

Investigating the factors influencing the resilience of medium-sized commercial fishing enterprises in the Eastern Cape province

Submitted in (partial) fulfilment of the requirements for the degree of

MASTER OF BUSINESS ADMINISTRATION

(FACULTY OF COMMERCE)

By

VUYISA NOMKHITHA MFONO

DECEMBER 2024

ABSTRACT

Medium-sized commercial fishing enterprises are vital to South Africa's agricultural and economic landscape, particularly in the Eastern Cape. However, these businesses face ongoing challenges, including financial constraints, unstable raw material supply, regulatory hurdles, and market competition (Fatoki, 2018). Studies indicate that up to 80% of such enterprises fail within five years due to weak resilience strategies (Fatoki, 2018). Despite increasing research on business resilience, limited studies focus on how medium-sized fishing enterprises adapt to uncertain economic and regulatory environments (Duchek, 2020; Tennakoon and Janadari, 2021). While resilience theory suggests proactive and reactive strategies, its practical application in the fishing sector remains underexplored (Burnard and Bhamra, 2011). This study addresses this gap by identifying resilience-building factors and obstacles facing these enterprises in the Eastern Cape.

Using a qualitative approach, primary data was gathered through semi-structured interviews with nine managers and business owners. Data analysis showed that fishing enterprises build resilience through diversification, business model improvements, cost control, employee training, performance incentives, global partnerships, and key performance monitoring. Nonetheless, several barriers undermine resilience efforts, including limited financial access, regulatory challenges, supply chain disruptions, labour instability, raw material shortages, and price fluctuations. High employee turnover and skill shortages further weaken long-term sustainability.

This study expands knowledge on resilience in the fishing industry, offering insights into how businesses adapt to external pressures. The findings emphasise the need for policy reforms, financial support, and industry collaboration to strengthen SME resilience. A key limitation is the small sample size, which may affect generalisability. Future research should explore larger samples and cross-regional comparisons. Despite this, the study provides practical recommendations for policymakers, industry leaders, and business owners to enhance resilience in medium-sized fishing enterprises in South Africa.

KEYWORDS: *resilience in SMEs, medium-sized enterprises, small-medium enterprises, organisational resilience, resilience resources, resilience capabilities, commercial fishing.*

Declaration

I declare that the dissertation/thesis entitled, *A Study on the Resilience of Medium-Sized Commercial Fishing Enterprises in the Eastern Cape Province*, which I hereby submit for the degree Master's in Business Administration at Rhodes University, is my work.

I also declare that I have not previously submitted this thesis/dissertation for a degree at this or any other tertiary institution; and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Date: 10th December 2024

Acknowledgements

I thank my academic supervisor, Ms. Leticia Greyling, for her guidance and support throughout the research process. Her expertise and feedback have been invaluable in shaping the direction of my work. I genuinely appreciate her dedicated time and effort in assisting me in this project. Her expertise and mentorship have been instrumental in completing this study. Lastly, and most importantly, I would like to sincerely thank my family for their unwavering support and understanding during this time. Their encouragement has been instrumental in my academic pursuits, and I am truly grateful for their constant presence and assistance.

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CHAPTER 1 – Introduction

1.1 Background

Resilience in commercial organisations has been thoroughly studied (Trunk and Birkel, 2022; Yu, Yuan, Han, Li and Li, 2022). However, research on medium-sized commercial fishing enterprises (MSEs) is limited, particularly in resource-dependent countries such as South Africa. The fishing sector, including small and medium enterprises (SMEs/MSEs), is crucial to the national economy, profoundly influencing employment, food security, and economic sustainability (Food and Agriculture Organisation (FAO), 2021). The Eastern Cape province significantly contributes to this industry, yet, businesses encounter legislative restraints, variable fish stocks, financial limitations, and market instability (Maroyi, 2017; Food and Agriculture Organisation (FAO), 2021). Although extensive resilience research has investigated supply chain inefficiencies and environmental unpredictability (Bhattarai, Kwong, and Tasavori, 2019; Durowoju, Chan, and Wang, 2022), the resilience of medium-sized fishing firms is still inadequately studied. The challenges SMEs face in the fishing industry differ from those of larger corporations, as they often lack financial resources, infrastructure, and regulatory influence (Allison and Bassett, 2015). These constraints render resilience-building crucial for their survival. Given the fishing industry's importance in food production, trade, and local economies, it is critical to understand how these enterprises navigate external difficulties, adapt, and sustain operations (Smith and Basurto, 2019).

This study examines critical organisational variables that foster resilience, the problems encountered by medium-sized fishing firms, and solutions to improve their long-term sustainability in the Eastern Cape. Analysing resilience-building processes in this sector will yield practical insights for policymakers, industry stakeholders, and business proprietors, enhancing support systems, strategic interventions, and sustainable industry practices.

1.2 The Eastern Cape Province and Fishing Activities

The Eastern Cape province is recognised as one of the nine provinces in South Africa, as displayed below in Figure 1. It is celebrated for its exceptional coastline bordering the Indian Ocean, its scenic landscapes, and rich cultural heritage (Maroyi, 2017). The province has a rich history,

making it conducive to fishing activities. The Eastern Cape's extensive coastline along the Indian Ocean, stretching over 800 kilometres, provides abundant marine resources and diverse ecosystems favourable for fishing (SAMA, 2020).

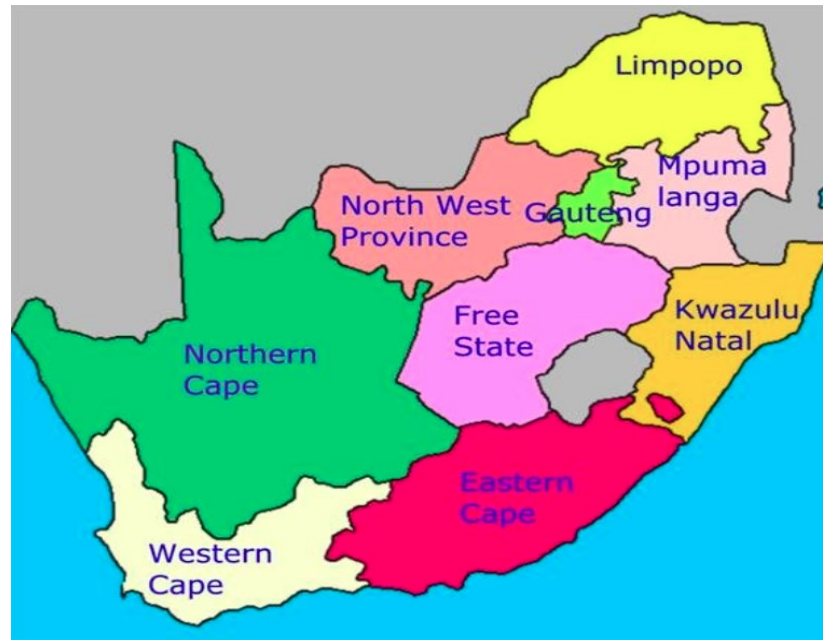


Figure 1: Map of South Africa Showing the Nine Provinces (South Africa Travel Online, 2013)

The coastal geography of the province, characterised by bays, estuaries, and offshore reefs, creates varied habitats that support a wide range of fish species, including pelagic, demersal, and inshore species (DFFE, 2020).

Historically, indigenous communities in the Eastern Cape have relied on fishing as a primary food source and livelihood. Traditional fishing methods, such as handlining, netting, and spearfishing, have been practised along the coastline and in estuarine areas (Ngcobo, Ndlovu, and Van Den Berg, 2019). The Department of Forestry, Fisheries and the Environment (DFFE) regulates fishing activities in the Eastern Cape, implementing measures to ensure sustainable management of marine resources and protecting coastal ecosystems (DFFE, 2020). Fishing in the Eastern Cape is regulated by various authorities to ensure the sustainable management of marine resources. The DFFE manages fishing licenses as part of its broader mandate to regulate and conserve marine resources. Fishing licences are typically issued based on various factors, such as the type of fishing activity, the species targeted, the area of operation, and the licence duration (DFFE, 2020). Fishers

must apply for and obtain the appropriate fishing licence(s) from the DFFE before conducting any fishing activities (DFFE, 2020).

The regulation of fishing activities in the Eastern Cape involves various authorities beyond the Department of Forestry, Fisheries, and the Environment (DFFE) to ensure sustainable management of marine resources (Ngcobo et al., 2019). The Ecosystem Approach to Fisheries (EAF) offers a comprehensive vision for managing marine biodiversity sustainably, emphasising the importance of balancing resource exploitation with ecosystem conservation (Dereli, Ünal, Miliou, Tsimpidis, Trompouki, Tosunoğlu and Ulman, 2022). Additionally, the utilisation of action cameras to estimate the abundance and habitat use of threatened fish species in clear headwater streams provides valuable insights into the conservation of aquatic biodiversity in the Eastern Cape (Hannweg, Marr, Bloy, and Weyl, 2020). The seabirds of the Benguela ecosystem play a crucial role in the marine environment, necessitating effective protection measures to conserve these species and their ecosystem benefits (Makhado, Braby, Dyer, Kemper, McInnes, Tom and Crawford, 2021).

Despite these regulatory and conservation initiatives, small and medium commercial fishing enterprises (SMEs) in the Eastern Cape face ongoing challenges. Regulatory restrictions, high compliance costs, limited financial resources, and competition with industrial-scale operations have constrained their growth. Climate change and declining fish stocks further exacerbate these difficulties. However, some SMEs have demonstrated resilience by diversifying their catch, forming cooperatives, and leveraging government support programmes. Community-led initiatives and research collaborations have also provided avenues for adaptation, yet long-term sustainability remains uncertain. In summary, while collaborative efforts contribute to marine resource management and biodiversity conservation, policies must better support SMEs to enhance their resilience and ensure their continued role in the regional economy.

1.3 Economic Attributes of the Fishing Industry

According to Statistics South Africa (StatsSA, 2019), the Eastern Cape is ranked the poorest in terms of Gross Domestic Product (GDP) per capita. In 2018, the province's GDP per capita—which measures the average economic output per person was estimated at R55,094, significantly lower than the national average of R81,879. Considering these poor economic statistics, the success of businesses in the Eastern Cape province is critical to the uplift of residents in the region (Olawale and Garwe, 2010). The fishing industry is a multifaceted economic sector with substantial implications for both local and global economies. Its diverse economic activities, including harvesting, processing, and selling of fish products, underscore its significance (Smith, 2018). Moreover, the fishing industry is a vital source of employment and livelihood support for coastal communities, contributing to poverty alleviation and socio-economic development (Smith, 2018).

The fishing industry in South Africa comprises three distinct groups of role players, each aligning with the characteristics of a specific type of fishing industry: artisan, commercial, and subsistence (Staden, 2022). The Subsistence Fishing Task Group (SFTG) was established by the Chief Director of the former Marine and Coastal Management (MCM). The SFTG initially classified fisheries into subsistence, artisanal, and commercial. These classifications were based on specific criteria, including the primary use of resources, income level, needs to be met by resources, locality of the harvest and use of resources, harvesters, financial gearing, origin of fishery, and value of the resource (Chuenpagdee, Jentoft and Allison, 2013; Viridin, Basurto, Nico, Harper, del Mar Mancha-Cisneros, Vannuccini and Franz, 2023). The coexistence of subsistence and artisanal fishing industries in South Africa can be delineated by the primary purpose of the catches obtained. Subsistence fishers typically rely on their catches as a source of sustenance, while artisanal fishers predominantly engage in fishing for commercial purposes, with personal consumption secondary (Albert, Aswani, Fisher, and Albert, 2015). This distinction underscores the different motivations driving these two segments of the fishing industry. Commercial fishing operations are distinguished from other fishing activities by their profit-oriented nature; and focus on transforming marine resources into food for human consumption, aquaculture feed, and other products (Ngcobo et al., 2019). Commercial fishing is crucial to global food security and economic development. It serves as a primary source of sustenance for populations worldwide and supplies

valuable resources to global markets (FAO, 2021). The fishing industry in South Africa is highly lucrative, and substantially contributes to the country's GDP (Staden, 2022). Moreover, similar to other industries, it plays a vital role in the overall economic development of the nation (Olawale and Garwe, 2010).

