crisis event, namely the COVID-19 pandemic.

A multiple case study qualitative research design was used to investigate a complex, multifaceted phenomenon in a real-life context. Thirty interviews were conducted with executive leaders from five different organisations to gather data on adaptive resilience development.

Findings from the research indicate that organisations that develop specific organisational resilience capacities are able to adapt and thrive in a new organisational reality. The capacity to adapt or thrive is defined as adaptive resilience, conceptualised as a dynamic, socially constructed process of developing positive organisational adaptation and growth triggered by a disruptive crisis event.

Three intertwined microprocesses for the development of adaptive resilience were identified, namely shared sense-making, relational capital, and collective problem-solving. It is proposed that adaptive resilience is collectively developed before, during, and after an extreme crisis event and that adaptive resilience becomes salient in a crisis.

The study's findings contribute to scholarship and business practice. Concerning scholarship, the study contributes to organisational resilience theory by conceptualising the development of adaptive resilience through its microprocesses, which is limited in literature. In a world of unanticipated crises, organisations must develop resilience to cope with adversity. From a business practice perspective, this research offers concrete, practical processes for the collective development of adaptive resilience before, during, and after a crisis event.

Keywords:

Organisational resilience, crisis, microprocesses, adaptive resilience, collective problem-solving, sense-making, relational capital

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Chapter 1: Introduction

1.1. Background

Although some organisations prosper during crisis events, others never recover. This research study shows how organisations that develop specific organisational resilience microprocesses are able to adapt and thrive in a new organisational reality. The capacity to adapt or thrive is defined as adaptive resilience. It is proposed that adaptive resilience is collectively developed before, during, and after an extreme crisis event, becoming salient in a crisis. The development of adaptive resilience is a collective process comprising three intertwined microprocesses: collective problem-solving, relational capital, and shared sense-making.

Organisational resilience has been investigated through various theoretical lenses and extant research does not use or conceptualise organizational resilience consistently (Conz & Magnani, 2020; Hillmann & Guenther, 2021; Linnenluecke, 2017). The concept of resilience has also been applied to various subjects and phenomena across numerous research disciplines. Organisational resilience has been defined as a capability, a behaviour, a process, an outcome, a strategy, an approach, or a combination of these factors (Hillmann & Guenther, 2021).

Literature has explored two discrete approaches to organisational resilience. According to Sutcliffe and Vogus (2003), organisational resilience refers to an organisation's ability to absorb strain and survive despite disruption. They proposed that it also includes an organisation's ability to recover, transform, and prosper amidst a disruptive event. Scholars like Lengnick-Hall et al. (2011) defined organisational resilience as "a firm's ability to effectively absorb, develop situation-specific responses, and ultimately engage in transformative activities to capitalize on disruptive surprises that potentially threaten organization survival" (p. 224). Vogus and Sutcliffe (2007) described organisational resilience as "the maintenance of positive adjustment under challenging conditions such that the organization emerges from those conditions strengthened and more resourceful" (p. 3418).

Therefore, organisational resilience may be conceptualised as having a twofold capacity, namely the ability to withstand shock and crisis and the capacity for positive adaptation (Combe & Carrington, 2015; Foerster & Duchek, 2018). Williams et al. (2017) expanded on this duality, making the following observation: "Some see organizational resilience as a return to the status quo (where the organization left off), whereas others see resilience as an exploitation of current challenges to emerge stronger and more resourceful" (p. 742).

In the context of this study, organisational resilience is defined as a multidimensional dynamic process within a temporal dimension that enables an organisation to adapt, transform, and develop new growth capacities after a crisis event (Conz & Magnani, 2020; Gilly et al., 2014). This study does not focus on the aspect of duality, but adopts the perspective that resilience is an emergent property, enabling positive adaptation for organisations to emerge stronger before, during, and after a crisis.

1.2. Theoretical problem

Research in organisational resilience is contradictory and predominantly conceptual in terms of how organisations activate, develop, and build resilience (Hartmann et al., 2020; Hillmann, 2020; Linnenluecke, 2017; Vogus & Sutcliffe, 2007). Although different disciplines have influenced organisational resilience research with “borrowed” definitions based on a priori assumptions (Conz & Magnani, 2020; Williams et al., 2017), there is agreement that organisational resilience is a multidimensional and multi-staged phenomenon (Kossek & Perrigino, 2016; Williams et al., 2017). The conceptualisation of organisational resilience is limited and the body of research has generally been descriptive and lacking in empirical evidence (Boin & Lagadec, 2000; Boin & Van Eeten, 2013; Duchek, 2020; Hartmann et al., 2020; Hillmann & Guenther, 2021; Kahn et al., 2018; Linnenluecke, 2017; Mithani, 2020). This has resulted in confusion regarding how organisations adapt and thrive in the context of complexity and volatility, characterised by a growing frequency of extreme life-threatening events, such as pandemics (Mithani, 2020). This gap in scholarship literature has also been highlighted by Kuntz et al. (2017), who suggested further research is needed to develop resilience strategies and approaches that enable organisations to survive and prosper during and after crises.

Organisational resilience has been conceptualised at an organisational level by investigating routine practices, capabilities, and processes (Lengnick-Hall et al., 2011). Scholars have investigated resilience at an individual level, considered to be an additive composite of organisational resilience (Linnenluecke, 2017). Lengnick-Hall et al. (2011, p. 245) and Williams et al. (2017) argued that organisations that pride themselves on having management comprising resilient individuals are not necessarily resilient organisations. However, scholars agree on the interrelationship between individual and organisational resilience, with Hillmann and Guenther (2021) concluding that organisational resilience is predicated on individuals’ collective behaviour. This was reinforced in communicative theorising by Buzzanell (2018), who maintained that resilience resides in the communication, messaging, and discourse

between people. The current research focuses on the organisational level, as collective actions and decisions result in an organisation's resilience response (Hillmann & Guenther, 2021).

Organisational resilience remains a conceptual construct and does not differentiate between resilience as an antecedent or resilience as an outcome (Duchek, 2020; Williams et al., 2017). Extant research has not investigated organisational resilience as a developmental process on a continuum of resilience, with adaptive resilience as a specific type of resilience that may be distinguished from related concepts, such as agility or pivoting (Linnenluecke, 2017).

Although nascent, extant research on organisational resilience has gained momentum over the past decade and corroborates findings that adaptive, resilient organisations survive and thrive in the face of adversity (Hillmann & Guenther, 2021; Vogus & Sutcliffe, 2007; Williams et al., 2017). Research has not yet established whether there is a continuum of organisational resilience (Kantur & İseri-Say, 2012) or whether adaptive resilience is a specific type of resilience, how adaptive resilience develops and is operationalised in a specific context (Powley, 2009), nor the process behind resilience (Hillmann & Guenther, 2021).

Scholars have called for future research to investigate resilience in relation to different contexts (Linnenluecke, 2017), given resilience's context-dependent nature (Hannah et al., 2009; Linnenluecke, 2017), the transferability of specific processes and structures across different contexts, and how these capacities (resources, structures, and processes) lead to resilience (Burnard & Bhamra, 2011). Moreover, it has been suggested that future studies investigate approaches to developing resilience and the specific resources, structures, and processes required to thrive amidst change and disruption (Korber & McNaughton, 2018; Linnenluecke, 2017; Powley, 2009).

Research about how adaptive resilience works is warranted and has been highlighted by scholars (Duchek, 2020; Kuntz et al., 2017; Sutcliffe & Vogus, 2003), who consider organisational resilience to be a process that can be activated and developed to achieve a positive outcome (Hillmann, 2020; Luthans, 2002). Within the ambit of the development of resilience, research has been proposed to understand how cognitive, entrepreneurial, and innovative capacities may lead to a resilience response (Conz & Magnani, 2020). The activation of resilience, which is a trigger to developing resilience, has been researched by Powley (2009), who took the perspective that resilience is a human-based construct, "a socially-enabled construct, developed through the interactions and connections between system members" (p. 1320). Consequently, resilience may be understood as a collective

phenomenon (Burnard & Bhamra, 2019; Hartmann et al., 2020). This is relevant to this research, which proposes that adaptive resilience on the spectrum of organisational resilience development is a collective process and that a developmental process of adaptive resilience relies on social relational capital. This perspective was reinforced by Koronis and Ponis (2018), who emphasised the importance of relational capital: “When an organisation has a functional and strong set of ties and relationships in the workplace, it has better chances of surviving a deep crisis incident or disaster” (p. 34).

This research study investigated the process of developing adaptive resilience in a specific context. Adaptive resilience is referred to in organisational resilience literature, but has various definitions. It has been understood as “a dynamic process encompassing positive adaptation within the context of significant adversity” (Luthar et al., 2000, p. 543). Furthermore, it has been conceptualised as the “capacity for ongoing development beyond the ability to bounce back and restore normal functioning following adversity, as the organisation continually develops resources and identifies opportunities to increase its competitive advantage” (Kuntz et al., 2017b). Some authors have described adaptive resilience as a “contextual [*sic*] embedded dynamic process of positive transformation under adverse conditions” (Korber & McNaughton, 2018, p. 1146). These broad descriptions do not explain how extreme crisis events trigger adaptive resilience development, how the process of adaptive resilience develops, nor what dynamics are at play in such a process. The definition of adaptive resilience adopted in this study is: *A collective dynamic, socially constructed process of developing positive organisational adaptation and growth, manifested prior to, during, and after a crisis event, composed of three intertwined microprocesses of shared sense-making, collective problem-solving, and relational capital.*

The study contributes to organisational resilience theory by conceptualising adaptive resilience comprising the three intertwined microprocesses of relational capital, collective problem-solving, and shared sense-making that collectively developed adaptive resilience before, during, and after the extreme crisis event of COVID-19, which were leveraged during the crisis to enable organisation adaptation. Recent research has indicated that the novel coronavirus (COVID-19) – classified as a global pandemic by the World Health Organization (WHO) in 2020 (Lin et al., 2021) – resulted in an existential crisis for many organisations (Suarez & Montes, 2020), threatening the survival of their businesses in a dramatically reshaped social, economic, and societal landscape. Within the context of the COVID-19 crisis event, organisations that developed adaptive resilience had the capacity to respond, renew, and prosper.

1.3. Problem statement

The theoretical problem can be summarised in the following statement: *There is a need for an understanding and an explanation of how organisations develop adaptive resilience to deal with extreme crisis events.* This lack of understanding emerges from fragmented theoretical conceptualisations of organisational resilience, which have impacted the ability to develop organisational resilience to survive and thrive during extreme crises.

Adaptive resilience is a nascent concept or construct and lacks an agreed conceptual definition as well as concomitant scholarship. While adaptive resilience is referred to in literature by scholars (e.g., Conz & Magnani, 2020; Hillmann & Guenther, 2021; Ishak & Williams, 2018; Menéndez Blanco & Montes Botella, 2016; Nilakant et al., 2014), there is no unified definition or description of the phenomenon. According to Conz and Magnani (2020), adaptive resilience encompasses a process of dynamic adaptation through action. Additionally, it has been proposed that adaptive resilience may emerge after an extreme event and reflects an organisation's ability to respond to unplanned situations (Lee et al., 2013).

Scholars (e.g., Conz & Magnani, 2020; Foerster & Ducheck, 2018; Su & Junge, 2023) differentiate between recovery, adaptation, and renewal from organisational resilience and the process of adaptation, which encompasses a dimension of organisational evolvability. This distinction is significant, because the concept of adaptive resilience has been used interchangeably with terms such as transformation, dynamic adaptation, and evolvability as well as organisational resilience. Therefore, it is proposed that adaptive resilience is a specific construct or dimension of organisational resilience that emerges before, during, and after a crisis event on the spectrum of organisational resilience. Whilst adaptation is frequently referred to as a prerequisite for survival and thriving, this stream of research has generally been investigated separately from organisational resilience scholarship. Notwithstanding, there is agreement that the adaptive capacity of an organisational system is central to resilience development, and thus contributes to theory building by conceptualising adaptive resilience as a process of adaptation on a spectrum of organisational resilience (Burnard & Bhamra, 2011, 2019).

From the aforementioned discussion and the descriptions of adaptive resilience, it is evident that there is reference to a process or action that enables an organisation to evolve, survive, or thrive. However, these descriptions lack an explanation of the process of developing adaptive resilience. This includes an understanding of why adaptive resilience may be a

specific kind of resilience on a continuum of organisational resilience that develops and manifests in response to a disruptive crisis event within a specific context.

1.4. Purpose statement

In light of the gaps and challenges in research, the purpose of this research was to provide an understanding of how organisations dealt with an extreme crisis event by investigating how the process of adaptive resilience developed before, during, and after the crisis.

1.5. Research question

The study's main research question, based on post-event case study research was: *How did organisations develop adaptive resilience during an extreme crisis event?*

Organisational resilience theory generally focuses on an organisation's ability to bounce back to "normal conditions". However, organisational resilience may also be considered a dynamic transformational developmental process that includes positive adaptability that enables positive growth. According to Sutcliffe and Vogus (2003), organisational resilience is a developmental process and a mechanism that ensures organisational stability. Moreover, it has been conceptualised as a generic characteristic that is a developable factor on a continuum (Hillmann, 2020). The concept of a continuum of organisational resilience in the face of extreme events locates organisations' responses from "bouncing back" from a crisis to one of development that results in – but is also caused by – adaptation and transformation. Consequently, the development of resilience is predicated on an assumption that resilience might be inherent in an organisation, but that it requires operationalising or activating this capacity through the relevant and appropriate behaviour and action (Hillmann & Guenther, 2021), given its embeddedness in a complex interplay of contextual and organisational factors (Teo et al., 2017).

Extant research indicates there is a need to build on organisational resilience theory by investigating organisational resilience in a specified time period, such as during crisis events and in different contexts, and to determine how relational systems influence the way people interact to achieve positive outcomes (Hillmann, 2020; Hillmann & Guenther, 2021; Linnenluecke, 2017). Mithani (2020) suggested the need for further research on how collectives in organisations develop resilience to deal with the demands of "the new normal", which has been partially addressed in communication scholarship by Buzzanell (2010). Some scholars have downplayed the role of communication (Cornelissen et al., 2014). Contrastingly, the Buzzanell (2010, 2018) communication theory of resilience (CTR) investigates how

collectives create resilience through communication. In addition the theory recommends the need for further research on organisational resilience “in different contexts, how the processes unfold, and how we can envision resilience as a design aspect rather than mistaking the entity or person for the process” (Buzzanell, 2010, p. 9).

By adopting a process developmental perspective during an extreme crisis event, the researcher investigated adaptive resilience at the intersection of three collective microprocesses of interaction, interpretation, and meaning construction. These microprocesses were: collective problem-solving, relational capital, and shared sense-making. While these individual microprocesses are underpinned by extensive bodies of literature and research, they have not been investigated as an intertwined process in the context of an unfolding extreme crisis event (Buzzanell & Houston, 2018; Gray et al., 2015; Metiu & Rothbard, 2013).

Research on a process perspective of resilience development (e.g., Duchek, 2014, 2020; Duchek et al., 2020; Linnenluecke, 2017; Sutcliffe & Vogus, 2003; Williams et al., 2017) argues that there are various phases or stages in the process and has highlighted specific elements in each of these phases. The need for further research on resilience development utilising a process-based perspective has been suggested to identify what organisations need to do to develop resilience in each phase or stage (Duchek, 2020).

Although various typologies of crises have been proposed (Williams et al., 2017), there is little agreement on whether crises are events or processes. The researcher’s perspective is that a disruptive event is both an event and an unfolding process. A crisis is “a low-probability, high-impact event that threatens the viability of the organisation and is characterised by the ambiguity of cause, effect, and means of resolution” (Maitlis & Sonenshein, 2010, p. 554) within a context that is dynamically uncertain, “emergent and fast-paced, unpredictable and overwhelming” (Christianson & Barton, 2021, p. 572).

Within this dynamic context, collectives attempt to make sense of issues that are novel and ambiguous, and engage in a socially constructed process to create meaning that will enable action (Maitlis & Christianson, 2014). This sense-making process is triggered when “members confront events, issues, and actions that are somehow surprising or confusing” (Maitlis, 2005, p. 21). The process of sense-making unfolds over time, raising questions about organisational identity, especially during a crisis (Maitlis & Sonenshein, 2010). Organisational identity anchors the process of sense-making and may serve as “a springboard for action” (Battaglia et al., 2019; Weick, 2009; Weick & Sutcliffe, 2007; Weick et al., 2005) as they construct and

deconstruct primary organisational identities (Buzzanell, 2010). This perspective is reinforced by Ishak and Williams (2018), who suggested that a crisis presents an “opportunity to anchor organizational identity or as an opening to adapt and change their identity” (p. 180).

Organisational cultures that are built on assumptions about the value of collective problem-solving (Schein, 2010) embed routines and processes of collaborative problem-solving. These processes, including diverse perspectives, argumentation, and consensus, have been shown to lead to more effective problem-solving (Hayashi, 2018).

As per Buzzanell (2018), a “trigger event” that sets in motion a process of sense-making is grounded in messaging, discourse, and narrative that occurs at a collective rather than at an individual level. Initially, this was investigated by Powley (2009), who researched the process behind resilience and resilience activation in a crisis, concluding that resilience is a latent capacity in organisations, built on interactions and relationships, being “socially constructed through the interactions and connections among organisation members” that are “banked” and then activated during a crisis.

The development of resilience is embedded in relationships that involve an interactive process that includes constructing and deconstructing information and meaning (Buzzanell, 2010). Resilience development is an adaptive-transformative process triggered by disruption and is “cultivated and transformed through relational capital; that enables shared processes of sensemaking in human communication and network structures...and these resilience processes embody reflexivity and change” (Buzzanell, 2018, p. 15). This “adaptive-transformative process” (Buzzanell, 2018) is grounded in sense-making and a socially constructed process in which individuals, through communication, create a shared understanding that includes “updating and doubting”, which are essential to an adaptive role for shared meaning during a crisis (Maitlis & Sonenshein, 2010). It is within this developmental process that resilience is constituted in a dynamic, integrated, and unfolding process of communication (Buzzanell, 2010; Korber & McNaughton, 2018).

1.6. Research contribution

1.6.1. Theoretical contribution

This theory-building research contributes the conceptualisation of adaptive resilience and a model of the process of developing adaptive resilience by investigating, based on theoretical assumptions, how this specific kind of resilience can be leveraged or developed during a crisis and how this process of development (a socially constructed, dynamic process) can be

institutionalised. By theorising adaptive resilience and generating a novel theory for a well-researched topic, a different perspective arises (Eisenhardt, 1989).

According to Hillmann and Guenther (2021), a proliferation of concepts and definitions explains how organisations deal with disruptions and life-threatening events in an environment of complexity and turbulence. This study contributes to the process behind organisational resilience, which has been suggested by Hillmann and Guenther (2021). This research is also based on the premise that adaptive resilience is a specific kind of resilience that can be developed before, during, and after an extreme crisis event and becomes salient during an extreme crisis to enable ongoing adaptation. This process of adaptive resilience development is a socially constructed process grounded in the communication of the three intertwined microprocesses of collective problem-solving, shared sense-making, and relational capital. This collective process constitutes resilience, which has been defined as an “adaptive-transformative process” (Buzzanell, 2018, p. 14).

Resilience has been differently conceptualised and operationalised across academic studies, yet there is agreement on the context-dependent nature of organisational resilience (Hannah et al., 2009; Linnenluecke, 2017). This study’s context research was an extreme crisis context, where an urgent and prioritised response was required (Johnson & Murray, 2021). This research develops insights “that are more generalisable to different settings and contexts, including under-researched contexts such as organisations in developing countries” (Linnenluecke, 2017, p. 12).

1.6.2. Practical contribution

Prior to the COVID-19 pandemic, the South African environment was complex, volatile, and ambiguous, and most organisations were challenged to develop resilience and adaptability to survive and thrive in this dynamic and uncertain context. This research study aims to contribute to the practical development of adaptive resilience processes and practices to enable organisations to grow and prosper. It does so by arguing that resilience development is a collective, inclusive, and interactive social process of shared problem-solving, confronting organisational identity and sense-making built on relational capital, and through a process of including the participation and consultation of stakeholders in such informal and formal processes, resilience is constituted.

Two arguments underpin the study’s practical contribution. First, organisational resilience has traditionally been developed at an individual level by designing and implementing resilience development programmes, based on the assumption that individual resilience translates into

organisational resilience. It is argued that organisational resilience is collective, relational, and processual. By collaboratively identifying problems and solving challenges, collective resilience is nurtured and developed in processes of interaction that reveal shared priorities and assumptions.

Second, extreme crisis events (e.g., COVID-19 pandemic) emerge at a fast pace, and information and facts thereon are often incomplete or lacking. In extreme crisis events, resilience can be triggered or activated through microprocesses that have embedded shared mental models and relational capital that become salient during a crisis. Through a collective process that is inclusive and invites shared understanding and perspectives, decisions can be taken swiftly and adapted as the situation evolves. This includes experimentation and envisaging new possibilities for an organisation's survival and success.

1.7. Summary and outline of the remainder of the document

This chapter introduced organisational resilience theory. Theoretical gaps were identified, with a specific focus on the process of adaptive resilience development. Moreover, the research question and the theoretical and practical contributions were explained. The remainder of the paper is structured as follows:

- Chapter 2: Literature review
- Chapter 3: Research setting
- Chapter 4: Research methodology
- Chapter 5: Research findings
- Chapter 6: Cross-case analysis
- Chapter 7: Theoretical contribution
- Chapter 8: Conclusion and recommendations

Chapter 2: Literature review

2.1. Introduction

This section presents literature on organisational adaptive resilience. First, organisational resilience theory is evaluated, followed by organisational resilience, and a critique on resilience theory and organisational resilience research. Thereafter, organisational adaptive resilience is introduced by locating this process within the current conceptualisations of the construct and the development of adaptive resilience. The final section of this chapter introduces the three microprocesses of sense-making, shared problem-solving, and challenging organisational identity as the key components of the process of collectives constituting adaptive resilience.

2.2. Organisational resilience theory

Organisational resilience is theorised and operationalised in numerous ways and has been investigated using several theoretical frameworks, such as the resource-based view, the dynamic capability perspective, theory on organisational ambidexterity, social capital theory, and upper echelons theory (Su & Junge, 2023). According to Hillmann (2020), organisational resilience theory emerged from five disciplinary perspectives that are separate and overlapping, namely: ecology, safety and reliability, engineering, positive psychology, and organisational development. Resilience theory in management scholarship emerged from evolutionary theory in the 1980s by Meyer (1983, as cited in Hällgren et al., 2018, and Linnenluecke, 2017) and Staw et al. (1981), who sought to understand how organisations respond to external threats. Through the evolutionary perspective, systems thinking, and a dynamic view of an organisation, a perspective emerged that considers organisational adaptation and transformation that can best be described in the aftermath of disruption or adversity (Hillmann & Guenther, 2021). This can be aligned to earlier work by Linnenluecke (2017), who viewed adaptation and resilience as two responses dependent on the type of change.

In organisational resilience scholarship, there has been extensive research into how organisations have a "double capacity" to not only return to stability after an extreme or unexpected event, but also to anticipate, adapt, and develop new growth capacities (Gilly et al., 2014). Academic research has been fragmented in silos of resilient engineering, ecological studies, supply chain management, economics, psychology, and financial management (Khan et al., 2019). These streams or silos of resilience research have focused on organisational responses to external threats (Williams et al., 2017), high-reliability organising (Weick &

Sutcliffe, 2001; Weick et al., 1999), employee strengths (King et al., 2016), positive psychology where resilience is a core construct (Coutu, 2002; Hartmann et al., 2020; Seligman, 2007), the adaptability of business models and design principles that reduce supply chain vulnerabilities and disruptions (Linnenluecke, 2017), and the incorporation of a dynamic capability perspective (Teece et al., 2016) that analysed resources, structures, and processes for resilience (Khan et al., 2019). Each of these resilience research streams conceptualised organisational resilience in different ways and developed their own theoretical framework for analysing how organisations can recover from disruptions (Linnenluecke, 2017).

Literature on organisational resilience in the face of disruption has focused on two discrete perspectives. First, it concentrates on an organisation's ability to absorb strain and maintain functioning despite adversity. Second, it highlights an organisation's ability to rebound from disruption through a dynamic adaptive capacity that enables the organisation to transform and emerge stronger from the event. This is frequently referred to as a double capacity of resilience and adaptation that opens up new pathways (Gilly et al., 2014) and includes the development of new growth opportunities (Koronis & Ponis, 2018; Lengnick-Hall et al., 2011).

Based on these different perspectives, this study focused on the development of an organisation's adaptive capacity and used resilience in the organisational context to explore how organisations develop adaptive resilience for four reasons. First, an underlying assumption of the theory is that resilience is a dynamic process that explains how organisations anticipate, respond to, and recover from disruptions in different contexts, within varying periods (Conz & Magnani, 2020). From a communications scholarship perspective, Buzzanell (2018) suggested that there is a trigger to active sense-making that is dynamic and unfolding and embedded in discourse, messaging and reframing linguistically and metaphorically so that, "In communicatively constituting the new normal resilience is activated by trigger events as well as cultivated" (p. 15).

The COVID-19 pandemic that was announced in March 2020 is considered to be such a trigger event that activated and developed sense-making among managers in a collective endeavour to deal with the impact of the crisis. The collective development of an urgent response in the face of a crisis event is significant, as it is predicated on collective action, rather than as an individual attribute or action (Elcheroth & Drury, 2020). The importance of the process of social construction lies in its collective design and is referred to by scholars (Duchek et al., 2020; Maitlis & Christianson, 2014; Weick et al., 2007), who emphasised it as being intrinsic to the process of constituting resilience.

Second, resilience research recognises that organisational resilience occurs at an individual and an organisational level, it is a multilevel phenomenon, it is a multifaceted and multidimensional phenomenon, and can be activated by different factors (Khan et al., 2019; Vogus & Sutcliffe, 2007; Williams et al., 2017). Research has been suggested to how these levels interact. Research at micro and organisational levels has been conducted with so-called “pivot firms”, with the results showing that “pivot firms” have a “capacity for continuous reconstruction” and for building new growth dynamics (Gilly et al., 2014). The research investigates the interrelationships between resilience at micro (manager) and meso (organisational) levels, and specifically tests the “resilience as an interactive process of relational adaptation” (Williams et al., 2017). A key finding of previous research that has bearing on this research is that organisational resilience is based on collective skills and capacities (Gilly et al., 2014). This research investigates resilience at an organisational level and specifically to the criterion of “resilience as an interactive process of relational adaptation” (Williams et al., 2017).

Third, resilience has an adaptation component that enables some organisations to emerge from a crisis or challenge stronger than they were before the crisis (Duchek et al., 2020), thus providing these organisations with a choice in the proactive defining of a future state. This is referred to as an organisation’s adaptive capacity that emerges from the earliest resilience literature on ecological systems (Holling & Gunderson, 2002; Olsson et al., 2004). Adaptation and the adaptive capacity was investigated in the Burnard and Bhamra (2011, 2019) model of adaptive capacity, which focuses on the phase of detection and activation during a crisis. This phase of detection and activation is a critical nexus for positive adaptation in an extreme crisis event, because “linkages between detection and activation could be conceptualised as the fundamental components of a system’s ‘adaptive capacity’” (Burnard & Bhamra, 2011, p. 5590). At this nexus, organisational resilience is triggered for an adaptive and proactive response (Burnard & Bhamra, 2011). Further research into the relationship between adverse events and resilient responses has been suggested (Mithani, 2020; Olekalns et al., 2020; Su & Junge, 2023).

The concept of adaptive capacity lies at the heart of this research. Adaptive resilience is conceptualised as a dynamic, socially constructed process of developing positive organisational adaptation and growth triggered by a disruptive crisis, comprising the three microprocesses of collective problem-solving, relational capital, and adaptive sense-making.

Finally, resilience theory addresses how organisations anticipate as well as respond and adapt to events that threaten their survival. This is relevant in the context of the current realities,

where turbulence, complexity, and extreme events are ever-present. Mithani (2020) differentiated between economic and technological threats and life-threatening events, such as COVID-19, where the physical and emotional well-being of people in an organisation may be affected and where limited research exists. According to Mithani (2020), in circumstances where life-threatening events have an impact on individual and organisational survival, a collective response or enactment is required.

In summary, the key assumptions of organisational resilience theory are its temporal and dynamic components, yet what is unknown is how the process of development of adaptive resilience works and how it leads to positive outcomes. While many other areas could benefit from additional research into this topic, there are a number of aspects not answered by the current resilience theory. Is organisational resilience embedded in routines (Lengnick-Hall & Beck, 2005), capabilities (Teece et al., 2016) or in cognitive, behavioural, and contextual factors (Lengnick-Hall & Beck, 2005; Vogus & Sutcliffe, 2007), or is organisational resilience a socially constructed process (Buzzanell, 2010; Kahn et al., 2018)? Does the context matter (Williams et al., 2017)? How does the interaction between the individual, the group, and the organisation develop resilience (Lengnick-Hall & Beck, 2005; Linnenluecke, 2017)? How does the process of detection and activation lead to the development of adaptive capacity or adaptive resilience (Burnard & Bhamra, 2011; Hannah et al., 2009; Lengnick-Hall & Beck, 2005)?

Therefore, this study advances organisational resilience theory by conceptualising adaptive resilience as a specific form of resilience on a continuum of organisational resilience that develops at a collective level through a process of collectively dealing with extreme events in a particular context. The scarce research in this area has been highlighted by resilience scholars (King et al., 2016; Mithani, 2020). Organisational resilience has been researched using a temporal focus on the basis of research before, during, and after a crisis, and as having a twofold capacity, bouncing back and moving forward. This research perspective is one of an in-depth analysis of a nuanced process of resilience development before, during, and after an extreme crisis event as well as across all phases. This perspective emanates from the researcher's conceptualisation of adaptive resilience as a type of organisational resilience on a continuum of organisational resilience that is triggered and activated.

2.3. Organisational resilience

Research into organisational resilience often lacks clarity, is contradictory, and is predominantly conceptual in terms of how organisations activate, develop, and enact resilience (Hartmann et al., 2020; Hillmann, 2020; Linnenluecke, 2017; Vogus & Sutcliffe, 2007). Organisational resilience has been defined as a capability, a capacity, a behaviour, a process, an outcome, a strategy, an identity (Ishak & Williams, 2018), and an approach (Hillmann & Guenther, 2021), and is applied across research disciplines without specificity regarding the subject or phenomenon (Su & Junge, 2023). Although different disciplines have influenced organisational resilience research with “borrowed” definitions based on a priori assumptions (Conz & Magnani, 2020; Williams et al., 2017), there is agreement that organisational resilience is a multidimensional and multi-staged phenomenon (Kossek & Perrigino, 2016; Williams et al., 2017).

In the context of this study, the definition of organisational resilience proposed by Lengnick-Hall and Beck (2005) is useful. The authors defined organisational resilience as a “multi-dimensional, organisational attribute that results from the interaction of three organisational properties: cognitive resilience, behavioural resilience, and contextual resilience” (p. 750). In later research, Lengnick-Hall et al. (2016) expand on the multidimensional aspect of organisational resilience by stating that “It provides a foundation of insight, flexibility, and hardiness that makes it possible for a firm to bounce back and often create new ways to flourish when faced with uncertainty and adversity” (p. 4). Vogus and Sutcliffe (2007) described organisational resilience as “the maintenance of positive adjustment under challenging conditions such that the organization emerges from those conditions strengthened and more resourceful” (p. 3418).

While a systemised definition of organisational resilience is lacking in business and management literature, resilience has been defined as a process in time “as an attribute the firm possesses along a continuum: before, during and after an event” (Conz & Magnani, 2020, p. 403). The need for research utilising a specific temporal phase has been suggested, based on the assumption that resilience is a process in time, while an extreme event is by nature temporal (Conz & Magnani, 2020).

The significance of context and developmental capacity has also been highlighted by scholars, such as Kossek and Perrigino (2016), Kuntz et al. (2017), Linnenluecke (2017), Todt et al. (2018), Tonkin et al. (2018), and Williams et al. (2017). The gap in research on how and why context impacts organisational resilience has been emphasised by Duchek (2020), Hillmann

and Guenther (2021), and Linnenluecke (2017), who also pointed out the need for organisational resilience research that can be generalised across contexts in developing countries (Linnenluecke, 2017).

Resilience as a process assumes a dynamic interplay between an organisation and its environment (Williams et al., 2017) and assumes that resilience is an outcome that can be described after an event or crisis (Hillmann, 2020). Current research conceptualises the dual nature of organisational resilience as the system's capacity to withstand and persist in the face of shocks or crises by utilising an engineering perspective of resilience. By utilising an ecological and transformational perspective of resilience, insight is offered into the adaptive capacity to emerge from adversity strengthened (Carvalho & Areal, 2016; Kuntz et al., 2017; Lee et al., 2013; Lengnick-Hall et al., 2011; Linnenluecke, 2017; Nilakant et al., 2014; Sutcliffe & Vogus, 2003; van der Vegt et al., 2015).

The concept of adaptation was captured by Vogus and Sutcliffe (2007), who conceptualised resilience as the "maintenance of positive adjustment under challenging conditions such that the organization emerges from those conditions strengthened and more resourceful" (p. 3418). Resilience as adaptation suggests that some organisations emerge from a crisis or challenge stronger than they were before the crisis (Duchek et al., 2020), providing these organisations with a choice in the proactive defining of a future state. This is referred to as an organisation's adaptive capacity that emerges from the earliest resilience literature on ecological systems (Holling & Gunderson, 2002; Olsson et al., 2004). In organisational resilience scholarship, adaptation and adaptive capacity have been investigated by Burnard and Bhamra (2011, 2019) and explicated in their model of adaptive capacity, highlighting the phase of detection and activation during crisis. This phase of detection and activation is a critical nexus for positive adaptation in an extreme crisis event, because "linkages between detection and activation could be conceptualised as the fundamental components of a system's 'adaptive capacity'" (Burnard & Bhamra, 2011, p. 5590). It is at this nexus that organisational resilience is triggered for an adaptive and proactive response (Burnard & Bhamra, 2011).

Finally, resilience has been conceptualised as "a process that varies situationally (from situation to situation), contextually, and temporally" (Foerster & Duchek, 2018, p. 1). "It is the nature of the constituent materials as well as their interactions that determines the resilience of the overall system" (Mithani, 2020, p. 15). This supports this researcher's conceptualisation of adaptive resilience as a collective, interactive, and socially constructed process of relational

capital, sense-making, and collective problem-solving that results in the formation of resilience.

2.4. Critique of resilience theory and organisational resilience research

Despite attempts to conceptualise the organisational resilience construct, this construct is neither in its infancy, nor its maturity (Hillmann & Guenther, 2021), and the concept of organisational resilience has been widely criticised for its lack of empirical measurability (Aleksić et al., 2013; Linnenluecke, 2017; Mafabi et al., 2012). Hillmann (2020) considered organisational resilience to be a latent and higher-order construct and an umbrella concept that encompasses “diverse organizational phenomena” (p. 926). Several critiques were used to evaluate the extant organisational resilience scholarship, namely enabling conditions, contexts, and multiple theoretical perspectives.

2.4.1. Enabling conditions

Current research streams in organisational resilience have not fully researched the process of resilience development, other than to confirm that enabling conditions need to be present for organisational resilience to be developed or enacted, and to suggest the need for further research on how resilience is activated (Linnenluecke, 2017). Enabling conditions that have been researched are innovation (Hamel & Välikangas, 2003), leadership style and psychological resources (Hannah et al., 2009), and interpersonal relationships and availability of financial resources (Stoverink et al., 2020). According to Vogus and Sutcliffe (2007), organisations attuned to their particular context engage in simulating unexpected events and in building scenarios to proactively test assumptions about risk and the well-being of their organisations, and are therefore more likely to view threats as potential opportunities.

2.4.2. Contexts

Scholars agree that resilience is context-dependent and that context is fundamental to the exploration of dynamic/adaptive resilience, especially given a world that is characterised by uncertainty, complexity, and volatility (Gilly et al., 2014; Linnenluecke, 2017; Mithani, 2020; Vogus & Sutcliffe, 2007; Williams et al., 2017). Although much research on organisational resilience has taken place in high-reliability organisations (e.g., Weick, 1993; Weick & Quinn, 1999; Weick & Roberts, 1993; Weick et al., 2005; Lengnick-Hall & Beck, 2005), more recent research has indicated the need to differentiate organisational resilience theory in different contexts, the type of organisations, and the nature of the event, such as extreme contexts and extreme events (Hannah et al., 2009). According to Hannah et al. (2009), extreme events do

not necessarily constitute extreme contexts, except when events “result in an extensive and intolerable magnitude of physical, psychological, or material consequences to—or in close physical or psycho-social proximity to—organization members” (p. 913). Extreme contexts refer to an environment where one or more extreme events occur and result in an “intolerable magnitude of physical, psychological, or material consequences to ... the organization members” (Hannah et al., 2009, p. 898). This description of an extreme context aligns with event-orientated research, where the significance of events is categorised in terms of their novelty, disruption, and criticality, and thus requires an urgent response (Morgeson et al., 2015).