1.4 Challenges Facing Fishing Industry Enterprises

The competitiveness of the fishing industry is closely intertwined with the availability of raw materials or fish species, rendering it highly competitive and profitable (Hara, 2017). Competitiveness in the fishing industry refers to the ability of fishing enterprises or sectors to effectively compete in domestic and international markets while maintaining profitability and sustainability (Hara, 2017). This sector's reliance on natural resources and susceptibility to environmental changes contribute to its volatile nature, necessitating adaptive strategies to navigate market fluctuations and sustain profitability (Hara, 2017). In recent years, efforts to enhance the competitiveness of the Eastern Cape fishing industry have focused on improving infrastructure, modernising fishing fleets, and promoting value-added processing activities (Ngcobo et al., 2019). Furthermore, initiatives aimed at sustainable resource management and certification schemes for eco-friendly fishing practices have enhanced the industry's competitiveness (Chang and Wesseler, 2020). Despite these efforts, challenges such as declining fish stocks, climate change impacts, and global market competition continue to affect the competitiveness of the Eastern Cape fishing industry (FAO, 2021). While the Eastern Cape fishing industry faces challenges, ongoing efforts to promote sustainable practices and enhance value chains are essential for maintaining and improving its competitiveness in the global market.

Various types of disruption can significantly impact the resilience and survival of commercial enterprises. Market disruptiveness, for instance, challenges enterprises to adapt to rapidly changing market conditions and consumer preferences, emphasising the importance of market orientation and disruptiveness capability in improving business performance (Bhattarai, et al., 2019; Woods et al., 2022). Information security breaches pose a significant threat to small and medium enterprises (SMEs) operating within supply chains, highlighting the need for robust cybersecurity measures to safeguard sensitive information and maintain trust with partners (Durowoju, et al.,

2022; Rutihinda, 2011; Pratono, Han and Maharani, 2023). Disruptive innovation and dynamic capabilities have emerged as a critical driver of enterprise performance, necessitating continuous adaptation to external environments to foster long-term development (Bhattarai et al., 2019).

Financial stability plays a crucial role in enterprise resilience, with factors such as commercial credit influencing corporate productivity and overall economic performance (Ting-hua, Kou, Liu and Elahi, 2022). Enterprises must carefully manage their financial resources and credit relationships to navigate disruptions effectively and sustain operations (Ruiz-Martin, Lopez-Paredes and Wainer, 2018). Additionally, disruptions in supply chains can have far-reaching consequences on enterprise productivity and operational efficiency, underscoring the importance of building resilient and agile supply chain networks (MacKenzie and Zobel, 2015). In knowledge management and innovation, enterprises must leverage digitalisation and cross-border knowledge searching to drive dual innovation and enhance their competitive edge (Rosenbusch, Brinckmann and Bausch, 2011). By acquiring diverse knowledge resources and fostering innovation, enterprises can adapt to changing market dynamics and technological advancements. Moreover, the integration of commercial and social logic in hybrid organisations such as social enterprises presents unique challenges in balancing social impact with financial sustainability, requiring innovative business models to achieve desired outcomes (Bhattarai et al., 2019; Raetz, Duchek and Kirkman, 2021).

Overall, various disruptions pose challenges and opportunities for commercial enterprises. By proactively addressing these disruptions through strategic planning, innovation, financial management, and stakeholder collaboration, enterprises can enhance their resilience and ensure long-term viability in dynamic and uncertain business environments.

1.5 Resilience in the Fishing Industry

Given the challenges and disruptions faced by the fishing industry, the importance of building resilient organisations is increasingly becoming evident. The fishing industry's resilience is intricately linked to broader environmental concerns and the need for sustainable practices

(Guillotreau, Allison, Bundy, Cooley, Defeo, Bihan and Seki, 2017). By embracing uncertainty, building knowledge of resource dynamics, developing adaptive management strategies, and fostering flexible institutions, the industry can enhance its resilience to various stressors (Guillotreau et al., 2017). This approach aligns with the principles of ecosystem-based management and underscores the importance of considering ecological feedback and social networks in governance systems (Carmeli and Markman, 2011; Guillotreau et al., 2017). Resilience in the fishing industry is not just about withstanding shocks but also about proactively adapting to changes and ensuring the long-term health of marine social-ecological systems (Guillotreau et al., 2017).

Although no specific research has been conducted on organisational resilience within the South African fishing industry (which led to the development of this study), research on resilience in MSEs within the fishing industry in the Eastern Cape can benefit significantly from insights gained from similar studies conducted in Bangladesh. These studies cover a range of topics related to fisheries, aquaculture, and marine resource management, providing valuable insights into the resilience and sustainability of MSEs in Bangladesh's aquatic ecosystems. Research in Bangladesh has explored various aspects of MSE's resilience, such as people-related barriers to internationalization, the impact of COVID-19 responses on small and cottage industries, and the role of MSE's financing by commercial banks (e.g., Rahman and Mendy, 2019; Rahman, 2021; Rahid, 2022; Song, Yeon and Lee, 2021). These studies provide valuable insights into the challenges and opportunities faced by MSEs in a developing country context, which may be relevant to SMEs in the fishing industry in the Eastern Cape. Furthermore, research on SME resilience in other industries, such as the energy sector, service industries, and export businesses, has highlighted the importance of factors such as dynamic capabilities, digital technologies, and international relationships, in building organisational resilience (Appiah, Sedegah and Akolaa, 2021).

By drawing on these diverse studies, researchers focusing on SMEs in the fishing industry in the Eastern Cape can gain a broader perspective on resilience strategies and factors that contribute to business sustainability. In synthesizing findings from various studies, researchers can develop a better understanding of the factors that influence SME resilience. Considering how these factors

play a role in the Eastern Cape fishing industry, is a first exploration of local contextual considerations and therefore forms the underpinning motivation for this research.

1.6 Problem Statement

Medium-sized commercial fishing enterprises constitute a vital component of South Africa's agricultural and economic sectors, particularly within the Eastern Cape province. However, these enterprises encounter persistent challenges that threaten their long-term sustainability, including financial constraints, fluctuations in raw material availability, regulatory pressures, and intensified market competition (Fatoki, 2018). Empirical evidence suggests that between 70% and 80% of medium-sized enterprises fail within the first five years due to their inability to establish effective resilience mechanisms (Fatoki, 2018).

Despite an expanding body of literature on business resilience, there remains limited research on how medium-sized commercial fishing enterprises in the Eastern Cape develop resilience within an increasingly volatile economic and regulatory environment (Duchek, 2020; Tennakoon and Janadari, 2021). Resilience theory posits that enterprises must adopt both reactive and proactive strategies to withstand external shocks and sustain operations; however, the practical application of these strategies remains inadequately explored (Duchek, 2020). While certain studies have examined resilience-building strategies within business enterprises, there exists a significant research gap regarding medium-sized enterprises operating within the fishing industry. Consequently, limited insights are available on how these businesses navigate sector-specific challenges and implement resilience-enhancing practices (Burnard and Bhamra, 2011).

This study aims to bridge this research gap by identifying and analysing the key factors that influence resilience among medium-sized commercial fishing enterprises in the Eastern Cape. The investigation will examine both enabling and constraining factors in resilience-building and propose practical strategies to enhance business sustainability. A deeper understanding of these resilience determinants is essential for policymakers, industry stakeholders, and business owners in developing targeted support mechanisms that promote the long-term viability of the commercial fishing sector.

1.6.1 Goals of the Research

The primary objective of this study is to investigate the factors influencing the resilience of medium-sized commercial fishing enterprises in the Eastern Cape province. The research will specifically focus on identifying both the organisational-level factors that contribute to resilience and the challenges faced in developing resilience among these enterprises in the region.

Objectives:

- To explain the organisational-level factors contributing to the resilience of medium-sized commercial fishing enterprises in the Eastern Cape province.
- To discuss the challenges encountered in the building of resilience among medium-sized commercial fishing enterprises in the Eastern Cape province.
- To recommend strategies for building resilience within medium-sized commercial fishing enterprises in the Eastern Cape province.

1.7 Research Questions

To achieve the research objectives outlined in Section 1.4, this study seeks to answer the following key questions:

- What are the key factors influencing the resilience of medium-sized commercial fishing enterprises (MSEs) in the Eastern Cape province?
- What challenges do fishing MSEs face in building resilience?
- What strategies have fishing MSEs adopted to enhance resilience in response to external threats?
- What gaps exist in current resilience-building frameworks for fishing MSEs?

These questions will guide the research in exploring both theoretical and practical aspects of resilience in the fishing industry, ensuring a comprehensive understanding of the issue. This study advances scholarly understanding of resilience in medium-sized fishing companies (MSEs). It teaches legislators how to create favourable legislation and offers industry stakeholders useful knowledge. Through increased employment and financial stability in the Eastern Cape, strengthening MSEs also supports local economic development. This study employs case studies and interviews to employ a qualitative method with a focus on medium-sized fishing companies

(MSEs) in the Eastern Cape. It focuses exclusively on resilience tactics, leaving out more general conversations about corporate sustainability. To ensure that it is relevant to the state of the sector today, the study is restricted to trends over the last five years.

1.8 Outline of the Thesis

The following summary outlines how this document is structured:

- Chapter 1 introduces the study.
- Chapter 2 reviews relevant literature.
- Chapter 3 details the research methodology.
- Chapter 4 presents the findings.
- Chapter 5 discusses the findings.
- Chapter 6 concludes the study with recommendations.

1.9 Summary of Introduction

In summary, Chapter 1 of this research paper offers a detailed look at the study's background, the Eastern Cape Province, and fishing activities. It has explored the economic features and challenges of the fishing industry, the role of MSEs in South Africa's fishing sector, and the importance of organisational resilience. The problem and aim, which included the purpose, objectives, and research question, have been indicated. This chapter establishes the foundational framework for understanding the critical importance of resilience within the fishing industry. It underscores the need for enterprises to adapt to challenges and disruptions to ensure sustainable operations. Drawing on various studies of organisational resilience, the chapter sets the stage for further exploration of ways in which organisational resilience can enhance the sustainability and success of fishing industry enterprises in the Eastern Cape province.

CHAPTER 2 – Literature Review

2.1 Introduction

In this chapter, the key terms of study will be defined and discussed, such as resilience theory and concept, organisation resilience, and factors that influence Medium-Sized Enterprises (MSEs) resilience. This chapter will also explore existing academic frameworks and practical evidence related to organisational-level factors contributing to the resilience of commercial forms; and key challenges encountered in this process. This information will be used to inform further research into the influence of these elements on medium-sized commercial fishing enterprises in the Eastern Cape province. The collected findings from prior studies will also be useful for formulating practical recommendations for these enterprises on ways in which they can build resilience more effectively (Korda, Gray and Stead, 2021).

This chapter follows a funnel structure, which implies moving from the broader aspects of the resilience theory to gradually narrowing down its focus to specific organisational-level resilience factors and challenges faced by fishing MSEs in building resilience. Hence, relevant academic literature defining the subject under analysis is explored first; followed by the aforementioned components linked to this phenomenon being identified (Duchek, 2020; Hillmann and Guenther, 2021; Saxer and Rosenbloom, 2018). Furthermore, the literature review includes an overview of commercial fishing activities in the Eastern Cape province, as well as specific challenges encountered by experts in this sector and this area.

2.2 Evolution of Resilience Theory

Initially, resilience theory was primarily focused on understanding how individuals can adapt and bounce back from traumatic events or adverse circumstances (Smith and Johnson, 2018). However, in recent years, the focus of resilience theory literature has evolved to embrace the context of businesses and organisations. From a business perspective, resilience theory refers to the ability of organisations to adapt, recover, and thrive in the face of challenges and disruptions (Jones and Smith, 2020). This includes being able to anticipate and prepare for potential risks, as well as being able to respond effectively when unexpected events occur.

Resilience theory within the realm of business highlights the significance of developing robust organisational structures, processes, and cultures that are capable of sustaining the organisation during periods of crisis (Korbi, Ben-Slimane and Triki, 2021). According to Brown and Williams (2019), these aspects play a crucial role in enabling businesses to effectively navigate through challenging circumstances. One key aspect of resilience theory from the business perspective is the idea of organisational resilience, which refers to the ability of an organisation to withstand and recover from disruptions while continuing to deliver value to its stakeholders (Linkov and Trump, 2019; Smith and Johnson, 2021). This concept has become increasingly important in today's volatile, uncertain, complex, and ambiguous (VUCA) business environment, in which organisations are constantly faced with new and unpredictable challenges (Millar, Groth and Mahon, 2018). Management innovation in a VUCA world: Challenges and recommendations. *California management review*, 61(1), 5-14.). Chen's (2018) contribution to the literature on organisational resilience has been notable for its thorough examination of various factors influencing resilience within organisations, which provides organisations with a road map for building resilience and ensuring their long-term success.

Research in resilience theory literature has shown that organisations that are able to cultivate a culture of resilience are more likely to thrive in the face of adversity (Brown and Williams, 2019). This includes having strong leadership that can make quick and effective decisions, as well as having open and transparent communication channels that allow for timely information sharing. Additionally, resilient organisations can adapt their strategies and operations in response to changing external conditions, ensuring that they remain agile and responsive to emerging threats and opportunities (Millar et al., 2018). Overall, resilience theory literature from the business perspective has evolved to provide valuable insights into how organisations can build and maintain their resilience in the face of uncertainty and disruption. By understanding the factors that contribute to organisational resilience, businesses can develop strategies and practices that enable them to not only survive in challenging times but also to thrive and grow.

2.3 Resilience Theory

Resilience theory is a multidimensional concept that has garnered significant attention in various disciplines, including psychology, sociology, and public health. Resilience theory is defined as the

ability to bounce back from difficult experiences and adapt positively to adversity. Despite its widespread use, the definition of resilience theory has evolved, with various scholars offering different perspectives on what it entails (Smith, 2019). Holling's (1973) seminal work on resilience in ecological systems laid the foundation for resilience theory. This author defined resilience as the ability of ecosystems to absorb disturbances while maintaining structure and function. Folke (2006) extended resilience theory to social-ecological systems, emphasising their adaptive capacity and ability to transform in response to change. Masten's (2018) research focuses on individual and community resilience, exploring psychological processes that enable individuals not only to cope with adversity but also to thrive. Adger's (2000) work contributed to the understanding of social resilience, emphasising the importance of social networks, institutions, and adaptive governance in enhancing resilience (Adger, 2000). Walker and Salt (2006)'s resilience thinking framework provided a comprehensive approach to understanding complex systems and managing resilience. Initially, resilience theory was primarily focused on understanding how individuals are able to adapt and bounce back from traumatic events or adverse circumstances. However, in recent years, the focus of resilience theory literature has evolved to include the context of businesses and organisations.

In the study of resilience within the context of businesses and organisations, the definition of resilience theory that should be considered is the one that encompasses the ability of systems to absorb disturbances, maintain structure and function, and transform in response to change (Smith, 2019). This definition aligns with Folke's (2006) extension of resilience theory to social-ecological systems, emphasising adaptive capacity and transformation in the face of challenges.

2.4 Evolution of Organisational Resilience

The evolution of organisational resilience has been a significant topic of discussion in the field of management and organisational studies. Over the years, there have been marked shifts in the conceptualisation and application of resilience within organisations. One perspective on this evolution is provided by Duchek (2020), who discuss how organisational resilience has transitioned from a focus on mere survival to a more proactive approach centred on adaptability and innovation. The evolution of organisational resilience has been shaped by several major events that have highlighted the need for a more proactive and adaptive approach. The 9/11 terrorist

attacks, the global financial crisis of 2008, and more recently, the COVID-19 pandemic have all demonstrated the importance of organisational resilience in the face of unprecedented challenges (Chowdhury, Paul, Kaisar and Moktadir, 2021). The evolution of organisational resilience has had a profound impact on how organisations operate and respond to challenges. By shifting from a focus on mere survival to a more proactive and adaptive approach, organisations have become better equipped to navigate uncertainty and to seize opportunities for growth (Jones and Smith, 2021; Kahn, Barton, Fisher, Heaphy, Reid and Rouse, 2018). The integration of resilience into strategic planning and decision-making processes has enabled organisations to anticipate and respond effectively to disruptions, thereby enhancing their long-term sustainability and competitiveness (Brown and Johnson, 2020; Crick and Bentley, 2020).

2.5 Organisational Resilience Definitions

Organisational resilience research has progressed dramatically since the beginning of the 21st century (a Google Scholar search conducted in April 2022 yields 5 160 results for the years 1982-2000 and 75 600 results for the years 2001-2020) (Google Scholar, 2023). Burnard and Bhamra (2011) examined instances of resilience and adaptability in the context of SMEs and their capacity to restore normality following a catastrophe or tragedy. Burnard and Bhamra (2011) further investigated individual and organisational reactions to turbulence and the related factors which allow organisations to thrive despite volatile environments. In the field of organisational studies, there are several definitions of resilience. Beninger and Francis (2021) define resilience as an organisation's capacity to survive in the face of significant changes in the business and economic environment, and/or the ability to resist shocks and catastrophic occurrences.

Seville, Van Opstal and Vargo (2015) describe resilience as developing the agility needed to adapt to unforeseen difficulties and the capacity to grasp opportunity amidst adversity. In this way, these authors extend the understanding of resilience beyond emphasis on simply reducing and managing the consequences of disasters alone. Furthermore, Demmer (2011) asserts that the factors which contribute to resilience in large organisations are also applicable to medium-sized enterprises, including strengthening internal knowledge networks, building external knowledge networks, transitioning to more organic organisational structures, implementing strategic planning processes with an entrepreneurial focus, investing in human resources to foster innovation, etc. Thus,

resilient organisations are those capable of undertaking and maintaining positive adjustments under difficult conditions (Sawalha, 2015). A concept related to organisational resilience theory is that of adaptive capacity or the ability of the organisation to manage crises effectively (Seville, Brunsdon, Dantas, Le Masurier, Wilkinson and Vargo, 2008). Marković, Farooq and Marković (2017) assert that there is a variety of factors which contribute to organisational resilience; and therefore, it is important to determine what such factors are in relation to a particular organisation so that organisational resilience can be built or enhanced, thus enabling the organisation to more effectively survive or adapt to sudden changes.

Resilience in SMEs refers to the ability of these small and medium-sized businesses to withstand and recover from various challenges and disruptions. Chen, Nie and Zhao (2023) argue that resilience is essential for the survival and growth of SMEs in today's dynamic and competitive business environment. These authors emphasise the importance of building a resilient organisational culture, fostering adaptability, and developing robust strategies to navigate uncertainties and setbacks. Hillmann and Guenther (2021) highlight the role of leadership in promoting resilience in SMEs. According to their research, effective leadership is crucial for instilling a resilient mindset among employees, making strategic decisions in times of crisis, and building strong relationships with stakeholders. The above researchers also emphasise the significance of continuous learning and innovation in enhancing the resilience of SMEs. Mozumder et al. (2018) argue that leveraging technology and digitalisation can significantly enhance the resilience of SMEs.

By adopting advanced technologies, such as cloud computing, data analytics, and e-commerce platforms, SMEs can improve their operational efficiency, streamline their processes, and enhance their ability to respond to market changes and disruptions. Groschke, Hofmann, Muller and Wolf (2022). Groschke et al. (2022) shed light on the importance of risk management in building resilience in SMEs. According to their research, SMEs that implement comprehensive risk management practices, such as identifying and mitigating potential risks, diversifying their revenue streams, and building strong partnerships, are better equipped to withstand unexpected challenges and uncertainties (Groschke et al., 2022).

In examining the historical context of resilience in SMEs, it is evident that the concept has evolved over time in response to changing socio-economic conditions, technological advancements, and

global trends. The financial crisis of 2008, for example, served as a wake-up call for many SMEs, highlighting the need for greater resilience in the face of economic downturns and market volatility. Key figures in the field of resilience in SMEs, such as Chen, Nie and Zhao (2023), Hillmann and Guenther (2021), Mozumder et al. (2018), and Groschke et al. (2022), have made significant contributions to our understanding of this topic. Their research has paved the way for new insights, approaches, and best practices in building resilience in SMEs, and has helped shape the discourse on this critical business issue.

The research conducted by Chen et al. (2023) has significantly contributed to understanding and enhancing resilience in SMEs. Studies such as those emphasise the importance of building capacities to cope with uncertainty, leveraging personal relationships, and fostering creativity to promote SME resilience (Branicki, Sullivan-Taylor and Livschitz, 2017). The work of such authors has provided valuable insights into how companies can adapt to changing environments, recover from setbacks, and thrive long-term. Moreover, these authors have also collaborated with other scholars and practitioners in the field of resilience in business, forming networks and partnerships that have further advanced the research agenda in this area.

For this study, the definition of resilience which links MSEs should be considered as the ability of these businesses to withstand and recover from various challenges and disruptions, emphasising the importance of building a resilient organisational culture, fostering adaptability, and developing robust strategies to navigate uncertainties and setbacks. This definition aligns with the perspectives of Chen et al. (2023), Hillmann and Guenther (2021), Mozumder et al. (2018), and Groschke, Hofmann, Muller and Wolf (2022) on the significance of resilience for survival and growth of SMEs in dynamic business environments.

2.6 Building Business Resilience

Resilience plays a critical role in enhancing business performance by enabling organisations to adapt, innovate, and thrive in the face of challenges and disruptions (Branicki et al., 2017). Several studies provide insights into the significance of resilience in building business resilience. Kuntz, Näswall, and Malinen (2016) discuss ways in which resilient employees in resilient organisations

can flourish beyond adversity, emphasising the importance of enabling the ongoing development of employee resilience to enhance organisational resilience and build business resilience.

Fatoki (2018) explores the impact of entrepreneurial resilience on the success of SMEs in South Africa, highlighting the importance of entrepreneurs' ability to cope with instability, maintain good health, bounce back from setbacks, and adapt to new ways of managing the business in building business resilience. Corrales-Estrada, Gómez-Santos, Bernal-Torres and Rodriguez-López (2021) propose that building a resilient enterprise requires strategic initiatives involving risk management and business continuity to increase competitiveness and enhance business resilience. Adekola and Clelland (2019) suggest ways in which SMEs can enhance their resilience to natural hazards while contributing to community resilience, emphasising the interconnectedness of business resilience and community resilience.

Douglas and Haley (2023) discuss building organisational resilience through human capital management strategy, emphasising proactive responses to unexpected conditions and the identification of opportunities within crises to expand capabilities and create new business opportunities, thereby contributing to business resilience. These references collectively highlight the role of resilience in building business resilience, emphasising the importance of proactive responses, adaptability, and the development of personal and organisational capacities to navigate challenges and drive positive performance and growth.

2.7 Factors that Influence Organisational Resilience

Organisational resilience is a critical aspect allowing businesses to effectively navigate challenges, crises, and uncertainties. It should be noted that factors influencing organisational resilience can be divided into two broad categories, namely, internal (e.g., capital resilience, strategic resilience, culture resilience, relationship resilience, leadership capacity, resource management, and organisational learning), and external (e.g., external support, environmental scanning, team empowerment, and transparent communication systems) (Chen, Xie and Liu, 2021; Ducheck, 2020; Thomas and Suresh, 2022). While external factors play an important role in organisational resilience, this study predominantly focuses on internal factors because they are under the direct

control of the company, and hence, their significance and impact are more considerable. The factors are further explained and discussed in this section.

2.7.1 Internal factors

2.7.1.1 Capital resilience

Capital resilience refers to an organisation's financial resources and assets that enable it to navigate through turbulent times and recover from setbacks (Chen, Xie and Liu, 2021). As its name suggests, capital resilience helps companies identify and eliminate factors which could influence their capital structure. Such identification and amelioration make them more prepared for disruptive events and crises before they occur (Ruth and Goessling-Reisemann, 2019). In essence, capital resilience is about ensuring the firm's ability to operate normally, even should a crisis occur. In this regard, capital reliance has much in common with the aforementioned anticipation phase of Duchek's (2020) capability-based model of organisational resilience, both implying dealing with crises proactively. However, the main difference between the two is that Chen et al.'s (2021) model focuses on the financial aspect of organisational performance, whereas Duchek's (2020) framework adopts a broader perspective on the issue of proactively responding to internal or external organisational challenges.