Research by Hällgren et al. (2018) contributed to understanding contexts that are disrupted or “triggered by extreme events that occur outside the core activities of the organisations or communities, and are ‘frequently portrayed as unique, unprecedented, or even uncategorizable’” (p. 135). Phenomena that have been investigated within disrupted contexts are individual and organisational adaptive and non-adaptive responses, which include collective processes of communication and meaning-making (Hällgren et al., 2018). Scholars agree a positive social context impacts employees’ resilience, with particular reference to the access to social, capital, and human resources (HR) from the environment (Meneghel et al., 2016). Additional contextual factors that have been investigated within the internal organisational context include the importance of interpersonal processes, relational capital, a learning culture, and knowledge-sharing structures, all of which are assumed to be positively related to organisational resilience, however, due to inconsistencies in how resilience has been conceptualised require further research (Hartmann et al., 2020).

2.4.3. Multiple theoretical perspectives

There has been little integration of different theoretical perspectives to describe the process of organisational resilience development or the mechanisms that enable this process to take place (King et al., 2016). Gittel et al. (2006) and Powley (2009) argued that relational capital is a prerequisite for organisations dealing with any form of disruptions, and Weick and Sutcliffe (2007) considered resilient cultures to be important for dealing with change and crisis. Within management literature, there is an increasing focus on how language and communication enable managers to make sense of issues and effect action (Ocasio et al., 2018; Wieland, 2020). Lengnick-Hall and Beck (2005) proposed a three-factor construct to identify the resilience development capacity, consisting of cognitive, contextual, and behavioural factors that interact in a dynamic complementary fashion and enable an organisation to adapt to disruptions. The ability to adapt in crisis features behavioural elements, referred to in definitions of resilience (Duchek et al., 2020; Hamel & Välikangas, 2003; Linnenluecke, 2017).

The recent critique of organisational resilience by Hillmann (2020) presents five theoretical perspectives that have informed organisational resilience theory, based on differing ontologies, tools and methodologies, and conceptualisations. The author contended that this has resulted in high levels of ambiguity and the absence of an organisational resilience construct. Therefore, this study contributes to the development of theory on organisational resilience by focusing on adaptive resilience.

2.5. The process of resilience development

Scholars have questioned whether organisational resilience can be developed. Research has referenced how organisational resilience works and its activation and development (Burnard & Bhamra, 2011; Ducheck, 2020; Kuntz et al., 2017; Linnenluecke, 2017; Limnios et al., 2014; Sutcliffe & Vogus, 2003), with authors supporting the perspective that organisational resilience is a developmental process that can be activated to achieve a positive outcome (Hillmann, 2020; Luthans, 2002). A process perspective of organisational resilience development that takes place before, during, and after a disruptive event has been proposed by scholars (Conz & Magnini, 2020; Ducheck, 2020). However, scholarship on how resilience works and develops utilising a process developmental perspective remains theoretical.

Extant research utilising a process-based resilience perspective is fragmented primarily because there is no unified theoretical framework or construct of organisational resilience (Su & Junge, 2023), which emanates from the differences in conceptualisation and contextualisation discussed earlier. Extant organisational resilience has been applied to various subjects, including the development of resilience resources or capacities in different settings, such as small business, supply chains, HR or healthcare. Extant theory has not investigated the “microprocesses that fuel resilience” (Sarkar & Clegg, 2021, p. 262).

A process-based developmental perspective utilises stages or phases to describe the process, including the stages of pre-crisis anticipation, during-crisis coping, and post-crisis learning or adaptation. Recent scholarship (Ducheck, 2020) proposes the following phases of resilience development: detection and activation, resilient response, and organisational learning with embedded capabilities in each phase. Additionally, a recent literature review by Conz and Magnani (2020, p. 408) proposed three phases: a proactive phase, an absorptive or adaptive phase, and a reactive phase. Given the dynamic nature of resilience development, phased or staged approaches to resilience development are limited in the context of life-threatening events, as they do not account for unexpected crisis where the anticipation phase

may be impossible, although learning from prior crises as a foundation for the resilience development process has been highlighted (Duchek, 2020).

An early study on the activation and development of resilience by Powley (2009), who investigated the process behind resilience, is frequently referenced. Powley (2009) adopted a view that resilience “is a socially enabled construct, developed through the interactions and connections between system members” (p. 1321), and introduced the concept of resilience activation, considered to be learning during a crisis. During crises, resilience is socially constructed through the social connections among members of an organisation and “social capital and relationships play a role in fostering resilience” (Powley, 2009, p. 1317). Social capital or relational goodwill or reserves are assumed to be embedded in organisations and these “relational reserves” may be leveraged and developed during a crisis.

Findings by Powley (2009) pointed to three processes that activate resilience. The first is limited suspension, where formal structures and relationships are interrupted for a period of time to enable new relational connections as people confront a crisis event. The second process is defined as compassionate witnessing, and the third process is relational redundancy, where new connections and relationships are activated across functional boundaries that enable resilience. Powley (2009) suggested that these relationships, structures, and processes “turn on” or activate organisational resilience during the crisis period, but did not investigate how the process develops for adaptation and positive growth, once these latent relational resources had been activated. A further limitation of the research was the specific temporal focus at the time of the crisis, its immediate aftermath, and for a short time before organisations resumed their normal functioning, which differs to disruptive crises that might be ongoing or extended in time and space, such as the COVID-19 pandemic crisis, which continues to today. Additionally, the research by Powley (2009) was analysed in a single case that might not be easily generalisable to other situations and contexts.

Resilience development as a collective process is particularly illuminating in the context of crises that present an existential threat, such as the COVID-19 pandemic. It is proposed that a collective process orientates and enables mobilisation, especially when people share a common history or collective memory of having previously confronted and overcome challenges (Elcheroth & Drury, 2020).

Organisational resilience scholars concur that resilience cannot be developed outside of human relationships and relational capital. This is emphasised by Koronis and Ponis (2018), who proposed a four-pillared approach to resilience development that includes preconditions

for this developmental process. These include a culture of resilience, a capacity or willingness to respond, the skills of adaptation, and the existence of learning processes. While some scholars conceptualised organisational resilience at an organisational level by investigating the organisational routine practices, capabilities, and processes (Lengnick-Hall et al., 2011), other scholars (e.g., Coutu, 2002) investigated resilience at an individual level, which was considered an additive composite of organisational resilience. However, there is agreement on the interrelationship between individual and organisational resilience by scholars who conclude that organisational resilience is the collective behaviour of individuals (Hillmann & Guenther, 2021). Extant research explaining “collective behaviour” is somewhat vague, despite being referred to in many organisational resilience definitions (Coutu, 2002; Duchek et al., 2020; Hamel & Välikangas, 2003; Linnenluecke, 2017) and discussed in the research findings of small businesses as processes of adapting business models or bricolage (Sarkar & Clegg, 2021).

Resilience as a collective process of development provides valuable insight into this research study because it anchors a key research assumption of resilience development as being constituted in social relationships built through a shared identity and a collective sense of belonging enabling “rich adaptability” (Elcheroth & Drury, 2020, p. 709). In summary, although there have been numerous perspectives on the development of organisational resilience, this research takes the perspective that adaptive resilience on a spectrum of organisational resilience is a socially constructed collective process that influences the response to a triggering event and is predicated on collective intertwined processes of resilience development.

2.6. Adaptive resilience

There is no unified description of adaptive resilience, because it is a nascent construct. Adaptive resilience is referred to in mainstream literature (Conz & Magnani, 2020; Ishak & Williams, 2018; Nilakant et al., 2014). Conz and Magnani (2020) differentiated between two resilience paths: an adaptive path and an absorptive path. They conceptualised the adaptive path as being a process of adaptation to change or crisis in contrast to flexible adaptation, which implies speed of decision-making or learning. This perspective is reinforced by referring to a mainstream perspective that describes adaptive resilience as being one of dynamic adaptation or in the case of agile organisations, fast responsiveness.

Adaptive resilience has also been conceptualised as a complex and multifaceted phenomenon encompassing the ability to respond and recover quickly (Nilikant et al., 2014). Adaptive

resilience is further expanded in the theoretical analysis of Ishak and Williams (2018), who argued that resilience may differ in type or amount on a spectrum and adaptive resilience is a dynamic construct reflective of an organisation's adaptive capacity evident in its core identity and structure. The research of Ishak and Williams (2018) built on the work of growth mindset by Dweck (2007) and their central proposition is that organisations approach resilience by anchoring their identity or by adapting or changing their identity. Resilience is companies' core identity as opposed to being one of "roles, relationships or personal characteristics" (Ishak & Williams, 2018, p. 180), with resilience as a core identity defining adaptive resilience. Despite their research being conducted in high-reliability organisations, Ishak and Williams (2018) made a theoretical and practical contribution to this study by conceptualising adaptive resilience on a spectrum of resilience depending on amount and type.

Furthermore, adaptive resilience has been categorised as placing an emphasis on "reorganisation, change and learning" (Nieuwborg et al., 2023). This form of resilience emerges after an extreme event and reflects an organisation's ability to respond to unplanned situations (Lee et al., 2013). Nilakant et al. (2014) differentiated between planned resilience and adaptive resilience. In planned resilience, an organisation is able to prepare for change and future crises, while adaptive resilience is the resilience capacity that emerges from disruptions (Barasa et al., 2018). The current research study did not investigate planned resilience, but analysed the process of developing adaptive resilience, conceptualised as a dynamic, socially constructed process of developing positive organisational adaptation and growth triggered by a disruptive crisis event.

Various scholars indirectly reference adaptive resilience using different descriptions of the phenomenon. For example, the understanding of resilience as an adaptive process that can be developed as a behavioural capability (Hartmann et al., 2020) was developed further by scholars (i.e., Mithani, 2020; Van Tonder, 2011), who referenced identity as a core component that can be leveraged or changed during disruption. Consequently, a strong organisational identity is a key factor when defining an organisation's uniqueness and adaptation.

Sutcliffe and Vogus (2003) examined how organisations dealt with threats or crises, and the mechanisms and processes that were activated or developed. They proposed that adaptation entails leveraging cognitive and behavioural resources (Sutcliffe & Vogus, 2003), such as resourcefulness or creativity (Lengnick-Hall et al., 2011). The process of adaptation is dynamic and encompasses continual transformation, and learning creates a specific type of resilience that has numerous descriptions, such as dynamic or transformational resilience in organisational resilience literature, but which this scholar describes as adaptive resilience.

Kantur and İşeri-Say (2012) differentiated between recovery, adaptation, and renewal from organisational resilience. In their definition, the process of adaptation and renewal is termed organisational evolvability. This distinction is significant, because adaptive resilience has been used interchangeably with organisational resilience, when it could well be a different construct or dimension of organisational resilience. In the current framework of organisational resilience, the outcomes of resilience are conceptualised under organisational evolvability with recovery, adaptation/continuity, and renewal dimensions. Kantur and İşeri-Say (2012) suggested that the post-event state is significant, because it is in this phase that adaptation may take place, resulting in an improved state of an organisation that enables growth. Conversely, recovery implies an organisation returns to its pre-event state. According to Hillmann and Guenther (2021), adaptation and resilience are two contrasting approaches, which might imply that adaptive resilience could incorporate these dimensions.

Sarta et al. (2021) differentiate adaptation from related concepts and conceptualise adaptation as intentional, relational, conditioned and divergent. Contrastingly, Conz and Magnani (2020) described adaptation to a crisis as a process of utilising novel resources to catalyse internal change, and adaptive resilience as a process of dynamic adaptation through actions such as “adjusting, recombining of resources, self-renovating, and continuous reconstruction” (p. 407). Conz and Magnani (2020) and Korber and McNaughton (2018) contrasted adaptive capacity with adaptive resilience and concluded that adaptive capacity enables adaptive resilience, which is a process of continuous transformation and learning after a disruptive event.

In terms of a developmental process of dynamic adaptation after a trigger event, organisations with an ability to anticipate, withstand, and adjust to shocks by recombining existing resources are said to emerge strengthened and more resourceful (Conz & Magnani, 2020). This perspective was initially proposed by Lengnick-Hall et al. (2011), who described organisational resilience as “thriving because of the ability to capitalize on unexpected challenges and change” (p. 244). In this regard, Williams et al. (2017) highlighted the importance of cognitive and behavioural resources to develop and maintain positive functioning after a crisis.

In each of the aforementioned descriptions, the concept of “beneficial transformation” – a concept highlighted by organisational resilience scholars Lengnick-Hall and Beck (2016) – is suggested and aligns with earlier research by Buzzanell (2010, 2018), who theorised resilience as an adaptive-transformative process. Viewing resilience as adaptability in the context of being able to “rebound from adversity strengthened and more resourceful” (Sutcliffe & Vogus, 2003, p. 97) was specifically highlighted in the literature of high-reliability

organisations and less so in other organisations (Ishak & Williams, 2018; Weick & Roberts, 1993).

Common to all of the above-mentioned descriptions of adaptive resilience is the reference to processes or actions that enable an organisation to adapt. These descriptions lack an explanation of, first, the phenomena or elements being investigated; second, how the evolving process of development works; and third, whether adaptive resilience is a specific type of resilience on a continuum of organisational resilience that develops in response to a disruptive, extreme event. This research investigated the process of developing adaptive resilience, conceptualised as: a dynamic, socially constructed process of developing positive organisational adaptation and growth triggered by a disruptive crisis event, composed of three microprocesses: collective problem-solving, relational capital, and shared sense-making,

2.7. Adaptive resilience development: Microprocesses

Despite the proliferation of organisational scholarship, extant literature has not investigated the microprocesses of resilience development, which the researcher investigated in the context of resilience development as a collective social process (Elcheroth & Drury, 2020). Five microprocesses for adaptive resilience development are discussed in this section, namely: relational capital, sense-making, collective problem-solving, challenging organisational identity, and communication.

2.7.1. Developing adaptive resilience through relational capital

Research on the link between relational capital and organisational resilience is fragmented (Olekalns et al., 2020; Williams et al., 2017). Relational capital has been described as an intangible asset that encompasses the quality of relationships, interpersonal connections, and frequency of collaboration and communication (Debicki et al., 2020). This study builds on early research on social capital by Nahapiet and Ghoshal (1998), who conceptualised relational capital as a dimension of social capital evidenced in levels of collaboration and in social networks of trust.

Extant literature takes the perspective that organisational resilience is a collective social process, developed through interpersonal connections between people (Burnard & Bhamra, 2019) and composed of structural, cognitive, and relational resources that enable organisations to positively cope or adapt when faced with adversity (Sutcliffe & Vogus, 2003). This idea is reinforced by scholarship describing relational capital as a collective mechanism for the development of organisational resilience to survive in crisis (Al-Omouh et al., 2022;

Aldrich & Meyer, 2015; Williams et al., 2017). This perspective builds on early studies showing that relational capital developed through interpersonal connections could be triggered in extreme crisis events to collaboratively identify challenges and set priorities and actions to enable adaptation, particularly if they were based on trust (Coutu, 2002; Mallak, 2017; Powley, 2009). More recent scholarship (Williams et al., 2017) highlights trust as a key component of relational capital and considers its importance in enabling positive adaptation during adverse events. During crisis, relational capital can be a source of support and energy, as the collective experience of confronting a crisis develops a common identity (Elcheroth & Drury, 2020), a factor also identified as a critical component of collaboration during adverse events (Su & Junge, 2023).

Sense-making as an individual cognitive process or as a collective process of social construction that occurs between people as they interpret and construct meaning has been debated (Kahn et al., 2013; Maitlis & Christianson, 2014). Although it is argued that successful “relational systems” within organisations can facilitate crisis sense-making (Williams et al., 2017, p. 739), shared sense-making built on relational capital has not been investigated. Organisations that prioritise inclusive and collective problem-solving should develop shared interpretive systems and cognitive frameworks through interactive processes where relationships are built, knowledge is shared, and trust is developed, ultimately enabling these to be leveraged for collective sense-making. This social aspect of sense-making has been highlighted as a key property (Maitlis & Christianson, 2014). Within the context of the above discussion, recent scholarship indicates the need for research into how nuanced behavioural mechanisms leverage and optimise relational capital for resilience development (Wulandhari et al., 2022).

2.7.2. Developing adaptive resilience through shared sense-making

The COVID-19 pandemic may be described using the description of Pearson and Clair (1998, as cited in Maitlis & Christianson, 2014) as “a low-probability, high-impact event that threatens the viability of the organisation, and is characterised by an ambiguity of cause, effect, and means of resolution, as well as by a belief that decisions must be made swiftly” (p. 71). Within this context of uncertainty and ambiguity, sense-making as a shared process facilitates adaptive resilience. This perspective is challenged by Ansell and Boin (2019), who suggested that events unfold rapidly in crises and there is a need for urgent action and multiple interpretations and experiences tend to complicate shared sense-making.

Sense-making is a well-theorised construct that assists in understanding how organisations deal with extreme crisis events through processes of interpretation, meaning-making, and

action (Duchek, 2020; Hällgren et al., 2018; Maitlis & Christianson, 2014). In this regard, the work of Karl Weick (Weick, 1993; Weick & Quinn, 1999; Weick & Roberts, 1993; Weick et al., 2005) has been foundational in the conceptualisation of sense-making (Maitlis & Christianson, 2014).

Research in sense-making offers a lens into the development of resilience and explains how individuals and collectives deal with disruption (Gilly et al., 2014). Sense-making has been defined as “a process, prompted by violated expectations, that involves attending to and bracketing cues in the environment, creating intersubjective meaning through cycles of interpretation and action, and thereby enacting a more ordered environment from which further cues can be drawn” (Maitlis & Christianson, 2014, p. 67). The process of sense-making is activated when an unexpected or extreme crisis event occurs and people enact (socially construct) an environment, and bring meaning and interpretation to events and experiences through words, images, and stories (Whiteman & Cooper, 2011). Weick (1988, p. 305) argued that “the less adequate the sense-making process is directed at a crisis, the more likely it is that the crisis will get out of control”.

The COVID-19 pandemic, which is described as novel, emergent, ambiguous, and overwhelming, impacted the sense-making process, because of the extended nature of the pandemic as well as the existence of multiple and conflicting cues and sources of information. In addition to the impact of the COVID-19 pandemic on organisations, the broader context was also disrupted and there were concurrent unfolding crises, such as negative and challenging economic factors that impacted sense-making (Combe & Carrington, 2015).

A sense-making perspective enables one to understand how sense-making is triggered and how people make sense of events characterised as dynamically complex (Farjoun, 2010). This view has more recently been defined as crisis sense-making, which includes cycles of communication and information interspersed with action that takes place collectively (Combe & Carrington, 2015) and reflects Weick’s framework where action is required to test or refine sense-making (Maitlis & Christianson, 2014).

During the sense-making process, issues of organisational identity are brought to the fore, as they are deeply integrated in the sense-making process. These include conversations that elucidate “who we are” and “what we should do”. This has particular relevance to this research, as this process is shaped by sense-giving or sense-givers, who influence and shape the meaning and interpretations of people towards a specific organisational reality (Maitlis & Sonenshein, 2010). Sense-giving may include initiating conversations or designing

communication where issues and events are framed and reality is interpreted. In this regard, Maitlis and Lawrence (2007) referred to the importance and legitimacy of sense-givers in terms of their ability to influence and shape the sense-making process.

Sense-making as an individual or collective process has been debated, with some scholars proposing that sense-making is an individual cognitive process and others defining it as a shared social process occurring between people in a socially co-constructed process, as people engage in interpretation and meaning is made (Maitlis & Christianson, 2014). This researcher's perspective is the latter and aligns with the viewpoints of Duchek (2020), Lengnick-Hall and Beck (2009), Lengnick-Hall et al. (2011), and Linnenluecke (2017), who viewed sense-making as a collective process of interaction and debate, as people engage with issues and develop shared understanding critical to organisational resilience development (Maitlis & Christianson, 2014). Furthermore, the inclusion of diverse perspectives adds robustness to the process, especially when solving complex adverse issues (Duchek, 2020).

What is not evident in current sense-making literature are the mechanisms that may be leveraged for shared sense-making. However, it has been suggested that in the context of rapidly unfolding crisis situations, where practices of collective problem are embedded, shared interpretative frameworks enable shared sense-making (Maitlis & Christianson, 2014, p. 552; Maitlis & Lawrence, 2007; Sarkar & Clegg, 2021). This perspective builds on research on cognitive diversity and divergence as enablers of shared sense-making in crisis (Caza et al., 2014; Duchek et al., 2020; Williams et al., 2017).

Collective or shared sense-making has been emphasised as an important aspect of resilience development (Lengnick-Hall & Beck 2009; Lengnick-Hall et al., 2011; Linnenluecke, 2017). Nevertheless, extant literature on sense-making does not examine the relationship between collective problem-solving and shared sense-making as an iterative process (Maitlis & Christianson, 2014). In the context of this study, the process of collective or shared sense-making enables the development of adaptive resilience, which has yet to be investigated in sense-making literature (Colville et al., 2013; Gioia, Patvardhan et al., 2013).

2.7.3. Developing adaptive resilience through collective problem-solving

Collective problem-solving has been referred to as a 21st century skill and is indicated for solving complex problems and where the pooling of knowledge, skills, and effort assists in reaching a solution (Neubert et al., 2015). Extant research on problem-solving has shown that critical thinking is advanced and consensus is achieved in collective or collaborative problem-

solving. The outcome of collective problem-solving is the development of common understandings and shared knowledge (Hayashi, 2018). The embedded practices of collective problem-solving are salient in extreme crisis events with high levels of complexity. In disruptive events, collective problem-solving assists at the critical juncture between detection of the crisis and activation of a response (Burnard & Bhamra, 2019), because of the need for speed in responsiveness. Collective problem-solving is also a mechanism for building relational capital that may be leveraged for shared sense-making. As discussed earlier, organisations that embed collective problem-solving leverage diverse perspectives and cognitive mindsets, enabling adaptive resilience development and adaptation (Duchek et al., 2020).

2.7.4. Developing adaptive resilience through confronting organisational identity

This microprocess is nuanced and embedded in the aforementioned microprocesses. Research about organisational identity in times of a crisis and disruption has been found to be significant (Van Tonder, 2011). Whetten (1989) defined organisational identity as the central, distinctive, and enduring traits of an organisation as perceived by the organisational collective. Crises trigger self-reflexive learning, which invites organisations to question who they are, what they value, and how they relate to others (Battaglia et al., 2019).

The purpose of an organisation's identity is especially salient during a crisis and disruption, as it forces the organisation to define or redefine itself through adaptation and a directed focus, and is thus a powerful "below the surface construct ... constructed as patterned self-referential meaning structures that are tacitly shared by employees and cultivated in social collectives" (Van Tonder, 2011, pp. 639). According to Weick et al. (2005), this construct propels the organisation to take action.

During a crisis or change, organisational identity might need to be confronted, especially if the current identity impacts an organisation's performance. Basing their research on the earlier work of Whetten (1989), Gioia, Patvardhan et al. (2013) asserted that organisational identity is a self-referential definition and explains "who we are as an organisation" (p. 123). Organisational identity is a tacit and shared framework of perceptions and interpretations among members of an organisation. While the conceptualising of organisational identity includes three elements – that which is central, enduring, and distinctive – it has been argued that organisational identity has the potential for change, assuming a dynamic perspective on an organisation's identity (Gioia, Patvardhan et al., 2013). Confronting organisational identity during times of turbulence and crisis might cause resistance and an "identity threat". Thus, it

is suggested that the ability to include an organisation's members into a process of dialogue and meaning-making about the organisation's identity is a necessary component of developing adaptive resilience. While a contrary perspective is that identity-strong organisations deal with a crisis and turbulence more effectively than identity-weak organisations (Van Tonder, 2011), it is also argued that by utilising a dynamic perspective of identity, where the identity is confronted in a collective self-reflexive learning process, then adaptive resilience can be developed. This viewpoint aligns with the social construction perspective of identity, which emerges from a collective process of sense-making and communication.

2.7.5. Developing adaptive resilience through communication

Communication is a nuanced dimension in all microprocesses and has been investigated in the CTR (Buzzanell, 2010). Although not a robust theory, CTR offers a unique lens of inquiry into the development of resilience through communication. Buzzanell (2010, 2018) developed the CTR as an interpretive, explanatory theory, and positioned resilience as collaborative, relational, processual, and transformative (Lee et al., 2020). The CTR is based on a processual view of resilience, which has also been researched by academics in resilience management literature (e.g., Conz & Magnani, 2020; Sutcliffe & Vogus, 2003; Vogus et al., 2010; Weick & Sutcliffe, 2007).

The CTR is grounded in "adaptive transformative processes" and is triggered by loss or disruption, and involves five interrelated subprocesses, defined by Buzzanell (2010) as (a) crafting normalcy, (b) affirming identity anchors, (c) maintaining/using communication networks, (d) constructing alternative logics, and (e) foregrounding productive action, while backgrounding negative emotions. The CTR has been utilised to research the process by which individuals, teams, organisations, and communities engage in a dynamic process of interaction to cope with and adapt to disruption during and after an extreme crisis event (Buzzanell, 2010, 2018), where the "significance of the construction and communication of meaning is amplified by the urgency of action" (Ansell & Boin, 2019, p. 1083). Future research should build on this theory by investigating additional communication mechanisms for constituting resilience (Buzzanell, 2010, 2018; Wieland, 2020).

Resilience is developed by key processes constituted across micro, macro, and meso levels, when grounded in interaction and sense-making, adaptation, and transformation (Buzzanell (2018, p. 16), which takes place through processes of communication that ultimately constitute resilience (Buzzanell, 2018; Weick & Sutcliffe, 2001). The CTR of Buzzanell (2010) embodies reflexivity and change. It involves managers and collectives interacting to communicate when

trying to cope with and adapt to changing circumstances using metaphors, stories, and dialogic processes that enable resilience (Buzzanell & Houston, 2018; Houston & Buzzanell, 2018; Lee et al., 2020).

According to Buzzanell (2010), resilience activation and development is prompted by a trigger event that sets an emergent process of discourse, narratives, messages, and sense-making in motion. A distinction has been made between resilience at an individual or process level, and resilience as an organisation's design aspect, generated by talk about the event, including framing and reframing linguistically (Buzzanell, 2010; Buzzanell & Houston, 2018). For example, in a subprocess of affirming identity anchors, collectives communicate, construct, and reconstruct primary identity anchors to deal with disruption in networks of communication that enable resilience (Buzzanell & Houston, 2018). Adaptively resilient organisations structure these inter-organisational relationships into dense and diverse communication networks (Ishak & Williams, 2018), which reinforce the collective nature of organisational resilience.

In summary, the intertwined microprocesses have been investigated separately, despite each having extensive research and literature. Microprocesses are socially constructed and involve dynamic interactions between participants in a collective endeavour. In combination, they are suited to extreme crisis situations, where there is uncertainty, confusion, and a dynamic unfolding of events. In a collective interactive process, multiple perspectives are explored, issues are framed, there is a co-construction of meaning as well as experimentalism and shaping action (Ansell & Boin, 2019). This has also been described as a process of "talk-in-interaction" (Buzzanell, 2010, p. 2), where "every participant may hold a piece of the sense-making puzzle, deliberation can place anomalies and conflicting interpretations on the table" (Barton et al., 2015, as cited in Ansell & Boin, 2019, p. 1091). It is within this collective process that adaptive resilience is constituted and developed.

2.8. Conclusion

Whilst there is an extensive body of research on organisational resilience informed by different perspectives and ontologies, ambiguity about the concept remains, specifically regarding organisational resilience development in extreme crisis events (Ansell & Boin, 2019; Conz & Magnani, 2020; Linnenluecke, 2017; Williams et al., 2017). The literature review commenced with an analysis of organisational resilience theory, organisational resilience, adaptive resilience, and resilience development. Furthermore, the five microprocesses that develop adaptive resilience were proposed, which informed the final sections of this chapter. These

microprocesses are: relational capital as a foundational microprocess, adaptive resilience development through shared sense-making, adaptive resilience development through collective problem-solving, adaptive resilience development through challenging organisational identity, and adaptive resilience development through communication.

Chapter 3: Research setting

3.1. Introduction

For maximum variation, the research was conducted in five different settings in South Africa. The goal of theoretical sampling is to choose cases that are likely to replicate or extend emergent theory (Eisenhardt, 1989). The choice of context was based on the researcher's domicile and access to a personal network. The cases were chosen according to various criteria, including: five different industries and publicly listed and private companies with 550–10 000 employees. All cases had their head offices in Johannesburg, South Africa, and case participants were based in South Africa. Each case adapted during the COVID-19 pandemic period of March 2020 to August 2022.

The cases were chosen based on the assumption that in each unique setting, there would be multiple accounts of how the organisations dealt with an extreme crisis event where the phenomenon – namely the process of developing adaptive resilience – could be investigated (Ayres et al., 2003). Each individual case provided rich data about the elements that explained the adaptive resilience development process in a specific context, which was analysed across the sample cases to extract elements of the phenomenon that were common to all cases.

3.2. Context of the research

Within organisational resilience scholarship, the context and type of crisis event influence organisations' resilient response (Duchek, 2020; Hillmann & Guenther, 2021; Linnenluecke, 2017). Despite agreement that organisational resilience is context-dependent, there is a lack of agreement on the conceptualising of resilience in different contexts. Research has been suggested to deepen understanding of the context-dependent nature of organisational resilience development and the generalisability of organisational resilience development research findings across contexts and settings. A perspective of resilience development proposed by Duchek (2020) is one that conceptualises the context as being both unexpected and an "adverse event" (p. 225). Contextual factors that have been proposed in terms of their impact on organisational resilience, which have not yet been investigated, are whether the type of threat, crisis or environment or institutional context is significant in terms of its influence on organisational resilience (Linnenluecke, 2017). That is what this research investigates.

The crisis-resilience relationship has been investigated by Williams et al. (2017), who argued that research in organisational resilience in the face of a crisis or adversity has been investigated separately from crisis management research, resulting in a lack of consensus on

the definition of crisis and fragmentation in research. Williams et al. (2017) defined a crisis event as “a process of weakening or degeneration that can culminate in a disruption to the actor’s (i.e., individual, organization, and/or community) normal functioning” (p. 739). By implication, such crises may threaten the survival of organisations. According to Williams et al. (2017), three factors define a crisis, namely that it is: inconceivable, unscheduled or unplanned, and a threat or disruption. Within this conceptualisation, Vargo and Seville (2011) added the dimensions of requiring urgency in action and decision-making.

Although various typologies of crises have been proposed (Williams et al., 2017), there is little agreement on whether crises are events or processes. Crises as events formed the genesis of crisis management literature, despite earlier research arguing that crises are not events, but processes extended in time and space (Williams et al., 2017).

This researcher’s perspective is that a disruptive crisis is both an event and an unfolding process, namely “a low-probability, high-impact event that threatens the viability of the organisation and is characterised by the ambiguity of cause, effect, and means of resolution” (Pearson & Clair, 1998, as cited in Maitlis & Sonenshein, 2010, p. 554). It occurs within a context that is dynamically uncertain as well as “emergent and fast-paced, unpredictable and overwhelming” (Christianson & Barton, 2021, p. 572). This positioning aligns with the definition of Bundy et al. (2017), who conceptualised a crisis as a highly salient, unexpected, and potentially disruptive event that is prioritised to effect a collective and urgent response.

Event system theory by Morgeson et al. (2015) offers insight into how events become meaningful and impact organisations across space and time. These kinds of events have three significant components, referring to novelty, disruption, and criticality. The researcher adds two components to these three criteria by including unexpected and persistent events. The COVID-19 pandemic – defined as a crisis – meets these five criteria and highlights the significance of the context of this study, which investigates how organisations developed adaptive resilience to respond, thrive, or transform to a new ecology in the context of this unexpected and impactful event (Anderson et al., 2019; Lin et al., 2021).

The context of the research was the COVID-19 pandemic or crisis event announced by the WHO on 11 March 2020 and its impact on people and organisations. The COVID-19 pandemic has been described as an extreme uncategorisable crisis event and as a catastrophic, multidimensional global event that “created an environment that is dynamically uncertain – routines are upended, normal interactions are disrupted, and risk must be reassessed on an ongoing basis” (Christianson & Barton, 2021, p. 572). Considering the unexpected and

unplanned nature of the COVID-19 crisis event, organisations faced an increasing sense of disaster and an urgency to find solutions, and responded with a singular focus to prioritise this crisis (Johnson & Murray, 2021). Research indicates that most businesses across the globe were less resilient to the COVID-19 pandemic than expected, with many facing financing operational and solvency issues, while South African businesses were described as "largely not resilient" to the impact of the pandemic (Akande & Afrogha, 2022, p. 24).

3.2.1. South African economy and COVID-19

South Africa has one of the largest economies in Africa with primary industries (e.g., mining and agriculture) and tertiary industries (e.g., finance, real estate, professional services, manufacturing, and retail) making the most significance to the economy. Nevertheless, unemployment remains a key challenge for the country (Stats SA, 2022).

On 15 March 2020, the South African government declared a National State of Disaster in response to the COVID-19 pandemic and the immediate closure of businesses, except for those considered to be "essential services", according to the Disaster Management Act 57 of 2002. Precautionary measures led to the government placing the country under stringent lockdown for six weeks from 26 March 2020. The private sector of the economy was forced to comply with strict lockdown regulations and businesses were prohibited from operating during the five alert levels. Each lockdown alert level allowed for the gradual reopening of certain economic sectors, starting with alert level five in March 2020 to alert level three on 30 July 2021 (Akande & Afrogha, 2022).

Prior to March 2020, the South African economy faced persistently low growth rates and widespread unemployment, poverty, and inequality (Chitiga et al., 2022), which were exacerbated by the COVID-19 pandemic. According to Statistics South Africa (2021), the South African economy contracted by 7% in 2020 and continued to contract in 2021 and 2022, resulting in the loss of over a half a million jobs in the third quarter of 2021 and a surge in business failures. The first three months of the hard lockdown were especially difficult and businesses showed a significant decline in formal business turnover from R11 trillion in 2020 to R10.6 trillion in 2021 (Statistics South Africa, 2021). The decline in business performance from COVID-19 lockdown restrictions was exacerbated by the occurrence of civil disorder in July 2021, which resulted in the South African economy contracting during 2020 and 2021. Figures 1 and 2 outline South Africa's business performance.

In addition to the aforementioned economic context, COVID-19 significantly impacted the South African population. According to the WHO, from 3 January 2020 to 8 November 2023,

South Africa had 4 072 533 confirmed cases of COVID-19 and 102 595 COVID-19-related deaths, making South Africa and its 61 million inhabitants the most affected country in Africa (Statistics South Africa, 2020; Stiegler & Bouchard, 2020).