2.7.1.2 Strategic resilience

Strategic resilience focuses on the organisation's ability to adapt its strategies and operations to changing circumstances, ensuring its long-term viability and success (Chen et al., 2021). This type of resilience is about companies' ability to focus on their core business operations and maintain strategic consistency (Raetze et al., 2021; Saxer and Rosenbloom, 2018). When strategic resilience is high, a business entity is capable of identifying and dealing with strategic issues (e.g., matching strategic objectives with operational capabilities, timely identifying risk factors in development, etc.), so that it can choose the right growth model to deal with a potential crisis and its consequences. Again, this type of resilience accords with the anticipation phase of Duchek's (2020) model but approaches the issue of resilience more narrowly.

2.7.1.3 Cultural resilience

Cultural resilience emphasises the importance of organisational culture in fostering resilience, in which shared values and beliefs contribute to the organisation's ability to overcome challenges (Chen et al., 2021). In order to be prepared for a crisis, a business entity must have a well-developed, strong corporate culture, which shapes its employees' entrepreneurial spirit, as well as their commitment and loyalty to the company (Chen et al., 2021). The role of corporate culture in organisational resilience has been widely acknowledged in the existing literature, according to which a strong culture allows for mitigating the negative impact of the external environment while also contributing to better organisational performance on an individual level (Cheng, Hua and Wang, 2023; Coppoletta, Zangara, Cosma and Filice, 2024). Nonetheless, the extent to which the positive effect of corporate culture on employees and their commitment could be constrained during a crisis is largely overlooked in the literature.

In their study, Su et al. (2022) underscores the significance of a resilient organisational culture in predicting organisational resilience, indicating that the values, artefacts, and underlying assumptions within an organisation shape its ability to withstand challenges and uncertainties. A supportive and resilient organisational culture that values collaboration, creativity, and adaptability can strengthen the organisation's ability to withstand challenges and uncertainties (Su, Baird and Munir, 2022). As Karman and Savanevičienė (2020) mentioned, the culture of continuous learning, knowledge sharing, and adaptation within the organisation can improve resilience by fostering innovation and flexibility. In turn, Ducheck (2020) provides a capability-based conceptualisation of organisational resilience, highlighting that the identified factors contribute to developing organisational resilience. This conceptualisation suggests that building specific capabilities within an organisation is essential for enhancing its overall resilience and ability to adapt to changing circumstances.

In the context of organisational resilience, Burnard and Bhamra (2019) accentuate the importance of processes, structures, and practices that promote competencies, restore efficacy, and support growth. This underscores the need for organisations to have robust systems in place to respond to crises and to facilitate continuous improvement and development. Moreover, Klockner and Meredith (2020) stress the significance of workforce and organisational resilience in ensuring readiness for change and fostering a culture built on empowerment, trust, and accountability. This

highlights the role of human capital and organisational culture in building resilience and adaptability within an organisation.

2.7.1.4 Relationship resilience

The importance of maintaining strong relationships with stakeholders, partners, and the wider community is emphasised in terms of organisational resilience (Annarelli and Nonino, 2016; Chen et al., 2021). Relationship resilience implies creating reciprocal, favourable, and long-lasting relationships with stakeholders. As per Chen et al.'s (2021) framework, this type of resilience enables organisations to create unique value for their customers, ensuring that the needs of their employees and investors are fully met. Indeed, the existing literature acknowledges the positive contribution of relationship management to organisational performance and employee outcomes, making relationship resilience a valid dimension of the organisational resilience concept (Gerged, Zahoor and Cowton, 2024; Teng-Calleja, Hechanova, Sabile and Villasanta, 2020). With that being stated, Chen et al. (2021) overlooked other stakeholders, such as local communities, the government, media outlets, suppliers, and the environment, suggesting that the practical applicability of their model is limited.

2.7.1.5 Learning resilience

Organisational learning is a fundamental factor that influences resilience, providing the basis for adapting to challenges and fostering continuous improvement within the organisation (Liu, Chen, Zhou, Zhang and Wang, 2021). Learning resilience focuses on the organisation's capacity to adapt, innovate, and continuously improve, based on past experiences and new knowledge (Chen et al., 2021). Learning resilience is about business entities' ability to cope with the challenges and pressures of learning. According to Chen et al. (2021), those companies that select more successful organisations to learn from and learn more about their experiences are more capable of coping with a crisis.

At the same time, as previously mentioned, learning is not the best option to select from, according to Duchek's (2020) capability-based model of organisational resilience. This approach to resilience often prevents business entities from gaining a deep understanding of what should be changed in their strategy and approach so they can more effectively cope with future crises. Within

the scope of this model, coping capabilities determine SMEs' ability to effectively respond to significant threats and dangers which have become manifest. When an organisation accepts the problem and its consequences, it develops ad hoc solutions (Duchek, 2020). Nonetheless, the effectiveness of these solutions greatly depends on the ability of the company's management to make prompt decisions and coordinate the solution development process (Adekola and Clelland, 2019). Thus, leadership plays a crucial role in enabling learning resilience by promoting openness, trust, equity, diversity, and social learning within the organisation (Annarelli, Battistella and Nonino, 2020; Baumber, Allen, Key, Kligyte, Melvold and Pratt, 2021). Leadership resilience contributes to building a culture of learning, adaptability, and continuous improvement within organisations, enhancing their resilience in the face of challenges and uncertainties.

2.7.1.6 Human capital

Human capital is a widely accepted core factor influencing organisational resilience, emphasising the importance of skilled and adaptable employees in driving organisational success and resilience (Shela, Ramayah and Hazlina, 2023; Hamann, Makaula, Ziervogel, Shearing and Zhang, 2020). Employee training and development are fundamental HR practices which ensure and enhance employees' knowledge, skills, and abilities to meet organisational goals, contributing to organisational resilience (Cai, Rowley, and Xu 2022; Pereira, Temouri and Patel, 2019). Modelling and simulating workforce education can help organisations examine their resilience to fluctuations, emphasising the importance of workforce planning in organisational resilience (Jnitova, Joiner, Efatmaneshnik and Chang, 2021). Strategic Human Resource Management (HRM) practices, such as building trust, empowerment, and a favourable climate, align people with organisational goals and enhance organisational resilience (Dahlgaard and Anninos, 2022). Chan, Zawawi, Toh, and Gunn (2022) highlight that customising human resource policies to improve expatriates' resilience through support services can enhance their ability to cope with challenges, such as the COVID-19 crisis. Human resources are a critical component of organisational resilience, as they contribute to building a skilled, adaptable, and resilient workforce that can navigate challenges and drive organisational success (Seville et al., 2015).

2.7.1.7 Leadership capabilities

Leadership capabilities also play a significant role in mediating the relationship between organisational resilience and performance, as noted by (Zahari, Mohamed, Said and Yusof, 2021;

Yang, Wang, Jing, Liu and Niu, 2022). Effective leadership plays a critical role in building organisational resilience, in that solid leadership can inspire and guide employees through crises and uncertainties (Liukinevičienė and Blažienė, 2022). The study highlights that high adaptability, reliability, and the ability to manage disruptive challenges are essential for enhancing organisational performance through resilience. This underscores the importance of strong leadership in fostering a culture of adaptability and reliability within an organisation. Duchek (2020) explains that cognitive action plays a crucial role in organisational leadership, especially in periods of disruption. Leaders must be able to think critically and make decisions based on sound reasoning to navigate challenges effectively.

The “Cognitive Action Capacity Model” proposed by Duchek (2020) provides valuable insights into the mental processes and decision-making mechanisms involved in navigating challenges and seizing opportunities. This model offers a comprehensive framework for understanding how individuals assess situations, evaluate potential actions, and make strategic choices to achieve goals Duchek (2020). By delineating the cognitive capacities required for effective decision-making, Duchek’s model emphasises the importance of adaptive thinking and problem-solving skills in achieving successful outcomes. Furthermore, this model highlights the dynamic interplay between cognitive abilities, environmental factors, and individual goals, shedding light on the complexities of human decision-making processes (Duchek, 2020; Martinelli, Tagliazucchi and Marchi, 2018; Dittfeld, van Donk and van Huet, 2022). Through a comprehensive analysis of the historical context, significant events, key figures, impact, influential individuals, perspectives, positive and negative aspects, and potential future developments associated with cognitive action, organisations can improve their capacity to adjust, create, and succeed in a constantly changing environment.

2.7.1.8 Resource management

Effective resource allocation, vulnerability management, and adapting to changing circumstances are critical for organisational resilience (Melián-Alzola, Monroy and Hidalgo-Peñate, 2020). Effective resource management, including financial, human, and technological resources, is crucial for enhancing organisational resilience and ensuring operational continuity (Serfontein and Govender, 2021). Furthermore, organisational resources, dynamic competitiveness, organisational

learning, and culture are identified as factors that can significantly improve organisational resilience, as demonstrated in a case study from China by Yang et al. (2021). This indicates that investing in resources, fostering a culture of continuous learning, and maintaining competitiveness are imperative for enhancing resilience, especially in the face of socio-economic challenges and crises such as the ones posed by the COVID-19 pandemic. The role of corporate reputation as a moderating factor in the influence of external support on organisational resilience and performance is highlighted by (Zabłocka-Kluczka and Sałamacha, 2020). This suggests that a positive corporate reputation can enhance the impact of external support on organisational resilience, emphasising the importance of managing external perceptions and relationships in building resilience.

2.7.2 External factors

In addition to the internal factors discussed above, organisational resilience is also affected by the external environment in which the company operates (Gečienė, Raišienė and Rapuano, 2020). However, external factors are only briefly mentioned and discussed, not being the focus of this study. Environmental scanning, team empowerment, transparent communication systems, and technology capability appreciably impact an organisation's readiness for sustainable resilience (Raetze et al., 2021; Thomas and Suresh, 2022). External support, including government policies, industry collaborations, and community partnerships, can bolster organisational resilience by providing resources and assistance during challenging times (Zabłocka-Kluczka and Sałamacha, 2020). Gečienė et al. (2020) underline the importance of social and economic justice, common good, effective risk management, integration of governmental and non-governmental organisations, and communication factors as key elements contributing to organisational resilience. This suggests that ethical considerations, risk management practices, collaboration, and communication play pivotal roles in enhancing an organisation's ability to withstand disruptions.

In conclusion, organisational resilience is a complex interplay of various factors, including capital, strategic, cultural, relationship, and learning. Human capital, leadership capabilities, resource management, organisational culture, and external factors all play crucial roles in determining an organisation's ability to adapt, recover, and thrive in the face of challenges and disruptions. These factors are crucial in the context of organisational resilience, being associated with the capital base model, which reflects the organisation's capacity effectively to adapt, respond, and recover from

disruptions. The interplay between these elements fosters an environment conducive to both individual and collective growth, thereby enhancing an organisation's overall adaptability and sustainability. By concentrating on these organisational-level determinants, entities can augment their resilience, adaptability, and competitiveness when confronted with uncertainties and challenges.

2.8 Key Challenges Encountered in the Building of Resilience

2.8.1 Constrained organisational and individual capacities

Hillmann and Guenther (2021) highlighted the intricate interplay of organisational-level factors contributing to resilience, and the impact of various external and internal challenges and threats. They suggested that this dynamic may present challenges to advancing organisational resilience. The availability of ample human resources did not guarantee their optimal deployment in addressing external threats. In the event of a deficient transformative culture and inadequate levels of employee loyalty, there exists the potential for employees to opt out of participating in efforts to address significant challenges facing the organisation (Raetze et al., 2021). Furthermore, employee reluctance to fully engage in the necessary changes may manifest in a variety of forms of resistance to change.

According to the findings of the study conducted by Pomeroy, Arango, Lomboy and Box (2020), it was observed that personnel may display a lack of understanding pertaining to the analysed phenomenon and the corresponding practical competencies required for its effective application. The employees were inadequately trained in managing work-related stress and lacked an understanding of organisational contingency plans for periods of crisis (Pomeroy et al., 2020). This phenomenon has the potential to heighten individuals' anxieties and apprehensions, consequently resulting in the previously mentioned lack of commitment and sustained dedication.

Cotta and Salvator (2020) identified that the capability of human resources was as crucial as the presence of strong innovative competencies at the business level. More specifically, staff members better integrate knowledge and information, contributing to organisational resilience due to improved collaboration effectiveness (Galaitis, Pinigina, Keisler, Pescaroli, Keenan and Linkov, 2023). These outcomes could be further enhanced by defining personnel roles and job descriptions.

In this aspect, internal clarity and understanding could be seen as beneficial factors supporting the capability of employees to withstand external threats and uncertainties.

2.8.2 Communication

Communication is crucial in addressing challenges related to building resilience within organisations. Effective communication is vital for disseminating information, enhancing community organisation, and promoting community engagement during rapid change or disruption Liu, Chen, Zhou, Zhang and Wang (2021). The ability of affected parties to communicate and organise is essential for fostering resilience, particularly in the face of uncertainties and crises. Additionally, transformational leaders play a significant role in promoting effective communication among all participants, encouraging the sharing of information and knowledge to enhance recovery and learning capabilities, ultimately contributing to organisational resilience (Wang et al., 2022). By facilitating open and transparent communication channels, leaders can empower individuals within the organisation to adapt and respond effectively to challenges.

Moreover, resilience-building systems heavily depend on community involvement and cooperation, highlighting the significance of inclusive communication strategies that empower communities to contribute to their resilience efforts. Bridging communication gaps and promoting collaboration across various sectors are crucial for strengthening community resilience and enhancing preparedness for unforeseen challenges. In conclusion, effective communication is a cornerstone in overcoming challenges in building resilience (Liu et al., 2021). By fostering open communication channels, encouraging community engagement, and promoting collaboration among stakeholders, organisations can enhance their resilience and capacity to navigate uncertainties and crises successfully.

2.8.3 Coordination challenges

Coordination challenges often arise due to the need to align efforts across various stakeholders, to adapt to changing circumstances, and to allocate resources efficiently, thus preventing and

responding to threats (Beceiro, Galvão and Brito, 2020). These challenges are further compounded by the need to coordinate actions among various government departments, to adopt flexible processes, and to anticipate future uncertainties (Hollingsworth, 2019). Building resilience requires overcoming institutional traps, enhancing community engagement, and fostering collaboration among stakeholders to ensure a cohesive and effective response to disasters (Williams and Shepherd, 2016). Overcoming coordination challenges in building resilience involves improving communication strategies, enhancing collaboration, and ensuring that all stakeholders work towards a common goal (Ezzati, Mosadeghrad and Pooyan, 2022; MacKinnon, 2015). By addressing coordination challenges effectively, organisations and communities can strengthen their resilience and navigate uncertainties more effectively.

2.8.4 Leadership challenges

In the realm of leadership and its role in building resilience, several key challenges and considerations emerge from the literature of Giustiniano, Cunha, Simpson and Clegg (2020) who delve into the concept of resilient leadership as paradoxical work, particularly in the context of the COVID-19 pandemic. They highlight the critical test of resilience and responsible leadership at various levels, emphasising the need for leaders to navigate challenges effectively during crises. This underscores the importance of adaptive and forward-thinking leadership in times of uncertainty and disruption. Ahmad, Islam, Cox and Kaleem, (2021) explore workplace bullying management through a model that incorporates servant leadership, employee resilience, and initiative-taking personality. Their research underscores the positive implications of leadership, particularly servant leadership, in fostering resilience and initiative-taking behaviours among employees. This highlights the significance of leadership styles in shaping organisational culture and employee responses to challenges.

Leadership challenges in building resilience are further explored by Grimes, Matlow, Tholl, Dickson, Taylor and Chan, Zawawi, Toh and Gunn (2022) in the context of health leadership during the pandemic. The research of these authors identifies ongoing challenges related to building resilience and psychologically healthy workplaces, accentuating the critical role of leaders in supporting their teams and fostering resilience in the face of adversity. In examining the literature on leadership and resilience, it becomes evident that leadership plays a pivotal role in

shaping organisational resilience. Leaders must exhibit adaptability, empathy, strategic decision-making, and the ability to inspire and motivate their teams during challenging times. The studies by Giustiniano et al. (2020), Ahmad et al. (2021), Dartey-Baah (2015), and Grimes et al. (2022) collectively underscore the importance of leadership in navigating uncertainties, fostering resilience, and creating psychologically healthy work environments.

2.8.5 Resource allocation

Resource allocation is essential to building resilience within organisations, necessitating strategic planning and efficient resource utilisation to enhance adaptive capacity and response to disruptions. Sun, Balakrishnan and Zhang (2020) present a resource allocation framework for pre-disaster resilience management of interdependent infrastructure networks, expressing the need for considering interdependencies to minimise disruption impacts. The study employs agent-based modelling techniques that optimise resource allocation and bolster network-level resilience against extreme events.

MacKenzie and Zobel (2015) contribute to this area by developing a framework for optimal resource allocation aimed at enhancing organisational resilience to system disruptions. Their model evaluates resilience based on the average loss per unit of time and the time required for full functionality recovery, mainly focusing on uncertain disruptions. This underscores the critical role of strategic resource allocation in fortifying organisational resilience (MacKenzie and Zobel, 2015).

2.8.6 Risk compliance

Building resilience is a crucial aspect of risk management in that it concerns an organisation's ability to anticipate, respond to, and recover from crises. Pettit, Fiksel and Croxton (2010) indicate the importance of factors that avoid stress, reduce its effects or enable adaptation after stress. This reflects the need for organisations to manage risks and vulnerabilities, thus actively improving resilience. Supply-chain risk management is essential in the management process, as described in (Munir, Jajja, Chatha and Farooq, 2020). Supply-chain integration enables organisations to manage risk and improve control. Similarly, Baz and Ruel (2021) articulate the need for supply-chain risk management practices in reducing the impact of disruptions on supply chain

sustainability, especially in the context of the COVID-19 outbreak. Aven (2021) provides insight into the fundamental relationship between risk and resilience, differentiating between risk prevention and resilience building. Risk management focuses on preventing threats, while resilience management focuses on recovering and adapting systems after a threat. Understanding these relationships is essential for organisations to develop comprehensive risk management strategies incorporating robust manufacturing processes.

Schanze (2016) also shows the added nature of resilience in risk management approaches. By incorporating elements of foresight and resilience into risk management strategies, organisations can improve their ability to adapt, absorb, and recover from disasters. In conclusion, synthesising these references indicates the complex relationship between risk management and sound construction practices. Organisations strive to manage risk, implement mitigation measures and adapt to changing environments to strengthen their overall resilience in crisis.

2.8.7 Operational flexibility challenges

The literature highlights several significant issues in the field of operational flexibility-focused resilience development. In their analysis of the role that operational flexibility plays in crisis response, Shekarian, Ramirez and Khuntia (2022) go into detail about how various mechanisms of flexibility—such as workforce adaptation, product and service offerings, and sales channel modifications—help sustain organisational resilience in times of crisis. This points to the intricate relationship between operational flexibility and resilience, reminding organisations to adapt swiftly to changing circumstances, thus maintaining their performance and resilience levels. Furthermore, Banerjee, Trivedi, Sharma, Gharib and Hameed (2022) shed light on the organisational barriers hindering the development of post-pandemic supply chain resilience, with a specific focus on design flexibility and agility as crucial internal capabilities for building resilience. Such identifies organisations' challenges in fostering the necessary flexibility within their structures. In maintaining such flexibility, organisations can effectively respond to disruptions and uncertainties, especially in supply chain management.

Additionally, Kadenic and Tambo (2023) explore the potential of agile project management as an enabler for enhancing the resilience of operating models. Agile practices play a pivotal role in enabling more adaptability and resilience in organisations that face disruptions, establishing the

significance of long-term operational resilience. Organisations are thus encouraged to adopt agile methodologies in enhancing their operational flexibility and responsiveness to changing environments.

2.8.8 Data availability

Another problem of data availability was noted by Hillmann and Guenther (2021), who identified the insufficient attention being paid to resilience as a potential problem. Considering this component as a spectrum, the researchers concluded that excessive resource inputs in this area might be harmful to the expansion of the organisation. According to this perspective, organisational resilience can be viewed as a risk management strategy that must consider the likelihood and potential severity of potential threats in addition to an organisation's actual capacity to stop them or respond to them internally. This is particularly noteworthy for SMEs. Authors such as Carvalho et al. (2016) and Fey and Kock (2022) supported these assumptions by analysing both innovative and non-innovative companies in terms of the studied phenomenon. According to their findings, the first type of organisation was better protected from environmental challenges due to their higher flexibility, better awareness of new threats, greater knowledge of potential response mechanisms, and stronger capability to manage available and newly emerging technologies and resources.

2.8.9 Changes in the external organisational environment

The COVID-19 pandemic has highlighted the vulnerability of interconnected systems, posing significant risks to individual companies operating within interconnected systems. Such companies are highly vulnerable to external risks and threats, being unable correctly to address these challenges in isolation, thereby exacerbating their susceptibility to disruption (Smith et al., 2020). The lack of effective coordination, collaboration, and other forms of social capital can result in negative consequences, even within organisations with high levels of resilience (Dohaney, de Roiste, Salmon and Sutherland, 2020). Several potential solutions to these challenges could be implemented. These include the development of effective communication channels, the establishment of shared crisis-response strategies, the creation of emergency response plans that span across multiple companies within the network, the enhancement of staff digital literacy and

professionalism, and the implementation of a digital infrastructure containing relevant up-to-date information and best practices/recommendations related to the optimal course of action.

Ross, Anderson, Selveindran, MacBride, Bowie, Sherriff, Young, Fioratou, Roddy, Edwards and Dewar (2022) have identified a potential obstacle to the implementation of resilience-building strategies. The year 2022 saw challenges arising from the need for adaptability in industries characterised by unpredictable demand levels, including agriculture, care provision, and hospitality. The variability of challenges faced by professionals in industries characterised by unpredictable demand levels, including agriculture, care provision, and hospitality, may be contingent upon seasonal fluctuations, meteorological circumstances, or unanticipated variables beyond the control of the parties involved (Ross et al., 2022; Stevens and Teal, 2023). The high-demand periods led many organisations to deplete their resilience reserves by strategising to avoid additional recruitment and training of staff, leaving them susceptible to genuine crises and diminishing staff loyalty and dedication.

2.8.10 Particular challenges to SMEs

Rahman and Mendy (2019) observed that SMEs in developing countries face more significant obstacles in establishing resilience compared with large corporations in developed nations. The challenges identified in this study encompassed issues related to language barriers in networking and recruitment, constraints in resources, heightened regulatory and political risks, and the complexities of retaining a proficient workforce capable of receiving adequate training to proficiently address evolving threats. The study conducted in the specific context of Bangladesh may offer generalisable insights relevant to the medium-sized organisations in the Eastern Cape province that are the focus of this research.

Mamman, Bawole, Agbebi and Alhassan (2019) observed that SMEs in Africa faced countless social and economic challenges, including an inadequately skilled workforce, insufficient education infrastructure, limited adoption of comprehensive management strategies and human resource management (HRM) practices, as well as issues stemming from substandard state regulatory policies. The aforementioned factors served as formidable impediments to the

development of growth and resilience, thus hindering SMEs from acquiring the essential resources and capabilities demanded to withstand large-scale crises (Yu et al., 2022).

2.9 Factors that Influence MSE Resilience

The ability of MSEs to adapt to challenges and threats that exist in the external organisational environment determines the extent to which they can be viewed as resilient. The existing literature demonstrates that MSEs' resilience is influenced by various factors such as adaptive capacity, anticipation and adaption(repetition?), supply chain disruption, internal and external factors, and financial risk. These are discussed in detail hereafter (Chen et al., 2023; Schmidt, Mason, Bruwer and Aspelung, 2017).