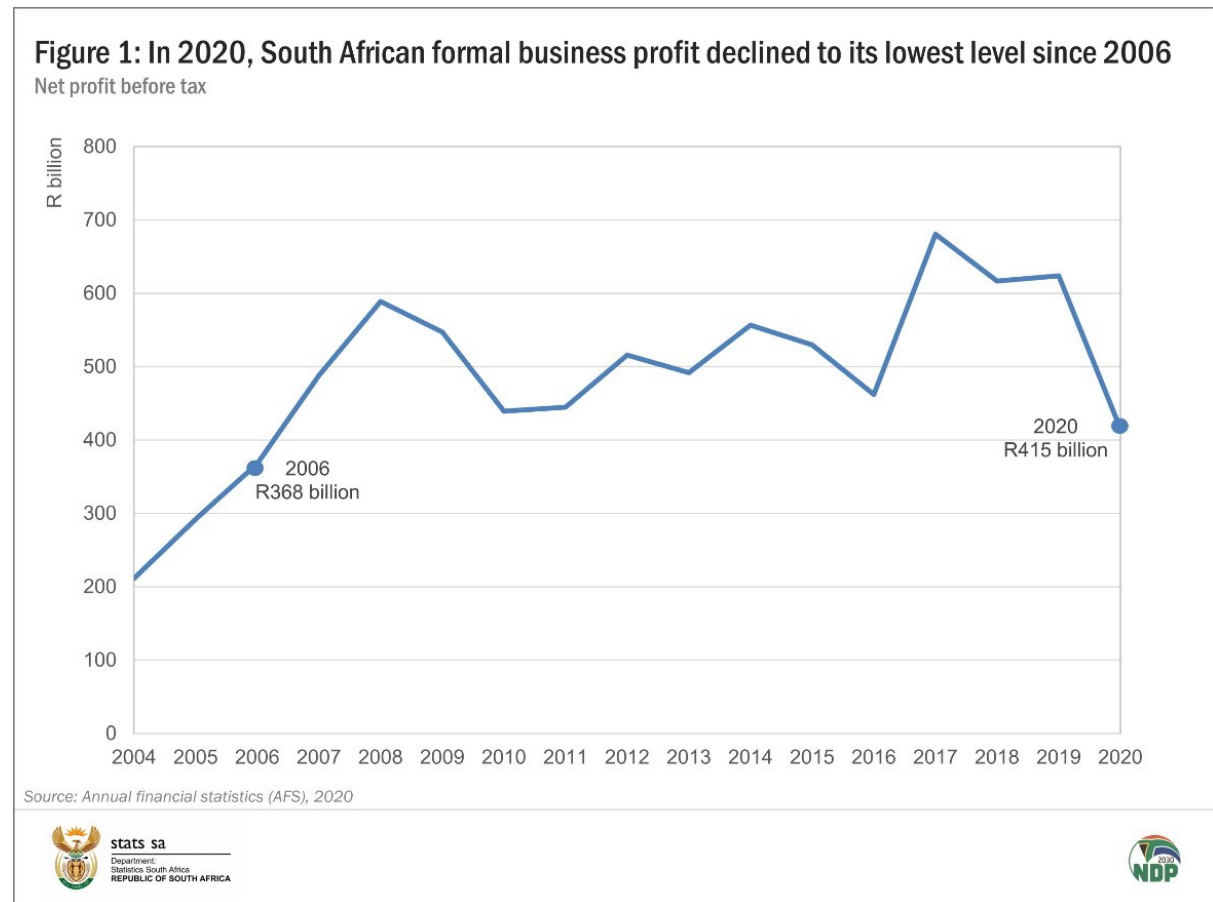


Figure 1: Decline in South African formal business turnover in 2021
 (Source: Statistics South Africa, 2021)

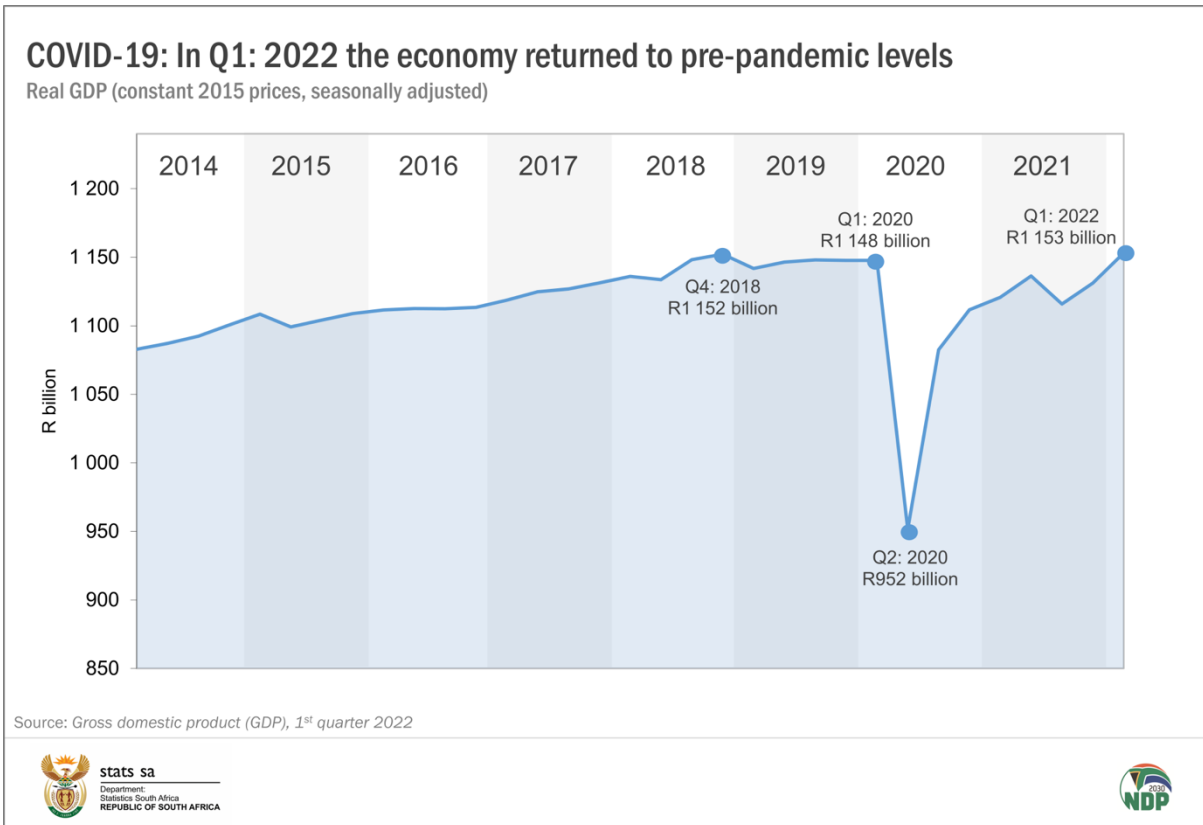


Figure 2: Impact of COVID-19 on the South African economy

(Source: Statistics South Africa, 2021)

Figure 3 illustrates the measures taken by businesses to adapt to the level 4 lockdown.

Measures implemented	Number of businesses
Altered methods of production	160
Altered goods or services offered to customers	165
Discontinued a good or service	156
Added new ways to interact with or sell to customers	285
Increased use of virtual connections internally	348
Increased use of virtual connections externally	320
Increased use of e-commerce	126
Invested in equipment to produce new products or expand existing product lines	25
Altered research and development projects	42
Increased maintenance costs	60
Decreased maintenance costs	177
None of the above	182
Do not know	32
Other	115

Figure 3: Measures taken by businesses to adapt to COVID-19 lockdown level four

(Source: Statistics South Africa, 2020, p. 7)

3.2.2. Extreme crisis contexts

Research on extreme contexts is nascent and related constructs in extreme context research have included terms such as adverse events, rare events, surprise or unexpected events, extreme situations, and disrupted contexts (Hällgren et al., 2018). While no unified definition of an “extreme” context exists, there is agreement that it is a context where organisations are rendered vulnerable to these unexpected events (Hällgren et al., 2018). Within extreme context research, a specific type of extreme context has been defined as a disruptive context (Hällgren et al., 2018). Unlike a risky context, a disruptive context is one where disruptions are typically unexpected and triggered by extreme events that extend beyond the boundaries of organisations. Disrupted contexts differ from risky contexts, as with the former there is little time for preparation (Hällgren et al., 2018). Therefore, an extreme or disrupted context may be described as “uncategorizable” because the event that has occurred threatens the “normal life” or ordinary functioning of an organisation (Hällgren et al., 2018, pp. 115, 135).

Hannah et al. (2009) argued that extreme context research and extreme events research need to be integrated and proposed that an extreme context is one where the presence of extreme events impacts the normal functioning of an organisation and where the organisation’s inability to prevent the event has psychological and operational implications. Extreme events comprise three conditions, namely they:

- (1) have the potential to cause massive physical, psychological, or material consequences that occur in physical or psycho-social proximity to organization members, (2) the consequences of which are thought unbearable by those organization members, and (3) are such that they may exceed the organization’s capacity to prevent those extreme events from actually taking place. (Hannah et al., 2009, p. 898)

This explanation aligns with more recent research on life-threatening events in extreme contexts. Mithani (2020) argued that scholarship on life-threatening events should be distinguished from economic or technological threats because life-threatening events result in individual trauma and constrain rationality. This harms organisations and their people, which undermines organisational adaptation and continuity (Mithani, 2020).

The classification of the type of adverse event and the type of resilience response has been based on an assumption that resilience responses differ, depending on the kind of change event and the specific context (Hillmann & Guenther, 2021). However, there is agreement that prioritising an urgent response is critical under these circumstances and within such extreme

contexts, and may include “unconventional methodologies and practices” (Buchanan & Denyer, 2013, p. 205). This perspective was reinforced by Burnard and Bhamra (2019), who highlighted the need for speed for speed and responsiveness at the critical juncture between detection of the crisis and activation of a response.

Literature on crises that was discussed in the introduction informs a dimension of organisational context. However, crisis events also have the potential to trigger extreme contexts, which the COVID-19 pandemic did, thus adding an additional factor to the contextual dimension that informs the research (Hällgren et al., 2018; Hannah et al., 2009).

For the purpose of this research, the COVID-19 pandemic is defined as an extreme crisis event, because it threatened the “normal life” of organisations and was “uncategorisable”, owing to the magnitude of its impact from socio-economic and environmental systemic change perspectives. In addition, it has to be considered that it was not so much the pandemic that directly caused the crisis, but the resulting lockdown levels that impacted all business sectors and individuals. This impact widened when hospital admissions reached dramatic and challenging levels, with medical aid companies and insurance underwriters feeling the severe after-effects of the increasing numbers of individuals falling seriously ill or dying. Normal business operations were no longer possible.

To date, investigated crisis events include ecological surprises, disruptive events like terrorist activities, unexpected events, and other recent disruptive natural events, such as earthquakes, fires, floods, and volcanic eruptions. Organisational resilience has been investigated in relation to the nature of environments, such as dynamic, complex, uncertain, and turbulent environments (Hillmann, 2020). However, there is agreement that there is a frequency of life-threatening events, such as natural disasters, terrorist attacks, and pandemics (Mithani, 2020), which some authors describe as “low-chance, high-impact events, threaten societal values and structures, and might even require government intervention” (Boin et al., 2017, p. 2).

The need for management research on the impact of life-threatening events on organisational adaptation has been suggested specifically, because scholarship in the past has largely focused on organisational adaptation in the face of technological and economic change (Mithani, 2020). The COVID-19 pandemic could be conceptualised as a life-threatening event that required an urgent collective response, because “the new normal demands the enactment of resilience” (Mithani, 2020, p. 5), which is “path-dependent” and idiosyncratic (Ortiz-de-Mandojana & Bansal, 2016, p. 1615). Such an event also necessitated that leaders consider

how people in organisations, specifically management, experience and make sense of the environment as these influence their responses to relationships, operations and organisation continuity (Gittel et al., 2006; Mithani, 2020; Sutcliffe & Vogus, 2003). Significant crisis events can trigger the emergence of adaptive resilience (Nilakant et al., 2016) that is required for a complex and uncertain world (Kuntz et al., 2017; Linnenluecke, 2015; van der Vegt et al., 2015).

Jacobides and Reeves (2020) suggested that “the winners” in the COVID-19 pandemic would be organisations that were adaptive and able to use sense-making to create new opportunities for growth and success. These processes are embedded in the “relational and structural contexts, which shape the meaning and form” (Pérez-Nebra et al., 2021, p. 5). Based on a context that required the prioritisation of an urgent collective response to the devastating effects and after-effects of the COVID-19 crisis event, a process of developing adaptive resilience that enabled organisations to survive and prosper had to be put in place.

3.3. Conclusion

The chapter provided context to this research, which is the South African widespread adverse impact of the COVID-19 pandemic on business turnover across all industries (Statistics South Africa, 2020). The COVID-19 crisis, an extreme crisis event, precipitated a cluster of other crises occurring concurrently, which complicated framing and interpretation owing to diverse narratives and disrupted possibilities for urgent and prioritised action. Although many organisations did not survive this extreme crisis event, some organisations survived and even prospered.

Cases were selected for an in-depth investigation of their idiosyncratic approaches to dealing with the COVID-19 crisis, defined for the purpose of this research as an extreme crisis event. This was investigated in a particular context to understand the process of adaptive resilience development to enable survival and thriving.

In a context of adversity, while organisations are inevitably influenced by the impact and duration of adverse environments, not all organisations confront disruption from adversity in the same way. Organisations are not limited to taking a reactive stance to adversity and different pathways may be taken leading to different decisions, responses and strategic approaches. These are based on the organisations interpretation and framing of circumstances which may enable them to manage or even leverage opportunities and

capitalise on such contexts ultimately growing organisational viability in altered environments (Shepherd & Williams, 2023).

Chapter 4: Research methodology

4.1. Introduction

In this chapter, the research design and methodology are discussed by presenting the philosophical paradigm and the overall process followed by the researcher as well as the justifications. This chapter shows the process that the researcher went through – from the initial data collection methodology to the data analysis. The chapter concludes with a recognition of the limitations of the methodology.

4.2. Research paradigm

As demonstrated in Chapter 2, adaptive resilience is a nascent concept that has not been investigated. Therefore, the researcher opted for a qualitative research approach for this study. “A qualitative approach is appropriate when a complex detailed understanding is needed ... and when the researcher seeks to understand the context or settings of the participants” (Creswell & Creswell, 2018, p. 65). This was evident through the researcher’s iterative data analysis process. Qualitative research is indicated when there is inadequate theorising on a real-world issue that is complex and requires detailed understanding (Bloomberg & Volpe, 2018; Creswell & Creswell, 2018). This research method necessitates an analysis and explanation of the meaning ascribed to an issue and depends on the identification of the key elements of the phenomenon that is being investigated by collecting multiple accounts of a lived experience (Ayres et al., 2003).

The paradigm utilised was exploratory, qualitative epistemology. The underlying epistemology was interpretive, with the belief that people apply meaning to their experiences and reality is socially constructed (Bloomberg & Volpe, 2018). The research paradigm was interpretivist, as it focuses on people’s lived experiences of adversity and crisis (Mackenzie & Knipe, 2006). The central assumption in this paradigm is that reality is socially constructed and contextual (Bloomberg & Volpe, 2018). Consequently, interpretivists try to understand the deeper structure of phenomena by analysing the meaning participants give their experiences (Orlikowski & Baroudi, 1991).

Starting with an interpretivist paradigm, the researcher utilised an inductive approach to theory building. This entailed “Building their patterns, categories and themes from the bottom up, by organizing the data inductively into increasingly more abstract units of information” (Creswell & Creswell, 2018, p. 45).

The research objective was learning towards a theory that builds on organisational resilience. As described below, this was achieved using multiple case studies to investigate the research question (Bloomberg & Volpe, 2018; Langley, 1999; Siggelkow, 2007). Consequently, an inductive methodological orientation for this research was appropriate to analyse experiences, events, relationships, and evolving dynamics within the context of an extreme crisis event (Pérez-Nebra et al., 2021).

The context of the research was South Africa during the COVID-19 pandemic from March 2020 to March 2022. Research in organisational resilience development emphasises the importance of social context (Linnenluecke, 2017) and, as such, participants from cases are bound by context. The researcher's background also informed interpretation and theory building from the data. Resilience theory was the predominant theory in this study and the construct was organisational resilience. Literature on organisational resilience is fragmented and there is no unified theory of organisational resilience (Duchek, 2020).

4.3. Research design

The research design was an inductive, multiple case study design. This was appropriate for the following reasons:

- The event was contemporary: A case study research method is appropriate for the investigation of a contemporary issue in the context of an extreme crisis event, given the lack of understanding, the lack of a historical perspective of the event, and its unique nature (Ridder, 2017; Wahyuni, 2012; Yin, 2018).
- The bounded nature of the event: “[A] case study is a good approach when the inquirer has clearly identifiable cases with boundaries and seeks to provide an in-depth understanding of the cases or a comparison of several cases” (Creswell & Creswell, 2018, p. 100). These elements are discussed in section 5 Research Findings
- Theory building: According to Eisenhardt et al. (1989), theory building from cases is particularly useful for answering “how” questions, with the goal being to build new theory or to elaborate on existing ones by providing “freshness in perspective” (p. 548).

4.4. Process research

Process research focuses on understanding and explaining how phenomena evolve within specific periods, which are analysed and explained through stories about events, activities, choices, and relationships (Langley, 1999). The study's research question was: *How did organisations develop adaptive resilience during an extreme crisis event?* This question sought to analyse the evolving process of resilience development within periods along a

continuum, with the objective being to understand how the process of dynamic adaptation worked for an organisation to survive and thrive (Conz & Magnani, 2020).

4.4.1. Case study design

There has been much debate about the credibility of case study research designs as a methodology in comparison to other forms of social science inquiry (Yin, 2018). First, there is confusion as to the appropriate utilisation of the case study design (Ridder, 2017). Second, there have been questions regarding the level of rigour used in case study research (Yin, 2018). Third, the generalisability of case study research has been questioned (Yin, 2018). Despite these perspectives, recent research shows that case studies are useful and well suited for inductive theory building from “real-life” contemporary challenges (Yin, 2018), which is in line with the overall approach of qualitative research.

4.4.2. Case studies and social context

Research in organisational resilience development has emphasised the importance of social context (Lengnick-Hall & Beck, 2005; Linnenluecke, 2017; Williams et al., 2017). Social context and process were important in the analysis of participants’ multiple meaning systems in this study. Research questions were broad and open-ended, and the researcher interpreted or made sense of these complex and unique environments with the understanding that a researcher’s background and experiences may influence these interpretations (Bloomberg & Volpe, 2008).

Further to section 4.2, this research philosophy was also based on ontological assumptions about the nature of reality and what exists within a context. Therefore, this research explored and analysed the multiple realities and interpretations of each organisation’s participants, which were independent of the researcher’s lived reality and interpretations.

In this study, participants shared their interpretations, perceptions, and perspectives of the COVID-19 crisis – an extreme crisis event. The introduction of direct participant quotes was reflective of an epistemological philosophical assumption in that knowledge was gained through an empathetic understanding of participants’ lived realities, experiences, and understandings, specifically during a time of great uncertainty and distress. This is explored further in section 4.5.

4.4.3. Multiple case studies

The research design utilised a multiple case study design (or type 4 case study in Yin, 2018), with data collected and analysed through qualitative methods. Multiple case study research has been recommended for the study of a contemporary issue in a real-world context over which the researcher has no control (Yin, 2018). This type of research offers robust insight that enables the generalisation of theory (Wahyuni, 2012; Yin, 2018).

A multiple case study research design is indicated to investigate a research question because rich data from different cases could be compared for a more comprehensive picture of the phenomenon under investigation (Wahyuni, 2012). In a multiple case study design, each case is first analysed as a single case to enable comparison of themes leading to theoretical conclusions (Ridder, 2017). The research was conducted in five cases and the process is detailed in Chapter 5.

4.4.4. The unit of analysis

The unit of analysis was the evolving process of a phenomenon, which was the development of adaptive resilience. This was located at a point in time after the WHO officially declared the COVID-19 a pandemic on 11 March 2020, which was followed by a further announcement of a national lockdown at maximum level five.

While the WHO (2023) only declared the pandemic to be “over” on 5 May 2023, from an experiential perspective, the researcher and the interview candidates considered the pandemic to be over in March 2022. The reason for this was that there were no further lockdowns following the lifting of the National State of Disaster on 5 April 2022 (South African Government, n.d.). It was after this that the organisations and their leadership considered the pandemic to be “over” and they were able to reflect on that period. Therefore, the research period was 27 March 2020 to 27 March 2022, with the level of analysis being the organisation.

4.4.5. Candidate cases

Five cases (i.e., organisations) of different industries and sizes were chosen for maximum variation and interpretation in light of the absence of theory (Ridder, 2017). The cases were selected based on theoretically relevant criteria and the researcher’s access to a personal network with executive teams, where there was agreement that the process of the development of adaptive resilience could be investigated. The five organisations included:

- A division of a publicly listed bank;
- A global advertising agency;

- A start-up life insurance company;
- A privately owned financial services group; and
- A publicly listed services group.

The development of resilience as a process that builds adaptive capacity was researched by Sutcliffe and Vogus (2003), who argued that organisational resilience can only be assessed ex post (Boin & Van Eeten, 2013). Therefore, the cases chosen were organisations that utilised the COVID-19 crisis to transform, grow, and thrive. The cases that were chosen met the following criteria:

- Had 450–10000 employees in South Africa, so that there was scale and complexity to the challenges faced;
- Had been operating for more than five years, so that there was enough history prior to the beginning of the pandemic on which adaptive resilience could be built;
- Had adapted their business model to meet the challenges the crisis presented;
- Was an organisation that was already working virtually and would not need to adapt much to the challenges that the pandemic presented; and
- The technological capability varied across all cases.

For confidentiality purposes, the candidate cases were given pseudonyms. These cases are outlined in the subsections that follow.

4.4.5.1. Case 1: AlphaCo

AlphaCo is a global advertising agency. The company offers above-the-line, below-the-line, shopper, media, digital, and customer experience services. The organisation commenced operations in South Africa in 2010. From inception, the organisation invested in defining its culture and identity and attracted high-profile young, creative talent. In 2018, the organisation became a subsidiary of a multinational advertising and public relations holding company. Its distinctiveness lies in its creative ability to reconcile technology and creativity. The interviewees were all based in South Africa and members of the executive team, which included the chief executive officer (CEO).

4.4.5.2. Case 2: BetaCo

BetaCo is a division of a publicly listed South African financial services organisation that offers a wide array of financial services. The organisation was founded in the 1990s and is known for being innovative and entrepreneurial, as evidenced in its unique products and services. The research was conducted in one of the largest and oldest divisions of the organisation. The

sample of interviewees comprised members of the executive team based in the South African head office and included the global head of the division, who was also based in South Africa.

4.4.5.3. Case 3: GammaCo

GammaCo is a large, privately owned Insurance group and commenced operations in the 1980s. The group has offices in various countries worldwide. In South Africa, the organisation employs approximately 2 350 people. The organisation plays a significant role in the South African sociopolitical landscape through its investment in community-based initiatives and the founders remain deeply involved in the business. The interviewees in the sample were all members of the executive team based in Johannesburg and included the organisation's CEO.

4.4.5.4. Case 4: DeltaCo

DeltaCo is an innovative technology organisation that commenced operations in 2011. Its objective was to challenge established market leaders in the industry by offering highly differentiated products and services. Since inception, the organisation has grown rapidly and is the one of the fastest-growing organisations in its sector. It is well known for attracting young, talented actuaries who wish to work in an innovative organisation. Headquartered in Johannesburg, the organisation has approximately 550 employees. The sample of interviewees was made up of members of the executive team and included the CEO.

4.4.5.5. Case 5: EpsilonCo

EpsilonCo is a publicly listed services organisation based in South Africa, with offices in Asia and the United Kingdom. The organisation commenced operations in the 1950s and has merged with various organisations as one of the largest operators in its sector. The organisation is composed of diversified businesses and offers a unique integrated business offering to the services industry, customers, and business partners. Headquartered in Johannesburg, the company employs approximately 10 000 people. The interviewees were all members of the executive team.

4.4.6. Participant selection: Purposeful sampling

Purposeful sampling was the most appropriate way of selecting participants for this study. As Creswell and Creswell (2018) noted, "the inquirer selects individuals ... for study because they can purposefully inform an understanding of the research problem and central phenomenon in the study" (p. 156). The participants selected were all executives in leadership roles at the apex of each organisation, who would have an organisational or departmental-wide view of the phenomenon and its progress through the study period. All participants played a pivotal role in defining relationships, decision-making, and shaping the organisations' responses to

the COVID-19 extreme crisis event. While the term “elites” has been used to describe these types of participants, the operationalisation of elites is a long-recognised research challenge (Ma et al., 2021).

The researcher contacted each of the five organisations through the CEO, the director of People (HR) or the director of Marketing. These individuals extended the invitation to participate in the research to the members of their executive teams. Respondents were selected on the basis that they were members of the executive team and had been in their leadership position since March 2018. In four of the five cases, the CEOs of the organisations formed part of the respondent sample. In the case GammaCo, there was a change of CEO during the research and both CEOs volunteered to be interviewed.

Although there is no unanimity regarding the number of participants for a qualitative study, some have argued that the sample size should be chosen to answer the research question (Yin, 2018). Creswell and Creswell (2018) recommended 20–30 individuals to develop a saturated theory. This study was done at the organisational level, but the interviewees were executives and, as such, the researcher tried to find a balance of enough executives in each organisation to understand their numerous perspectives of the phenomenon, while still studying the phenomenon across various organisations. Of the participants who partook in the study, 13 were female and 17 were male, but for confidentiality reasons, this is not noted within the candidate cases in section 4.4.5.

4.4.7. Number of participants

Considering the above, 30 participants were selected. Five to seven executive-level participants from each organisation was determined to be sufficient for generalisability, given the seniority of their roles and positions in their organisations, and the need for thick data to explain how and why things evolved over time (Langley et al., 2013). The cases were selected for variability, in which the evolving process could be investigated (Cloutier & Langley, 2020). Three cases had six interviews, one case had five interviews, and one case had seven interviews. In total, 30 in-depth, semi-structured interviews were conducted.

4.4.8. Secondary data

Secondary data in the form of internal and external communication relating to the COVID-19 pandemic and the organisations’ responses and decisions were collected and analysed. The participants and the secondary data collected per organisation are summarised in Table 1.

Table 1: Participants per organisation and secondary data collected

Case	AlphaCo		BetaCo		GammaCo		DeltaCo		EpsilonCo	
	Job title	Interview duration	Job title	Interview duration	Job title	Interview duration	Job title	Interview duration	Job title	Interview duration
	Joint CEO 1	54.13	Group CEO	34.00	CEO	47.43	CEO	61.00	Divisional CEO	35.48
	Joint CEO 2	45.13	General manager	41.21	CEO	32.46	Executive marketing director	54.50	Divisional CEO	38.49
	Financial director	35.29	Head of People	51.00	Group chief risk officer	40.27	Chief risk officer	46.09	Divisional CEO	39.15
	Chief marketing officer	36.00	Head of Strategy	45.22	Head of group shared services	49.00	Chief reputation officer	57.52	Executive corporate affairs	59.40
	Chief growth officer	54.12	Chief actuary	34.00	Chief marketing officer	58.00	Chief strategist	48.05	Group CEO	55.18
	Managing director	51.52			Head of People	38.47	Chief information officer	48.59	Chief people officer	52.38
					Group head of Communication	48.04				
Total	6	276.19min	5	205.43 min	7	313.67 min	6	315.75 min	6	280.08 min
Secondary data	<ul style="list-style-type: none"> • Memos from CEOs • Memos from crisis committees • Staff engagement surveys • Researcher's field notes and reflections 									

4.5. Research methods

4.5.1. Introduction to the research methods

The previous section described this study's research design and the reasons why it was designed that way. As already discussed, a qualitative research method informed by the research paradigm was appropriately chosen to explore the phenomenon in a specific context, namely an extreme crisis event (Klag & Langley, 2013; Langley et al., 2013). As outlined in Chapter 3, the research question is a "how" question, namely: *How do organisations develop adaptive resilience during a phase of an extreme event?* Again, as mentioned above, in this research, the unit investigated was the process of development of adaptive resilience.

4.5.2. Interview design

It is important to note that the research assumption was that the participant sample of executives and senior leaders could identify their organisations' lived experiences of the extreme crisis event, which included key assumptions, decisions, priorities, and actions that would reveal the deeper structure of the phenomenon, the evolving process, and that this level of inquiry would lead to an in-depth understanding of the process (Mackenzie & Knipe, 2006; Orlikowski & Baroudi, 1991). Reality is socially, historically, and culturally constructed, and the subjective meaning and interpretations of participants are well suited to qualitative research (Creswell & Creswell, 2018).

Consequently, the researcher utilised open-ended questions in the interview design to investigate how the organisations and the individuals described and interpreted their experiences, including their sense-making about the crisis event. By utilising this approach, the researcher explored the development of the process of socially constructing resilience and its outcome of a type of resilience defined as adaptive resilience. As mentioned in section 4.4.6, the context the research took place in was relevant, because resilience is context-dependent and, with the participants being at the apex of their organisations, their backgrounds influenced their reality. Hence, this research took place in South Africa and all participants as well as the researcher were located in South Africa.

The researcher's personal and career background in organisational change and culture with similar organisations in South Africa also informed the interpretation and theory building from the data. This is discussed extensively in later sections.

4.5.3. Data collection methods

The primary data collection tools were semi-structured interviews and documentary data. While the design of the interviews was done upfront, the nature of the research required an iterative and flexible approach. This is a commonly used approach in this type of research (Roulston, 2010).

4.5.4. Pilot study

Pilot studies are important because they enable researchers to refine and develop the research instruments, assess the degree of observer bias, frame and test the interview questions, and adapt the research procedures (Yazan, 2015). Therefore, prior to finalising the interview design, a pilot study was conducted with three participants in an education technology company. The purpose of this pilot study was to evaluate the interview questions and, if required, to refine the interview guide.

Although no changes were made to the questions in the interview guide, the researcher found it useful to restructure the interviews into three phases, namely how the organisation worked prior to March 2020, after the announcement of the COVID-19 pandemic until March 2021, and from March 2021 to 2022. As already noted, the pandemic was declared to have ended in May 2023. Yet the reality of the researcher and the participants was that the pandemic was “over” in March 2022, so the discussion was held on this basis when the interviews were conducted in August 2022. Data obtained from the pilot study was not used in the study.

4.5.5. Interview protocol

The primary data collection tool was a semi-structured interview guide, which Yin (2018) emphasised as being one of the most important sources of data collection. The data collection tool was interviews with managers, which utilised open-ended questions. An assumption underpinning the research was that organisational resilience is contextual. Therefore, the context in which this research took place is significant to explore a complex phenomenon (Yin, 2018).

The initial intention was to conduct interviews at each organisation, but the impact of the COVID-19 pandemic resulted in some participants working remotely. Consequently, for the purpose of interview consistency, the researcher conducted all interviews via Microsoft Teams, which enabled the planning and recording of the interviews. This form of interview process limited observations of some of the participants' expressions and body language. However, the participants were encouraged to keep their video on throughout the interviews

so that the researcher could use as many of the five senses and observe interviewees' body language as much as possible (Creswell & Creswell, 2018, p. 167). Although this method was limited, the researcher did not feel that it detracted from the discussion and the participants were fully engaged, with some even shedding a few tears., as described in section 4.5.6.

While the interview guide was used to structure all the interviews (refer to Appendix 1), the interviewer made adjustments and probed emergent themes during each interview. This is referred to as "controlled opportunism" (Eisenhardt, 1989, p. 539). Yin (2018) indicated that although a case study data collection process follows a formal protocol, it is not predictable, resulting in the researcher needing to review evidence and change direction to search for additional evidence. This approach is supported by Eisenhardt (1989), who stated that researchers require flexibility to investigate "the emergence of new themes to improve resultant theory" (p. 539).

A further protocol for each interview was that all participants were required to complete the proforma informed consent statement prior to the interview (see Appendix 2). Each interview was planned to last 45–60 minutes, but the shortest interview was 32 minutes long and the longest lasted 62 minutes. All interviews were conducted using Microsoft Teams software and were recorded with the respondents' permission (see Appendix 4) for a copy of the permission form).

4.5.6. *The interview structure*

The interview process began with an introduction by the researcher. The purpose of study was explained, including the methods of data capture and analysis. Confidentiality and anonymity were discussed with the participants, as well as the completion time of a maximum of one hour for the interview. It was important to explain that the interview could be difficult and could generate feelings of anxiety and concern, as it focused on the organisation's response to the COVID-19 pandemic, which had an impact on people. For this reason, the interviewer used an empathetic tone.

The interviewer commenced the interview by learning more about each respondent's role and history in the relevant organisation. The interviewer then explained that the interview was divided into three phases: pre-COVID-19 (prior to March 2020), during COVID-19 (March 2020 to March 2022), and post-COVID-19 (March 2022 to August 2022 – the month of data gathering).

The initial focus was on how each organisation functioned pre-COVID-19, with specific reference to the organisational culture, strategy, structure, and purpose as well as the quality of relationships amongst staff at all levels. The next part of the interview centred on the organisations' initial response to the COVID-19 pandemic, including how they made sense of conflicting and ambiguous information, the dilemmas they faced, and the decisions taken. It was imperative to understand who was involved in these initial discussions and whether collective processes of sense-making and communication took place and how these were structured.

The focus of the interview then moved to understanding what kinds of interventions the organisations implemented and the decisions taken. Specific areas that were investigated were conversations that took place about the future as well as the different interpretations and realities of people, including whether the organisations' identity was an important factor in relation to strategic options and future possibilities. Other questions included how people's negative or fearful emotions were dealt with. The central focus of the interview was on how managers came together to talk about what was happening, what they spoke about, including the earliest successes and, earliest failures.

In the third part of the interview, the focus shifted to changes in the organisations, with specific reference to changes in the business model, how the organisations evolved or changed from pre-COVID-19 to the present, including specific reflections, insight, and learnings from the experience. Throughout the interviews, the interviewer encouraged openness and depth of information, and follow-up questions used the participants' own words and phrases.

Five participants become emotional during their interviews and the interviewer gave them the space and time to compose themselves. In this regard, the interviewer empathised with emotional undertones. At the close of the interview, each participant was invited to add any further thoughts and information that were triggered during the interview. Respondents shared a number of reflections on colleagues and family members who had passed away from COVID-19 as well as their reflections about camaraderie, the building of new relationships, and the unanticipated development of strengths and capacities in their organisations, with a specific focus on how technology had enabled hybrid and remote work. A significant reflection was on how their leadership roles had changed and the implications of these changes.

The researcher took notes during the interviews, which included the researcher's thoughts and insight. This was done prior to and immediately after the interview as well as once the entire interview process had been completed (Eisenhardt, 1989). These notes included field

notes that enabled the researcher to develop a commentary about the process and to question the learnings (Eisenhardt, 1989).

4.5.7. Documentary data

According to Yin (2018), case study research should include multiple sources of evidence that can be triangulated to strengthen theory. Consequently, in this research, data were collected from multiple sources to ensure the complexity of the case was analysed, which enabled the development of converging lines of inquiry (Yin, 2018). The data collection process included the interviews described above, content from secondary data, and the interviewer's field notes and reflections. Secondary data pertaining to the organisations from March 2020 to March 2022 was obtained and included official internal communication from the CEOs and executive teams to the members of the organisations about the COVID-19 crisis, company information, and specifically communication detailing the organisations' interpretation and responses to the crisis.

The data collection ensured the triangulation of the various sources of data (Ridder, 2017). Multiple investigators and data collection methods are required to build theory from case studies (Eisenhardt, 1989; Yin, 2018). Internal communication memos and corporate reports for the two publicly listed companies were used to obtain additional depth of understanding of the issue being studied for triangulation purposes (Eisenhardt, 1989; Wahyuni, 2012). The reports are not referenced here for anonymity reasons. Documents that informed the framing of communication and specific decisions taken were utilised to corroborate themes in the within- and cross-case analyses.

4.5.8. Recording and memoing

The interviews were recorded on the researcher's computer using Microsoft Teams software technology. These recordings were immediately downloaded and emailed to the transcriber. Ethical clearance was obtained from the transcriber (see Appendix 6).

In addition to the recordings, the researcher took field notes and constructed memos (Yin, 2018), which were scanned and converted into an electronic document (PDF) for safe record-keeping. It should be noted that in addition to the interview content, the researcher made field notes of the following items, which are discussed at length in Chapters 5 and 6:

- Emotions and feelings that were raised for the researcher as a result of conducting the interviews and listening to the participants' answers;

- Reflexive learnings about the process and what could be learnt going forward in the following interviews; and
- Insight and reflections on the three phases or periods.

4.5.9. Safe keeping of records

From the time of the interviews, the data were stored on the researcher's password-protected computer in a password-protected file. Records of this study were also submitted to the GIBS Doctoral Office on 30 November 2022 for storing and safe keeping in the GIBS SharePoint folder at the GIBS Information Centre and at the University of Pretoria. The records submitted included: (i) interview recordings, (ii) interview transcripts, and (iii) documentary data. The Information Centre store the data for 10 years, typically off site.

4.6. Data analysis

4.6.1. Introduction to the data analysis

Creswell and Creswell (2018) noted the challenges qualitative researchers face in analysing and presenting data. This is certainly true for the study of a non-operationally defined phenomenon that took place through a recent global crisis, such as COVID-19, and was reflected in the researcher's experience.

The researcher is an experienced organisational development consultant and has extensive experience in qualitative data analysis. Yin (2018) argued that there are no fixed formats for data analysis and that researchers' style of thinking, rigorous analysis, and interpretations inform this phase. This aligns with the view of Stake (1995, as cited in Yazan, 2015), who stated that "Each researcher needs, through experience and reflection, to find the forms of analysis that work for him or her" (p. 145).

In the first phase of the research analysis, the researcher utilised computer-assisted pre-packaged software, Atlas.ti, to search for patterns, insight, and concepts, in line with Yin (2018). This was followed by an in-depth phase of data analysis, where no computer-assisted tool was used and the researcher developed an organising framework to reevaluate the data. Transcripts were analysed line by line (without Atlas.ti) for patterns, explanations, themes, and subthemes in three periods, looking for rival explanations. Moreover, as described in the interview process, voice notes, memos, and field notes were used. These phases are detailed below.

4.6.2. Pre-analysis

Further to the previous section, two important aspects of the analysis were conducted in the study. First, edited transcripts were analysed in three periods, allowing for an open-ended, inductive approach. By analysing the data pre-crisis, during the crisis, and post-crisis, the researcher used a temporal bracketing approach, which was found to be useful for structuring the process of analysis (Langley, 1999) and enabled the researcher to analyse recurrence and progressions of patterns (Langley et al., 2013).

Second, research of organisational resilience indicates that individual resilience and organisational resilience are linked, and collective actions make up an organisation's resilient response. Thus, the investigation was at a collective organisational level, where relationships' actions and decisions were enacted collectively (Hillmann & Guenther, 2021).

Therefore, the researcher had to analyse collective development processes, which required the researcher to remain aware during the data analysis process to ensure theory was developed from this perspective and that the researcher was distant from the data. The researcher is an experienced organisational consultant and had assumptions about the data analysis process as well as of collective resilience development based on scholarship, which required the researcher to reflect and disclose these assumptions for a qualitative research study, with the objective being an inductive theory contribution (Yin, 2018).

4.6.3. Data analysis strategy: Inductive

Case studies are regarded as being well suited for inductive theory building, enabling in-depth understanding of what is happening and why (Yin, 2018). This case study research design commenced with a research question and data were worked ground up (inductive). According to Yin (2014), an inductive strategy is a useful approach, as the data describes the behaviour and events that the case study is trying to explain, and researchers derive categories and themes from the data, rather than have a pre-imposed framework of analysis. Creswell and Creswell (2018) suggested that an inductive process entails working back and forth between themes and data utilising inductive and deductive logic to analyse the various meanings and perspectives.

By focusing on the process, patterns may become evident and although quantitative researchers may consider this process to be imprecise, Yin (2018) suggested that an iterative process of explanations building, which is an additional analytic technique, enables the process to become apparent, particularly in a multiple case study design. Furthermore,

Bowers (1988) opined that by analysing the data, researchers are able to understand implicit meanings and assumptions.

Therefore, data were analysed using inductive analysis towards theory building. Furthermore, it was important for the researcher to analyse the data without imposing a pre-defined framework. Content analysis was utilised to interpret and evaluate the language, text documents, and the contextual meaning of words (Ayres et al., 2003).