2.9.1 Anticipation and adaptation

Anticipation of threats, environmental scanning, and resilience plans are essential building blocks for organisational resilience in MSEs (Chen et al., 2023; Vakilzadeh and Haase, 2021). The existing body of knowledge indicates that in order to mobilise its resources and be prepared for future shocks and disturbances, an MSE must anticipate potential threats and critical developments (Duchek, 2020). This ability to use prior knowledge and experience is a critical factor in ensuring organisational resilience and adaptability. By drawing upon past incidents, industry trends, best practices, and lessons learned from previous experiences, organisations can enhance their decision-making processes, improve operational efficiency, and foster innovation and creativity (Chen et al., 2023).

Organisations must strike a balance between leveraging existing knowledge and experience and promoting a culture of continuous learning and adaptation to thrive in today's dynamic business landscape (Jones and Smith, 2021). This element refers to the existing knowledge and experience within the organisation that can be drawn upon to anticipate and respond to disruptions. Balance includes knowledge about past incidents, industry trends, best practices, and lessons learned from previous experiences (Chen et al., 2023). At the same time, MSEs' ability to anticipate and adapt to threats is commonly viewed as limited, their knowledge of the external environment also being limited (Melián-Alzola et al., 2020). Even though an MSE that can identify critical extra and intra

developments demonstrates a higher level of adaptability and resilience, this tactic is not applicable to so-called ‘black swan’ events, which occur unexpectedly and have severe consequences (Rahman and Mendy, 2019).

2.9.2 Adaptive capacity

Organisations with a high adaptive capacity can adjust and evolve in response to changing circumstances, enhancing their resilience to external shocks and uncertainties (Melián-Alzola et al., 2020). The ability of an organisation to adapt to changing circumstances, innovate, and adjust its strategies in response to disruptions is a key factor influencing resilience (Su, Baird and Munir, 2022). Adaptation capabilities reflect a company’s ability to adapt to critical situations and adjust its processes and strategies to reduce their negative consequences (Stevens and Teal, 2023). Within the scope of Ducheck’s (2020) model, adaptation occurs through reflection and learning, as well as organisational change. While both adaptation processes have their merits, organisational change is commonly viewed as a more vital option (Rahman and Mendy, 2019). The point is that companies tend to focus on their active failures instead of uncovering the root cause of these problems, which significantly diminishes the effectiveness of reflection and learning as an adaptation mechanism. In turn, organisational change often results in the development of new values and practices, making the company much more adapted to the new environment, even though this change may require heavily demanding financial and time resources (Ruth and Goessling-Reisemann, 2019).

2.9.3 Resilience to supply chain disruptions

The ability of MSEs in the fishing industry to withstand and recover from supply chain disruptions, such as delays in sourcing raw materials or distribution challenges, can seriously depreciate their resilience (Polyviou, Croxton and Knemeyer, 2019; Wieland and Wallenburg, 2013). The integration of supply chain processes and stakeholders can enhance resilience, flexibility, and innovation in an MSE operating in the fishing industry (Siagian, Tarigan and Jie, 2021). Developing and implementing supply chain resilience strategies, such as logistics restructuring and location optimisation, can help MSEs in the fishing industry navigate disruptions and ensure a more resilient supply chain (Chowdhury et al., 2021). These factors collectively play a crucial

role in shaping the resilience of fishing MSEs' supply chain, enabling them to adapt, innovate, and thrive in dynamic and challenging environments.

2.9.4 Internal and external factors

Internal factors such as effective management practices, innovation in fishing technologies, and the skill level of the workforce contribute significantly to SMEs' ability to withstand challenges (Hara, 2017). Additionally, external factors such as market demand, government regulations, access to fishing quotas, and the impacts of climate change play crucial roles in shaping SMEs' resilience within the fishing sector (Hara, 2017). In examining the factors that influence MSE's resilience, it is crucial to consider both internal and external elements that contribute to the ability of these enterprises to withstand challenges and adapt to changing circumstances (Mamman et al., 2019). Research highlights key growth factors in MSEs, such as proactivity, risk-taking posture, and strategic investments aimed at fostering growth (Cassia and Colombelli, 2009). These internal factors play a substantial role in shaping the resilience and growth trajectory of SMEs by influencing their strategic decisions and operational approaches. Moreover, the study by Zighan, Abualqumboz, Dwaikat and Alkalha (2021) delves into the role of entrepreneurial orientation in developing resilience capabilities in MSEs. The study advocates for a comprehensive framework encompassing efficiency-based capability, adaptive capability, collaborative capability, change capability, and learning capability. This framework underscores the importance of internal factors related to entrepreneurial mindsets and organisational culture in building MSE resilience. By fostering these capabilities, MSEs can enhance their ability to adapt to unforeseen challenges and capitalise on opportunities for growth.

Additionally, research on SME financing sheds light on the challenges MSEs face due to both internal and external factors, such as the willingness of financial institutions to lend and the creditworthiness of SMEs (Wu and Wang, 2021). These external financial factors can greatly affect the resilience of MSEs by influencing their access to capital and ability to invest in growth and innovation. Having a sound understanding and thus properly addressing these financial challenges will help to strengthen MSE resilience in the face of economic uncertainties. In conclusion, the resilience of MSEs is influenced by a combination of internal and external factors that shape their strategic decisions, operational capabilities, and ability to adapt to changing

environments. By addressing key internal factors such as entrepreneurial orientation, financial management, and growth strategies, while also considering external factors such as market conditions, regulatory frameworks, and access to financing, MSEs can enhance their resilience and sustainability in today's dynamic business landscape.

2.9.5 Financial risk identification

Identifying and mitigating financial risks specific to the fishing industry, such as fluctuating market prices, seasonality, and regulatory changes, will aid the resilience of MSEs operating in this sector (Chen et al., 2023). According to Schmidt et al. (2017), South African SMEs had some of the lowest survival rates on a global scale. Their retrospective analysis indicated that the average length of operation for SMEs in this region amounted to two years. On the one hand, the authors cited finance gap issues as one of the key barriers to resilience development. More specifically, South African SMEs could not access affordable loans and had to survive using their own resources, which exposed them to frequent macro-environmental crises and risks that could easily destroy a new business with limited resources (Olawale and Garwe, 2010).

On the other hand, staffing problems and low skill levels required greater investments to develop resilience (Kotze, Vermeulen and Niemann, 2019). These problems were further intensified by supply chain issues in which the whole chain was as strong as its weakest link. In this situation, the knowledge of specific resilience-building strategies could rely on both these macro-environmental factors and industry-specific and organisation-specific challenges. As also noted by Achieng and Malatji (2022), small and medium African enterprises are hindered by such macro-environmental challenges to developing resilience as low managerial skill levels, lack of infrastructural development, limited access to relevant market information, high labour costs, lack of access to foreign markets, limited financial support, high corruption levels, and low digital literacy levels (Schmidt et al., 2017). These hindrances existed at both executive and employee levels and made it difficult to develop effective strategies in the analysed spheres and to find competent personnel.

South African SMEs often experience elevated rates of business failure because of their operations within developing economies and their heightened exposure to macro-environmental risks (Staden, 2022). The commercial fishing industry is confronted by heightened risks resulting from

the compound effects of climate change, seasonal variations in fish stocks, evolving consumer preferences, and the persistent implications of socio-economic challenges and crises (Coro, Tasseti, Armelloni, Pulcinella, Ferra, Sprovieri, Trincardi and Scarcella, 2022). These challenges have resulted in the closure of several restaurants and other significant supply chain partners that purchase fish from the enterprises under investigation, as well as the disruption of well-established supply chains (Muringai, Naidoo and Mafongoya, 2020). Unfortunately, most of the studies from the South African context analysed earlier were published before the COVID-19 pandemic as a major disruption factor, or did not explore the commercial fishing sector specifically (Coro et al., 2022). Nonetheless, the coronavirus pandemic is not the only factor that has affected this sector and its resilience. Political unrest, economic turmoil, and global price fluctuations are just a few examples of such factors (Muringai et al., 2020). Therefore, by undertaking this study, the author examines ways in which medium-sized commercial fishing enterprises in the Eastern Cape province have adapted and adjusted their business models to the current level of uncertainty.

In this study, organisational-level factors considered include supply-chain managers, organisational leaders, employees, and external partners such as governmental and non-governmental organisations. These factors play pivotal roles in risk management, resource allocation, communication, and coordination efforts aimed at enhancing organisational resilience within SMEs in the fishing industry. Insights from studies on supply-chain resilience, organisational resilience, and the role of high-performance work systems in building resilience will be leveraged. The goal is to understand how these organisational actors can collaborate effectively to strengthen resilience in MSEs within the fishing industry in the Eastern Cape (Serfontein and Govender, 2021). The study will draw insights from research on supply-chain resilience, organisational resilience, and the role of high-performance work systems in building resilience (Zhou, Edafighor, Wu and Doherty, 2022). By examining the interplay between these organisational actors and their contributions to resilience-building strategies, the study aims to provide a comprehensive understanding of the ways in which the various actors can collaborate to strengthen resilience in MSEs within the fishing industry in the Eastern Cape.

2.10 Resilience-Building Challenges Encountered by Commercial Fishing Enterprises

The study of Mozumder et al. (2018) focused on the fishing businesses of Bangladesh and explored their resilience to external threats. The authors identified that local companies in this sphere encountered substantial pressures due to seasonal bans caused by the government's ecological sustainability initiatives, natural disasters, and other issues they could not control. These researchers identified that social resilience could be seen as the most optimal solution to such problems. Social resilience refers to the capacity of individuals, communities, or organisations to effectively respond to and recover from external threats, challenges, or disruptions by leveraging social networks, relationships, and collaborative efforts (Azad, Uddin, Zaman and Ashraf, 2019; Mozumder et al., 2018). More specifically, the greater involvement of fishing enterprises in regulatory networks and supply chains could help them predict future problems, negotiate better crisis response policies, and build up resource stocks to survive problematic periods (Philsoophian, Akhavan and Abbasi, 2021).

The evidence from the COVID-19 period analysed by Smith et al. (2020) indicated that most of the analysed US businesses in this sphere were not ready for the large-scale problems emerging at many levels. The effects of the pandemic were evident in both local restrictions and lockdown regulations and the disruptions of international supply chains and networks. As a result, many businesses had to stop their operations and live on their accumulated resources as the only viable short-term adaptation strategy (Banerjee, Trivedi, Sharma, Gharib and Hameed, 2022). While some businesses possessed the required organisation-level resilience competencies, the inability to sell their products to closed local restaurants and other 'downstream' customers effectively rendered these preparations ineffective (Chowdhury et al., 2021).

As also found by Bolin, Schoeman, Evans, Cummins and Scales (2021), fishing enterprises were exposed to seasonal fluctuations in marine ecosystem outputs as well as climate change impact, making it extremely difficult to predict future threats and to develop factor-specific resilience in responding to every emerging factor. The researchers suggested the need to use big data and communication as keyways of building the analysed competence (Bolin et al., 2021). This measure could allow fishing enterprises to analyse past information, identify any recurrent trends, predict future threats and opportunities, and share this knowledge with other stakeholders within

information-sharing networks. Such information sharing would allow all participants to coordinate their activities in order to maximise mutual gains.

The analysis of small-scale organisations in this sector by Villasante et al. (2022) also highlighted the problems of selecting the most effective competitive strategies in the case of SMEs. Many of these were focused on particular species that fishermen could be prohibited from fishing?? during some seasons, or that may go down in price due to increasing competition from larger rivals (Villasante, et al., 2022). The optimal resilience-building strategy suggested by these authors included the analysis of climate change impacts, the improvement of data-based prediction capabilities, and the focus on more expensive products leading to a differentiation competitive strategy rather than one based on cost-leadership.

Bastardie et al. (2022) examined the process that commercial fishing enterprises follow to build resilience. The researchers discovered that companies could overcome challenges associated with the lack of strategic flexibility and business optimisation by reducing their operational expenses through fuel-saving practices and the choice of targets with optimal cost-to-profit ratios, which matches the earlier discussed differentiation strategy (Bastardie et al., 2022). This flexibility may allow them to sustain their operations even in the case of reduced resource availability, while also having optional backup strategies to retain their staff members and maintain sufficient profitability through difficult periods (Prosperi, Kirwan, Maye, Tsakalou, Vlahos, Bartolini, Vergamini and Brunori, 2022).

With that being said, the findings of Muringai et al. (2020) suggest that small-scale fisheries in South Africa are deeply integrated into local community networks. As a result, they are exposed to both external challenges, such as climate change and regulatory pressures, and the challenges posed by spillover effects from their buyers or suppliers. This increases the required levels of internal strength necessary for successfully overcoming such threats. It should also be noted that Bastardie et al.'s (2022) model of resilience is clearly biased towards the environmental dimension rather than those of business or finance. Therefore, one could argue that this framework lacks strategic depth, being limited to environmental resilience while ignoring all the remaining aspects previously highlighted and discussed in this chapter (Chen et al., 2021; Duchek, 2020).

Coro et al. (2022) assessed data on the Adriatic Sea region from 2015 to 2020, presenting a potential strategy for achieving a high level of organisational resilience. The authors offered a framework in which regional fishing fleets were likened to natural predators with medium to high levels of resilience (Coro et al., 2022; Lam et al., 2016). Consequently, they were compelled to monitor the diminishment of supplies within the region due to external limitations on sourcing activities, leading to a situation in which they were deprived of essential resources.

Enhanced coordination and collaboration among stakeholders, including fisheries, regulatory bodies, and environmental experts, may facilitate the establishment of sustainable frameworks aimed at achieving the triple bottom line. Phuong et al. (2021) also highlighted the four possible resilience strategies to problems in the studied sector. The response options encompassed coping, adaptation, transformation, and compensation from local authorities or insurance agencies. The selection of a particular instrument may be contingent upon the scale of the threat and its temporal duration. Bassett et al. (2022) deduced that the availability of said instruments may be influenced by specific contextual factors and supply chain characteristics.

The main challenges for the fishing industry in building resilience include addressing sector-specific considerations such as sustainable use of marine resources, enforcement of fishing regulations, and adaptation to evolving environmental risks. The fishing industry must also navigate external factors, for instance, climate change, natural environment degradation, and the impact of crises such as the COVID-19 pandemic.

2.11 Summary of Literature

It can be summarised that resilience is a multidimensional concept involving several phases and types of resources contributing to its capability to help organisations survive major macro-environmental crises (Fraile-Marcos, 2019). From the standpoint of other identified organisation-level factors, Chen et al. (2021), Liu et al. (2021), Morales, Martinez and Torres-Arguelles, (2019), Ross et al. (2022) and other authors have identified capital, strategic, cultural, relationship, learning, and other factors contributing to the development of the studied phenomenon. According to the above authors, sufficient assets in these dimensions combined with proper leadership practices allowed organisations to promptly respond to external disruptions and return to ‘business

as usual’ while also using the collected experience to improve the accuracy of future threat prediction (Hillmann and Guenther, 2021; Kantabutra and Ketprapakorn, 2021; Ungar, 2021).

At the same time, the identified hurdles to the resilience-building strategies of commercial fishing enterprises included factors such as climate change, local government regulatory interventions, supply-chain issues, the lack of reliable predictive tools, excessive focus on cost leadership rather than differentiation resource limitations, and the overall lack of strategic flexibility (Ruth and Goessling-Reisemann, 2019). Some of these elements may be considered unique, further substantiating the need to address the identified research gaps with primary evidence from the targeted context.

CHAPTER 3 – Methodology

3.1 Introduction

This chapter outlines the selected research methods, techniques, and approaches while providing the reader with a detailed description of why they were chosen in the first place. First, the process of designing the research methodology is presented, focusing on the overall research approach. Afterwards, this chapter explains and justifies the selection of interviews as the primary data-collection instrument. The sampling, data collection, and data analysis process is also detailed. Finally, the issues of data quality and ethical considerations are discussed.

3.2 Research Approach

This study examines the resilience of medium-sized companies (MSEs) in the fishing industry of the Eastern Cape using a qualitative research methodology. A comprehensive understanding of entrepreneurs' perspectives and adaptation tactics to both internal and external changes can be gained through qualitative research (Dawson, 2019; Acharyya and Bhattacharya, 2019; Leavy, 2017). According to Creswell and Poth (2018), this method was selected because it can identify behaviours and patterns that impact organisational resilience that quantitative approaches could miss. Sekaran and Bougie (2016) note that qualitative research frequently yields a lower sample size and can be time-consuming. This being said, its power is in recording experiences that are distinctive to a given situation. Semi-structured interviews with managers and owners of businesses will be used to gather data, and themes will be analysed to determine the problems and resilience elements. With this method, a thorough grasp of how MSEs handle disturbances unique to their business is guaranteed.

3.3 Data Collection

Semi-structured interviews were considered the most effective method of gathering comprehensive qualitative data. The existing literature defines this type of interview as a qualitative research method combining predetermined and unscripted questions (Ruslin, Mashuri, Rasak, Alhabsyi and Syam, 2022; Hammond and Wellington, 2020). Hence, unlike regular interviews, semi-structured interviews enable the researcher to explore other themes and topics by

asking unscripted questions (Sekaran and Bougie, 2016; Pruzan, 2016). By employing this approach, the researcher could engage in direct dialogue with the participants, solicit further enquiries, disambiguate certain statements, and omit specific queries when the respondents lacked relevant information. However, the data-collection process was very time-consuming, not allowing for increasing the sample size and gaining data from more participants.

Following a semi-structured interview format, the researcher developed a predetermined set of critical questions and distributed them to the participants before engaging in the interview process. The implementation of this procedure facilitated the attainment of informed consent and enhanced interviewees' understanding of the study's aims and objectives (Moutinho and Sokele, 2017; Daverne-Bailly and Wittorski, 2022). The interview schedule, which can be found in Appendix A, included three sections with several open-ended questions in each. Individual respondents could spend between 45 and 60 minutes answering the questions, which may be viewed as a balanced choice for maximising the response rates of busy experts.

The first section included four questions exploring respondents' backgrounds (e.g., queries about the length of experience in the fishing industry, its unique characteristics, and the perceived future of commercial fishing enterprises in the Eastern Cape). The second section included eight questions with multiple sub-questions exploring the themes related to organisation-level resilience (e.g., hindrances in change adaptation processes, critical challenges for performance growth in a changing environment, perceived organisational competitiveness, strategies used to minimise company vulnerabilities, training strategies increasing resilience, and possible risks of non-preparation for emerging threats). These questions explored interviewees' perceptions related to industry-level trends mentioned by Fraile-Marcos (2019) and Ruth and Goessling-Reisemann (2019) to address the first research objective.

The third section contained eight questions related to the second and third research objectives, namely, to determine the challenges encountered by Eastern Cape province medium-sized businesses in building resilience; and to formulate potential recommendations for improving organisational effectiveness in this sphere (Liu et al., 2021; Ungar, 2021; Hollingsworth, 2019; Ahmad et al., 2021; Kantabutra and Ketprapakorn, 2021). Specific themes included the resources used by businesses for this process, the strategies used to foster the analysed phenomenon, the promptness of the response to external challenges, key delay factors, and potential areas for

improvement. The last question in this section explored the opportunities available to the company in question and other commercial fishing enterprises in the Eastern Cape province at the moment of the study. The queries sought to analyse both resource deficiencies and potential strategic errors made by medium-sized businesses in this area.

3.4 Sampling Approach

This study is based on medium-sized enterprises, categorised under the official definition of SMMEs in South Africa as enterprises that have between 51 to 250 employees, with a total annual turnover that is equal to, or less than, thirty-five million Rands per annum (Department of Small Business Development, 2019). As noted above, Eastern Cape fisheries of medium size registered in the DFFE database represented the critical primary data sources for addressing the formulated aims and objectives (Jason and Glenwick, 2016) of this research. The sampling strategy of this study can be characterised as convenience non-probability sampling (Creswell and Clark, 2017). South African fishing companies are exposed to various risks and challenges, which implies potentially low response rates and greater time necessary to find prospective interviewees willing to openly discuss the selected issues (Costa and Condie, 2018; Gray, 2016). As a result, the chosen strategy was deemed the optimal option for ensuring higher cooperation rates (Pettey, Bracken, Pask and Babin, 2017; Weber, 2017). The number of interviewees was set to nine persons from three local middle-sized fishing companies.

3.5 Data Analysis

The interview data collected in this study was transcribed and analysed using thematic analysis, a widely accepted qualitative research method for identifying patterns and themes within participant responses (Kumar, 2018; Kumar and Kothari, 2022). This approach allowed for the systematic organisation of data, enabling the identification of key resilience factors and challenges encountered by medium-sized commercial fishing enterprises (MSEs). The analysis process involved categorising and grouping responses based on frequency and significance to ensure a comprehensive understanding of recurring patterns without employing formal coding techniques (Hollingsworth, 2019).

The study applied qualitative analysis to explore recurring themes and critical insights derived from participant responses. Thematic patterns were assessed to determine the relative importance of resilience-related issues in the fishing industry. A comparative analysis was also conducted to examine whether participants shared similar views or if there were notable variations in their responses, providing deeper insight into diverse experiences and perspectives (Kadenic and Tambo, 2023). To uphold ethical integrity, all collected data was anonymised to protect participant identities. Interview data was randomised to minimise potential biases associated with respondents' backgrounds (Bairagi and Munot, 2019). Additionally, strict data security measures were implemented, with all audio recordings and transcriptions securely stored on a password-protected device to prevent unauthorised access.

This thematic analysis framework ensured a structured and methodical approach to evaluating resilience strategies within the fishing industry. The findings contribute to a broader understanding of adaptive strategies employed by MSEs, offering practical insights for future policy development and industry-specific resilience-building efforts (Hollingsworth, 2019; Kadenic and Tambo, 2023).

3.6 Research Quality

All research studies must be aware of the threats to credibility, dependability, and research limitations emerging from their methodological choices (Bryman and Bell, 2019; Eisend and Kuss, 2019). Data credibility can be defined as the extent to which the research outcomes accurately represent the research phenomenon being investigated (Johnson, Adkins and Chauvin, 2020). To check data credibility, the researcher shared the interview summaries with the interviewees, asking them to confirm whether the summaries aligned with what the interviewees meant while answering the questions. In turn, data dependability is another credibility criterion, which refers to the consistency of the research outcomes throughout the study (Johnson et al., 2020). To ensure high consistency, the researcher clearly explained and applied systemic data-collection and analysis instruments, which allowed for minimising variability in interpretations and grounding them in the data collected.

This research was affected by such factors as participant error, participant bias, researcher error, and researcher bias (Mukherjee, 2019). The identified risks were acknowledged and alleviated through the implementation of several strategic measures, including structured interview questions and informed consent forms. Such was in conjunction with the use of convenient non-probability sampling and the allowing of respondents to select interview times and data, which served to mitigate the impact of background factors on the data-collection process. All interview recordings were anonymised to further enhance reliability, and transcripts were securely stored to uphold research integrity (Bhattacharya, 2017). This study adhered to Guba and Lincoln's (1985) trustworthiness framework, ensuring credibility, dependability, confirmability, and transferability. These measures reinforced the validity of the findings, strengthening the study's contribution to knowledge on resilience in medium-sized fishing enterprises. Moreover, the study included participants with at least three years of experience in the medium-sized fishing industry, holding managerial or operational roles in registered businesses in the Eastern Cape. Their willingness to participate in interviews and validate responses ensured credibility. Individuals with less experience, those without decision-making authority, informal businesses, and participants unwilling to engage in follow-up verification were excluded.

3.7 Ethical Considerations

All research studies must take measures to ensure that their participants experience no adverse effects from their participation (Islam et al., 2022; Flick, 2020). In the examined field, the author was able to anticipate the presence of potential conflicts of interest and contentious discussion subjects. The cautious approach of managers of commercial fishing enterprises in discussing regulatory barriers as a possible challenge encountered in developing resilience can be observed as an illustrative example. To mitigate these potential concerns, all participants were requested to provide their informed consent by signing forms outlining the research project's aims and objectives. Participants were provided with the author's and supervising organisation's contact information to facilitate their withdrawal from the study before the data analysis commencement, as stipulated by Aityan (2022). This research study has been reviewed and **APPROVED** by the Rhodes University Human Research Ethics Committee (RU-HREC). The approval number is 2023-7049-7749 and the Review Reference is 2023-7049-7729. This is confirmed in Appendix A.