Strategies for the data analysis process are largely based on narrative analysis and include the analysis of patterns in processes, as well as the meaning of the process (Langley, 1999). The contextual detail in the narrative enables transferability of analysis to other settings.

4.6.4. Categorisation and coding

The first step of the data analysis included coding, categorisation, and the formation of themes within and across cases to generate and sharpen the theory in an iterative process. The process commenced with a detailed analysis of each case to ensure unique patterns emerged for the specific case, before generalising the categories and within-group similarities, as well as the intergroup differences and patterns across the five cases (Eisenhardt, 1989, p. 540).

4.6.5. Data analysis techniques: Coding

Coding is defined as a process of “identifying segments of meaning in your data and labelling them with a code” (Skjott Linneberg & Korsgaard, 2019, p. 261). The data coding process involved coding the data and then encoding the coded data with a label. This provided the desired depth and structure to the data analysis. Coding the data ensured that the codes or concepts accurately reflected the meaning of the retrieved words and phrases, and the answers to the question “why?” (Yin, 2018).

The process entailed inductive coding by using phrases or terms used by the participants (Skjott Linneberg & Korsgaard, 2019). Codes were developed to represent a concept or abstraction (Yin, 2018). This was followed by sorting quotations into code categories and then within-code categories. Thereafter, these were sorted into themes, and finally into a descriptive presentation with interpretations and discussion. The tasks of coding and interpretation occurred simultaneously and led to the identification of new concepts and how they could relate to each other or the process (Saldaña, 2009; Skjott Linneberg & Korsgaard, 2019).

For each case, interview transcripts were coded using Atlas.ti software, with each code representing a concept in the resilience development process (Yin, 2018) and forming a link between data collection, data analysis, and inductively developing an emergent theory to explain the data (Bowers, 1988). The questions posed by Bowers (1988) informed this analysis and explained the process at play in each phase, analysing when, why, and how this process changed. This included how participants thought and felt while involved in the process. Transcripts were coded line by line in alignment with grounded theory (Bowers, 1988).

Coding commenced with the AlphaCo case, with 375 codes being defined. After coding cases BetaCo, DeltaCo, GammaCo, and EpsilonCo, the researcher discovered repetitions and codes were merged. This was a repetitive process resulting in renaming codes and code groups – for example, differentiating between decision-making and prioritisation of decisions in the during-crisis phase. The result was 333 codes and 30 categories or code groups (Grodal et al., 2021) in a thematic grid. See Figure 4. Relevant aspects of internal communication memos and emails were also highlighted and uploaded to Atlas.ti for coding. The coding exercise was limited only to the relevant sections.

4.6.6. Data analysis techniques: Categorisation

The process of categorisation entailed sorting the data in line with its similarity according to labels or phrased descriptors (Aguinis et al., 2006) and code families. The process of classification was a meaning-making and meaning-finding process (Saldaña, 2009). This process led to new classifications in terms of which the whole picture could be described. This is referred to as first-order analysis and included a large number of categories that needed to be subdivided, others subsumed, and new categories added to produce comprehensive synthesised classification (Gioia, Corley & Hamilton, 2013).

This process led to the second-order theoretical level of themes (Gioia, Corley & Hamilton, 2013), where phenomena were grouped together, based on similarities or relating the categories to an underlying concept, as well as the frequency and sequence of events, patterns or relationships (Saldaña, 2009). This process assisted the researcher in describing and explaining the phenomena that were being observed. The aim was the conceptualisation of an experience, a system of logically interconnected parts, which together constituted a whole.

◆ Adaptability/Improvisation/ new pathways/pre during post	41
◆ Communication Framing meaning	32
◆ Contextual Factors	6
◆ Covid /Sensemaking Initial insights /Actions	21
◆ Covid Decisions and Actions Responsiveness/Improvisation	32
◆ Covid/ decisions leveraging learning	45
◆ Dilemmas priorities- work/People	16
◆ Group Processes problem solving dialogue	8
◆ Hybrid Remote work Challenges during Covid	18
◆ Identity	32
◆ Leadership / Role/ Identity/ learning / insights	11
◆ Learning Pre/During/Post	6
◆ People/profile/characteristics /emotions/experiences	19
◆ Post Covid / Insights/ resilience/strengths/new capacities	12
◆ Post covid learning/ reflections	26
◆ Pre Covid culture, principles, identity	44
◆ Pre Covid Growth and identity dilemmas	13
◆ Sensemaking / unceratinty, ambiguity/about covid	10
◆ Technology Capability	5

19 Group(s)

Figure 4: Atlas Ti Category groups

4.6.7. Data analysis techniques: Within- and across-case analysis

As described above, in this study, the cases were a study of each organisation, with five to seven interviews per case. The aim of this part of the first phase was a conceptualisation of an experience, a system of logically interconnected parts, which constituted a whole. Each case was analysed separately, with the themes that appeared across cases then being identified and analysed (Eisenhardt, 1989).

Subsequently, the researcher could find categories and themes across the cases that constituted the cross-case analysis. Data analysis included the identification of within- and cross-case patterns. Within-case analysis assisted the researcher to become familiar with each case and to deal with the quantity of data (Ayres et al., 2003; Eisenhardt, 1989; Yin, 2018). This involved identifying patterns and relationships, and working until saturation was reached within each individual case, which enabled the unique elements of each case to materialise before these were generalised across cases (Eisenhardt, 1989).

According to Yin (2018), an iterative process of pattern matching is intrinsic to data analysis, specifically in explanatory research, where patterns relate to the “how” and “why” of the case study. From each case analysis, themes, concepts, and relationships emerged, which could be tested against existing literature to develop an empirically valid theory that fitted the data (Eisenhardt, 1989). The goal was the development of an inductive framework that was grounded in the participants’ experiences and showed the dynamic relationship between

emergent concepts and principles that could be transferable (Gioia, 2013). This process is also discussed in the following sections where within- and cross-case analysis was used in the second phase of data analysis.

4.6.7.1. Phase 1: Saturation

In research, saturation refers to a state where pushing forward in the process, whether it is information gathering or analysis, does not produce additional value or results. There are different types of saturation, including inductive thematic saturation. This means that further analysis of the data does not yield additional themes, allowing researchers to generalise the concepts emerging from their research.

In this study, the researcher initially analysed the data using the Atlas.ti software to code and develop themes until saturation was reached. As inductive research, this was done from the detail of the data from the interviews and documentation moving towards more generalised categories. The initial process revealed:

- Pre-COVID-19: 17 categories;
- During COVID-19: 18 categories; and
- Post-COVID-19: 14 categories.

4.6.7.2. Phase 2: Data analysis

After completion of the coding and categorisation process using Atlas.ti software, the researcher became aware that frequency of codes and categorisation did not adequately reveal the themes, process, patterns, and nuanced levels of analysis for a “how” question, relating to the evolving process of resilience development (Yin, 2018). Therefore, the researcher found it necessary to reflect on the data from the Atlas.ti program and to create some distance from the research. This was necessary for reflexivity and the researcher reexamined memos to examine the nuanced dynamics and processes that had been recorded. This is unsurprising, as Ayres et al. (2003) observed:

“The generalizations developed by qualitative researchers are embedded in the contextual richness of individual experience. Qualitative data management strategies that depend solely on coding and sorting of texts into units of like meaning can strip much of this contextual richness away”. (p. 871)

4.6.7.3. Organising framework for phase 2

To make sense of the data and find meaning, the researcher required an organising framework or a theoretical scaffold to explain the phenomena by re-analysing the categories and codes to identify the underlying mechanisms (Nowell et al., 2017). This was done by devising themes that emerged from the initial analysis and comparing them across each stage. This is discussed in detail in Chapter 5, but is presented in the following table.

Table 2: Organising framework: Pre extreme crisis event dimensions

Pre dimensions	AlphaCo	BetaCo	GammaCo	DeltaCo	EpsilonCo
Access to information and information seeking/ scanning expertise	Medium/High	High	Medium	Medium/High	Medium
Sense-making ability	High	High	Medium/Low	High	Medium
Degree of internal/external focus	Internal and external (international input)	Internal and external	Internal	External (market sources)	External
Speed of decision-making	Intermediate	Fast (due to informality)	Slow (fragmented)	Fast (due to small size)	Slow (change-averse)
Learning ability from prior crisis	High (due to multiple changes)	Medium (culture of iteration)	Medium (few crises)	High (due to start-up challenges)	Medium/Low (size and decentralisation a barrier)
Responsiveness /Ability to pivot	Medium	High (immediate)	Low (bureaucracy and people focus)	High	Low (organisational change fatigue)
Dialogue processes across levels	Medium (formal)	High (informal, embedded)	Low (hierarchy based)	High (informal)	Low (level specific)
Shared language, meaning-making and positivity	High (optimism)	Very high	Medium (rules, systems matter)	Low (threat, fear)	Medium
Degree of trust in leadership	Medium (due to changes)	High (trust in all leadership levels)	High (hierarchical, trust in founders)	High (trust in founders)	High (respect for authority)
Culture/Identity cohesion?	High (ongoing dialogue)	High	Medium (in transition)	High	Unable to rate (organisation in flux)
Clarity of organisational purpose?	Medium (unstated except creatively)	High (prominent)	High (industry-based)	Medium (“beat the big boys”)	Unable to rate (organisation in transition)
Technologically savvy?	High	High	Low (inconsistent, unscalable)	High	Medium

Pre dimensions	AlphaCo	BetaCo	GammaCo	DeltaCo	EpsilonCo
Contextual awareness involvement in outside communities	Low	Medium	High	Low	Low
Experimentation /Trying new things (level of dexterity)	High (openness to "new")	High (experiments)	Low (risk-averse)	High (experiments)	Low
Level of collaboration/ teamwork	High (by tribes)	High (across organisation)	Medium (by level)	High (at senior levels)	Low (silos)
Relationship (people) orientation	Medium	High	Very high	Low	Medium
Task (performance) orientation	High	High	Low	High	High
Communication – level of interactivity	High (in teams)	High	High (top down)	High (at executive committee [ExCo] levels)	Medium (top down)
Scenario forecasting embedded as a practice?	No	Yes	Yes	Yes	Yes

Table 3: Organising framework: During-extreme crisis event dimensions

During dimensions	AlphaCo	BetaCo	GammaCo	DeltaCo	EpsilonCo
Speed at which pre-existing strategies and plans implemented?	Intermediate	Fast	Intermediate	Fast	Slow
Authoritative information for sense-making	High (about industry/ever yone)	High (about global issues; ongoing and readily available; everyone)	High (about South Africa context; ExCo seeks)	High (about industry; ExCo seeks)	High (executive responsible)
Communication processes of informal dialogue face-to-face or technology-based	Medium	High (communication has always been high)	Formal (used various mechanisms)	High (amongst ExCo; ExCo filtered to staff)	Information messaging, formal
Pre-COVID-19 learning from crises	High	Fail-fast culture helped us	Medium	High (start-up pain)	Medium
Level of decision responsiveness	High	High	Medium	High	Medium (learn about failing fast)

During dimensions	AlphaCo	BetaCo	GammaCo	DeltaCo	EpsilonCo
Fast response improvised “scrappy”/agility	High (had nothing to lose)	High (improvise/ innovation on the fly)	Medium/Low (“Do not do experimentation”)	High (is in our DNA)	Medium (depends on leader in charge)
Level of innovation?	Medium (using international opportunities)	Very high (in pre-existing DNA)	Low (remote work innovation)	High (in pre-existing DNA)	Low (selling cars online was new)
People’s well-being prioritised	Always (survival issues at play)	Always (power hour/therapists)	Always (care packages)	Somewhat (get people back to office)	Always (many deaths)
Prioritised processes of connecting/connection?	Yes (utilised pre-existing processes, such as Slack)	Yes (thoughtful)	Yes (department/level-specific)	Yes (at ExCo level)	Somewhat (top down)
Usage of values to take decisions?	High	High	High	Low	Low (adaptation)
Level of contribution towards broader society?	Low (none)	High (part of business practice)	Very high	Low (none)	Low (none)
Planning processes/systems	Moderately important	Not at all important (formality)	Moderately important	Moderately important	Important
Level of engagement in scenario forecasting and implementation of pre-existing scenarios	Medium (preparation but did not anticipate the extent of business destruction)	High (preparation)	High (preparation)	High (preparation)	Medium (preparation was a source of guidance)
Key decisions made and driven by ExCo or managers?	Both ExCo and managers (also used forums)	Both ExCo and managers	ExCo	ExCo	ExCo
Use of internal or external experts/leaders for sense-making?	Internal (international colleagues)	Both internal and external (authoritative thought leaders)	Internal (leaders)	Both internal (authoritative leaders) and external (research)	External (used consultants)
Flexibility enabled innovative decision-making	Yes (size enabled flexibility and agility in our DNA)	Yes (we were always flexible)	No (hierarchical processes stifled flexibility)	Yes (agility and flexibility in our DNA)	No (structures and hierarchy a barrier)
Prioritised our people and/or our customers	Customer	Both – people and customers	People	Customers	Both – people and customers, but more focus on customers

Table 4: Organising framework: Post-extreme crisis event dimensions

Post dimensions	AlphaCo	BetaCo	GammaCo	DeltaCo	EpsilonCo
Leadership challenged by remote/hybrid work?	No (stayed the same – business model always included remote work)	Yes (highly challenged by technology)	Yes (somewhat challenged)	Yes (somewhat challenged)	No
The crisis made us a better organisation	Strongly agree	Agree/Strongly agree	Agree/Strongly agree	Strongly agree	Agree/Strongly agree
Degree of business model change	Medium (industry model unchanged)	High (new products, a changed business model)	Medium (business model unchanged)	High (new products/services)	Medium (unchanged business model but new markets enabled by technology)
Degree of leadership identity change (role identity shift includes empathetic concern for people)	High (shifted towards empathetic leadership approach)	Medium (retained people and business first approach)	Medium (shifted to encompass business and profit)	Low (business first)	High (shifted towards empathetic leadership approach)
Technology-enabled adaptation beyond survival	High (enabled us to win new business)	High (enabled new ways of working/interacting with customers)	Low (helped us survive)	Medium (new ways of connecting with staff and clients)	Medium (new online customer interfaces)
Processes of connection problem-solving	High	High (informal, across levels)	Medium (we now talk about things)	High (ExCo)	Medium (by level/formal process)
Type of work model	Remote	Hybrid	Hybrid	Return to office	Return to office
Culture/Identity has strengthened?	Agree (we know who we are)	Agree	Neither agree nor disagree (we are in transition)	Neither agree nor disagree (we did not live our values)	Disagree
Implemented ideas/approaches from crisis?	Strongly agree (we restructured, run business virtually)	Strongly agree (new products, services and communication)	Somewhat agree (hybrid work, but we still do things the same)	Strongly agree (new products)	Strongly agree (new communication forums and processes)
Newfound agility and confidence?	Not at all (stayed the same)	Somewhat (we stayed the same, but our confidence has grown)	Somewhat (flexibility has grown, we survived)	Somewhat (we have survived and there is some thriving)	Considerably (new muscle)

Post dimensions	AlphaCo	BetaCo	GammaCo	DeltaCo	EpsilonCo
Unity and identity have strengthened?	Considerably	Considerably	Not at all	Somewhat	Considerably
Connecting is a new challenge (culture in hybrid and remote work environments)?	Not at all (we are highly relationship-/ culture-driven)	Not at all (we are highly relationship-/ culture-driven)	Somewhat (we are hybrid and have rules and processes to solve this)	Somewhat (we are back in the office)	Somewhat (we are back in the office)
Degree of change to business model?	Medium (advertising industry challenges)	High (new products, rewards for customers)	Low (the paradigm is shifting)	High	High (new ways of operating and selling online)
Interviewee quotes indicating sentiment (at time of interviewing)	“Our business was decimated. We retrenched people. Our digital capability/ international colleagues helped us survive and then grow exponentially.”	“We’re a great company. We never considered not surviving and thriving. We wanted to grow exponentially despite the crisis.”	“We got battered but we have systems, processes, and financial resources. We knew we would survive.”	“Although we were worried, we have a strong, confident ExCo [that] will ensure we survive.”	“We are a big business; we retrenched people; we had to survive.”

4.6.7.4. Phase 2 data analysis techniques: Within- and cross-case analysis within the new organising framework

This study is in line with research on qualitative studies and categorisation theories, where “The movement from data to theory is an active process in which researchers choose between multiple moves that help them to make sense of their data” (Grodal et al., 2020, p. 1). Using the organising framework, the researcher returned to the original interview transcripts to perform an analysis unassisted by software and coding.

Pre-, during, and post-crisis dimensions were simplified by asking “what is the *dynamic* present cross-cases that drives each dimension?” The following microprocesses were identified (see Table 7):

- Culture, identity, and purpose;
- Collective problem-solving approaches and processes;
- The ability to sense-make collectively;
- Shared language, and frequent, interactive communication; and
- The ability to embed learnings from previous crises/challenges.

To structure this stage of the process, the researcher relied on the research of Ayres et al. (2003), who viewed the strength of qualitative research as “its ability to illuminate the particulars of human experience” (p. 871). Moreover, Ayres et al. (2003) remarked that qualitative researchers must develop an approach to interpretation of the data that accurately captures each individual’s experience and can be applied effectively across all explanations that constitute the data set.

By conducting a within-case analysis and then a cross-case analysis, the researcher was able to show that a concept was important in one case and then to use that insight to interpret the overall data set. Having seen an insight in the first case, this sensitised the researcher to these concepts in the other cases. If the idea then occurred across the cases, the idea could be considered a theme. Importantly, “Those themes that have explanatory force both in individual accounts and across the sample are most likely to apply beyond the sample” (Ayres et al., 2003, p. 872). This was done in line with the three periods that structured the interview questionnaire and is shown in Table 3.

Table 5: Embedded microprocesses

Interview question	Categories grouped	Category description	Theme clusters	Embedded process: Why did things work in this way? How did they work?
Q1: How did the organisation function before March 2020?	<ul style="list-style-type: none"> • Challenges • How these were overcome • Identity • Processes 	This category group contains: <ul style="list-style-type: none"> • Data depicting the organisation culture, purpose, and identity; • Learning from crisis; • What was valued; • Strategy; and • Decision-making. 	<ul style="list-style-type: none"> • Adaptive capacity • Learning • Sense-making • Communication • Processes 	<ul style="list-style-type: none"> • Identity • Processes
Q2: How did the organisation respond during the crisis? How did things work?	<ul style="list-style-type: none"> • Responses • Priorities • Decisions • Actions • Learning 	This category group contains: <ul style="list-style-type: none"> • Participants describing initial reactions; • Aspects of prior learning that were leveraged; • Priorities; • Processes of connection; 	<ul style="list-style-type: none"> • Adaptation • Priorities • Decisions • Actions • Learning from pre-crisis • Processes 	<ul style="list-style-type: none"> • Problem-solving • Sense-making • Communication • Identity

Interview question	Categories grouped	Category description	Theme clusters	Embedded process: Why did things work in this way? How did they work?
		<ul style="list-style-type: none"> Processes of communication; Decisions; Actions; and Remote/hybrid work. 		
Q3: Has anything changed? What has been learnt?	<ul style="list-style-type: none"> Changes Adaptive challenges Culture Leadership Identity Learning 	This category group contains data from post-crisis learnings and new challenges facing the organisations interviewed (e.g., hybrid work).	<ul style="list-style-type: none"> Adaptation Learning Culture Leadership 	<ul style="list-style-type: none"> Collective processes

The researcher followed a detailed process in this phase, utilising the structure outlined by Ayres et al. (2003), namely:

- *Step 1 – Analytic immersion in all interviews:* The aim of this step was for the researcher to get a sense of the lived experience of the phenomenon. Here, the researcher went through the notes and transcripts from each interview again.
- *Step 2 – Immersion in each interview:* In this step, the researcher went through each case to identify the significant statements made. These could be phrases, sentences or paragraphs that reflected adaptive resilience of a connected concept.
- *Step 3 – Comparisons of significant statements:* Here, the researcher compared significant statements from each case and interview to identify common concepts and develop categories of statements that were common to all participants.
- *Step 4 – Reconnection of significant statements to interviews:* Once the categories were available, the researcher went back to each case and validated whether they reflected what was emerging in the categories. This is important to ensure that the categories are actually represented in each of, or most of the cases, that all the important categories are reflected, but that new ideas are not brought in that are not reflected in each case.
- *Step 5 – Intuiting, critical reflection:* These categories could then be pared down and, with higher confidence, developed into themes. This is done using intuiting, which is “the critical reflection on and identification of themes as they are found in the accounts of the multiple respondents” (Ayres et al., 2003, p. 875). As can be seen from the previous steps, they move between cross- and within-case comparisons that enabled the researcher to get a deeper understanding of the phenomenon while still mitigating potential bias in the process.

- *Step 6 – Free writing:* In this step, the researcher considered what would those who experienced the phenomenon want others to know about their experience that could be useful in the future or in understanding their experiences.
- *Step 7 – Organise categories of significant statements by themes:* With this greater understanding of the themes, the researcher then organised the statements from the free writing into the themes to provide the overall structure of the results.

4.6.7.5. Final organising framework for cross-case analysis

The populated organising framework in Table 6, which is expanded upon in Chapter 5, emerged from this analysis.

Table 6: Consolidated microprocesses driving pre-, during-, and post-extreme crisis event dimensions

Extreme crisis event	Microprocesses	AlphaCo	BetaCo	GammaCo	DeltaCo	EpsilonCo
Pre	Cohesive culture, identity, and purpose	High	High	High	Medium (among founders)	Low
Pre	Collective problem-solving	High	High	Low	Medium (among founders)	Low
Pre	Shared sense-making	High	High	Low	Medium (among founders)	Low
Pre	Interactive communication/ Relational capital	High	High	Medium	High	Low
Pre	Learning from previous crises	High	High	Medium	High	Medium
Pre	Summary: Adaptive resilient microprocesses	High	High	Low	Medium (amongst founders)	Low
During	Collective problem-solving	High (<i>all</i>)	High (<i>all</i>)	Medium (crisis committee)	High (amongst founders)	Medium (crisis committee)
During	Shared sense-making	High	High	Medium (crisis committee)	High (amongst founders)	Low
During	Interactive, frequent communication/ Relational capital	High	High	High	High	Low
During	Priorities/ Decisions Actions/	High	High	High	High	High
During	Levels of organisational responsiveness	High	High	Medium	High	Low

Extreme crisis event	Microprocesses	AlphaCo	BetaCo	GammaCo	DeltaCo	EpsilonCo
Post	Reflection/ Learnings embedded	High	High	High	Medium	Low
Post	Summary: Adaption (reflections on adaptation)	Bounce forward Changed business/ operating model/ technology/ hybrid work	Bounced forward Changed business model/ Efficiency	Bounce forward Technology/ Hybrid work	Bounce back Changed operating model	Bounce back Survived

4.7. Data reporting

Data found during the within-case analysis is reported in Chapter 5, while data from the cross-case analysis is outlined in Chapter 6. The cross-case findings depict how each case presents under the theme and how the five cases compared and contrasted. This is followed by the theoretical contribution and Conclusion chapters.

4.8. Data quality

As should be evident throughout this chapter, the quality of the data was ensured by the researcher's own experience and competence, particularly in the interview process and a rigorous, multi-phase data analysis process. This included:

- Ensuring the data quality commenced with the researcher's competence in drafting the optimal interview guide;
- Being alert to which probing questions to add during the interviews;
- The actual interviewing skills, while minimising bias by presenting a neutral role;
- Structuring the interview;
- Posing open-ended interview questions;
- Remaining alert to body language during the observation of the participants' answers;
- Ensuring that all questions were fully answered; and
- The quality of the data analysis (Roulston, 2010).

4.9. Credibility and reliability

The research was interpretive and grounded in the language of the participants. Findings were generalisable to the theory of organisational resilience. Data were triangulated using secondary data, as suggested by Yin (2013), who highlighted four triangulation methods: (1) data source triangulation, (2) analyst triangulation, (3) theory triangulation, and (4) method triangulation, with data source and method triangulation being the most likely to strengthen

the study's validity. By obtaining data from multiple sources, in addition to interviews, validity was strengthened and enriched the data collection and analysis process.

Other sources of data that were included were documentary artefacts relating to the organisations' initial approach to dealing with the COVID-19 crisis as well as documents pertaining to the organisations' ongoing communication and messaging. Furthermore, the organisations implemented new hybrid work structures, which included new group processes to ensure support and interaction that assisted employees to deal with the crisis event, and these artefacts of adaptation formed part of the research. At all times, the researcher engaged in reflexivity and constructed field notes and memos.

As mentioned above, once all the data were collected, the researcher applied the Saldaña (2009) coding process to ensure that quality codes and categories were developed. This included the review of the coding process by the researcher's supervisor. Construct validity was improved by using multiple sources of evidence and a "chain of evidence" that details the process of developing adaptive resilience (Yin, 2018, p. 45).

Internal validity took place through pattern matching as well as by ensuring explanations were well considered and that inferences were fully analysed. External validity indicates whether a case study's findings can be generalised, which formed part of ensuring data quality. To address the criteria of reliability, the researcher recorded all the interviews, including the researcher's field note, reflections, and insight, and role in the interpretation and analysis (Yin, 2018). Moreover, as discussed above, the design of the interview guide used in the pilot test enabled the researcher to identify personal bias or leading questions. The researcher's own bias and consulting experience may have influenced the interview process (Roulston, 2010). To guard against this dynamic, the researcher had to be self-aware and checked interpretations of answers during the interview. This formed part of the debrief from the pilot test prior to commencement of the research.

4.10. Ethical considerations

Confidentiality was discussed prior to engaging each organisation and individual. Informed consent was obtained from all organisations and collected data was kept confidential. The potential participants were also assured that the information they shared would be important to build a greater understanding of adaptive resilience practices. These practices would acknowledge the importance of human interactive processes of communication and sense-

making, which organisations implemented at the start of the COVID-19 pandemic and that may be used in other organisations and contexts.

While anonymity could not be guaranteed, the cases above have been given pseudonyms and only general descriptions of the organisations are captured so that they cannot be identified. Nevertheless, confidentiality was assured. The researcher also obtained ethics approval and consent prior to all interviews and access of organisational information. All data gathered was stored securely and data were presented without identifiers.

The researcher had to be sensitive in the approach to the interviews with the participants, who could still be suffering from trauma or mental health issues as a result of the COVID-19 events in their businesses or personal lives. Therefore, it was important to reassure participants that they would not be harmed by the study and that information gathered would not be used against them in any way. This enhanced the research reliability. Participants were also assured that their participation was voluntary and pseudonyms would be used for the organisations.

4.11. Limitations of the research methodology

Relatively little is known about the phenomenon that this study investigates and there is a need for a new stance on organisational resilience. The purpose of the research was to build theory from the cases with the intention to contribute towards theorising adaptive resilience, and generating a novel theory in a topic that is well researched, but requires a new and different perspective (Eisenhardt, 1989).

The first limitation of the research was the focus on selected industries from the researcher's network. Participants' recall or memory bias was another limitation. Therefore, the researcher had to anchor the investigation to a specific event and time by asking participants to think back to March 2020 and the official announcement of the COVID-19 pandemic and the lockdown level five. Nevertheless, the researcher recognised that, as a retrospective study, only recollections of events could be studied and not the events themselves. An additional limitation was the researcher's own mental models, bias, and experience as a practising organisation consultant. Consequently, it was crucial for the researcher to work closely with the supervisors to debrief and remain self-aware.

According to Eisenhardt (1989) and Yin (2014), the limitation most commonly referred to in this type of research is the lack of generalisability of the study's results. This was significant,

because the proposed research took place in a specific context at a particular point in time and in response to a specific crisis event that has not ended, but continues to unfold. Further studies on larger sets of organisations and individuals could make these results more generalisable in the future. Similarly, as mentioned in section 4.4.6, the study was done on executive leaders and may not be generalisable to other levels of the organisations.

4.12. Conclusion

In Chapter 3, the researcher outlined extant literature on adaptive resilience and its related fields. This showed that there is considerable work still to be done on this concept that has not yet been operationally defined. In this chapter, the researcher laid out how the study of this nascent topic was approached, namely as rigorously as possible, while recognising the challenges faced at each step.

Chapter 5: Research findings

5.1. Introduction

This chapter presents findings from one-on-one interviews in each of the five cases, namely AlphaCo, BetaCo, GammaCo, DeltaCo, and EpsilonCo. Each subsection begins with a brief description of the case and its location followed by the within-case findings. Findings are presented at a theme level based on the first level of Atlas.ti categorisation, where codes were developed and then aggregated, which was repeated in a second level of data analysis (Ayres et al., 2003).

After the categorisation process, conceptual themes were developed utilising the researcher's in-depth understanding and interpretation of the data nuances, prior to the development of themes. For the purpose of reporting the findings and ensuring a logical flow from categories to themes to the phenomenon in the cross-case analysis, Table 8 shows the link between the interview questions and the categories, which represented a set of codes in Atlas.ti and which enabled the subsequent cross-case analysis (see Chapter 6).

Table 7: Interview questions, categories, theme clusters, and embedded processes

Interview question	Categories grouped	Category description	Theme clusters	Embedded process: Why did things work in this way? How did they work?
Q1: How did the organisation function before March 2020?	<ul style="list-style-type: none"> Challenges Learning Identity Processes Strategy Decision-making 	This category group contains: <ul style="list-style-type: none"> Data depicting the organisation culture, purpose, and identity; Learning from crisis; What was valued; Strategy; and Decision-making. 	<ul style="list-style-type: none"> Adaptive capacity Learning Sense-making Communication Processes Cultural assumptions 	<ul style="list-style-type: none"> Processes. Practices And how they worked
Q2: How did the organisation respond during the crisis? How did things work?	<ul style="list-style-type: none"> Responses Priorities Decisions Actions Learning Dilemmas 	This category group contains data about: <ul style="list-style-type: none"> Participants' initial reactions; Aspects of prior learning that were leveraged; 	<ul style="list-style-type: none"> Adaptation Choices Priorities Decisions Actions Learning from pre-crisis Processes 	<ul style="list-style-type: none"> Collective Problem-solving Sense-making Communication Identity Assumptions

Interview question	Categories grouped	Category description	Theme clusters	Embedded process: Why did things work in this way? How did they work?
		<ul style="list-style-type: none"> • How priorities were decided; • Processes of connection; • Processes of communication; • Decisions; • Actions; and • Remote/hybrid work. 		
Q3: Has anything changed? What has been learnt?	<ul style="list-style-type: none"> • Changes • Adaptive challenges • Culture • Leadership • Identity • Learning 	This category group contains data from post-crisis learnings and new challenges facing the organisations interviewed (e.g., hybrid work).	<ul style="list-style-type: none"> • Insight • Reflections • Learning 	<ul style="list-style-type: none"> • Collective processes

The research maintained similar category names to those categories that were applicable to more than one case to ensure easy comparability and consistency. For every section of this chapter, a description of findings from each case is presented and supported by raw data from the interviews. Documentation relating to engagement surveys and communication was reassembled to derive key ideas and rich text.

5.2. Within-case analysis: AlphaCo

5.2.1. Case description

AlphaCo operates in the advertising and creative digital industry and commenced operations in South Africa in 2011, when three innovative businesses merged. During AlphaCo's first 10 years, there was extensive work focused on integrating three entrepreneurial founder-led businesses, which included explicating the organisation's culture and identity. The organisational structure consisted of self-managed teams dedicated to specific clients with their own team council, routines, rituals, and practices. This structure reflected its culture of creativity, autonomy, co-responsibility, and care for people.

After a merger in 2015, the organisation changed its name, extended its services, and was subsequently acquired by a global organisation. The original founders of the three businesses and a CEO initially led the organisation and, after a 10-year period, the CEO was invited to take up a global role on the executive team of a global creative organisation. Thereafter, AlphaCo was acquired by this global creative organisation. The global acquisition resulted in

a change in the South African leadership structure and the introduction of a joint CEO role. The remaining five members of the executive team remained in their leadership positions with increased responsibility for the overall business. The influence of the global organisation was not evident, and the organisation continued its operations in much the same way until the COVID-19 crisis.

5.2.2. Pre-COVID-19

5.2.2.1. Culture identity

AlphaCo's culture arose from the process of merging three creative entrepreneurial businesses and their young founders. This merger was difficult because of differences in operating models, founder values, and assumptions, and a desire to embed the best of each culture in the new entity. From inception, ongoing discussions emphasised the development of a common cultural framework that would integrate each of the businesses, which resulted in a collaborative team of people. This process of dialogue and debate amongst the founders became embedded in AlphaCo's cultural DNA, and important values and behaviours that emerged and were agreed as core to the business were shared problem-solving, honest and transparent communication, informality, creativity, and care for people.

The organisation was described as a creative, innovative, and entrepreneurial environment where young people could grow and develop. The work environment was creative and communal, reflecting the youthfulness of the staff. The organisation's structure emanated from its culture and identity and was defined as a tribe structure, with each tribe having its unique identity, rituals, and tribal councils. These were in effect autonomous business units or stand-alone mini agencies dedicated to specific clients who reported to the senior executive team that retained the decision-making power.

Early challenges and crises from a lack of revenue resulted in institutional learning and a capacity for dealing with adversity. This included an ongoing focus on exploring new ideas and innovative solutions to address crises. While the organisational purpose was not made explicit, there was an acceptance that work would be purposeful for AlphaCo's clients.

As the organisation operated in the technological and digital domain, remote work and working online defined how many parts of the business operated. Internal digital messaging and collaboration technologies, such as Slack, were used for communication and project collaboration. The culture of digital mastery, transparency, informality, creativity, and care for people emerged from early processes of interrogating each merged organisation's identity and clarifying its values and priorities. AlphaCo operated in the technological and creative domain

and because they had faced numerous financial crises, they were familiar with ongoing change and adaptation.

The organisational culture contributed to an adaptive capacity because problem-solving was shared in tribal structures, relationships were fostered, and there was a robust process for dealing with crisis. Remote work had already been established as a practice and the resources were in place to support it.

De: “We definitely were a culturally strong organisation and very much driven by our values and beliefs. But, in hindsight, I think almost arrogant about our structures and how strong we were.”

J: “A core group of people around me who are absolutely honest, and brutally so.”

L: “So, the initial struggles was almost an identity struggle, because we all had three very different contexts in the underlying agencies, and how do we apply our own context in forming a new one where in some instances you’ve got to let go of the things that you might have seen as non-negotiable.... As a management team, that was probably the hardest part in establishing what are our norms and conventions, how do we run the organisation where in some cases we’d never worked with each other before.”

5.2.2.2. *Learning from crises*

AlphaCo faced crises of profitability and cash flow at various times in its history. These crises created a competence for dealing with crisis, which involved shifting directly into action and finding creative and innovative ways to solve challenges. This process became a commonly accepted methodology or approach for dealing with crises and was branded “back in black”. It entailed obtaining ideas from a wide group of people, developing ideas into projects that were driven by people who were accountable and responsible for implementing the project, and then reporting back to the ExCo. Prior learning contributed to two practices, namely to adopt a “back in black” project management approach to crises, and the requirement that leaders model positivity and optimism in crises and provide goals and direction to the organisation to ensure ongoing adaptation and change.

De: “Actually, in crisis moments, what I’ve noticed us do is kind of all just shift into action mode and I think we’re very creative thinkers around problem-solving. We’re very good at thinking about other routes and other ways.”

5.2.2.3. *Collective problem-solving*

From AlphaCo's inception, there was a process of open dialogue and shared problem-solving amongst the original founders of the three merged businesses aimed at defining the organisation's identity and agreeing on a common cultural framework. Over time, this style of debate and dialogue amongst the leadership team became embedded in the organisation as the approach to all problem-solving. Teamwork and collaboration were particularly evident in a crisis, when there was a common threat or issue to resolve, such as inadequate funds to pay staff. However, when no crisis existed, the focus on building consensus was found to be difficult and impacted decision-making.

Josh: "I think that one of the strengths of this team is that we're actually really good in a crisis.... Each person on that team really has incredible strengths and incredible capability, and is really able to show up – when they're at their best, they are able to show up at a level that is really exceptional. Then, I think sometimes all that's missing is a very single-minded mission, and I think that the thing about crisis is that everything becomes quite focused, and it's kind of nice in that sense, in a weird way."

5.2.2.4. *Communication*

The organisation's strong technological capability was evident in the way the team communicated. A digital platform was the central mechanism for people to share information and collaborate. Communication also took place in an informal fun environment, in weekly ExCo sessions, and within each tribe. Communication was frequent and transparent, and information on all aspects of the business was shared, including all financial information, which empowered people with knowledge about the business.

5.2.2.5. *Leadership*

During the initial merger, differences in the approach and value system became evident amongst the founders. The organisation devoted much time to developing a common cultural framework and strategic direction as well as the building of trust amongst leaders. Trust amongst leaders emanated from a strong belief in team members' skills and capabilities, and was enabled by open and honest conversations.

Lloyd: "But, ultimately, trust in each other was, in my view, the single most important thing, and that trust was based on having a clear view of where we wanted to get to."

5.2.2.6. *Adaptive capacity development*

AlphaCo demonstrated its adaptive capacity during crises, evidenced through its ongoing ability to find creative solutions to difficult challenges. During these difficult times, leadership became aligned and focused, and was less evident when no crisis existed. During crises, leadership reported that they were more directive, as opposed to in stable times, where there was less direction. Crises galvanised the organisation around a common goal and created a sense of collectiveness and belonging.

Di: "I see our strongest thinking is in our biggest crises. It's where we're almost our strongest, we're our most aligned. We're most focused during those times, and yet during the better times, it dwindles a bit and stuff. We don't have as much clarity as when we're in a crisis because it's easier when you're all facing the same crisis to club together. Whereas we are laser-focused during the crises time and everyone's contributing and every small win we're celebrating and we're climbing up the hill together."

5.2.3. *During COVID-19*

5.2.3.1. *Sense-making*

Two weeks prior to the South African government lockdown, AlphaCo arranged for people to work from home. This decision was taken after leadership gathered with staff to investigate the global impact of the crisis. A key factor that influenced the process was the immediate loss of all major clients. AlphaCo's clients were amongst the worst impacted by the crisis because they were all customer-facing in the retail, hospitality, and banking industries.

Although AlphaCo's viability was at stake, research was immediately undertaken by the executive team and staff to investigate ways of restructuring the business to develop alternative ways for people to work together to add value to the business. Despite the loss of major clients coupled with a prevailing sense of shock and anxiety, leadership remained optimistic and confident in its ability to overcome the crisis. Leaders saw their role as one of instilling calm and in all interactions and communication, the focus was on reminding people that the business was well funded and part of a global network, and a key priority was to ensure the safety and health of staff.

J: "So we had a roster of clients, all of whom were among the worst impacted of any of the corporates in the country.... And then every day, we were getting calls basically saying, we've either got to cancel work or we have to decrease our retainers, or we're calling a force majeure on our contracts. One by one, by one, by one, it just kept happening.... And we

really got punched very hard in the face, and actually, from that moment on, we were able to start putting in place plans to recover and to improve.”

L: “We really just instilled in everybody is a sense of calm that things were going to recover ... we looked at each other from a human point of view and that health and well-being of our families and loved ones, and ourselves.”

5.2.3.2. *Communication*

Communication was frequent, transparent, and included a focus on contextualising the issues and their impact. The levels of openness and transparency in all communication was designed to create certainty and to remove anxiety amongst staff. The use of the internal communication technology (Slack) – already an established practice – became a focal point for all communication, connection, and engagement with 700 000 communications posted each month. The presence of numerous technology platforms enabled discussion, debate, and ongoing relationship development. During the first six months of the crisis, communication messages and discussions began to shift away from the impact of the crisis to one of exploring new ways of working and doing things differently. This shift was experienced as energising.

S: “I think people reacted better because of the open communication, because they knew what the company was doing – there wasn’t anything hidden.”

J: “So our office is Slack, that’s our office.... We can chat to you and we can connect with you on Slack. And Slack became our congregation point, it became the place where we created engagement.... We’ve sent like 10 million messages over the last five years.”

5.2.3.3. *Crisis process/learning from crises*

The unique methodology for dealing with crises that had been learnt from previous crises was found to be effective and was leveraged during the COVID-19 crisis and discussed amongst staff. This process involved breaking down issues into projects, assembling a team, creating a theme and vision for each project, and aligning it to the organisation’s value system.

5.2.3.4. *Decision-making*

Four key decisions were taken after prioritising actions, namely: (1) to restructure the business; (2) to retrench staff; (3) to embrace working remotely; and (4) to find new innovative opportunities for revenue creation. From a restructuring perspective, AlphaCo decided to merge structures (tribes) to create new levels of efficiency and energy as well as to instil a

sense of optimism amongst staff. It was decided that this restructure would be experienced as growth and would remove legacy dynamics.

The decision to embrace remote work was made to avoid the pressure of people wanting to return to the office. This decision manifested in innovative ways of conducting online meetings, which enabled AlphaCo to secure a major client that transformed the business, enabling it to thrive after the crisis.

Prior to retrenching 10% of the staff, leaders made salary sacrifices and, in some cases, did not take a salary to stave off the possibility of retrenchment. However, once this decision was taken, it was agreed that this difficult process would be implemented in the framework of the organisational culture and values, with an emphasis on care and involvement of all staff and leaders in the retrenchment process. A significant decision taken was to engage the global network to explore revenue opportunities. The lack of precedent in leveraging and engaging the global network encouraged a new level of freedom to shape future possibilities and shifted the organisation's identity of being a local office to being part of a global business.

J: "So, I think that acceptance of needing to work remotely and not being at war with that reality but actually embracing it, was the other really big decision we made.... We really did lean into what a remote working culture was all about, and I think that helped us a lot, because we weren't at war with ourselves. We weren't like mired in discomfort all the time, we were, like, 'This is cool.' Our staff meetings online were just awesome, we had like games that we were playing remotely with each other and we really made a lot of it. We made a lot of it and we found the joy in it."

5.2.3.5. *Actions*

A week after the official announcement of the COVID-19 crisis, the entire organisation was working remotely. Pre-existing technology platforms and the implementation of remote work in parts of the business enabled a seamless transition. Actions taken by AlphaCo based on collectively defined priorities included reaching out to its global office for work that had not previously occurred; restructuring of teams and leadership roles owing to the loss of the majority of key clients; and the introduction of a "care squad" and "care buddies" to support colleagues dealing with stress and anxiety. All staff and executives contributed time to check in daily with colleagues.

Four months after the pandemic was announced and subsequent to the government-enforced lockdown, AlphaCo implemented a retrenchment process to manage its precarious financial

position and 10% of the total staff were retrenched. The process of implementing the retrenchment process was a collective effort and aligned with the culture of care. All staff were involved in this process, which included personal and finance coaching, training, and assisting those who had been retrenched to find employment by using networks and competitors. Online discussion forums were created and facilitated by counsellors, where staff and executives could discuss the retrenchment and feelings about the loss of loved ones in the pandemic.

D: "I think one of the most important decisions was that if we had to retrench we were going to do it in our value system.... It stopped it spiralling in a culture out of control and being fear-based, and rather being of, 'Okay, we're going to do this together.' Like, we're all going to do this as a family, like, if one of your family lost a job...."

J: "When we went into all those crisis situations, people would spontaneously challenge and ask questions about values.... I remember us asking that question, how can you be caring and retrench somebody? And we were able to get to very deep places with those kinds of questions."

5.2.3.6. *Dynamic adaptation during the crisis*

The immediacy of the impact of the crisis is reported to have enabled AlphaCo to begin a process of recovery and improvement soon after the crisis began. The leaders of the organisation were conscious of the fact that they did not want to have an identity of "a broken organisation that couldn't do anything", but rather sought to redefine the organisation's identity, specifically through changing the language to one of opportunity and confidence in the future. The way in which the retrenchment process had been managed resulted in positivity and trust amongst staff. Additionally, the immediate restructuring of the business into fewer structures (tribes) became a vehicle for new work and for finding new opportunities.

The introduction of initiatives for staff to engage with speculative work was experienced as proactive, as it enabled forward-thinking and created energy. The process of reaching out to the global network and leveraging the strength of this network to drive local impact was particularly significant in redefining the organisation's identity. Until the crisis occurred, the organisation's identity was that of a local South African business separate and removed from the global business, rather than one of being a part of a global business. This shift in how AlphaCo saw itself was supported by technology, such as videoconferencing, which was fully leveraged and enabled the organisation to obtain a significant client that transformed the business's fortunes.

Ish: “There was an assumption and a psychological mindset in the remote offices that somehow you couldn’t work across global boundaries, that was where they were at. And all of a sudden, the walls just fell down, it was like you could have a call with America, China, Australia, South Africa, and everyone looked the same, everyone sounded the same.”

5.2.4. Post-COVID-19

There was a collective agreement that the COVID-19 crisis provided the organisation with an opportunity to transform and grow. The pre-existing ability to work effectively in a remote environment, technological capability, and a global capability enabled AlphaCo to gain a major client, which transformed all aspects of the organisation.

5.2.4.1. Culture and identity

Strong relational capital and a culture that valued collective problem-solving enabled the organisation to transform. Notwithstanding these positive enablers for adaptation, AlphaCo reflected on aspects of the culture that were a barrier to growth, including founding assumptions that no longer served them. These processes of reflection revealed examples of arrogance and overconfidence that had to be addressed. Early work on culture and identity created a framework for collective problem-solving with the organisation’s values being central to this debate.

Confidence from surviving and thriving during the COVID-19 crisis, the shift in identity from a local office to being part of a global business, and a fully remote business with a different operating model changed how the organisation perceived itself. It was found that the organisation will not be returning to the office and, as a result, the entire operating model has changed. The executive leadership team now sees their role as that of coaches and enablers, rather than drivers of strategy and decision-making. The organisation described itself as a flexible, agile, boutique organisation fully capable of scaling its business.

J: “There is a healthy streak through the business.... It’s a feeling of all hands on deck, and it’s a feeling that we’re in it.”

D: “And I think COVID had a huge role to play in us actually just realising we don’t have all the answers.”

L: “We are ... like an octopus, breaking off into little parts?”

I: "It is a completely different organisation in so many ways ... so we're still tribes, we still know what we do. How we work has changed significantly. How we work in terms of delivery? So we are now wholly part of the global network."

Di: "I see ourselves at the early stages of actually a new journey, to be a different type of empowered organisation."

5.2.4.2. *Learning*

The need for immediate proactive action, rather than to focus too long on the unfolding crisis, was learnt early in AlphaCo's history and was reinforced in the crisis. From a cultural perspective, an important learning concerned needing to balance the tension between organisational performance and caring for people. There was a newfound realisation that being able to galvanise relational networks to ensure the organisation's survival is critical, particularly if these networks are influential and global. In this sense, the importance of collective effort to ensure AlphaCo's survival and growth was reinforced.

B: "My big learning is that when things get really tough if you are really true to your values, even if it's incredibly hard to be true to your values, you can still find a golden thread and you can still feel motivated and optimistic."

5.2.4.3. *Reflections on change and adaptation*

AlphaCo views itself as a more focused, lean organisation, cognisant of the power of networks and the need for collective effort in ensuring its ability to survive and thrive. The importance of proactive action based on shared discussions and embedding the language of opportunity and possibility was frequently mentioned as an approach to ensuring ongoing change and adaptation. There was a consensus that the organisation successfully implemented changes to the structure and devolution of leadership and autonomy, but that this is the beginning of a longer process of transformation. An interesting reflection concerned the levels of change resistance amongst some leaders, who wished to return to old practices and ways of working and the need to constantly challenge these to ensure the organisation can move forward.

J: "I think we would have to change our business model and our service offering fundamentally to get to that exponential growth."

5.2.4.4. *Summary*

AlphaCo used pre-crisis learning to develop a collective approach for dealing with the COVID-19 crisis. From inception, there was an investment of time and resources to develop a shared culture and values framework, given the initial conflictual merger dynamics in the three businesses. Through this process, mental models and meaning systems were debated, issues were raised, and relationships were developed. These initial processes led to shared sense-making and consensus on decision-making, which was particularly important during the COVID-19 crisis, when decisions regarding the organisation's future viability and the necessary retrenchment process were debated.

Four key factors enabled AlphaCo to deal with the crisis, adapt, and move forward. First, was a technological capability adaptation and, second, a learnt, collaborative process for dealing with problems that could be leveraged during the crisis. This resulted from conflictual merger dynamics that existed at the start of the organisation's history. Third, during the crisis, the organisation leveraged relational capital through an unexplored global network to obtain new business opportunities, which enabled them to thrive. Fourth, AlphaCo's leaders were cognisant of not seeing themselves as "a broken organisation" when all work ceased and collective problem-solving solutions were found for growth. The COVID-19 crisis provided the organisation with an opportunity to reflect and learn what needed to change to transform, including how to scale the business as a fully remote organisation.

5.3. Within-case analysis: BetaCo

5.3.1. Case description

BetaCo is a South African, publicly listed financial services organisation well regarded for being innovative in its conceptualisation and delivery of products and services. The organisation was founded in 2000 and operates internationally, impacting over two million users globally. The research was conducted in a strategic division of the organisation in South Africa, where 600 professionals, such as actuaries and scientists, are employed. BetaCo's core focus is on research, development, and the introduction of innovative products to its global customers. The organisation's strategy and focus is predicated on its ability to innovate, a culture that prioritises relational capital, its advanced technological capability, and its contribution to social impact in the wider society.

All members of the BetaCo executive team were invited to participate in the research. The sample included participants who advised they were available. All participants were part of the

BetaCo executive team and included the group CEO, general manager, head of People, head of strategic programmes, and chief actuary.

5.3.2. Pre-COVID-19

5.3.2.1. Culture and Identity

BetaCo's culture was described as being collaborative, fluid, fast-paced, innovative, action-orientated, exciting, and hard-working, with an ability to deal with ongoing change through iteration and adaptation. There were strong interpersonal relationships amongst staff, built over many years, which translated into a highly interactive collaborative environment. The non-hierarchical structure and a culture of egalitarianism fostered strong working relationships and collective problem-solving. The gathering of staff – formally in meetings and informally in corridors – created a sense of “togetherness” and an ability to constantly obtain the input of colleagues to share ideas and develop new products. Roles were understood to be “fluid”, which implied that some roles overlapped, but were differentiated by the different projects that people worked on. An important aspect of the culture was the ongoing explication of the organisation's values and purpose and linking it to various innovative initiatives.

S: “We're constantly innovating and we have this mentality of if you fail, fail fast, and then continue.”

Sa: “We are a fluid organisation ... a lot of corridor chats ... bumping into someone and finding out something relevant to your work.”

M: “It's very hard to intuitively know which line ends, where everything just merges. It's not intuitive that my role ends here, yours starts there, yours intersects, it's quite – by role – it's quite difficult to define it that way, it's easier to define on projects.”

M: “It really doesn't matter who you are, if you think you've got a view on something that we're doing, you will have a view. Whether it's your area, whether you've met me before, whether your job has nothing to do with what we're doing, anyone and everyone has a voice when it comes to what we need to do.”

5.3.2.2. Learning from crises

Early in BetaCo's history, a technical change was introduced, which resulted in a negative response from customers who utilised social media to voice their outrage. As a result of the learning from this early crisis, several changes were introduced. These included changing the

employment model to include a 24-hour call centre and the introduction of a “war room” to debrief all customer feedback. As BetaCo was known for being innovative, customer feedback was essential to solve problems fast. Prior learning resulted in prioritising customer feedback, fast responsiveness, and ensuring people remained connected to each other through collective problem-solving processes.

S: “With the innovation comes quick problem-solving, so quick to the market. The entire success of the product is based on the market engaging with it.”

S: “Everyone rallied together and just worked it out, what was the best way.”

5.3.2.3. *Collective problem-solving*

Underlying assumptions about the culture were the need to ensure debate and dialogue informally and within formal meeting structures as well as the inclusion of diverse perspectives across roles and hierarchies. These were perceived to be essential for innovation. This process of collective problem-solving entailed seeking feedback, building on each other’s ideas, and challenging perspectives. Problem-solving was rigorous, debate was encouraged, and there was a collective understanding that actions needed to be implemented quickly. This action-orientated process was experienced as energising, unique, and collaborative.

As debate and input were highly valued and central to the process of innovation and problem-solving, there was a high frequency of in-person meetings during which individuals were encouraged to advocate a position or idea and then the group would challenge and build on ideas based on the assumption that the different perspectives would enable new perspectives. This extended to informal discussions when additional people were called in to enrich or fully explore the issue and agree on action steps.

Role fluidity, technical expertise, and the valuing of diverse viewpoints were intrinsic to problem-solving. The assumption was that technical expertise was valued more highly than role or position in hierarchy and that challenges needed be resolved quickly and informally by people with the relevant skills and expertise, without the need to arrange formal meetings to discuss these challenges. This collective process was embedded in BetaCo’s culture and facilitated collaboration, positive interpersonal relationships, and shared sense-making, leading to consensus in the prioritisation of decision-making and action.

K: “[A] lot of the time we’d get together, grab a group of people, huddle together, and solve a problem. Blackboard it, write it out, list what the issues were, brainstorm some solutions, and kind of agree a way forward for a particular thing.”

B: “Our thing is value in the debate and once a process is decided to act swiftly, within a values and ethical framework.”

5.3.2.4. *Sense-making*

BetaCo was adept at constantly scanning the environment for signals and for utilising authoritative experts to obtain knowledge and information. Many of these authoritative experts were senior leaders in the organisation, who were expected to understand market dynamics well. Feedback from customers was prioritised via all social media. Experts with technical knowledge were regularly invited to present academic and practice papers to various forums, where issues were debated for action.

5.3.2.5. *Leadership*

Leaders fulfilled a dual role of being functional experts and team leaders. They were well networked inside the organisation and in the external environment. Their primary focus was creating an environment where collective problem-solving could take place. There was a high level of cohesiveness and alignment amongst the leadership teams and goals and objectives were clear.

5.3.2.6. *Adaptive capacity*

The organisation’s ability to innovate had been built on honed sense-making, shared problem-solving, learning, and ongoing feedback, which enabled ongoing adaptation. From a technology perspective, the use of an online project collaboration space had been implemented and people had been trained in its use. BetaCo had introduced remote work for specific administrative functions.

5.3.3. *During COVID-19*

5.3.3.1. *Sense-making*

BetaCo’s extensive global network was leveraged to enable shared sense-making at the start of the crisis. Internal experts who dealt with risk mitigation enabled the organisation to gather information internationally on the severity of the crisis and three days before the official announcement of the pandemic, the organisation had shifted to working remotely. BetaCo’s strength in data analytics supported a process of modelling different scenarios, which were

shared throughout the organisation for decision-making and immediate action. Expertise in understanding and working with a large data repository was found to be very useful, given the degree of ambiguity and uncertainty about the crisis, and this information was shared with staff and customers. Despite the levels of external uncertainty and ambiguity, staff did not express concern about the BetaCo's survival, because of trust and confidence in the organisation.

S: "I don't think I ever, or ExCo ever, or the staff ever felt like it wouldn't survive. Like, we would pull together and we would make a plan, and we would pivot and do what it needed to do so that we remained relevant and important to our clients.... At no time did staff fear they would lose their jobs."

M: "There was never ambiguity from our side, the ambiguity was probably what is the president going to say."

5.3.3.2. *Communication*

Whilst information dissemination and communication with staff prior to the crisis was prioritised, during the crisis, daily communication was deemed to be crucial and, as a result, strategies for communication about the crisis were designed and implemented. This included daily briefings and webinars.

Owing to the significant amount of misinformation in the public domain, a decision was taken that BetaCo would be the primary source of information for staff, rather than the government or the popular press. A mailbox was created for staff questions, which were collated and responded to. Educational webinars were implemented to share additional current information.

M: "That we made ourselves available to support staff to say that there's a lot of information out there. We created a mailbox – just send us any questions you have on this pandemic thing, we know, we understand.... When I see a headline by the president, I don't flinch, because it really doesn't mean anything, or when it means something, I panic. So instead of listening out there, send us a mail. Every Monday, we collate everyone's questions and we'll send out a response."

5.3.3.3. *Culture and purpose*

During the crisis, BetaCo used every opportunity to reaffirm its core purpose through internal communication as well as through its contribution and involvement in the broader society, which included all staff. The highly interactive environment, which differentiated the BetaCo

culture from other organisations was immediately impacted by the move to remote work and the absence of daily in-person interactions. The move to remote work was specifically anxiety-provoking for leaders, who were unable to informally connect with staff about their well-being.

S: “We have a rule ... cameras on in all meetings.... We don’t really give people choices, we kind of call them out if you don’t have your camera on, because we don’t know how people are. They have their cameras off, they’re probably crying behind the scenes, they feel awful, they’ve been through a lot.”

5.3.3.4. *Collective problem-solving*

During the crisis, the entrenched collective problem-solving process shifted to the use of digital platforms, which was negatively experienced. Whilst the highly collaborative, interactive teams continued to meet daily online and there was a felt sense of connection around a common purpose, the way in which they collaborated and solved problems prior to the crisis was impacted by this new way of working remotely and there was frustration at the loss of the “fluid” nature of interactions. Remote work negatively impacted interpersonal connections, problem-solving, and innovation. The inability to communicate without observing facial expressions was experienced as being particularly difficult and participants were mandated to have their cameras on in all meetings. Leaders had to become intentional in their efforts to implement informal online conversations and to create a collaborative online space where discussions could take place. In addition, concerns were expressed about integrating new hires, who had never been to the offices and who lacked interpersonal face-to-face interactions.

B: “Our process changed from debate to action.”

S: “And I also think, as an ExCo, we were very tight, and we were very close, and we spoke a lot and we connected a lot, and we were able to take that feeling and that information amongst all of our teams.”

M: “The only communication we know is when we see someone, we see their mouth moving, we see their emotion, we see who they are looking at. So we’re used to communication because we always had face-to-face meetings processed like that, but where you don’t even see someone’s face, you’ve never heard their voice on the phone actually. We don’t call each other here, we used to just walk to people, we’ve never spoken to them on the phone or on a computer, you’re not seeing their faces.... I battled to take words into the right

context to interpret.”

5.3.3.5. *Decisions*

Based on priorities that had been collectively discussed, BetaCo’s first priority during the crisis was to ensure its staff’s safety; second, to take care of the customers and the business; third, to be transparent in all communication; and fourth, to stay connected to each other to avoid any sense of individual isolation. The core business model had been built for customers who could interact freely. However, because of the government’s regulations, the business strategy was severely impacted. An immediate decision was taken to change the business model, which entailed innovating to ensure BetaCo could pivot and continue to offer value to clients.

M: “I recall us being beneficiaries of a very decisive organisation, an organisation blessed with high-functioning, intellectual individuals that are well networked.”

5.3.3.6. *Actions*

From its inception, BetaCo was able to implement action quickly and this was evident during the COVID-19 crisis. In addition to developing new products and services for business continuity, the organisation immediately focused on ensuring its staff’s mental and physical well-being. This included, first, freely available psychological counselling and support offered to individuals and their families, and ongoing online presentations by experts in the field of mental wellness. The focus on mental well-being was also reflected in a calendar invitation from the CEO to all staff, requesting them to block one hour between one and two pm for “power hour” (rest period), where no meetings would be held. Second, a “buddy system” was initiated, where each staff member was responsible for another person, and employees would check in with each other daily to ensure they were coping. Third, meetings that lasted longer than 45 minutes were discouraged. Finally, a collective resilience programme was implemented throughout the organisation, which focused on networks of people gathering online to discuss their mental well-being and to obtain tools that developed resilience. This process was found to be very effective, as it encouraged collective learning in small groups.

M: “So everything happened at rock rapid rate. I think we handled it well.”

5.3.3.7. *Leadership*

BetaCo’s leadership, who were perceived to be influential and networked throughout the world, imbued the organisation with confidence and optimism. Leaders provided ongoing communication and staff support, including obtaining support for themselves. High levels of

cohesiveness amongst leadership were reported, which included ongoing problem-solving across the organisation. The felt sense of support and belonging across BetaCo was positively experienced.

S: "It felt like leadership had it and they were at the forefront of what was happening from a COVID perspective, and I think that made people feel safe."

S: "We're in the same situation as everyone else, and we can't be of help to people unless we also get help and get emotional support, and show that it's okay to be vulnerable and that we don't know everything."

5.3.3.8. *Dynamic adaptation during the crisis*

Owing to the nature of BetaCo's business, which depended on customers interacting with various services, the COVID-19 crisis negatively impacted the business offering. Despite these barriers to business continuity, within two weeks, the organisation pivoted and changed its operating model, which included building new systems, developing innovative products, and marketing these. This collective process entailed interrogating the essence of the business to make necessary changes, which moved the business forward in a more focused manner. Underlying strategic issues were resolved and the ability to change the core offering ensured that products were improved. Factors that enabled adaptation and growth were described as trust and confidence in leadership, staff rotation resulting in a broadening of skills, shared problem-solving, responsiveness, fast action, and a willingness to experiment, fail, and learn.

B: "During the COVID period, we actually moved our business forward, so we're more focused.... We fixed up a lot of underlying issues within the business.... I actually do think the business is in better shape going forward."

S: "We're constantly innovating, and we have this mentality of if you fail, fail fast, and then continue."

5.3.4. Post COVID-19

5.3.4.1. *Culture and Identity*

Prior to the COVID-19 crisis, the lived experience of the BetaCo culture was of a highly relationship-driven, interactive, and collaborative organisation with over 50% of staff members having more than 10 years in the organisation. Central to this networked context was a style

of debate, dialogue, and shared problem-solving, which enabled experimentation, innovation, and fast decision-making and action, which was challenged by the move to remote work. Despite the organisation's technology platforms for online formal and information connecting, the process was arduous. Ninety per cent of people who were hired during the crisis period left BetaCo within a year, which was reflective of the inability to fully acculturate people into the business.

The culture has shifted to become more empathic and people feel comfortable sharing their vulnerability, specifically because of the focus on mental well-being. A staff engagement survey conducted in March 2022 indicated that staff feel an increased sense of pride and commitment to BetaCo, compared to the pre-COVID-19 crisis engagement survey. In addition, there is increased appreciation for the culture of innovation, which enabled the organisation to overcome challenges and to redesign the fundamental business offering.

S: "Culture is a challenge in hybrid work. And that's something that we are navigating ... so that we build back the culture to what it was before."

S: "I mean who would have thought that ... we would have changed the market?"

5.3.4.2. *Learning*

Through collective processes of reflection and learning, it is evident that because relational capital is intrinsic to collaboration and collective problem-solving, technology as the medium for interacting is a challenge, particularly for new staff hires. BetaCo moved to a hybrid work structure with teams working together in the office on the same day, but majority of staff elected to return to the office. Moreover, BetaCo has a newfound appreciation for the mental well-being of staff and the need for leaders to develop their ability to be compassionate and empathetic. The leadership skills required for fostering a context where collective problem-solving and relational capital in remote or hybrid working remain an area of ongoing development.

5.3.4.3. *Reflections on change and adaptation*

The organisation gained confidence in its ability to survive and thrive during the COVID-19 crisis. This was based on BetaCo's fast ability to react to contextual dynamics, to innovate and adapt its products and operations, and to thrive in difficult circumstances.

M: "I think it's looking to view the office differently in a way that's not a place where you go and sit on Teams meetings, and it's a real challenge. But how do you maximise the together time, or the face time, with your colleagues and with your peers so that the output of that adds value to the individual and to the business? And that's something that we are navigating at the moment so that we build back the culture to what it was before."

5.3.4.4. *Summary*

Prior to the COVID-19 crisis, BetaCo was a collaborative, relationship-driven organisation with over 50% of staff employed for more than 10 years. Within the context of a shared history, a felt sense of the culture and values, and talented competent professionals, the robust collective problem-solving process was perceived to be key to the organisation's success. Additionally, the encouragement of experimentation, feedback, and learning for decision-making and fast action were intrinsic to BetaCo's positioning as a highly innovative organisation. Leadership expertise, access to authoritative networks, and freely shared knowledge and information resources developed confidence and trust amongst staff.

The crisis necessitated the move to remote work, which challenged the informal, collective approach to problem-solving and although the business model was informed by a strong technological capability that included digital platforms for online connectivity, the process of meeting with colleagues online was negatively experienced, as it impacted the quality of interpersonal relationships and mental well-being. Ninety per cent of people hired during the crisis period left the organisation within a year, which was reflective of BetaCo's inability to fully acculturate new people to a remote working environment.

Adaptation was enabled by a collective process of reflection about the core business enabling new levels of innovation. Additionally, the focus on mental health during the crisis added a dimension to the development of collective resilience. Despite these positive factors, BetaCo struggled to adapt to a remote and hybrid working environment, and learnt that the organisation requires face-to-face interaction to leverage its innovative capability, maintain its organisational culture, and nurture mental health. This resulted in the decision to implement a full-time and hybrid working arrangement.

5.4. Within-case analysis: GammaCo

5.4.1. Case description

GammaCo is a family-owned international professional services group that has been in existence since 1980. Headquartered in South Africa, the company employs 3 000 staff. Since

2020 the organisation has undergone a great deal of change in its sector in a highly competitive environment, including strategic and operational changes, changes to roles in the executive teams, and CEO changes. These changes have been driven by the move from autonomous business units to a more integrated corporatised structure.

The founders of the business remain intrinsically involved in GammaCo, but are not involved in the day-to-day operations and the business is led by a professional executive team. The humanitarian founder values reflect internally in the organisation's culture and externally in the resources delivered to social causes in the wider society. The sample of interviewees were all members of the executive team and included the outgoing CEO and the new CEO.

5.4.2. Pre-COVID-19

5.4.2.1. Culture and Identity

Intrinsic to the culture of GammaCo was treating people with care and dignity with an awareness that relationship and humanness needed to reflect in all practices. Staff were encouraged to be authentic and to bring the fullness of their personality to work, rather than to only fulfil a work role. The organisation considered its purpose and being purpose-driven as fundamental to its identity. Processes that ensured that the culture and purpose were understood and lived included 360-degree evaluations that measured individual alignment to the values and purpose, and included explicit links between each individual's contribution and the achievement of the purpose and strategy.

GammaCo's culture was described as "softer" on performance management with a greater emphasis on being relationship-driven. The office environment facilitated informal connections leading to strong relational capital. The organisation defined itself as having an entrepreneurial mindset, which translated into operating with a deep understanding of the context and its challenges. The structure was hierarchical, with onerous processes owing to the fact that developing a technological capability had not been prioritised. This bureaucratic structure also constrained decision-making, which was exacerbated by structural changes and a change in leadership.

<p>Warrick: "We're an organisation who's always had a very strong culture and that culture is built through experiencing things together and being in each other's spaces, and seeing each other."</p>
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5.4.2.2. *Sense-making*

Prior to the COVID-19 crisis, GammaCo was inwardly focused on issues relating to the restructure as well as on internal leadership change dynamics. Sense-making in the face of any crisis took place at executive levels and information was communicated to the various levels and to cross-functional teams.

W: "It tended to be internally focused, because it had to deal with all this internal complexity, and I would say to some degree to the detriment of its market focus."

5.4.2.3. *Shared problem-solving*

Shared problem-solving was not an organisational practice, and issues and challenges were discussed at specific levels in the various organisational leadership structures. Strategic issues and industry trends were discussed in formal strategy meetings.

5.4.2.4. *Learning from crises and change*

Prior to March 2020, GammaCo had dealt with numerous changes, including a change in executive leadership, consolidating, and restructuring business units, and staff retrenchments. These changes created high levels of turmoil, ambiguity, change fatigue, and staff uncertainty. Learning emanating from these changes included the need for visibility and alignment amongst leaders in all crisis situations as well as aligning any change initiative with the organisational culture, values, and purpose by ensuring that staff were dealt with fairly and respectfully.

GammaCo had also become aware of potential risks and crises in the global economic environment and established a crisis management committee across its diverse operations, which implemented crisis simulations that emphasised ways to mobilise and organise people during crises. This would become important to the organisation's response to the COVID-19 crisis.

H: "Technology wasn't our forte, because we were so complex, so much legacy, very difficult, very like wading through treacle "

W: "We had gone into COVID on the back of huge structural change."

5.4.2.5. *Leadership*

Majority of those in GammaCo's leadership structure had worked for the organisation for 10–20 years and decision-making was vested in them. Their leadership approach was to ensure their visibility in all operations and to embody a culture of care for people.

5.4.2.6. *Adaptive capacity*

GammaCo's ability to adapt was limited by its lack of technological capability. Relational capital was nurtured through face-to-face interactions, and online meetings or conferences were not utilised. Change and adaptation were met with resistance, because of numerous organisational restructuring processes, especially by long tenured employees. The newly established crisis committee, which became known as the "war room", was considered to be a proactive step in preparing for crisis, particularly as this structure included people from all autonomous businesses. A specific tension in the business was the shift from a founder's entrepreneurialism and speed of decision-making to the formalised processes and controls reflective of the evolving corporate entity. The implementation of a technological capability, which had been planned for, had not been implemented at the onset of the COVID-19 crisis.

Lewin: "Imagine being in a call centre and then you get a call and you've got like 10 systems you need to go and access depending on who phones in ... and we didn't like virtual meetings or video conferences."

5.4.3. *During COVID-19*

5.4.3.1. *Sense-making*

Although the organisation had engaged in rigorous scenario forecasting prior to the COVID-19 crisis, the official announcement of the COVID-19 pandemic created levels of panic, ambiguity, and confusion at executive levels, which immediately impacted sense-making. This shifted when prominent leaders took control of the process by using a disciplined approach to prioritise specific themes. These were defined as: (1) keeping GammaCo staff and their loved ones safe; (2) business continuity; (3) managing risk; and (4) contributing to the country's response effort. In addition, scenario planning was conducted weekly by committees to revise the thinking and approach. Once core issues had been identified, the crisis team took up the role of sense-making and action, and shared sense-making in this structure ensued. Communication from this structure was transmitted upwards to the executive team and the organisation.

Me: "So firstly the sense of I have no idea what's going on. Firstly, what is COVID, what is its impact, what does it mean? There's no cure for it. What's the impact on the business going to be? What's the effect on individuals going to be? And you're basically responding to an emerging and situation that's changing every day. And it was important for me that we were clear what the focus areas needed to be in that response. So, as the situation evolved and I was responding to it, it was important for me that I had themes to focus on. And those were, make sure that we keep [GammaCo people] safe and business continuity."

W: "We set up regular engagement sessions about what do you hear, what do you see, what do you read, so that we can be fed with information. And also that we can keep contact, both in a formal and an informal way throughout that."

5.4.3.2. *Communication*

The crisis committee/war room initiated all communication about the COVID-19 crisis to the board, the group executive, and the broader organisation. Central to all communication was the focus on keeping the staff and their families safe, the need to treat people with care and dignity, and the need to be cognisant of different personal circumstances. A regular twice weekly rhythm of communication was implemented as well as regular updates on the organisation's priorities. While keeping people safe was the priority, information relating to business continuity and how staff could continue to fulfil their roles in safety was communicated. Managers had daily meetings with their teams to gauge emotions, offer support, and maintain positive relationships.

W: "We overcommunicated because we knew silence was a killer."

W: "It was really important to have leadership visibly on the ground. Kind of captains who leave the ship last, because that actually does give a strong sense of comfort to people to have their leadership team around and engaging with them amidst all this ambiguity."

5.4.3.3. *Decision-making*

GammaCo's purpose and value system were pivotal in prioritising its response to the crisis. These were the care and protection of staff, business continuity, developing a technological capability, and impacting the society external to the organisation. Prior crises, such as data breaches, had prepared the crisis team/war room for working together on business continuity plans. Therefore, the process of shared problem-solving in a crisis was familiar, though the legacy of constraints on decision-making autonomy due to bureaucratic processes negatively impacted fast decision-making. In addition, prioritisation was a challenge because of a lack of

precedent in prioritising the interests of the group with those of autonomous businesses. Until the crisis, decisions had been taken at a business unit level, but were made collectively following the pandemic.

Prioritisation of business continuity was impacted by a lack of technology and digital communication platforms. The purchase of 400 laptops that did not have SIM card slots and were thus unusable reflected this lack of capability. Nevertheless, an immediate decision was made to rapidly acquire new technology to ensure staff could work remotely, which would limit their fears about potential job losses. Staff were encouraged to take their office desks and chairs home to ensure they had a proper working environment. This decision reflected the organisation's culture and value system.

K: "I saw a lot of very uncomfortable people that froze and couldn't make decisions."

H: "What do you send home, how do you send assets out of the building? Like this chair that I'm sitting on. At some point it was like, okay, you've got to let [company name] take chairs."

W: "Getting the balance between group wide decision-making and localised decision-making I think is a big challenge here. Because in a war room, such as this, you do take decisions which you think are in the interests of the whole group, but they are autonomous bits in the business that would have probably enabled us to make faster decisions, and probably more appropriate decisions for those respective areas."

Mi: "And because ... there was no red tape put around it. There was just a framework and a coherence put around it. And so it was much easier for us to be agile, interestingly, because we weren't so deeply entrenched in processes and bureaucracy, and who can make the decision and who can't make the decision."

5.4.3.4. *Actions*

GammaCo rapidly implemented several initiatives that had been planned prior to the crisis. First, technological enablement initiatives were accelerated. Second, since the staff was working remotely, it was decided to renovate the office environment for a future hybrid work environment. The organisation concurrently engaged in a strategy review process aimed at revising the business and a global consulting business was retained to work with the ExCo team to challenge the prevailing strategy and assumptions as well as to assist with honing

their sense-making and prioritisation. The significant role GammaCo played in the wider society was noted in the media and resulted in a deep sense of pride amongst staff.

W: “And we then went into a space of incredible resourcefulness.... Everything that was practically required to run the office from off-site was turned around in a matter of two weeks. It was the most remarkable team effort ... along with a very open communication.”

H: “We had some cracks in the business performance and ... and, as they say, when the tide goes out, then you can see where ... there were weaknesses in the business, and that became quite transparent during that first six months of COVID.”

M: “I think it worked because the people, first up, experienced purpose and values in motion, so lived experience. So, values and purpose are often an external, abstract thing, it’s sitting on people’s walls, it’s sitting in presentation. It’s a very different thing when there’s a real and imminent threat and you lead in with that value and it becomes a demonstrated behaviour.”

M: “They show up as teams all hours of the night, they go the extra mile. So I think that we’ve learnt as a lesson. And it doesn’t only apply internally, it does apply externally as well.”

5.4.3.5. *Collective problem-solving*

Prior to the crisis, problem-solving took place at an ExCo level and within business unit leadership structures. However, during the COVID-19 period, the war room became the embodiment of shared sense-making, collective problem-solving, decision-making, and action, and met frequently.

Mari: “And it was a very agile team that was very well structured to take in information, external information, scan it to see what is the most relevant issues, and the big hitting issues, solutions ... extended, roll it out to the rest of the business.”

5.4.3.6. *Dynamic adaptation during the crisis*

Prior to March 2020, 1% of GammaCo’s staff worked off-site and, within two weeks, 99% of the organisation had moved off-site and rapidly implemented a technology capability. Despite concerns about the impact on the relationship-driven culture built through shared experiences and face-to-face interaction initially challenged by the move to the remote work, immediate strategies were implemented to ensure connection and support amongst staff online. This

included initiating informal social conversations to assess individuals' mental and physical health to ensure staff's and their families' well-being, and to enable staff to share their feelings and concerns, ultimately deepening a sense of care and community. Furthermore, regular webinars were implemented utilising psychologists and medical professionals, where people were able to voice their concerns.

Digital trends that were anticipated were accelerated and this transformed the fundamental identity of an organisation that until then had operated from its office campus. Following the move to remote work, GammaCo established a digital workplace strategy steering committee, which was tasked with reorganising the offices for a permanent hybrid workforce.

Other factors that enabled rapid adaptation included engaging the services of an international consulting firm to challenge the sense-making process related to the crisis and to enhance the strategic thinking process through a deeper understanding of global market shifts and fundamentals. Consequently, the business model and business strategy began to change. Moreover, GammaCo restructured the business for greater efficiency and then did a mergers and acquisitions transaction, where a share of its business was sold and combined to form a larger, more focused business.

K: "The business became a lot more agile and I think a lot more flexible in terms of multiple things. Working location became more flexible, working timelines became more flexible ... within a couple of days, equipped our entire business with laptops.... One of the biggest changes that it created [was] a lot more flexibility. I think it creates a lot of pressure on some individuals because they didn't then know how to manage their time between work and personal.... I think it created a connectedness, in some ways more than before COVID, but in other ways less than before COVID, which is an interesting paradox."

S: "Decisions were made as close as possible to where we interacted with the customers. And also to simplify the organisation, both for people internally and externally."

5.4.4. Post-COVID-19

5.4.4.1. Culture

The Barrett culture survey was conducted in May 2020 after an initial survey in 2018. The results of the survey indicated a significant positive shift, which GammaCo attributed to the way it responded to the crisis. The challenge was how to ensure the preservation of the culture in the new hybrid work environment.

K: "So we created a programme called the GammaCo Way We Work, and that's the programme that we're going to use to make sure that the culture is maintained, and even improved to certain elements."

W: "That is the work of the now, actually, is to acknowledge where we've been, where we come from. We've got an incredibly rich history and it's documented and available in various shapes and forms."

S: "What's consistent is our focus on our purposes, values is our millstone."

W: "We operate a hybrid working environment where most employees start to come in two, maybe three, days a week. But it's different the way that we connect with one another, and we need to figure out how to optimise that whilst retaining the essence of the culture."

5.4.4.2. *Learning*

Prior to the COVID-19 crisis, GammaCo was inwardly focused and was not responsive to change. The need to ensure a greater level of urgency and responsiveness was highlighted and the speed of decision-making was accelerated through input from those in non-managerial positions.

Ma: "So, what we've seen is structural reform in the business, a simplification of the number of business units in the structure, much more focus ... a kind of simplification."

W: "Probably one of our lessons in looking back at the effectiveness of the crisis committee, is how we make decisions, and the speed of decision-making."

5.4.4.3. *Identity*

The development of a technology capability has changed the way GammaCo operates, including a permanent shift to hybrid work. The organisation's identity has shifted to one that includes a strong technological capability and there is an awareness that this level of adaptation was required for business continuity and for the retention of skilled staff. The office environment was remodelled to reflect "the workplace of the future".

S: "I think, pre-COVID, we were looking for growth opportunities in the existing businesses that we had.... What we're doing now is looking for extensions of the business. So new markets, new countries, new lines of business."

H: "So, we've given up our space ... one building on campus and we've invested in remodelling our building to be a new workplace of the future."

Mi: "We had to do something as an entire business, we had to figure out how we work as one in a new construct."

W: "And also it's opened up value propositions for people to live overseas. So we've got a couple of resources and staff that are living in Australia or the UK."

5.4.4.4. *Leadership*

Whilst visible and humane leadership galvanised and inspired confidence during the crisis, there is now an awareness that leaders need to lead differently in a hybrid organisation and that the practice of management has changed fundamentally. This is considered an important adaptive challenge for GammaCo.

M: "I think that created a passion and an energy that opened up the system to be curious about what they can do to be better.... So we've had a rally call in our purpose and the fact that it was demonstrated and led by leadership very visibly as the rallying call through the mess mobilised a passion and an energy."

5.4.4.5. *Reflections on change and adaptation*

GammaCo considers itself to be a more competitive, confident organisation that is appreciative of the power of the collective. This newfound confidence emanates largely from overcoming the operational challenge of working from home through implementing a technological capability and also from its responsiveness to contextual dynamics, which reflected the organisation's purpose. Realisation of the technology capability enabled flexibility and adaptiveness, specifically because the customer value proposition was altered.

M: "I think the ability to face crisis and talk very robustly and focused about what is the problem to be solved. Identifying the problem to be solved with laser focus and responding to it in an agile.... How do I mock up a solution? Try it, test it, fail, go back, try it, test it, fail, rather than looking for these big macro initiatives to come and solve the problem? Is now a

feature of the organisation? It's very well embedded.... I think what we are witnessing is a huge paradigm shift.”

M: “A different muscle that has emerged ... and a big paradigm shift about leadership and business models being highly controlled at offices.”

5.4.4.6. *Summary*

GammaCo developed strong relational capital throughout its history and at the onset of the crisis was transitioning from a founder-led to a corporatised structure. The bureaucratic structure impacted decision-making and there was a lack of integration amongst autonomous business units. A technological capability, whilst planned for, had not been implemented and due to various change dynamics, the organisation was inwardly focused.

The crisis catapulted GammaCo to rapidly adapt. The structure and process in the crisis team/war room embodied collective problem-solving and highlighted the value of collective decision-making to ensure speed and responsiveness in a crisis. Without the constraints of a hierarchical siloed structure, decision-making about changes was speedily implemented.

Prior to March 2020, 1% of GammaCo worked off-site and, within two weeks, 99% of the organisation had moved off-site and rapidly implemented a technology capability. Although the move to remote work was initially experienced as challenging, immediate training – including processes and tools to facilitate online meetings – positively impacted relational capital. This change transformed GammaCo's identity from an office campus to a virtual organisation with a hybrid working arrangement, resulting in the organisation becoming more agile in its approach. The subsequent organisational restructure and sale of a portion of the business resulted in a more focused agile and flexible business. These shifts reflected GammaCo's adaptive response to the crisis.

5.5. Within-case analysis: DeltaCo

5.5.1. Case description

DeltaCo is an innovative technology organisation that commenced operations in 2011. The business was founded by five colleagues who left their positions in established corporate enterprises in similar industries to start the business. The founders have led the business since its formation and occupy strategic and operational roles. DeltaCo's unique product offering was developed with the objective of challenging the major players in the technology industry. Since its inception, the organisation has grown rapidly and is the fastest-growing

player in its sector. Headquartered in Johannesburg, the organisation employs 650 employees, many of whom are technology specialists with experience in this industry gained from working in established corporate enterprises. The sample of interviewees were all members of the executive team and included the CEO.

5.5.2. Pre-COVID-19

5.5.2.1. Culture and Identity

Prior to the COVID-19 pandemic, DeltaCo was transitioning from being a start-up business to scaling up its operations. DeltaCo had been on a rapid growth trajectory and there was a sense of optimism throughout the organisation based on a core belief that it was capable of great success. Descriptors used to explain the culture prior to the crisis included abrupt, aggressive, honest, high performing, long hours, and fun.

Speed of action and responsiveness were prioritised, enabling DeltaCo to establish itself as a new start-up in a competitive market. As a start-up business with the founders still fully involved in all operations, the process of scaling up the business entailed embedding the original founders' values and beliefs across the organisation. Aspects of the culture that contributed to developing adaptive resilience included founders' flexibility and agility, responsiveness, and unwavering tenacity.

From inception, DeltaCo's founders had collectively engaged in robust discussions aimed at "codifying" their culture, which included the ways of working, decision-making, and the values and ethos of the business. Central to its identity were practices of agility and dexterity or "scrappiness". The term "scrappiness" was an implicit reference to the founders' responsiveness and ability to work quickly as well as to make things up "on the fly", and was a term used pervasively by the respondents. These early discussions culminated in six key principles that embodied the values, which were discussed and implemented through group conversations.

L: "We're frontiers people, we're out there – every shot counts."

S: "We are revolutionary in who we are, we are a challenger brand, and being a challenger brand means that we're not the norm.... We are disrupters and maybe sort of rebels in the industry."

A: "Being able to question or comment, or add value no matter where in the business you

sit.”

D: “We work very hard, we work long hours, but we do things kind of rapidly, we’re very responsive, we’re very adaptable.”

5.5.2.2. *Collective problem-solving*

DeltaCo’s problem-solving and decision-making process took place on an ongoing informal basis through informal conversations primarily between the founders and over time including a wider group of staff. These conversations were initially informal and, as the organisation grew, formal sessions of dialogue amongst multidisciplinary teams were added to foster “an entrepreneurial approach to problem-solving”, evidenced in a partnership model and approach and which was predicated on trust in each person’s abilities and skill set. This inclusive process of discussion and problem-solving was aimed at leveraging diverse thinking and skill sets, based on the assumption that collective processes of dialogue enabled innovation and problem-solving, and were key to their ability to innovate.

M: “It’s a collaborative thinking approach where everyone is involved. Everyone’s opinion counts, no one gets dismissed, but there’s also a significant challenge.... From the get-go, an idea or how you solve a problem will get challenged quite significantly internally, and that’s a good thing because it shows that people take ownership of a problem and how to solve it.”

S: “Sometimes, those debates take a bit longer upfront because you’re talking different languages and you’re talking different ways of thinking through, because we’ve got different disciplines and skill set, but when you get it and you get everybody on the same page, then the ability to accelerate and move forward kind of independently is just so much better and the results are better ... and then it’s quite amazing what a group of people can achieve collectively.”

L: “We’ve really tried to give everybody, from the systems guy to the marketing person, the opportunity to input on how things work, how things are done. There’s this idea of being able to question or comment, or add value no matter where in the business you sit.”

5.5.2.3. *Sensing and communication*

From inception, communication internally and externally was prioritised and a specific function was created and tasked with this role. Communication was deliberate, frequent, and consistent, and was targeted internally and externally. Internal communication incorporated a

focus on DeltaCo's vision and purpose. External communication aimed to simplify a complex product offering and to convey the message of being a young, capable, and experienced organisation. The communication style to the market was described as being warm, humane, and relatable, and differed to the prevailing messaging in the industry.

5.5.2.4. *Learning*

Learning had been built into the organisation's decision-making processes, and lessons learnt from the challenges of starting a new business in the midst of a highly competitive landscape were constantly reviewed by the founder executives in ongoing discussions and incorporated into the strategy. This included ongoing processes of reflection feedback and extracting learning from failure. Important learnings that informed DeltaCo's identity and that were specifically leveraged during the crisis were:

- To respond quickly;
- To keep moving forward and to avoid inaction;
- To confront issues head on; and
- To constantly develop scenarios for potential threats and opportunities.

S: "We are not scared to go and face the devil in the eye, and face that problem and then start building it up slowly but surely.... It's a very, very tough team of people that are willing to go where very few others are willing to go in terms of finding solutions."

5.5.2.5. *Leadership*

DeltaCo's leadership structure included all the initial founders who founded the organisation. All were highly experienced and many had formerly worked in bureaucratic corporations in this industry. These founders were driven by the challenge of disrupting the industry, and were performance- and task-focused. They believed it was important to hire diverse skill sets to challenge their thinking and whilst their style of leadership was authoritative, there was a focus on creating a culture of youthfulness and informality, as reflected in the office décor. Leaders fulfilled two roles in that they were all operational and fulfilled a leadership.

5.5.2.6. *Adaptive capacity*

As a start-up business that had developed a new offering to challenge the dominant players in the industry, DeltaCo's ability to convince the market about its offering required ongoing problem-solving, market intelligence, and an ability to communicate. Despite the challenges inherent in such an endeavour, DeltaCo succeeded by hiring diverse skill sets, enabling a robust problem-solving ability, and thereby ensuring dexterity and responsiveness.

5.5.3. During COVID-19

5.5.3.1. Sense-making in crisis

The collective problem-solving ability developed largely amongst the founders was leveraged for sense-making about the COVID-19 crisis. This process was expanded to include other executives in a cross-functional COVID-19 crisis task team that engaged in rigorous scanning of the local and international environment for information and the subsequent development of communication to answer customers' questions.

Regarding internal communication, the development of an information library before the crisis, as a result of extensive scenario planning processes, assisted in communicating to internal staff. Despite extensive work on pre-crisis scenario forecasting and stress-testing, the wide-ranging implications created a deep sense of uncertainty amongst the leadership team, who immediately met with staff to discuss the crisis and to advise them that, as essential service providers, the organisation would remain open for business during the crisis.

S: "Our big focus initially was, how do we get our people to be safe, how do we make sure that our people are well looked after and protected, but we don't let down any of our clients, because we knew upfront that we are an essential service."

5.5.3.2. Communication

The official COVID-19 announcements meant information to staff intensified, which included twice daily interactive communication meetings with all staff, such as the introduction of WhatsApp groups. The general theme of communication was a focus on working optimally to support clients framed by the message: "Our clients are counting on us." This message was designed to advise staff that the business continuity was prioritised. Internal communication involved ongoing group sessions with people working remotely and in the office. An additional dimension of the communication with staff included acknowledging and embracing people's fear and vulnerability captured in the following message: "It's okay not to be okay." This theme was intended to reassure the DeltaCo's employees that their felt sense of vulnerability and anxiety were acknowledged.

Schalk: "And those initial moments were very tough, firstly just to settle everybody down and to say, listen, you're going to be all right, we are going to take care of you, we are going to make sure you can operate at home. We are going to make sure that we will be fine."

Amanda: “We really were a team taking on something completely, completely unknown. And that the experience of the team was also a collective personal experience, and reminding everyone that it was okay to not be okay.”

B: “Vulnerability was a really powerful thing to embrace right now, was one of those things that we kind of brought through and we used that as a message all the way into the executive team right through the business. And also trying to sensitise leaders and managers in the business to this idea of vulnerability.”

5.5.3.3. *Collective problem-solving*

Collective problem-solving processes were leveraged during the crisis, with people from various departments and multidisciplinary teams meeting to solve challenges. Pre-crisis investment in technology and digital communication enabled these initial remote conversations. During DeltaCo’s remote work, online discussions focused on ensuring clients received the same levels of service, that people stayed connected, and that business continued. This collective process of problem-solving was experienced as particularly positive and galvanising, as people felt the power of the collective and the benefits emanating from multiple perspectives. The sense of responsibility for solving challenges alone or in a department was averted and there was a deep sense of confidence and appreciation in the group.

Sue: “I think what we did right was we managed to rally quite a few multidisciplinary teams. We were able to pull people from kind of different functions who came together to help do problem-solving.”

Mandy: “What kinds of things can we do? And to some extent that in itself was quite galvanising, you know? People were like, we’re all in it together, it’s not one person or one department’s problem, we’ve all got to figure this out. We work together as a collective to come through it.”

5.5.3.4. *Decisions*

As soon as the COVID-19 crisis was officially announced, DeltaCo’s immediate priority was that the founder group isolate themselves and design an implementation plan and to agree on specific principles for addressing the crisis. Business continuity and growth were prioritised. During the first six weeks, staff worked remotely and it was then decided that staff should return to the office, because it was believed that staff required social interaction and due to an

implicit assumption that staff would not work at home. The executive decision was contentious, since other organisations in this sector did not apply this decision.

S: "We had to actually pull people away from being scared. So we actively said that to ourselves ... and we just fundamentally believed we had to push people out of this haze of COVID and get them to be acting as normal as humanly possible."

B: "[I] think that we displayed a lack of trust in our team later in the pandemic when we were, I think, at times prematurely asking people to come back to work which went back to this mindset that said, we need to get everyone back in the office and that felt so at odds with the extraordinary sense of commitment and community that was absolutely shared spontaneously by our people during the worst parts of the lockdown."

5.5.3.5. *Actions*

The dexterity and capacity for improvisation that had characterised DeltaCo's genesis was leveraged with speed and urgency. There were no retrenchments or salary cuts. By leveraging the pre-COVID-19 scenario planning, which included working remotely, remote work was effectively implemented within two weeks of the government's official announcement. This included the drafting of a COVID-19 workplace policy and the sharing of information that would help staff navigate the crisis.

Through prior investment in technology, products were automatically digitally accessible and work could continue. The move to remote work created high levels of anxiety amongst staff, albeit that they were equipped with the technology to do so. This anxiety emanated from a concern by staff that if they were not seen, they may not be relevant as well as from leadership's assumption that people were more efficient when working in an office.

S: "We implemented a 100% paperless, seamless, new business process within a week or two of lockdown.... So, we were actually open for new business, we were able to look after our clients, we were doing business at a time when almost all our competitors were not."

5.5.3.6. *Leadership*

During the crisis, leaders engaged with staff on an ongoing basis and conveyed two distinct messages – a message of the crisis being a collective experience of shared vulnerability as well as a message of focus on growing the business and finding new opportunities for revenue generation. Leaders felt the emotional burden of responsibility for staff's well-being as well as of honouring important principles that had been agreed upon, such as being open for business.

Throughout the crisis, the leadership team remained highly visible and continued in their operational and directive role, keenly aware that they needed to lead by example and be visible in the market, whilst exuding confidence and positivity and continuing to lead the business and be visible in the market.

S: “We’ve actually got to keep our people busy and working, and looking to the next thing, because otherwise you’ll quickly lose disciplines that’s been built up over many years.”

S: “And it starts with us as the leaders and I think a little bit – one has to kind of really look at yourself and go, ‘Geez, am I going to succumb to all of this negativity, or can I see myself as somebody who can lead positively in this time?’”

5.5.3.7. *Dynamic adaptation during the crisis*

During the 2020 COVID-19 pandemic, the business grew exponentially (double digits), whilst the competitors who did not operate during the lockdown lost revenue. DeltaCo’s primary identity was that of a “growth business” and not a “maintaining business”. Adaptation was enabled operationally by fast-tracking ideas and plans, such as implementing a seamless digital experience for clients, operationalising the “scrappy” mindset or “muscle strength” referred to in section 5.5.2.1 by being agile and flexible evidenced in the introduction of four innovative products, and leveraging a robust and inclusive decision-making process where decision-making devolved to the level of team leaders. Moreover, adaption was enabled through speed and responsiveness based on the understanding that inaction was “dangerous”, and thus acting and correcting errors were the only way to move forward. In addition, the shift to digital delivery of DeltaCo’s services shifted its identity as an organisation and created a sense of confidence in the business’s ability to thrive during uncertainty.

L: “So, we’re better for that, we’ve cleaned out a lot of processes that wasn’t mature, wasn’t working, put us at undue risk. Because, in times like this, you’re forced to turn every rock, you’re forced to turn everything and test it.”

B: “It was a complete step change in the way we perceived ourselves as a team and as a business.”

L: “Our response was, we’re just going to shift to a different way of working, but we’re going to keep working and we’re going to kind of respond ... and get that business.”

5.5.4. Post-COVID-19

5.5.4.1. Learning

The experience of having survived and thrived during the crisis has resulted in a renewed sense of confidence and belief in DeltaCo's mission and vision. Despite difficulties encountered during the crisis, it was acknowledged that there is a need to maintain agile and scale quickly was reinforced, as well as the importance of speed and responsiveness to quickly recalibrate, automate, and digitise DeltaCo's products.

S: "Often, the best way just to move past a situation is to start doing stuff. And even if what you do isn't the right thing initially, then you change your mind and you do something new, but don't get stuck."

S: "We've done a start-up before, let's think like a start-up now. This is our new world, it's a new reality, we are dealing with new dynamics that didn't exist before."

L: "We are more agile, and I think firstly our decision-making ability ... allowed that to be more agile and flexible."

S: "We are here to thrive, we are here to take advantage. I do believe there's an opportunity for us to take market share in the next 12 to 18 months, in the midst of – in the willingness of being able to adapt

5.5.4.2. Culture and identity

The ability to rapidly adapt and succeed during a crisis through a collective effort confirmed DeltaCo's identity as one of a growth business, rather than maintaining the status. However, relational capital dissipated during the crisis. Staff began to push back against the abrupt directness that characterised interactions prior to the crisis. There had been an attempt to shift to a more sensitive and considerate style of interactions. The challenge of the culture now is one of integration and the rebuilding of a sense of belonging, cohesiveness, and esprit de corps, given the crisis decisions.

S: "I do think that we will be a player, that if you look two years back now would say, we benefitted in a very tough condition.... So this team is galvanised. I mean, it's a very, very tough team of people that are willing to go where very few others are willing to go in terms of finding solutions."

M: "One's hungry to do even better."

5.5.4.3. *Summary*

DeltaCo, a founder-led organisation, commenced the start-up phase with a deep sense of purpose and the identity of rebels and revolutionaries taking on an established industry. The investment in technology to digitally transform the products and services was fully leveraged in the crisis and staff could work remotely whilst remaining connected. During the 2020 COVID-19 period, DeltaCo re-evaluated all processes, consolidated the business, and developed new insight into clients, necessitating the reskilling of employees. The business grew exponentially in 2020, which reflected its identity as a growth business that thrived in a crisis. Key factors that enabled growth and success prior to the crisis were the organisation's agility and dexterity, speed and responsiveness, and a robust collective process of problem-solving amongst founders and within teams and multidisciplinary teams.

Relational capital amongst the founders was strong. However, the decision to insist that people return to work in the office during the height of the crisis was controversial, despite technology that enabled them to work remotely as well as an offering of online products. The founders were unable to challenge their assumptions that people work better and more efficiently in person and impacted relational capital at levels below the founders, reflecting DeltaCo's task-focused leadership style and performance-driven culture. The directive, operational leadership style continued through the crisis and while fears and anxieties of staff were acknowledged, there were no specific interventions mentioned to deal with these.

Collective processes of problem-solving, shared sense-making, and relational capital were evident at the founder level pre, during, and post crisis, but these processes did not extend to the entire organisation and reverted to founder shared sense-making and decision-making during the crisis. Key insight and learning from the crisis included the need to retain agility, flexibility, speed, and responsiveness as the business grows, recognition of the power of collective processes debate, and dialogue utilising multidisciplinary teams with people at different levels and skill sets to solve problems (rather than only founders).

Moreover, leaders reflected on their role as exemplars of positivity and hope given the residue of fear, anxiety, and trauma that they personally experienced. The challenges DeltaCo reported were integration, developing relational capital, and the rebuilding of a sense of belonging, cohesiveness, and esprit de corps, given the resentment felt towards having to return to work during the height of the crisis.

5.6. Within-case analysis: EpsilonCo

5.6.1. Case description

EpsilonCo is an R80 billion diversified services business that employs 13 000 people in South Africa and operates in the wholesale, retail, and tourism industry. The organisation unbundled from the OXCO group and listed on the Johannesburg Stock Exchange in 2019. All EpsilonCo staff members were formerly employees of the OXCO group and transitioned to the newly formed EpsilonCo organisation after the corporate's restructuring. The organisation has four divisions, each is led by a CEO and directors who report to the EpsilonCo group's executive team. Each division has a strong brand identity that is well regarded in the markets they serve. The participants in this research were the CEOs of divisions 1–4, the group head of People, and the chief investment officer.

5.6.2. Pre-COVID-19

From the period of the unbundling from OXCO in 2018 and leading into the COVID-19 crisis, EpsilonCo was grappling with its identity and was in the process of becoming one integrated organisation. Each of the four EpsilonCo divisions operated independently in silos, with no cross synergies or integrated IT platforms. Although a strategy for integration and leveraging the broader scale of the EpsilonCo business had been developed, there was resistance to integration in each of the independent divisions, as they wished to retain their brand identity, autonomy, and independence, especially because these businesses competed with each other for market share. Resistance to integration also existed because of a desire to retain status and levels of authority within each of these divisions. The organisation did not have robust technology platforms and the lack of integrating technology platforms reinforced divisionalised structures and operations.

5.6.2.1. Culture and Identity

EpsilonCo's culture and identity were in a formation phase prior to the COVID-19 crisis, as the organisation had only been in existence for two years. Descriptors of the culture that were used included being entrepreneurial and performance-driven, and the less hierarchical organisational structure enabled ease of decision-making and communication. Of all staff members, 94% had five to 20 years of service in the organisation – first in OXCO and subsequently in EpsilonCo. Each Division had well-known products in its sector and these distinctive brands defined the different identities in the organisation.

Mo: “You could never say there was one common culture ... that’s been part of what we’ve been doing these few years.... But what is central to it would be very entrepreneurial ... fast-moving, performance-driven.”

5.6.2.2. *Learning from crises*

Each of EpsilonCo’s four divisions had individually faced challenges in their history, which led to division-specific assumptions about dealing with challenges and informed their approach to the COVID-19 crisis. These included the need to react quickly to change, to be flexible and adaptive, and an understanding that recovery from crisis took longer than anticipated, thus critical decisions should be taken immediately. These decisions concerned ensuring that there were no “excesses” in the business and that when there was a need to retrench people, this process should be conducted once, rather than staggering the process and prolonging the inevitable decision. From a strategy perspective, the approach was one of fast and efficient implementation.

M: “I think, like, any kind of delay is very detrimental to the business. If you wait too long ... you become in a weaker bargaining position in terms of how you need to react.”

5.6.2.3. *Leadership*

Prior to March 2020, when the COVID-19 crisis was announced, many EpsilonCo leaders were transitioning in their executive roles – from leading divisional businesses in a large corporate structure and reporting into various executive levels to being in a more senior executive position as the CEO of a division and part of the group executive function. This role transition required a more complex perspective and entailed leading across divisional boundaries, rather than having a singular focus on one division. These leadership transitional dynamics were conflictual and slowed down the organisation’s integration strategy.

B: “You’ve got an ExCo team who needs to elevate how they thought about not just their own businesses, but how they thought about how it all integrated back to the bigger group ... whereas before they were two levels down.”

5.6.3. *During COVID-19*

5.6.3.1. *Sense-making in crisis*

Although high levels of uncertainty prevailed, EpsilonCo’s international businesses, particularly those in Asia, were an important source of information about the potential impact of the crisis prior to any official announcements. In this regard, sense-making was conducted

primarily by the CEO and the executives in each division and decisions taken were actioned by staff below this level. Despite being aware of the impending crisis, the government's announcement detailing the onerous lockdown regulations of business closure for six to eight weeks resulted in extreme anxiety and confusion amongst the leadership, as the future survival of the business was threatened. Coupled with this concern was the immediate need to vacate the offices and work remotely. Sense-making in disruptive periods had always taken place together by fellow executives and this immediate change was reported to be profoundly isolating.

Thereafter, sense-making took place online in group and divisional executive structures, in daily meetings as well as in a newly formed EpsilonCo group subcommittee tasked with gathering and evaluating the accuracy of information, given the amount of misinformation in the public domain. A disaster recovery committee was initiated at the group head office, tasked with interpreting the implications of the pandemic and the government legislation, and in the divisions' leaders met daily to share insight based on their discussions and research, which enabled the construction of scenarios for different possibilities.

B: "The organisation is a high fixed cost business and realities of not being able to operate led to questions about the potential survival of the business perspective being told that, well, just because of the nature of who you are, you can't operate was a big thing for us."

B: "We felt like sitting ducks."

A: "In ordinary circumstances, you all actually get together ... and you pull together and you feed off each other's strengths ... what we did is we actually all just went home and sort of sat down."

A: "In our business, if we lose 10% revenue, it's a very big deal, because we had a very high fixed cost structure. We literally lost 90% of our revenue between one day and the next."

5.6.3.2. *Communication*

Until the COVID-19, EpsilonCo's group head office did not play a significant role in divisional operations or in group-wide communication in an effort not to "dictate from the head office" and, as such, each business division communicated directly with staff and took decisions pertaining to their division. However, due to high levels of uncertainty during the pandemic, it

was decided that the EpsilonCo group executive team would provide explicit communication and guidance about operations and business continuity to each division for implementation.

Although unprecedented, communication from EpsilonCo's group CEO was implemented, which was framed to encompass the sense of oneness and cohesiveness. This was experienced positively, particularly because a key message was that salaries would not be cut. As the crisis persisted, communication began to increase vertically and horizontally across the EpsilonCo. This shift in the communication approach began to reflect a change in perspective from only focusing on one's own division to a cross-divisional perspective borne out of a need to gather information and obtain certainty in the midst of great uncertainty.

B: "So until [then] we had limited ... communication because of this transition, and also because ultimately who do you work for? Do you work for ... do you work for...? So, it was very unusual that the CEO sends out a group communication and speaks to everyone."

5.6.3.3. *Decision-making*

Within the group executive team, four people formed a subcommittee to monitor the situation and developed different scenarios that could be implemented if required. Priorities were agreed, which included ensuring the survival of the business, paying all staff during the closure of the business, and avoiding retrenchments. This required salary sacrifices to be implemented at mid to senior levels across the entire organisation.

After the lockdown, when parts of the business began to operate, difficult decisions that entailed balancing the expectations of shareholders and employment of staff were required. Consequently, retrenchments were conducted across the organisation. A controversial decision was the insistence that a third of the workforce return to work on a rotational basis two months after the lockdown. These were predominantly lower-level employees who were faced with the choice of returning to work or being retrenched.

M: "More people said, 'Okay, it's not about us any more, it's about everybody else. How can we save it?' And we knew that there was going to be massive pain in terms of job losses."

C: "And the choice was, if you don't want to do that [return to the office], then we're going to start retrenching, which was our last form of defence, was to retrench people. We didn't believe it was fair and we believed that this was a far better way to spread the load where we could."

5.6.3.4. *Actions*

Initial actions included allowing certain functions to operate remotely, restructuring the business for greater efficiency, retrenching two thirds of the workforce, and reviewing the strategy, operations, and structure with the intention to rebuild it differently to what it had been before the crisis. From a people perspective, medical equipment was offered to all staff as well as the services of a nurse to oversee the physical well-being of staff at work. Subsequently, this included programmes to assist staff with mental well-being challenges.

5.6.3.5. *Collective problem-solving*

Problem-solving had generally taken place at senior levels of the organisations in formal structures, such as meetings. However, during the crisis, interpersonal connections increased, as people began to engage more frequently to learn more about each other's personal lives and physical well-being. This growth in relational capital across EpsilonCo was reported to be significant. Furthermore, the development of relationships in divisional leadership teams and across each leadership team increased, leading to informal collective problem-solving discussions where decisions were taken.

Be: “[In] the lead up to the lockdown, we made sure everyone knew who’s in your team, what their spouse’s name is, what the contact details for the spouse, because just in case something happens that you have an alternative mobile, do you have it? Do you understand the circumstances that your staff member lives in, etc., etc.? So, I think it’s also about as much as you have a professional relationship with your staff, you needed to know more, you needed to really know what are their circumstances at home, because you can’t expect someone to work from home if they’re not – there’s not a conducive environment.”

5.6.3.6. *Move to hybrid/remote work*

Prior to the crisis, EpsilonCo considered developing flexible work policies, which were implemented during the crisis in specific areas of the business. The absence of robust technology platforms was found to be limiting for middle- and junior-level staff who lacked many of the resources required to do their jobs. This transition to remote or hybrid work for specific functions led to conflictual dynamics because of perceptions of unfairness about why some people could work remotely and others not. Leaders were able to choose how they wished to work, but needed to be visible and accessible (either in person or online) to each other during the crisis.

Be: “But more than anything else you need to be visible, you needed to be active, and you needed to show solidarity with your people who are ultimately delivering for you.”

5.6.3.7. *Dynamic adaptation during the crisis*

Owing to the nature of the industry, the business model was predominantly in-person and a technology-based mode of operating had not been considered. However, when confronted with options for business continuity, parts of the business acquired the relevant technology and migrated to using a digital platform.

Prior to the pandemic, projects addressing automation and innovation had been planned for, which were quickly implemented during the crisis and there was a shift and openness to experiment, change, and execute speedily, which quickly became the approach for investigating new revenue opportunities. The pre-COVID-19 decision to combine all businesses on one digital platform was immediately actioned and enabled by a shift in the relationships amongst leaders across EpsilonCo.

M: “The flexibility of the organisation was much greater, our ability to respond quicker was greater. The ability to actually change direction was better.”

S: “Purchasing ... online ... that has accelerated, that type of thinking and innovation within our business that we always thought about pre-COVID that – it’s too much of a horizon view.”

S: “When it comes down to the wire, people get their hands dirty, people execute, and people are resilient and get the job done.”

B: “For the first time, everyone was like we’ve never been in a situation like this, so there was a lot of angst around the level of uncertainty.... And so they were a lot more open to, ‘Okay, let’s try it this way and let’s do it this way.’”

5.6.4. **Post-COVID-19**

EpsilonCo’s business strategy has transitioned to a new level of cooperation and integration across divisional businesses, such as in collective procurement. The organisation has made a number of international acquisitions, having realised that many of its operations can be enabled by technology. The organisation has streamlined its operations, albeit that some

resistance to structural changes remain because of the impact on job titles and levels of authority. There is now a felt collective sense of confidence at having survived the crisis.

5.6.4.1. *Culture and identity*

The organisational culture has shifted to encompass a greater focus on people, specifically their mental and physical well-being. Relational capital has begun to develop and from being only bottom-line driven, EpsilonCo has transformed to include greater valuing of people. The experience of having retrenched colleagues with many years of service continues to be an unresolved issue for many employees, notwithstanding the salary sacrifices staff made to ensure people were employed for as long as possible. There is a collective intent to grow the business so that those people who were retrenched can be reemployed.

The crisis triggered collaboration and collective problem-solving across all areas of the business, which have transcended divisional businesses. Whilst the organisational strategy remains the same, the use of digital platforms has enabled EpsilonCo to market and transact utilising these new channels and it is thus perceived to be more innovative. The possibility of introducing a hybrid work option has been mooted.

M: "There's also a little more heart as well."

S: "I think we had a collective want to save the business. So, we wanted to make sure that ... we want to build something that could recruit back our colleagues who were retrenched."

Mo: "It was just this understanding that brick and mortar is not your end game really. You can engage with people, customers, digitally as much as possible."

5.6.4.2. *Learning*

Formal processes of reflection and learning have not taken place at a collective level. Learning has been predominately at a divisional level. Across all divisions, the importance of quick decision-making has been highlighted as important to adaptability. The power of integration and collective decision-making has been observed and there is a desire to further the process.

Ma: "No man's an island and you cannot be successful on your own. You can be successful in your own metric, but you can't be successful as a business.... Being part of a large group enabled survival."

5.6.4.3. *Leadership*

Leaders' perspectives of their role have altered significantly and now include a specific focus on people and their well-being. Leaders who connected with staff who were ill found the experience to be transformative in terms of how they saw their role, with specific reference to the responsibility of leadership. Moreover, there was a realisation that leaders need to be fully visible and at the frontlines during crises, fully mindful of not contributing to panic in crises or exacerbating the levels of uncertainty.

Be: "We've always been quite a humble organisation, and we've always been very accessible, but we became even more accessible to our people. We spoke a lot more, we spoke a lot more to each other to understand, okay, are there flags we're not seeing, how do we share more, how do we work together more to create better?"

5.6.4.4. *Reflections on dynamic adaptation*

EpsilonCo has developed a greater sense of confidence and belief in its ability to survive in crises. Fifty-two EpsilonCo staff members lost their lives during the COVID-19 pandemic and whilst this loss was profoundly felt, there is a sense of being a collective, with one identity and relational capital developing across the organisation. The introduction of new technologies and the use of digital platforms were important enablers for business survival during the crisis.

Mo: "It's an amazing team that was able to do so much with so little.... So it's just been a miracle, it's been really a miracle. *Ja*, and our people really deserve serious recognition."

5.6.4.5. *Summary*

Prior to the crisis, EpsilonCo was transitioning from highly divisionalised structures to becoming one integrated business that leveraged capability across the various divisions. Relational capital development was secondary to business performance and the focus was individualistic or on divisional performance. Collective processes of sense-making, communication or problem-solving were not prioritised.

The COVID-19 crisis forced EpsilonCo to accelerate its integration strategy and implement a technological capability that enabled business development. Cooperation across divisions shifted and the organisation made several international acquisitions. Relationships between people have changed, owing to a greater awareness and sensitivity to mental health and physical well-being, and the culture that is evolving is both performance-driven and valuing of people.

The crisis galvanised EpsilonCo into collective problem-solving and cooperation for survival, ultimately facilitating new levels of integration. However, it remains unclear whether potential opportunities for adaptation and thriving can be leveraged when the crisis dissipates. The research interview was the first time EpsilonCo reflected on the crisis and people became emotional as they reflected on the 50 colleagues who had died from COVID-19. At the same time, interviewees' reflections moved to a newfound collective sense of confidence that resulted from having survived the crisis.

Chapter 6: Cross-case analysis

6.1. Introduction

This chapter compares five different cases based on the themes generated from the within-case analysis presented in Chapter 5 and utilises a process-based developmental perspective of adaptive resilience. In a multiple case study, patterns are identified among cases, lowering the risk of insight being idiosyncratic. Themes emerged from rich data that were nuanced and ambiguous and explained why things emerge and develop over time through interwoven microprocesses that are enacted, recurrent, and accumulated, and indicate progress (Langley et al., 2013).

The research questions focused on the process, as there was no explicit chain of events in the specified time. Data themes were initially analysed in three phases: pre-crisis, during the crisis, and post-crisis recurrent themes. From the data, it became evident that there were dominant recurrent microprocesses underpinning each theme within each phase, which occurred across all three phases (Cloutier & Langley, 2020). In the process of refining themes, it became clear that there were also nuanced subthemes that informed each of the microprocesses.(Nowell et al., 2017). The themes developed for cross-case analysis are different to the within-case categories, because:

- Each theme presents a set of interwoven microprocesses (Cloutier & Langley, 2020);
- A theme is a phrase or sentence that describes the process, pattern, trend or interpreted aspects of a phenomenon (Saldaña, 2021); and
- The significance and meaning of the patterns and their implications are theorised in relation to literature (Nowell et al., 2017).

Table 9 shows how the microprocesses and initial themes were identified for the cross-case analysis The shaded blocks with the word “yes” highlight the presence of the microprocess and sub-elements of the microprocess – for instance, interactive communication is representative of enacted sense-making, which is part of sense-making.

Table 8: Consolidated microprocesses driving pre-, during-, and post-extreme crisis themes

Extreme crisis event	Microprocesses	AlphaCo	BetaCo	GammaCo	DeltaCo	EpsilonCo
Pre	Collective problem-solving	High	High	Low	Medium (among founders)	Low
Pre	Shared sense-making	High	High	Low	Medium (among founders)	Low
Pre	Interactive communication/ Relational capital	High	High	Medium	High	Low
Pre	Summary: Adaptive resilient microprocesses	High	High	Low	Medium (amongst founders)	Low
During	Collective problem-solving	High (<i>all</i>)	High (<i>all</i>)	Medium (crisis committee)	High (amongst founders)	Medium (crisis committee)
During	Shared sense-making	High	High	Medium (crisis committee)	High (amongst founders)	Low
During	Interactive, frequent communication/ Relational capital	High	High	High	High	Low
Post	Reflection/ Learnings embedded	High	High	High	Medium	Low
Post	Summary: Adaption (reflections on adaptation)	Bounce forward Changed business/operating model Fully remote	Bounce forward Changed Business model Efficiency	Bounce forward Changed operating model Hybrid working	Bounce back Changed operating model	Survived

Although there are various ways themes can be identified (Ayres et al., 2003), this researcher developed themes based on the recurrence of themes across phases, the recurrence of ideas

across various cases, the accumulation of progressions (Langley et al., 2013), the similarities and differences for one phenomenon, and the theoretical issues suggested by data. Consequently, this research generated 10 themes to enable a coherent narrative (see Table 10). In the subsections that follow, each of these themes is described, its manifestation in the data is highlighted, and then the data is compared to relevant literature to highlight how this study contributes to the existing body of knowledge.

Table 9: Consolidation of themes

Theme 1	Collective problem-solving facilitates the development of relational capital
Theme 2	Collective problem-solving promotes shared sense-making
Theme 3	Relational capital facilitates shared sense-making
Theme 4	Collective problem-solving promotes clear prioritisation
Theme 5	Shared sense making facilitates responsiveness
Theme 6	Relational capital facilitates responsiveness
Theme 7	Responsiveness activates adaptive resilience development
Theme 8	Reflective learning supports ongoing adaptation
Theme 9	Leadership facilitates resilience development

6.2. Theme 1: Collective problem-solving facilitates the development of relational capital

Prior to the COVID-19 crisis, cases differed in the way people collectively collaborated and solved challenges, leading to the development of relational capital. In the BetaCo case, collective problem-solving reflected its organisational culture of valuing diverse viewpoints based on the skills, expertise, experiences, and perspectives, seeking colleagues' participation and contribution, irrespective of role or position in the hierarchy. Role fluidity, technical expertise, and the valuing of diverse viewpoints resulted in the development of strong relational capital. The cultural assumption was that technical expertise was valued more highly than role or position and that challenges needed be resolved quickly and informally by colleagues who were well known for their skills and expertise. Through a process of transparent communication, trust was built, particularly when relationships were forged over long periods. The approach to problem-solving was one of debate, advocating a position, and considering different perspectives culminating in collective decision-making. This process of robust dialogue in problem-solving led to shared values, norms, and mental models, and developed trusting relationships amongst colleagues, which supported their culture of innovation.

In the AlphaCo and DeltaCo cases, collective problem-solving and decision-making took place amongst the long-serving members of the executive leadership team, who valued and trusted each other's technical expertise and experience. Relational capital in these groups was high. Decisions emanating from collective problem-solving were shared with the organisations for

implementation and action. In the DeltaCo case, there was a realisation that broader collaboration with senior leaders was required to build relational capital, as the organisation scaled up its operations. In the AlphaCo, BetaCo, and DeltaCo cases, frequent informal interaction and communication resulted in the presence of strong networks inside and outside the organisations.

In the GammaCo and EpsilonCo cases, high levels of structure and role change had taken place in their hierarchically structured organisations. In both cases, challenges were dealt with in formal meetings at executive levels in autonomous business units and decisions were devolved for implementation and action. Ongoing change in the preceding two years had impacted relationship capital negatively.

Whilst all cases engaged in problem-solving, there were significant differences in approach. Formal processes of discussion were structured and took place in scheduled meetings in executive committees, and whilst relational capital may have existed, the objective of the meetings was problem-solving. In contrast, in cases where collective problem-solving was the de facto approach to dealing with challenges, these discussions were often unscheduled and informal, took place in coffee shops and in offices, and required openness to others' viewpoints, knowledge and trust in expertise of colleagues, and an ability to challenge thinking and assumptions. Within this context, robust and collaborative discussions took place, which resulted in the development of relational capital.

Extant research on collective problem-solving has been studied independently of relational capital and organisational resilience scholarship. Collective problem-solving enables the solving of complex challenges and the pooling of knowledge, skills, and efforts (Neubert et al., 2015). A collective problem as a cognitive and behavioural mechanism for the development of relational capital for organisational resilience has not been researched, although extant scholarship has investigated collaboration as a building block for relational capital (Debicki et al., 2020; Wulandhari et al., 2022).

Described as an intangible asset, relational capital encompasses the quality of relationships, collaboration, and communication. Research on relational capital builds on early research on social capital by Nahapiet and Ghoshal (1998), who conceptualised relational capital as a dimension of social capital evidenced in levels of collaboration and in social networks of trust. Research on relational capital as an intangible asset is limited (Debicki et al., 2020).

Wulandhari et al. (2022) conceptualised relational capital as a dimension of social capital, reporting that “existing research has failed to illuminate the fine-grained and nuanced mechanisms for how organizations should deploy social capital to build capabilities required for resilience” (p. 376). The process of inclusive and collective problem-solving may be described as a nuanced mechanism for resilience development, which has not been investigated by current scholarship, although there is research that highlights interpersonal connections as an enabling factor for resilience development in the face of crisis and uncertainty (Wulandhari et al., 2022) and, as such, links with early work on resilience development in the presence of relational capital (Powley, 2009). Relational capital has been reported to be central to the development of organisational resilience to deal with crisis events before, during, and after such events (Duchek, 2020). Relational capital may be both an input and an outcome of collective problem-solving, because relationships and connections result in positive networks that can be triggered or activated in crises to develop resilience (Hillmann & Guenther, 2021; Powley, 2009; Teo et al., 2017; Vakilzadeh & Haase, 2021). When positive relationships exist, they provide social, emotional, and cognitive resources for organisational resilience (Lengnick-Hall et al., 2011; Powley, 2009).

Consequently, these findings extend current research on organisational resilience in two ways. First, it extends research on organisational resilience as a developable characteristic (Hillmann & Guenther, 2021). Second, it extends research on adaptive resilience development and collective problem-solving by demonstrating that adaptive resilience development is a nuanced process of collective problem-solving, which develops relational capital.

6.3. Theme 2: Collective problem-solving promotes shared sense-making

At the onset of the COVID-19 crisis, all organisations experienced shock, fear, and anxiety, exacerbated by a lack of accurate information and the immediacy and fast-paced nature of the crisis. Sense-making was essential and differed across cases, with various factors influencing sense-making, including:

- Whether the prevailing organisational culture processes had embedded shared meanings and interpretive frameworks for problem-solving;
- Whether internal structural and role changes had impacted the role and place of sense-making;
- The presence or absence of pre-existing relational capital impacted the shared sense-making process due to the immediacy of the government’s lockdown regulations, which limited in-person collective meaning-making and interpretation;

- The presence or absence of resources that had been developed from pre-crisis learning, such as specific crisis management processes, risk mitigation resources, and scenario-planning options;
- The presence or absence of authoritative networks, data analytics, and global expertise considering the limited information in the local context; and
- The presence or absence of strategies and processes for communication and whether these could be used to refine ongoing sense-making.

In three cases, shared sense-making was facilitated due to a history and precedent of inclusive and collective problem-solving, and was reflective of the organisations' culture and identity. This practice led to the development of relational capital emanating from knowledge and trust in colleagues' as well as from connections that had developed through collaboration. The outcome of this practice was shared interpretive systems and cognitive frameworks, and thus sense-making was immediate, shared, and enacted through communication and action.

In one case, collaborative problem-solving was disrupted by restructuring autonomous business units and role changes and, in another case, collaborative problem-solving did not exist in its hierarchically structured organisation, where problems were formally discussed in meetings. Both these organisations were in the process of restructuring and transitioning towards less hierarchical, more integrated structures. Relational capital had been impacted by these changes and only when sense-making was centralised in multidisciplinary crisis committees could shared sense-making take place.

All organisations engaged in sense-making at leadership levels and prioritised information and communication to staff and customers to address the levels of uncertainty and ambiguity. Enacted sense-making in the form of communication occurred across cases. In the AlphaCo and BetaCo cases, leaders at the apex of the organisations played an active role in communicating and sense-giving by providing clarity and direction to their organisations. In the DeltaCo, GammaCo, and EpsilonCo cases, organisation-wide sense-giving was provided by a communication department.

All cases had crisis committees or "war rooms", where sense-making took place. Participants in these committees represented different functional areas of the businesses and focused on sharing information, exploring different scenarios, information analytics, staff communication, and agreeing on the priorities for action. These centralised multidisciplinary problem-solving groups embodied an inclusive structure for collective problem-solving and sense-making, and

became pivotal in initiating change and adaptation, specifically in hierarchical organisations where they provided the impetus for business integration.

Literature shows that crisis structures as temporary organisational structures that facilitate shared sense-making are significant (Maitlis & Christianson, 2014) and are reinforced in this research. Furthermore, literature shows that because crises rapidly unfold and when there are shared interpretative frameworks, sense-making, adaptation, and action are quickly activated (Maitlis & Christianson, 2014, p. 552; Maitlis & Lawrence, 2007; Sarkar & Clegg, 2021). This perspective is highlighted in crisis events because at the juncture between detection (sense-making) and activation, an urgent response is required (Burnard & Bhamra, 2019) and is enabled through shared interpretative frameworks emanating from discussion. The social aspect of sense-making has been highlighted by (Weick, 2009) as a key property.

An important quality that differentiates resilience development lies in the reservoir of resilient resources that can be accessed in crises to continue in the same way or to adapt and change direction (Stoverink et al., 2020). Cognitive diversity and relational networks are specific resources highlighted in literature (Hillmann & Guenther, 2021) that became salient for shared sense-making (Burnard & Bhamra, 2019; Duchek et al., 2020). Research that correlates cognitive diversity and divergence with sense-making and resilience development has been found to facilitate greater levels of interpretation in crises (Duchek et al., 2020). Other studies show that in organisations where there are shared assumptions and meaning systems, there is alignment on prioritisation and action (Caza et al., 2014; Williams et al., 2017).

Collective or shared sense-making has been emphasised as being critical to resilience development (Lengnick-Hall & Beck 2005; Lengnick-Hall et al., 2011; Linnenluecke, 2017). However, extant literature does not investigate collective problem-solving as a mechanism for enabling shared sense-making. Therefore, these findings extend research on adaptive resilience development by providing evidence that the microprocess of collective problem-solving builds relational capital, which fortifies shared sense-making.

6.4. Theme 3: Relational capital facilitates shared sense-making

Shared sense-making was enabled where there was pre-existing relational capital and shared cognitive and language frameworks of interpretation that could be leveraged during the crisis. Relational capital built through efforts like collective problem-solving facilitated trust, learning, and knowledge about colleagues. Interpersonal connections were built and there was a collective sense of belonging and shared identity. In organisations where cultural discussions

had taken place prior to the crisis, there were common assumptions and frameworks, such as in the cases of AlphaCo, BetaCo, and DeltaCo, leading to shared sense-making during the crisis and alignment on prioritisation and action (Williams et al., 2017).

Relational capital differed across cases and influenced shared sense-making. In two cases, relational capital developed through a shared history of building the organisations and confronting and overcoming crises together. Sense-making as a shared leadership process existed from the organisations' genesis. In the BetaCo case, the development of relational capital was prioritised and interpersonal connections developed in their non-hierarchical structure, where collective and inclusive problem-solving processes were an ongoing practice. Cognitive diversity was embraced for problem-solving, which became a resilience resource for collective sense-making. In another case, shared Sense-making had already been triggered when the organisation faced earlier disruptions, which could be leveraged during the extreme crisis event. In this case, relational capital extended to external networks of experts, many of whom were senior leaders in the organisation. In both of these cases, leaders' visible and active role in setting a context for shared sense-making and in sense-giving imbued the organisations with trust and confidence in decisions and actions.

The GammaCo case had strong relational capital, which may have enabled shared sense-making. Nevertheless, ongoing organisational restructuring and leadership changes disrupted relational capital, which could not be fully leveraged for shared sense-making in the crisis, resulting in fragmented sense-making and communication.

Pre-crisis preparedness by implementing scenario planning and risk mitigation strategies were useful inputs into the sense-making process during the crisis. However, relational networks comprising authoritative experts were found to be more powerful in triggering and enabling shared sense-making. In the AlphaCo and BetaCo cases, information and communication from these networks triggered sense-making two weeks prior to the official announcement of the COVID-19 crisis, which enabled the organisations to prioritise and take action in advance of the official pandemic announcement.

Shared sense-making was made possible where there was pre-existing relational capital and shared interpretive frameworks and meaning systems that could be leveraged during the crisis. For three of the cases, the embedded practice of collective problem-solving facilitated shared sense-making because the process of collective problem-solving engendered knowledge and trust in colleagues' abilities and built relational capital. As such, possible panic and anxiety about the crisis, which may have impacted sense-making, were reduced. In

contrast, in the cases where there had been significant organisational changes, sense-making was impacted by an internal focus on organisational dynamics, with important signals, cues, and information in the external environment being ignored.

An important quality that differentiates resilience development lies in the reservoir of resilient resources that can be accessed in crises to either continue in the same way or adapt and change direction (Stoverink et al., 2020). Sense-making as a social relational process relies on shared meaning systems to activate resilience (Teo et al., 2017).

Crisis situations are rapidly unfolding and in cases where there were shared cognitive and interpretative frameworks built through relationships and connection, there was a shared understanding about the crisis and its potential impact (Ansell & Boin, 2019). The iterative process of making sense and taking action, such as through communication, assisted in the interpretation of the multiple issues that needed to be addressed (Maitlis & Christianson, 2014, p. 552). According to (Weick 2007, p. 56), “action and cognition are linked” suggesting that in crisis it is critical think through action. Simply confronting events is insufficient for resilience development and what is needed in a crisis is “a socially constructed process, embedding minimal constraints, deviations and construction, allowing individuals and their forms of professional and social relations to be adaptive and flexible as action unfolded” (Maitlis, 2005, p. 21; Maitlis & Lawrence, 2007; Sarkar & Clegg, 2021).

The link between sense-making and relational capital has been investigated by scholars (e.g., Caza et al., 2014; Maitlis & Christianson, 2014). However, research on relational capital and shared sense-making as a collective process is lacking. Therefore, these findings confirm current sense-making research and extend research on shared sense-making.

6.5. Theme 4: Collective problem-solving promotes clear prioritisation

To respond to the COVID-19 crisis, responsiveness and swift action in a context of complexity were required. Prioritisation enabled focus and direction for fast decision-making and action, and was critical given the immediacy of the crisis and the need for speed in responsiveness. In all cases, there were two clusters of priorities: business continuity by adapting or changing business strategy and operations, and protecting the physical health of staff. Prioritisation was enabled when there were shared assumptions, norms, and values about the organisations’ identity and the availability of information. Clear prioritisation determined the speed of action – a critical component of adaptive resilience development.

In two cases, where there was no shared culture or practices of collective problem-solving, the organisations took longer to agree on what should be prioritised, because priorities were specific to divisions or functions and, as such, responsiveness and action were delayed. In three cases, priorities were quickly agreed on for the entire organisation in an inclusive process. In one case, there was a delay in prioritisation until the formation of a cross-functional multidisciplinary crisis group, which implemented collective problem-solving, triggering change and adaptation.

Moreover, the ability to prioritise was predicated on shared assumptions and mindsets, which emanated from organisational identity. Where there were explicit shared assumptions about organisational culture and identity, as in the AlphaCo, BetaCo, DeltaCo, and GammaCo cases, prioritisation was clarified at the onset of the crisis. However, in the EpsilonCo case, organisational culture and identity were in flux and there was a lack of agreement concerning the priorities.

Problem-solving processes that included authoritative experts enabled quick prioritisation and action. In three cases, the prioritisation of actions was based on shared goals and assumptions and knowledge obtained from pre-crisis collective problem-solving processes, yet the presence of authoritative crisis experts enabled quick decision-making.

Technological capability facilitated prioritisation about business continuity. Organisations that had built a technological capability and intentionally developed relational capital immediately pivoted to online work, such as in the cases of AlphaCo, BetaCo, and DeltaCo. Contrastingly, in two cases, the absence of a strategic focus on developing a technological capability impacted business continuity and, in one case, all business operations were halted. Despite the existence of a strong culture and values system that prioritised care for people in the GammaCo case, the limited prior focus on developing a technological immediately impacted the transition to remote Work and only when the crisis committee prioritised the immediate acquisition of the necessary technology could the business continue remotely.

The prioritisation of the mental and physical health of all staff differed amongst cases in the way these were actioned and depended on the organisational culture and the strength of pre-existing relational capital that had been developed through connection, collaboration, and organisational practices. For instance, in the BetaCo case, there was strong relational capital, thus mental well-being was prioritised and a focus on collective resilience development to mitigate against isolation.

Extant literature proposes that in crises, resilience is developed by focus and attention to allow the best possible options and actions to move forward speedily (Koronis & Ponis, 2018; Williams et al., 2017). Furthermore, research asserts that when there is a collective sense of belonging, common norms and history, and a shared sense of vulnerability, then fast prioritisation, decision-making, and actions are facilitated (Elcheroth & Drury, 2020).

Conceptual literature has explored the capacities, knowledge, skills or organisational resources for resilience. Notably Lengnick-Hall and Beck (2005) conceptualised an organisation's resilience capacity as being an interaction among specific cognitive, behavioural, and contextual factors. Collective organisational processes that develop cognitive endowments result in shared assumptions (Williams et al., 2017) and are resources for resilience development. As an adjacent dimension, literature on resilient cultures (Koronis & Ponis, 2018; Schein, 2010) offers some perspective on how cultural capacity may develop resilience in the face of adversity. Extant literature has not investigated how collective processes of problem-solving develop shared assumptions and mental models, nor how these processes enable organisations' prioritisation for responsiveness. Hence, this research extends organisational resilience research.

6.6. Theme 5: Shared sense-making facilitates responsiveness (enacted sense-making)

During the crisis, sense-making triggered responsiveness, which was critical given the immediacy of the crisis, the threat to business continuity, and the health of staff. Responsiveness was evident in speed of action, which ensured that critical decisions about business continuity and the health of staff were immediately prioritised. The differences in cases reflected, first, whether sense-making was leader-driven or a shared process; second, how the crisis was framed and communicated; and third, the levels of responsiveness.

In the AlphaCo case, where collective problem-solving existed and shared sense-making had become a practice from confronting prior crises, the organisation immediately restructured, framing this as enabling the implementation of a growth strategy. This change was coupled with leveraging the organisation's global network for opportunities, which was a strategy that had not previously been considered. In the BetaCo and DeltaCo cases, where sense-making was a shared process, business models were immediately disrupted to pivot to the online delivery of products and services and, in one of these cases, shared sense-making triggered resourcefulness, agility, and the innovation of new products. In the GammaCo case, where

there was no shared sense-making and the implementation of a crisis committee triggered shared sense-making, responsiveness was compromised by onerous decision-making processes. In the EpsilonCo case, where shared sense-making structures or processes did not exist and a viable online technological capability was unable to accommodate business continuity, responsiveness translated into paying all staff during the closure of the business to avoid retrenchments, an approach that required salary sacrifices at leadership levels.

In the absence of shared sense-making in three cases, responsiveness included the acceleration of pre-crisis strategic planning, which focused on streamlining the business and, in one case, accelerated the development of technological capability. In all cases, the crisis presented an existential threat with dire health consequences and led to the urgent protection of staff's physical and mental health, which required the immediate vacating of offices and the introduction of remote working.

In the case where shared sense-making existed, immediate responsiveness included a focus on staff's mental and physical health challenges, including access to medical support and the swift introduction of programmes to develop collective resilience centred on avoiding potential mental health challenges in remote working environments. This focus reflected prior-crisis interrogation and work on the organisational culture, emphasising the need for connection and belonging as well as the preservation and protection of relational capital, which was perceived to be essential in a remote work context. In two cases, sense-making was not shared and was either leader- or founder-driven, relational capital was not prioritised, and staff were mandated to return to the office after a six-week period despite concerns about physical health implications.

Responsiveness from shared sense-making included immediate plans to implement a technological capability in the GammaCo and EpsilonCo cases. In the DeltaCo case, shared sense-making triggered innovation and agility reflected in the development of new products and services that would be relevant to customers' changing needs. In all cases, responsiveness included the leveraging of technology for business continuity, which changed the landscape for all companies – internally in the way they interacted with their employees, and externally in the way they interacted with their market/customers.

Sense-giving as a component of sense-making was reflected in communication and was prioritised in all cases. Leadership's role in sense-making and communication differed across cases. In the AlphaCo, BetaCo, and DeltaCo cases, where there was shared sense-making and access to authoritative networks, the organisations became the central repository for

information and frequent and transparent communication for information purposes and to ensure responsiveness to customer and staff needs. Contrastingly, the GammaCo and EpsilonCo cases immediately formed committees for sense-making and providing executive teams with information. In the AlphaCo case, the framing and communication intentionally shifted from providing information to ensuring responsiveness by articulating the opportunities and strategies that would propel the organisation into the future. BetaCo, which had shared sense-making, framed sense-giving to convey the organisation's authoritative position regarding its networks of technical experts, which instilled confidence in the organisation's responses.

Literature on sense-making is fragmented and there is limited research on shared sense-making, which has also been referred to as group sense-making, collective sense-making, and distributed sense-making. In addition, sense-making research has predominantly taken place in single cases (Maitlis & Christianson, 2014). Although there has been some research on the speed of responsiveness in the face of adversity, there is a need for a deeper understanding of the factors that enable preparation for this (Williams et al., 2017).

The context of the pandemic, which was fast-paced and unpredictable, complicated sense-making and was exacerbated by confusing and ambiguous sources of sense-making, which included governments and social media (Barton et al., 2020). Because of the levels of ambiguity, sense-making was complicated and exacerbated by the move to remote work, where in-person shared sense-making could not occur. In this context, organisations with authoritative networks or research capabilities became the primary source of information, which enabled more effective sense-making and consequent responsiveness (Christianson & Barton, 2021). Extant research shows that sense-giving produced through sense-making is a powerful lever for resilience framing and communication (Maitlis & Lawrence, 2007) as well as for communicatively constituting resilience in communication (Buzzanell & Houston, 2018).

Limited studies explore how shared sense-making promotes responsiveness in the context of an evolving and complex environment (Williams et al., 2017). Research has been suggested to investigate how "sensemaking research can be enhanced by exploring it in a much wider range of organizations" (Christianson & Barton, 2021, p. 575). Research on responsive action in adversity is limited and required for organisational resilience development, particularly in light of the findings that, during the COVID-19 pandemic, sense-making enacted through action that generates new cues and feedback for ongoing sense-making was severely restricted (Barton et al., 2020). These findings build on existing sense-making research and

extend research on shared sense-making research as well as shared sense-making as an enabler of responsiveness in crisis.

6.7. Theme 6: Relational capital facilitates responsiveness

Relational capital facilitated responsiveness in four areas. These were the transition to remote or hybrid work, implementing initiatives and programmes to develop collective resilience, leveraging trust and confidence, and business model changes and innovation. All organisations transitioned immediately to remote work following the government's COVID-19 lockdown regulations. In three cases, where there was strong relational capital, the immediate move to remote work was eased by pre-existing relational capital, which was leveraged in the new working arrangement. In two cases, responsiveness was immediately evident in the introduction of expert input and training for leading and collaborating remotely.

In the BetaCo case, where informal collective problem-solving was embedded, the absence of spontaneous interactions and in-person collaboration was negatively experienced, as it impacted the quality of relationships, culture and leadership practices, and the recruitment and integration of new staff into a networked relationship-driven organisation. Remote work negatively impacted responsiveness, despite the high levels of relational capital.

When relational capital was weak, such as in the EpsilonCo and DeltaCo cases, the immediate move to remote work was experienced as isolating. In both cases, these organisations returned to full-time or hybrid work arrangements six weeks after the initial move to remote work. In contrast, the AlphaCo case had experience in hybrid and remote working arrangements prior to the crisis as well as strong relational capital. The organisation was highly responsive and transitioned immediately to remote work as well as restructuring the business for a growth strategy.

The BetaCo and GammaCo cases introduced a hybrid working arrangement six months into the crisis as an option for those who wished to return to the office to enable agency and autonomy in how they would remain responsive to customer needs. In the AlphaCo, BetaCo, and GammaCo cases, the shift to hybrid work was reported to be a permanent working arrangement and was supported by training interventions focused on enabling leaders to build a repertoire of leadership resources for a changed role. During and after the crisis, AlphaCo and BetaCo, which had embedded collective problem-solving processes, transitioned to hybrid working arrangements with specific in-office days to ensure all people who wished to

collaborate could gather on those days. The move to hybrid work supported business continuity and ensured the retention of skilled staff.

Responsiveness evidenced in business model changes or innovation was directly attributable to a by-product of relational capital, which was trust and confidence in organisational leadership. This was evident in the AlphaCo, BetaCo, and DeltaCo cases, where the presence of relational capital ameliorated concerns about future business survival and, as a result, innovation and experimentation were accelerated, resulting in the development of strategic opportunities.

Across all cases, the strength of relational capital reflected in the types of physical and mental health interventions – and in one case, the impact of deaths of staff members – triggered the development of relational capital through increased interpersonal connectedness (virtual) and the development of empathy across the organisations. All cases encouraged discussions about feelings of vulnerability, which had not been a practice in highly performance-driven organisations, but were deemed to be important for people working remotely, where the experience of isolation during the pandemic was negatively experienced.

Organisational resilience has been conceptualised as a dynamic process with two paths: an adaptive path and an absorptive path. The adaptive path requires implementing changes to ensure responsiveness in a crisis situation, characterised by speed and effectiveness of implementation (Conz & Magnani, 2020; Suarez & Montes, 2020).

Moreover, responsiveness has been emphasised as a trigger for organisational resilience, though there is limited research on how this works (Williams et al., 2017). In the context of this research, adaptive resilience required responsiveness to enable the transition to remote or hybrid work. Relational capital was an important factor in enabling this transition, as highlighted by Aldrich and Meyer (2015), who confirmed the significance of social relational capital as a key enabler to organisational survival during and after crisis events. Relational capital encompasses the quality of relationships, collaboration, and communication, and has been referred to as an intangible asset (Debicki et al., 2020), evidenced in levels of collaboration and in social networks of trust. Research on relational capital is limited (Debicki et al., 2020).

Resilience and hybrid work have been investigated independently and there is limited research on how the complexity of hybrid working environments with their multifaceted demands challenge organisational identity and decision-making, specifically during crises (Williams et

al., 2017). Extant research has not investigated how relational capital is impacted in hybrid or remote working arrangements and whether this is important for ongoing adaptive resilience development. The research confirms that responsiveness is an important component of organisational resilience development during and post crises, and extends research on the relationship between relational capital and responsiveness for organisational adaptation in extreme crisis events.

6.8. Theme 7: Responsiveness activates adaptive resilience development

Responsiveness differed amongst cases in three areas, namely: the transition to remote work, reconfiguring business models, and innovating. Factors that activated responsiveness were prioritisation and swift decision-making. Moreover, responsiveness was informed by learning from prior crises.

The responsiveness to market and customer feedback in the AlphaCo, BetaCo, and DeltaCo cases was learnt from previous crises and became an embedded strategic practice. In the AlphaCo case, the experience of dealing with numerous crises resulted in an embedded and bespoke approach to dealing with crises that included a specific project management approach to crises as well as the need for leaders to model positivity and provide goals and direction to the organisation. AlphaCo's immediate restructure due to the loss of 80% of its clients triggered a process for developing new opportunities.

Prior learning from crises informed BetaCo's immediate responsiveness to data analytics, specifically data regarding customer feedback, leading to an immediate change in business model. Additionally, BetaCo ensured that people remained connected to each other, given the importance of relational capital. Prior learning in the DeltaCo case was that speed and responsiveness were critical, inaction was a threat to survival, and improvisation was essential. The organisation's agility and experimentation capability led to the development of new products and operations.

AlphaCo, BetaCo, and DeltaCo were well regarded in their sectors for their innovativeness and, in these cases, responsiveness included the innovation of products and services to accommodate crisis dynamics. The speed of response was prioritised through fast decision-making and action and willingness to experiment with incomplete information. In all three cases, prior learning in crises informed the collective problem-solving process at the start of the COVID-19 crisis. This differed to the EpsilonCo case, which had autonomous business

units that had independently faced prior crises and had learnt that in a crisis it was important to react quickly, to take critical decisions immediately including retrenching staff, and to remove “excess” from the business. EpsilonCo’s response also included a shift to the online delivery of services. In the GammaCo case, responsiveness reflected in the immediate implementation of a technological capability to enable remote work for business continuity.

Whilst all cases responded by transitioning to remote work, four cases immediately improvised by adapting business models or acquiring resources. Adaptation through changes in business models, through innovation, and acquiring resources as sources of resilience has been researched by Sarkar and Clegg (2021) and supports the view of Williams et al. (2017) that resilience development is shaped by a wide range of processes, including flexible and fast decision-making predicated on relational trust, which enables responsiveness (Koronis & Ponis, 2018).

According to Ishak and Williams (2018), adaptive resilience is a dynamic process of innovation, change, and fast response to ensure positive adjustment and change. Although studies on learning from crises as an antecedent to organisational resilience development are mixed and require further research (Conz & Magnani, 2020), there is agreement that learning from crises develops organisational resilience (Koronis & Ponis, 2018; Yang et al., 2021). Specific organisational resilience resources that have been researched are cognitive, behavioural, relational, and technical resources (Williams et al., 2017).

In a context of uncertainty, organisational memory comprising knowledge, practices, and skills that can be accessed in crises has been researched in pivot firms, specifically where individual and collective learning has transpired (Gilly et al., 2014). This research indicates that the integration of prior learning enabled responsiveness. Gilly et al. (2014) showed that organisations with specific technical and innovative capacity can use their learning to find new pathways and develop adaptive resilience. This view was corroborated by Koronis and Ponis (2018), who considered the basis of organisational resilience to be adaptability, preparedness, responsiveness, and learning.

Despite mixed findings on the role of pre-crisis learning for resilience development (Hällgren et al., 2018; Näswall et al., 2013), these findings extend current literature by indicating that learning from crises is an antecedent to adaptive resilience development. Responsiveness by innovating and being resourceful are factors that characterise resilience development. This has been suggested as a future area of research (Conz & Magnani, 2020). Responsiveness through actions is integral to sense-making (Weick, 1988, p. 307) and is described as a

process of enacted sense-making, which generates further sense-making, meaning making, and action (Maitlis & Christianson, 2014). Consequently, these findings extend current research on adaptive resilience development and highlight how prior learning enables responsiveness and resourcefulness that includes innovation and resourcefulness.

6.9. Theme 8: Reflective learning supports ongoing adaptation

During and post the COVID-19 crisis, there were ongoing processes of reflection, learning, and action in a dynamic cycle of learning and adaptation. Specific areas of learning and change were remote and hybrid work, organisational restructuring and integration, business continuity through the implementation of a technology capability, and innovation for ongoing adaptation. While all cases were mandated to work remotely and transitioned immediately, in the EpsilonCo and DeltaCo cases, concerns about the impact on business continuity as well as the perceived negative impact on mental health led to a mandated return to the office six weeks later. In reflecting on these decisions post the crisis, both organisations realised that relational capital and trust were impacted, which led to new approaches for rebuilding relational capital and implementing collective processes.

Despite technological capability and digital platforms for online connecting, strong relational capital and embedded practices of shared sense-making and collective problem-solving in the BetaCo and DeltaCo cases, the highly interactive organisational culture, considered as a source of strength and differentiation was impacted by the process of connecting digitally. In the BetaCo case, 90% of people hired during the crisis period left, which reflected the organisation's inability to fully acculturate new people into a remote working culture. As a result of the realisation that cultural capital was not sustainable in a hybrid work, BetaCo transitioned to full-time and hybrid working arrangements during the crisis, while DeltaCo mandated all staff to return to the office. For AlphaCo, BetaCo, and GammaCo, the move to hybrid work resulted in an adapted model during and post the crisis, which included giving people agency in the choice of a flexible hybrid work option resulting in greater levels of organisational commitment.

As per the GammaCo case, learning triggered adaptation during the crisis. The implementation of a technology capability opened up new possibilities for business continuity and staff retention, resulting in the remodelling of the organisation's office environment to accommodate a permanent move to hybrid work.

During the crisis, the AlphaCo, GammaCo, and EpsilonCo cases integrated their organisation structures and business operations for greater efficiency. This included integrating autonomous structures to develop collaborative opportunities and reduce onerous processes that impacted speed and responsiveness. These changes were designed to ensure business adaptation and growth.

In all cases, adaptation required a process of reflection, learning that business continuity was impossible without innovating business models products or services. This included reconfiguring resources, experimentation, and developing new products and services. All cases used the COVID-19 crisis to reflect on their business operations during the crisis and implemented changes necessary to achieve greater levels of efficiency and effectiveness.

Extant scholarship highlights the necessity to learn for adaptation, but learning as purely a reflective process is insufficient for adaptation, because a prerequisite for adaptation is the need to act on learning to produce further change (Duchek et al., 2020; Mithani, 2020; Su & Junge, 2023). These behavioural and cognitive shifts necessary for adaptation have been referred to in recent literature (Conz & Magnani, 2020; Su & Junge, 2023). Conceptual and empirical research proposes that actions emanating from learning may entail modifying structures or processes, developing new relationships or acknowledging new-found confidence in having survived. This perspective reflects prevailing scholarship that emphasises learning as a post-adversity process to proactively prepare for future crises (Su & Junge, 2023).

From the perspective of organisational resilience as a process of continuous learning (Burnard & Bhamra, 2019), it is suggested that continuous learning, agility, and readiness to adapt need to be instilled across organisations through mechanisms. This research extends existing scholarship by proposing the three microprocesses of relational capital, shared sense-making, and collective problem-solving as such mechanisms. Despite research on learning as a process of interaction showing that diversity and divergent viewpoints facilitate learning, extant research has primarily investigated these at a group level, with limited studies on learning as a collective organisation (Duchek et al., 2020).

Research on reflective learning indicates a dynamic and powerful feedback loop or cycle – from sense-making and prioritising decisions to action and ultimately adaptation (Conz & Magnani, 2020; Sarkar & Clegg, 2021). According to Williams et al. (2017), this dynamic process has been largely unexplored and was emphasised by Duchek (2020), who recommended research into how concrete practices of learning intersect and evolve over time

to develop resilience. This is reinforced by extant scholarship on organisational adaptation (Sarta et al., 2021).

Therefore, adaptation and resilience development depend on a process of ongoing reflective learning to transform to develop higher levels of resilience (Duchek, 2020). This research confirms existing scholarship on learning as a key component of organisational resilience development and extends research on the process of adaptation during and after adversity by showing that learning and action as a collective process of adaptation is required for ongoing adaptive resilience development.

6.10. Theme 9: Leadership facilitates resilience development

Leadership in shaping the context for resilience development played a role before, during, and after the crisis. Differences between the cases reflected organisational cultural norms and practices, organisational structures that were hierarchical as opposed to flatter structures as well as pre-crisis change dynamics.

In the GammaCo and EpsilonCo cases, which were hierarchically structured, the leadership's role in the crisis was to ensure decision-making structures below the executive team or crisis committees implemented actions. Although some priorities and decisions were taken at the executive leadership level, in most instances, crisis structures and processes informed executive leaders about the organisations' response.

In the AlphaCo and BetaCo cases – where leadership was a shared process evidenced in collective problem-solving and shared sense-making – prioritisation, decision-making, and action were a collective process. In the DeltaCo case, the founders defined the organisation's response and made all the decisions. Organisational culture and identity informed how leadership took up their role in terms of their visibility, communication, and interactions.

The impact of relational capital differed across cases and where leadership was trusted and perceived to be influential and informed with expert knowledge about the pandemic, the organisation was imbued with confidence and work continued immediately. Sense-making enacted through communication (sense-giving) differed across the cases. In three cases, leadership was active and visible in communicating, while in two cases, central structures like crisis committees or leaders in divisions communicated to the organisations. An additional difference in the communication process was whether there was a deliberate positive framing of organisations' responses to the crisis or a less positive message that exacerbated levels of

uncertainty. In two cases, these differences may well have been a reflection of concern about organisation survival. In all cases, there was increased frequency of contact and communication between senior leadership and with leaders and their teams. The result was increased connection, cohesiveness, and a collective belief in the organisation's ability to navigate the crisis.

The relationship between leadership and organisational resilience has limited research. However, research on leadership and organisational adaptability shows that leadership plays a significant role in steering organisational adaptation, particularly in a crisis (Uhl-Bien & Arena, 2018). In this regard, leadership enables adaptation by fostering dialogue, connections, and collaboration, and a climate of trust for enabling structures and processes for ongoing learning (Uhl-Bien & Arena, 2018). Whilst current scholarship proposes that leadership creates a context for resilience development (Foerster & Ducheck, 2018), research on how leadership facilitates resilience development is limited (Williams et al., 2017). This research confirms extant research on the role of leadership in enabling organisational adaptation. The research extends research on organisational resilience by demonstrating that leadership facilitates organisational resilience by convening processes and embedding practices for adaptive resilience development, such as collective problem-solving.

6.11. Summary of the findings

The cross-case analysis highlighted the themes, which are embedded in collective social interactions and constantly evolve and change over time in an evolving process of adaptive resilience development. The findings have been presented in a process-based framework by comparing research from the data with extant theory. The findings highlight that adaptive resilience development is an ongoing dynamic process through intertwined microprocesses of collective problem-solving, shared sense-making, and relational capital, which develop and build over time in collective interactions. The research highlights three ways in which microprocesses develop adaptive resilience.

First, an organisational culture that embeds collective processes of problem-solving to leverage diverse perspectives leading to higher-order problem-solving capacity becomes salient during extreme crisis events. Additionally, during the process of collective problem-solving, knowledge and information are pooled; mental models and interpretive frameworks are shared; and in this interactive process, relational capital is built. Relational capital, which is an intangible asset, is evident in the quality of relationships and reflects in communication,

knowledge sharing in collaboration as well as in levels of trust. The findings show that collective problem-solving is central to adaptive resilience development.

Second, sense-making triggered in response to disruption and characterised as complex with ambiguous information becomes a shared process based on a precedent of collective problem-solving. Together, these processes develop shared cognitive frameworks, which are critical in extreme crisis events when fast action is required.

Third, microprocesses develop relational capital and shared robust cognitive frameworks that enable the focus and prioritisation of action. The ability to prioritise during extreme crisis events – a factor that may have been learnt from prior experience in confronting crises – is imperative, as it enables responsiveness and action. Speed of response has been highlighted in this research study. From the findings, it is evident that the process of reflection and learning led to reshaping action for ongoing adaptation prior to, during, and post the crisis event, and that because adaptive resilience development is an evolving process, organisations can be prepared for adaptive resilience.

The research began with an assumption that five microprocesses were relevant for adaptive resilience development. The findings suggest that two microprocesses – namely communication and challenging organisational identity – are components of the three microprocesses of shared sense-making, relational capital, and collective problem-solving and as such are incorporated within these. The research highlighted that all cases survived the extreme crisis event, but some organisations adapted for positive growth and renewal. Although there were dominant themes in each phase of the extreme crisis event, there were differences in whether the microprocesses were enacted at all, how some organisations enacted the microprocesses during and post the crisis, and how some organisations enacted the three microprocesses before, during, and post the crisis in an ongoing process of adaptive resilience development. The findings extend scholarship on organisational resilience by explaining how the process of adaptive resilience development works.

Chapter 7: Theoretical contribution

7.1. Introduction

In the context of turbulence, ambiguity, and extreme crises, organisations are challenged to develop organisational resilience capacities to adapt, transform, and prosper. The purpose of this research was to investigate how adaptive resilience develops during an extreme crisis event. In this chapter, the theoretical contribution and its rationale are discussed. The findings of this research provide an understanding of adaptive resilience as a process of development during an extreme crisis through: (i) a process map of adaptive resilience development, (ii) the conceptualisation of adaptive resilience on a spectrum of organisational resilience, and (iii) organisational resilience development in extreme crisis events through intertwined microprocesses.

7.2. Rationale for theoretical contribution

The research question emanated from the literature review findings that organisational resilience is a multidimensional conceptual term with diverse conceptualisations across research streams, leading to differing definitions and models, and the absence of generalisable principles. Numerous scholars agree that the conceptualisation of organisational resilience is at a formative stage (Conz & Magnani, 2020; Duchek, 2020; Linnenluecke, 2017; Mithani, 2020).

The concept of organisational resilience refers to a variety of mechanisms for engaging in transformative activities in response to disruption, when organisational survival is threatened (Williams et al., 2017). Although scholarship about organisational resilience exists, research about what organisations need to do to adapt or develop in adversity and crises is limited (Coutu, 2002; Duchek et al., 2020; Hamel & Välikangas, 2003; Linnenluecke, 2017; Suryaningtyas et al., 2019; Williams et al., 2017). Moreover, extant scholarship proposes that organisational resilience is a developable process (Hillmann & Guenther, 2021), which requires scholarship. Literature confirms that organisational resilience is an interactive process within a time dimension (Conz & Magnani, 2020; Duchek, 2020; Williams et al., 2017), but the resilience process is enacted or develops in a temporal period requires investigation (Conz & Magnani, 2020). Additionally, literature does not show how research from discrete case studies in developing countries confronting extreme crises may be generalisable to different contexts.

Adaptive resilience is a nascent term referred to in mainstream literature (Ishak & Williams, 2018; Nilakant et al., 2014). It is also referenced in the systematic literature review of Conz and Magnini (2020), who considered two paths of organisational resilience: an absorptive path and an adaptive path. The adaptive path utilises a mainstream perspective of adaptive resilience and differentiates between adaptation and flexible adaptation, which has the component of speed and resourcefulness, leading to dynamic adaptation in extreme crisis events (Conz & Magnani, 2020). While mainstream perspectives are useful, they lack empirical rigour and do not explain what organisations need to do to become adaptively resilient prior to, during, and after adversity.

Using grounded theory, Nilakant et al. (2014) conceptualised adaptive resilience as a complex and multifaceted phenomenon encompassing the ability to respond and recover, quickly emanating from tangible and intangible resources. What is not explained or described is how the process of responding and recovering works or is enacted. Ishak and Williams (2018) extended findings on adaptive resilience in high-reliability organisations. They proposed that resilience may differ in type or amount on a spectrum and that adaptive resilience is a dynamic construct reflected in organisations' adaptive capacity, evident in their core identity and structure, aligning with research on the growth mindset by Dweck (2007), which reflects adaptive resilience.

Despite literature theorising adaptive resilience as a complex and multifaceted process of adaptation, extant research has not conceptualised adaptive resilience in extreme crisis events on the spectrum of organisational resilience to survive or thrive in these extreme crises. Moreover, scholarship has not investigated how organisations develop processes to deal with adaptation in a temporal period, such as during crises in an ongoing developmental process. Therefore, the conceptualisation of adaptive resilience on a spectrum of organisational resilience is warranted, with little known about the process of adaptive resilience development in the context of an extreme crisis event.

7.3. Contribution to theory of adaptive resilience

A theoretical contribution can be conceptualised as an explanation of the purpose of a relevant concept and its unfolding process; "a static picture of a dynamic phenomenon" (Gioia, Corley & Hamilton, 2013, p. 22). A theoretical contribution should extend or build on current theory and should contain four elements. First, a contribution must be based on a comprehensive, simple, and straightforward explanation of the phenomenon under investigation, utilising a variety of perspectives (Whetten, 1989). Second, a theoretical contribution must change the

way researchers think about the subject by providing new explanations and delineating patterns that may be understood and analysed through a graphic explanation (Aguinis et al., 2018; Whetten, 1989). Third, a theoretical contribution requires a rational and logical explanation of how factors relate to each other and lead to conclusions with demonstrated assumptions (Whetten, 1989). The fourth element explains the specific conditions that apply to the proposed theoretical model, such as time or context boundaries as well as the generalisability of the research and its limitations (Whetten, 1989). The contribution of this thesis makes every effort to meet these four conditions, as outlined in the subsections that follow.

7.3.1. Contribution to conceptualisation of adaptive resilience

The research makes a theoretical contribution, first, by conceptualising adaptive resilience and, second, by introducing a model of the process of adaptive resilience development during an extreme crisis. Adaptive resilience is a dynamic collective intertwined process of three microprocesses, namely collective problem-solving, shared sense-making, and relational capital, that enables organisations to respond to or thrive in extreme crisis events. Adaptive resilience is developed prior to, during, and after the crisis, and is salient during an extreme crisis event.

7.3.2. Contribution to a theoretical model of adaptive resilience development

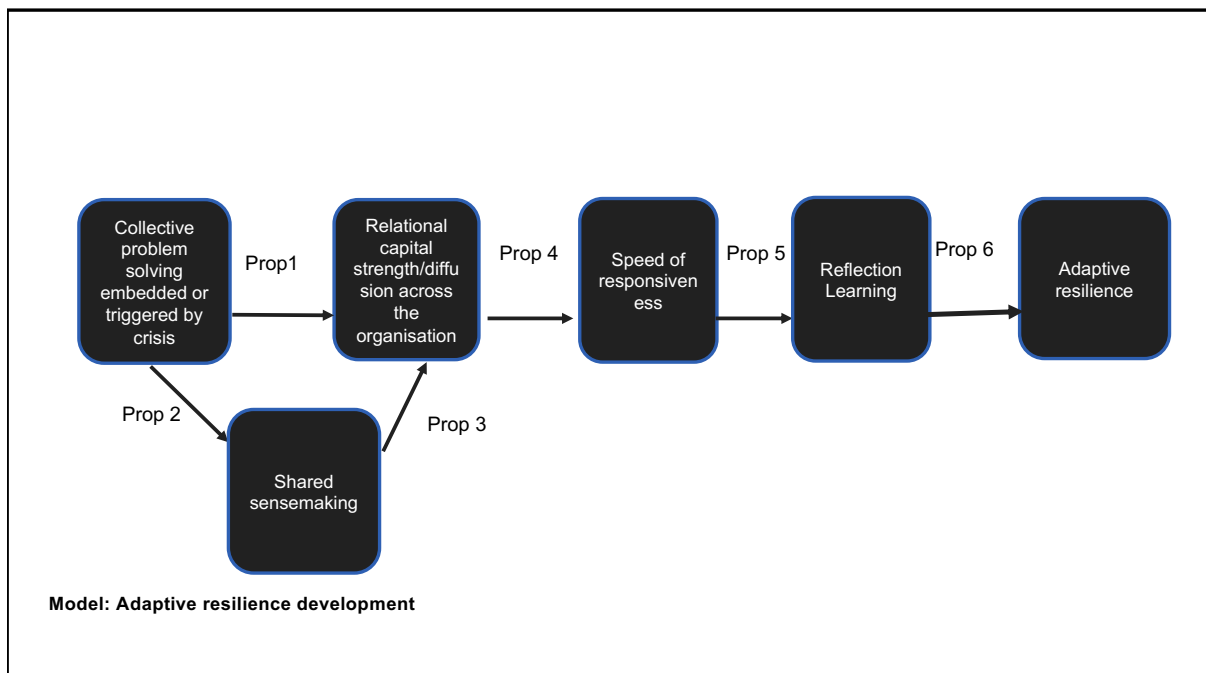


Figure 5: Theoretical model of adaptive resilience development through three intertwined microprocesses

7.3.2.1. *Description of the theoretical model*

The adaptive resilience model (see Figure 5) illustrates how the intertwined microprocesses of collective problem-solving, shared sense-making, and relational capital lead to speed of responsiveness, reflection, and learning in an ongoing process of adaptive resilience development prior to, during, and after a crisis event, and is salient during the extreme crisis. The elements of the model are described in sections 7.3.2.2.

7.3.2.2. *Microprocesses of adaptive resilience development*

- *Collective problem-solving* is a dynamic process of finding solutions through the collaboration of people. It is a process that encourages debate and divergent perspectives and entails pooling knowledge, skills, and perspectives to search for solutions. It is not predicated on role or position and facilitates interpersonal connection.
- *Shared sense-making* is a collective social process of extracting cues, interpretation, and creating shared meaning, which allows people to understand ambiguous, equivocal or confusing issues or events.
- *Relational capital* encapsulates the quality of relationships, evidenced in trust, communication, respect, honesty, mutual support, knowledge sharing, and reciprocity.
- *Intertwined processes of collective problem-solving, shared sense-making, and relational capital*: The interactive process develops a capacity for solving problems, developing shared interpretive models, and building relationships. The collective enactment of these intertwined microprocesses trigger and cultivate adaptive resilience development prior to, during, and after the crisis.

7.3.2.3. *Microprocesses enable a process of adaptive resilience development*

The elements of the process include:

- *Responsiveness*: In crises, responsiveness is key. Amidst multiple external and internal demands and dynamics, the ability to speedily define priorities, which enable speed of action, is imperative.
- *Speed of action* concerns the implementation of strategies that need to be quickly acted upon.
- *Reflection* is triggered by action and is a collective practice to reshape actions and adaptation. Learning is generated by reflection.
- *Learning* enlarges the repertoire of responses and is enacted for ongoing change and adaptation.

7.3.2.4. *How adaptive resilience development works*

In an extreme crisis event, intertwined microprocesses (which may be embedded) are triggered, enabling immediate responsiveness. Responsiveness is enabled because the enactment of the microprocesses leads to clear prioritisation of response. Prioritisation of response enables speed of action, which is indicated as important in extreme crisis events. The implementation of actions reveals important information and dynamics that become apparent as collectives engage in reflection and learning. Insight gained from learning reshapes action for ongoing change and adaptation. The process is an evolving one, predicated on collective problem-solving and shared sense-making, and underpinned by relational capital.

7.3.2.5. *Propositions*

The following propositions inform the theoretical model of adaptive resilience development.

- Proposition 1: Collective problem-solving, shared sense-making, and relational capital develop collective resilience capacity for dealing with extreme crisis events.

The three intertwined microprocesses drive social interaction and engagement and collectively generate shared cognitive schemes, collective knowledge, solutions and learning that can be leveraged in extreme crisis events.

- Proposition 2: Collective problem-solving facilitates the development of relational capital.

Rich connections, relationships and trust are cultivated in collective problem-solving processes. These facilitate social support, shared knowledge and learning as well as network social support.

- Proposition 3: Relational capital leads to speed of responsiveness.

Relational capital reflects levels of trust, commitment and reciprocity amongst members of the organisation and between the organisation members and external customers and suppliers leading to responsiveness in extreme crisis events.

- Proposition 4: In extreme crisis events, clear prioritisation enables responsiveness and speed of action.

Extreme crises events require decision making and action in the face of multiple competing dynamics. Collectively generated knowledge and solutions from learning and shared cognitive schemes assist clear prioritisation.

- Proposition 5: Speed of action leads to reflection, learning, and reshaping action for ongoing adaptation.

Speed of action in extreme crises is required. Reflection and fast learning from actions enable the intentional adjustment of actions as new challenges emerge and circumstances change.

Two perspectives encapsulate the contribution to a theoretical model of adaptive resilience development. First, adaptive resilience can be conceptualised as existing on a spectrum of organisational resilience. Second, the intertwined microprocesses of shared sense-making, collective problem-solving, and relational capital develop adaptive resilience in an ongoing developmental process.

Despite fragmented conceptualisation of organisational resilience, there is agreement that organisational resilience reflects the dual capacity to survive in a crisis event and return to the same position that existed prior to the crisis, or to dynamically transform through adaptation. Adaptive resilience on a continuum of organisational resilience refers to the latter.

An extreme crisis event like the COVID-19 pandemic required ongoing cycles of interpretation and action due to the lack of accurate information and the absence of a precedent in dealing with such a multifaceted event that impacted lives and the survival of organisations. In extreme crisis events, there is a need for interpretation and response, given discrepant cues and confusing information. Microprocesses harness collective cognitive and relational abilities for adaptive resilience development in an ongoing process before, during, and after a crisis event.

A theoretical contribution is made to a process-based developmental approach to adaptive resilience development in an extreme event in a specific period through a dynamic intertwined process of collective problem-solving, shared sense-making, and relational capital to result in prioritisation, action, reflection, and learning for ongoing adaptation.

7.3.3. Contribution to a process conceptualisation of organisational resilience development

The research study makes a process-based contribution to organisational resilience development within a specific time frame through an analysis of the richness and dynamism of the phenomenon being investigated. The time frame of this research was March 2020 to August 2022 – during and after the COVID-19 pandemic – and provided an opportunity to investigate the process of adaptive resilience development within a specific context. Whilst the research analysis was initially separated into three phases of the crisis – namely before, during, and after the crisis – the iterative process of data interpretation indicated that there was a nuanced and embedded process of resilience development in all phases of the crisis (see Figure 5 for the phase-based analysis).

This contribution builds on process theory by arguing that a phase-based analysis of organisational resilience development is limited because process phenomena are evolving, fluid, and spread over time on a continuum in a complex interplay of dynamics. The data showed patterns of events, activities, and choices over time, but the analysis revealed that these were underpinned by microprocesses that were embedded across all phases – before, during, and post the crisis. It is argued that life-threatening extreme crisis events cannot be anticipated and though necessary, preparation like scenario planning or risk mitigation strategies may be limited without collective human processes that develop adaptive resilience.

The research study explains how organisations respond in extreme crisis situations and argues that if adaptive resilience microprocesses are embedded in the organisations prior to the crisis, they enable prioritisation in the face of complexity during the crisis, where multiple dynamics are at play and the need for decisions and speed of action are essential. This collective process continues with activities of reflection, learning, and adaptive action in an ongoing cycle of adaptive resilience development.

As evidenced from this study, not all organisations have embedded adaptive resilience microprocesses. During the crisis, the implementation of collective forums, such as crisis committees, triggered adaptive resilience microprocesses for prioritisation, speed of action, reflection, learning, and adaptive action. It is argued that adaptive resilience microprocesses embedded prior to an extreme crisis event become salient during and post the crisis, and adaptive resilience development can be triggered during a crisis by implementing the microprocesses of collective problem-solving, shared sense-making, and relational capital. Through this theoretical contribution, organisations can be better prepared for resilience by

utilising an adaptive resilience process developmental framework that considers the socially constructed collective process of adaptation and transformation.

7.3.4. Contribution to extreme crisis events literature

There has been an increased frequency in life-threatening events, such as natural disasters, terrorist attacks, and pandemics. This research takes the perspective that an extreme crisis event renders an organisation vulnerable in the face of an unexpected adverse event. First, the research extends organisational resilience research in extreme crisis events and makes a practice-based contribution to extreme crisis events literature by demonstrating that in life-threatening events, collective problem-solving, shared sense-making, and relational capital are required to interpret and respond to a complex external environment. Second, it highlights the importance of enactment through speed of action that enables reflection and learning for ongoing adaptation. Third, the research demonstrates that collective processes develop relational capital, which may be leveraged for resilience development during extreme crisis events.

7.3.4.1. Relational capital in extreme crisis events

Relational capital is a key mechanism for the development of organisational resilience development, particularly in crisis events. The research demonstrates that a collective process of problem-solving is a mechanism for developing relational capital that can be leveraged before, during, and after a crisis for ongoing organisational resilience development. It is also argued that relational capital is developed through collective processes that develop interpersonal connections and where people are exposed to different perspectives and viewpoints. Relational capital may be triggered in extreme crisis events collaboratively to identify challenges, set priorities and actions, and enable adaptation, particularly if relationships are based on trust. This is evident in research where collective problem-solving prior to the extreme crisis events built preparedness factors that enabled support after the crisis. The research extends current theory on extreme crisis events through the microprocess of relational capital as an outcome of collective problem-solving.

7.3.4.2. Sense-making in extreme crisis events

Sense-making is a well theorised construct that assists in understanding how organisations deal with extreme crisis events through the processes of interpretation, meaning-making, and action. The social process of collective or shared sense-making assumes that cognitive diversity and divergence facilitate enhanced levels of analysis and interpretation to deal with complex issues during adversity.

It is argued that when organisations prioritise inclusive and collective problem-solving, shared interpretive systems and cognitive frameworks are developed, relationships are built, knowledge is shared, and trust develops, which may be leveraged for shared sense-making. Moreover, as crises rapidly unfold, the presence of shared interpretative frameworks and assumptions enable alignment on prioritisation and activate action, reflection, and ongoing learning. The research highlights how collective problem-solving and shared sense-making embed shared mental models and assumptions and, in this iterative and intertwined process, relational capital is developed.

7.4. Summary

The findings of this research provide an understanding of: (i) a process map of adaptive resilience development, (ii) the conceptualisation of adaptive resilience on a spectrum of organisational resilience, and (iii) organisational resilience development in extreme crisis events through intertwined microprocesses. The research demonstrates that during and post an extreme crisis event, adaptive resilience is developed through intertwined microprocesses enacted collectively. By conceptualising the concept of adaptive research and presenting a process model of adaptive resilience development based on evidence from an extreme crisis event, this research addresses the gap in literature and answers the research question: *How do organisations develop adaptive resilience during an extreme crisis event?*

Chapter 8: Conclusion and recommendations

8.1. Introduction

This research study uses organisational resilience scholarship to understand how organisations develop adaptive resilience during an extreme crisis event. This chapter summarises the significance of this study, methodology, results, theoretical contribution, practical implications, study limitations, and recommendations for future research.

8.2. Summary of the significance of the study

This research addresses the gap in organisational resilience development by investigating how adaptive resilience development works for the purpose of theory building. The purpose of the research was to investigate how organisations develop adaptive resilience on the spectrum of organisational resilience to adapt and thrive.

This study was warranted because scholarship about organisational resilience is fragmented by differing conceptualisation and operationalisation of the concept emerging from different streams of research, which have led to various interpretations anchored in these paradigms. Consequently, approaches to organisational resilience have largely focused on tactical interventions, such as resilience training or implementing operational risk mitigation strategies as well as the development of resources. These interventions have not conceptualised organisational resilience as an evolving process of adaptive development.

This leads to the second argument. The extreme crisis event of COVID-19 announced in March 2020 impacted economic activity, lives, and livelihoods, with no precedent for organisational survival or thriving in extreme crisis events. The unanticipated nature of this event could not be adequately planned for and whilst many organisations had developed effective protocols for unanticipated events through activities, such as crisis simulations or risk management strategies, these proved to be insufficient given the wide-scale human implications of the COVID-19 pandemic, highlighting the need for a proactive adaptive approach that prepares organisations for resilience.

A third argument, which reinforces scholarship that collective processes build organisational resilience, does not address how organisations should foster connections or connectedness to enable organisation-wide resilience other than to propose strategies for collaboration. In this regard, it is argued that the development and nurturing of relational capital, an intangible asset, is central to the development of adaptive resilience.

A final perspective relates to the context-dependent nature of organisational resilience. The COVID-19 crisis was an extreme crisis event that impacted organisations across the globe. Therefore, while significant differences existed in terms of demographics, sociopolitical and economic factors, and governmental support, the results point to organisations leveraging internal processes that were independent of context and that could be generalisable across contexts.

8.3. Summary of methodology

To answer the research question, data were collected from five different organisations located in South Africa. Leaders in the senior executive teams of each organisation were interviewed. In total, 30 leaders were interviewed. Leaders were chosen because of their role in defining their organisation's response and because of their organisation-wide perspective. Documents in the form of communication and staff engagement surveys as well as company information in the public domain were utilised to obtain depth of understanding and for triangulation.

Data were analysed inductively by first generating codes on Atlas.ti. The codes with similar characteristics were then grouped into categories (or code groups in Atlas.ti). This informed the second part of the process, where verbatim data were re-analysed to develop themes. An organising framework was created to analyse patterns to develop explanations of the phenomenon being investigated based on the researcher's extensive practical experience and understanding of theory. These theoretical explanations are reported in the thesis.

8.4. Summary of results

This section summarises the results of the study in relation to the research question: *How do organisations develop adaptive resilience during an extreme crisis event?* Evidence from the research study shows that adaptive resilience is a collective process of development that takes place prior to, during, and post a crisis event in an ongoing process of enactment of three microprocesses defined as collective problem-solving, relational capital, and shared sense-making.

The results highlight how adaptive resilience can be developed in practice and that organisations can be prepared for resilience by implementing these microprocesses. Extant research on organisational resilience and crisis management has been investigated together, strengthening the theory of adaptive resilience on a spectrum of organisational resilience. Nascent research on extreme crisis events, which is the least studied form of crisis events,

has been supplemented through this study by showing that during an extreme crisis event, urgency in speed of response is critical and catalysed by the enactment of the three microprocesses. Furthermore, from a process developmental perspective, the research highlights that adaptive resilience is an ongoing process of adaptation to thrive. The enactment of microprocesses is salient in extreme crisis events.

8.5. Summary of theoretical contribution

This research contributes to theory in two ways. First, the research contributes to theory development in organisational resilience by explaining how the adaptive path of organisational resilience develops. This is done by defining adaptive resilience as a dynamic, socially constructed process of developing positive organisational adaptation and growth triggered by a disruptive crisis event. Second, the research contributes a process developmental model for adaptive resilience development. This is also important for practice because by understanding how adaptive resilience works, organisations can implement processes for adaptive resilient development, thus prepping them for resilience. Refer to Chapter 7 for details on the study's theoretical contribution.

8.6. Implications for stakeholders

Beyond the study's theoretical contributions, there are practical implications to be considered by various stakeholders, including leaders and practitioners. These are presented in the following subsections for each area of practice.

8.6.1. Implications for leaders

This study highlights that leadership creates the conditions for adaptive resilience development during an extreme crisis event. It does this, first, by providing a co-creative space where relational capital can be nurtured. Second, the research creates a shared leadership process in cross-functional and across hierarchical structures, where collective problem-solving amongst diverse people and perspectives can take place. In this way, multiple viewpoints are shared, which may lead to unconventional solutions for intractable problems.

Lastly, this research provides guidance to leaders regarding the elements that should be enhanced or promoted for greater sensitivity to external and internal factors and, in so doing, creates processes that promote shared sense-making. By considering the factors that enable organisations to develop a process of ongoing adaptive resilience development, the ability to adapt or even thrive during an extreme crisis is possible.

8.6.2. Implications for practitioners

The research offers practitioners practical processes for adaptive resilience development. The model explicates the process of adaptive resilience development that can guide organisational resilience development interventions, with a particular focus on the process during and after the crisis event for ongoing adaptive resilience development. Building adaptive resilience is a strategic choice that requires challenging prevailing organisational processes and practices, which may be a barrier to adaptive resilience development, especially if the call is for tactical solutions that can be implemented immediately. However, as the frequency of volatility and crisis occurs, resulting in organisational vulnerability, adaptive resilience development offers possibilities for ongoing adaptation and growth.

8.7. Recommendations for further research

The research provided triggers for further studies and analysis. First, the research reveals significant differences in how organisations transitioned to hybrid and remote working environments during a crisis, which was predicated on technological platforms, prior experience in working remotely or in hybrid arrangements, leadership role and skill challenges as well as the prevailing organisational culture and its assumptions about relational capital. Future research could investigate how to develop adaptive resilience in hybrid and remote working environments with a specific focus on developing relational capital.

Furthermore, many scholars mention corporate culture as a key factor in adaptive resilience development. The research highlights how corporate culture and identity informed organisations' practices, decisions, and actions during an extreme crisis event. Further research could investigate whether organisational culture influences adaptive resilience development.

The research was conducted with executive leaders in a particular context. Consequently, further research could be conducted with other groups, such as frontline employees or middle managers, to obtain a different perspective on adaptive resilience development. The research was conducted in five different companies in South Africa. Research posits that organisational resilience is context-dependent. Therefore, further research is suggested to establish whether findings from this research study are generalisable across different contexts.

8.8. Limitations of the study

The findings of this research study must be interpreted in light of several limitations. The first limitation of the research is the focus on selected industries where the researcher could access

her network. The second limitation was participants' recall or memory bias. While the researcher anchored the investigation to a specific event and time by asking participants to think back to March 2020, with the official announcement of the COVID-19 pandemic and the level-five lockdown, the researcher recognises that, as a retrospective study, only recollections of events could be studied and not the events themselves.

An additional limitation was the researcher's own mental models, bias, and experience as a practising organisational consultant. While it was important for the researcher to work closely with supervisors to debrief and to remain self-aware, the researcher acknowledges that years of practice may have influenced the interpretation of specific nuances in the data.

According to Eisenhardt (1989) and Yin (2014), the limitation most commonly referred to in this type of research is the lack of generalisability of the study's results. This was significant, because the proposed research took place in a specific context at a particular point in time, and in response to a specific extreme crisis event that has been declared to be over by the World Health Organisation not ended, but continues to unfold. Further studies on larger sets of organisations and individuals could make these results more generalisable in the future. Similarly, as mentioned in section 4.4.6, the study was conducted on executive leaders and the findings may not be generalisable to other levels of an organisation.

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Appendix 1: Interview guide

Introduction

- Introduce self, colleague.
- Explain that the purpose of the interview is to learn more about how the organisation navigated the COVID-19 crisis and specifically how internal groups of people came together to make sense of the unfolding crisis and thought about how to move forward. The focus is specifically on processes of interaction and communication that were implemented and how they unfolded.
- Explain that the initial phase of the COVID-19 crisis was a difficult and emotionally charged time and acknowledge the toll it took on everyone in the organisation, especially those who lost loved ones. Therefore, this interview may be difficult and can be paused at any point.
- Explain confidentiality, anonymity, and obtain permission to record the session. Explain that notes will be transcribed, which the interviewee is welcome to peruse before the data is formally captured.

Part 1

- Please state your name and title.
- Please describe your role in the organisation? OR Please describe your relationship to the organisation? Your personal journey in relation to this organisation?

Part 2

- Thinking back to March 2020 when the COVID-19 crisis was announced, can you describe how you thought, felt and responded?
- Thinking back to March 2020 when the COVID-19 crisis was announced, how did the organisation respond in the first two months and as the situation unfolded?
- Explain how has the organisation has dealt with other crises and what has been the learning?
- Can you describe how the organisation has traditionally dealt with situations that require decisions where there is uncertainty and lack of information?

Part 3

- As you think back to March 2020, can you explain how the organisation made sense of the COVID-19 pandemic?

- As you recall this initial process, can you tell me who was involved in these initial discussions and how these initial conversations unfolded?
- Can you describe how issues were framed and explained by leaders?
- How were emotions and feelings of confusion and loss dealt with?
- How did you retain organisational practices and routines and, if not, what changed?
- How did people come together to communicate and share ideas, feelings, stories, and memories?
- Can you explain whether you introduced new communication platforms or practices like Zoom or Teams sessions?
- Can you recall what people spoke about in these sessions and whether this changed over time?

Part 4

- Could you explain how communication across the organisation took place?
- Was this different to how communication or cooperation took place before COVID-19.
- Can you recall whether the framing of the situation changed and if so in what way did it change?
- Can you describe how people talked about the organisation's identity and purpose including its brand and vision? (What words do you recall them using?)
- What new thoughts and ideas emerged in these conversations?

Part 5

- I'm wondering how you managed to move forward as an organisation whilst dealing with unproductive behaviours or negative feelings?
- If people left the organisation voluntarily in the past year, what would explain their leaving?
- How would you describe the people who have stayed in the organisation?

Part 6

- Was there any phase or time in the past two years that you can recall where people started talking differently about the future of the organisation?
- How did this change reflect in the way people were talking (in new products, services or a change in strategy?)
- Can you describe what you noticed or observed had changed?
- You've been successful in spite of COVID-19. Can you help me understand how you achieved this?

- Is there anything else you would like to add that has been raised for you in this conversation?

Appendix 2: Methodology section

1 Atlas.ti categorisation and codes

Documents	30
Document Groups	5
Quotations	2180
Codes	316
Code Groups	18
Memos	323

Documents Codes

Code Groups (18/18)

Q Search Code Groups A| Z↓

Select All

- ◆ Adaptability/Improvisation/ pre during post HOW 41
- ◆ Collective problem solving /DURING 8
- ◆ Contextual Factors 6
- ◆ Covid/ decisions Priorities learning 45
- ◆ Decisions and Actions Responsiveness/Improvisation 32
- ◆ Hybrid Remote work Challenges during Covid 18
- ◆ Leadership / Role/ Identity/ learning / insights 11
- ◆ Learning Pre/During/Post 6
- ◆ People/profile/characteristics /emotions/experiences 19
- ◆ Post Covid / Insights/ resilience/strengths/new capacities 12
- ◆ Post covid learning/ reflections 26
- ◆ PRE /DURING Sensemaking / uncertainty, ambiguity 10
- ◆ Pre SHARED PROBLEM SOLVING culture, principles, identity 48
- ◆ PRE/DURING/POST Communication Framing meaning 32
- ◆ Sensemaking / Enacted 21
- ◆ SHARED PROBLEM SOLVING priorities- work/People 16
- ◆ Shared problem solving /Pre / Identity 32
- ◆ Technology Capability 5

Appendix 3: Organisation Consent Forms



Dear

I am writing to you to seek your participation in my Doctoral research on **Developing Adaptive Resilience in Extreme Events**. The main intention of this project is to Investigate the processes organisations developed for building adaptive resilience in response to Covid-19 that can be extrapolated to all extreme crisis events.

In order to explore these interests, I am kindly asking you to participate in the research through the provision of six interviews. These interviews, will be conducted by me. The interviews will be conducted with a senior executive/decision-maker (e.g. CEO, Managing Director) and five senior managers on the executive team. Each interview will last up to, but not exceeding, 90 minutes. The questions will be focused on how your organisation navigated the Covid 19 crisis and specifically the kinds of processes of communication and sensemaking you developed that enabled you to survive and even thrive.

If you agree, the interview(s) will be conducted on MS Teams and recorded. Each interview will be transcribed verbatim. All data gathered will be stored and reported without identifiers. Moreover, the research and all consequent data will be used only for academic research purposes. To ensure you understand and agree with the terms of the research, we will ask each interviewee to also sign an informed consent prior to the undertaking of an interview.

Your participation would be greatly appreciated and valued.

Yours sincerely,
Maxine Jaffit

Approved by:

Prof. Anastacia Mamabolo

Prof. Kerrin Myres

Position:

Doctoral supervisor

Doctoral supervisor

Appendix 4: Participant Consent Form



Informed consent

I am conducting research on **Developing Adaptive Resilience in Extreme Events**. Our interview is expected to last one hour, and will help us understand ***How did organisations develop adaptive resilience during an extreme crisis event***. **Your participation is voluntary and you can withdraw at any time without penalty**. By signing this letter, you are indicating that you have given permission for:

- The interview to be recorded;
- The recording to be transcribed by a third-party transcriber, who will be subject to a standard non-disclosure agreement;
- Verbatim quotations from the interview may be used in the report, provided they are not identified with your name or that of your organisation;
- The data to be used as part of a report that will be publicly available once the examination process has been completed; and
- All data to be reported and stored without identifiers.

If you have any concerns, please contact my supervisor or me. Our details are provided below.

Researcher: Maxine Jaffit

Email jaffitm@gibs.co.za

Phone 0824514622

Research Supervisors: Professors Myres & Mamabolo

Email: myresk@gibs.co.za

Phone: 0832634175

Signature of participant: _____

Date: _____

Signature of researcher: _____

Date: _____

Appendix 5: Transcriber Consent Form



CONFIDENTIALLY AND NON-DISCLOSURE AGREEMENT

Entered into between

(The Transcriber)

And

Maxine Jaffit (The student)

It is a condition of engagement that students of the University of Pretoria shall aid in preserving all confidential information, ideas and plans; any confidential information or any information in respect of any data gathered in respect of their research work conducted under the auspices of GIBS. The parties under this agreement agree to the following:

1. The parties of this agreement shall use their best endeavours to keep any information confidential which they acquire pursuant to the research initiative. For the purposes of this clause, confidential information excludes information which:

1.1 is publicly available or becomes publicly available through no act or default of any Party;

1.2 was in the possession of a Party prior to its disclosure otherwise than as a result of a breach by any party of any obligation of confidentiality to which it is subject;

1.3 is disclosed to the Parties by a person which did not acquire the information under an obligation of confidentiality; and

1.4 is independently acquired by a student and as a result of work carried out by a person to whom no disclosure of such information has been made;

2. No party shall use or disclose confidential information except with the prior written consent of GIBS or in accordance with an order of a court of competent jurisdiction or in order to comply with any law or governmental regulations by which any Party concerned is bound or as may be lawfully requested in writing by any governmental authority.

3. The Transcriber undertakes to permanently delete any electronic copies of confidential information received, and destroy any confidential printed documentation or similar material in their possession promptly once they are no longer required on completion of the contracted service by the student.

4. On completion of the contracted service by the student, the Transcriber is to confirm to the Student that they are not in possession of any confidential information.

Signed at _____ on this ____ day of _____ 20__.

On behalf of:

Name: _____ Signature: _____

duly authorised and warranting such authority

Witness: _____