3.7 Summary of Research Methodology

This chapter outlined the research approach used to examine resilience in medium-sized commercial fishing enterprises in the Eastern Cape. A qualitative research design was chosen, with semi-structured interviews as the primary data collection method to gather detailed insights from industry professionals. Purposive sampling ensured that only participants with relevant managerial or operational experience were included. Data was analysed using thematic analysis, allowing for the identification of key patterns and trends. To ensure credibility and reliability, the study followed Guba and Lincoln's (1985) trustworthiness framework, incorporating measures such as member checking and systematic documentation. Ethical considerations, including informed consent and confidentiality, were strictly observed. In summary, the methodology provided a clear and structured approach to investigating resilience in the fishing sector. The next chapter presents the findings based on the data collected.

CHAPTER 4 – Data Analysis and Results

4.1 Introduction

This chapter presents the analysis and interpretation of the study's findings on resilience among medium-sized commercial fishing enterprises in the Eastern Cape. Using thematic analysis, key resilience factors, challenges, and strategies were identified to understand how businesses navigate industry uncertainties. The analysis explores both organisational-level resilience factors and challenges impacting business sustainability in the sector.

Key themes such as capital resilience, strategic diversification, leadership effectiveness, workforce development, and market adaptability are reflected throughout the findings, demonstrating how businesses respond to economic fluctuations, regulatory constraints, and external pressures. These insights highlight the sector's ability to adapt to challenges and sustain long-term operations.

This chapter presents these findings in detail, while Chapter 5 builds on this analysis by interpreting their significance, discussing key connections, and examining implications for resilience strategies within the industry.

4.2 Data Analysis and Results

As shown in the table below (Table 1), the earlier semi-structured qualitative interviews were conducted with nine respondents from three medium-sized commercial fishing enterprises in the Eastern Cape province. Each enterprise contributed three participants, representing different roles within their organisations. Participants had industry experience ranging from six to twenty-five years, ensuring they had substantial knowledge of the factors influencing resilience and the challenges businesses face in maintaining stability.

Table 1: Respondents' Information

Name of Entity	Name of Participant	Job Description	Years of Experience
Company 1	Interviewee 1	Chief Executive Officer (CEO)	25 years
	Interviewee 2	Financial Manager	16 years
	Interviewee 3	Chief Operation Officer (COO)	16 years
Company 2	Interviewee 4	CEO	28 years
	Interviewee 5	Chief Financial Officer (CFO)	6 years
	Interviewee 6	Financial Manager	20 years
Company 3	Interviewee 7	CEO	11 years
	Interviewee 8	General Manager	13 years
	Interviewee 9	CFO	6 years

4.1 Organisational-Level Factors Contributing to Commercial Enterprise Resilience

The performed thematic analysis of organisational-level factors contributing to the resilience of a sample of medium-sized fishing enterprises in the Eastern Cape province revealed factors further subdivided into five categories suggested by Chen et al. (2021).

4.1.1 Capital resilience factors

Capital resilience factors were the first category of analysed factors contributing to the resilience of the sampled enterprises. The analysis of themes emerging during the interviews revealed that this category included a single factor, namely increasing product prices to generate greater cash flow.

This factor was only mentioned twice – by Interviewees 1 and 7.

Interviewee 7:

“We managed to compensate for the lack of catches with better prices.”

The finding that suggests compensating for the lack of catches in the fishing season with better prices by holding back until better pricing can be obtained can be linked to financial strategies

related to capital management. These financial strategies typically include cash reserves, debt service, capital structure, and other similar financial elements.

The interviewees reported that external factors such as fluctuating exchange rates, shifts in demand, and consumer behaviour also affect the price of their products.

Interviewee 2:

“When the exchange rate goes up, it means the prices also go up. We end up being unaffordable to the customers.”

The role of another economic factor, namely fuel prices, in the extent to which these fishing MSEs are resilient, was also acknowledged.

Interviewee 3:

“There are a lot of economic factors that affect this industry. It could be a spike in prices of petrol all of a sudden, your operations are costly.”

These outcomes demonstrate that these fishing MSEs’ capital resilience is influenced by numerous external factors, which can affect their financial performance. By not adjusting their prices to the changes mentioned above in the external environment, the sampled MSEs seem to disadvantage themselves from an economic standpoint.

4.1.2 Strategic resilience factors

The second category, exploring strategic resilience, was the most important resilience factor, which implies its high-perceived significance from the standpoint of the interviewed managers of commercial fishing enterprises in the Eastern Cape province (Stevens and Teal, 2023). Within its scope, diversification into multiple industries/sectors/types of raw materials (species) was mentioned by several interviewees who noted that the fishing industry was characterised by high uncertainty that hindered planning and required business expansion and networking as potential instruments for building resilience through diversification.

Interviewee 1:

“So, yes, expansion or just diversification. And I enjoy catching fish and the maintenance side of the boats. So, we should look at the fish, it is challenging, but we should look at a different species.”

With raw product volumes being determined by government quotas, internal firm limitations, and the availability of targeted species, it was not easy to be 100% certain that targeted financial results could be reached in all scenarios without diversification and flexibility. This resilience-building strategy seemed to help the analysed fishing businesses shift between different methods depending on the capability to secure specific input amounts of various types, taking into account the changing market demands of customers. The ability to find high-value products and the presence of distribution chains to sell them ensured higher resilience levels, protecting the middle-sized fishing companies from uncertainty factors.

Interviewee 7:

“And in each of the squid sectors, we have been affected. Not on the Company 3 side, but on our sister, the company called ..., where the industry per say was reduced by 10% for every operator to give quotas to new categories that they call businesses.”

Interviewee 9:

“So, we believe it to be covering all our bases there. If there is any change in environmental issues within one sector of the world, we can move to another sector very quickly from a supply and demand perspective.”

In light of these flexibility requirements, the prompt response to new challenges was another important element mentioned by several interviewees. According to them, this resilience-building strategy ensured rapid reactions to any threat ranging from customer complaints to emerging market needs. This strategy was the key to becoming more competitive and financially successful. Such an outcome could be especially important in turbulent economies and regulatory environments in which government interventions or economic crises could disrupt normal business procedures. Moreover, the unpredictable nature of the fishing industry requires adapting to changing conditions and raw materials availability. Such action supports the relevance of diversification discussed earlier.

Interviewee 6:

“So, you would say, for example, what in your opinion are challenges to the organisation being responsive, the ability to respond quickly so that you part of being responsive is as a resilient capability, companies that respond quickly become more resilient.”

Interviewee 9:

“So, the response for anything from a customer complaint to, you know, where the market is going, you need to be on it immediately” (Interviewee 9)

Another high-relevance factor was the continuous improvement of business practices and business models. According to the respondents, successful businesses were continuously testing new approaches, strategies, and instruments in terms of fishing practices, financial systems, and human resource management. These adjustments were deemed necessary to find areas of inefficiency and address them. In a turbulent environment characterised by various reported challenges and resource scarcities, this continuous improvement ensured good financial performance, helping the local businesses survive crises and develop greater resilience. Finally, the fourth high-relevance factor in this category was the optimisation of costs of maintenance, distribution, and production. As noted by some interviewees, the capability of their businesses to perform their own fleet repairs or use advanced glazing systems to store fish fresh for longer periods of time was a crucial element of resilience and competitiveness. These precautions ensured that they could minimise interruptions and achieve higher quality standards, which contributed to greater flexibility and diversification opportunities.

Interviewee 1:

“So, we do not do maintenance at sea. We do it here, and it saves us a lot of money and time.”

Interviewee 2:

“And then in this spares area, since we import the spares ourselves, we don't make our price so high, we make it cheaper and affordable to the people.”

4.1.3 Cultural resilience factors

In terms of the cultural resilience factors, the interviewees identified team building and staff motivation as important ones. The provision of training and development to new and existing staff members was identified as an important factor. For example, the contribution of teamwork to the fishing MSEs' resilience was acknowledged by an interviewee.

Interviewee 6:

“If you have a question about yourself, then we meet up as a group and brainstorm to come up with the solution as a team. [...] We encourage, you know, that ability to self-develop yourself and then work as a team. If you cannot come up with the solution, then we'll come together as a team to work out the solution.”

The interviewees also emphasised the contribution of motivation to employee turnover and their MSEs' ability to retain a highly skilled and talented workforce. For instance, Interviewee 1 mentioned that their company heavily relied on incentive schemes for employee motivation and retention. The interviewees deemed these elements crucial due to high turnover rates and problems with recruiting and retaining a highly skilled workforce, as noted in the following section on challenges to building resilience.

Interviewee 3:

“If, on this level where we are, you cannot survive on your own. So, you join up and then, on that level, now that you're a little stronger, then you provide the training and everything else for people, you know, in order to, to keep them all motivated.”

In this situation, the sampled medium-sized fishing businesses had to be certain that their staff members were loyal to them and were satisfied with their jobs. This was especially important for medium- and large-sized vessels that required a certain team size for them to operate. Hence, the absence of some staff members could paralyse the selected companies' business operations and instantly lead to financial losses.

Interviewee 5:

“You've got to retain your staff. So, your people, you know, with years of experience, you got to keep them in the game that, that keeps your stability, they've been through the ups and the downs. So, anyone in, you know, a managerial position, also your skippers that's important in terms of creating stability.”

4.1.4 Learning resilience factors

The remaining factors in this category included the introduction of performance-based incentive programmes in the workplace, staff empowerment, and the provision of better working conditions. These elements were cited as a way of increasing the analysed medium-sized fishing businesses' resilience via increased staff competencies. Such elements would allow their workers to be more effective and to perform more complex operations, such as advanced fish processing and basic vessel repairs.

Interviewee 9:

“Our maintenance department is one of the best in the country actually. So, our maintenance manager actually subcontracts him to go and assist other companies with their maintenance. So once again, this is where, you know, so the more training we supply in-house, the more resilient our own staff becomes and the more attractive we become for outside companies to assist them as well.”

These capabilities support additional investments in personnel training and support the earlier discussed cost optimisation strategies. On the other hand, performance-based incentives seemed to help the analysed companies' employees remain more motivated to undergo this training and to stay committed and focused day after day.

Interviewee 9:

“So, so we have this competitiveness within the, the, the company itself to make sure that the people feel that they contribute. And obviously, we reward them for that from on a monetary perspective.”

Despite the aforementioned measures, which fishing MSEs implement to retain their employees, the interviewees reported that the level of employee turnover in the fishing industry was high.

Interviewee 1:

“We’ve got a horrendous high staff turnover and we’re quite labour intensive in the squid industry.”

These findings could be partly explained by harsh working and weather conditions that negatively affect employees’ physical and emotional well-being. MSEs’ ability to retain their workforce has direct implications for their resilience and competitiveness.

4.1.5 Relationship resilience factors

The relationship resilience category included three main factors, namely the development of (1) global partnership networks, (2) the internationalisation of business sales through entering new global markets, and (3) collaboration with competitors to withstand major macro-environmental disruptions. The first factor served multiple important functions in terms of developing company competitiveness. On the one hand, it allowed the target companies to learn more about the ways the global retail industry operated. As a result, they could find intermediaries for selling fish products to popular food chains in Western countries.

Interviewee 1:

“We’ve got such a good relationship with them that we speak to the end customers. In any case, I know where the, I mean, we, we know where our product goes, and we know the customers and they know our vessels to an extent even though they’re in Europe.”

On the other hand, maintaining contact with multiple end customers ensured the possibility of the aforementioned flexible approaches to enterprise offerings. If some raw materials disappeared from the environment due to external factors, such companies could quickly arrange new contracts with prospective partners they maintained contact with to sell these new offerings.

Interviewee 9:

“And from a market perspective too, you know, we have got we're in a good position that we've got very good relationships and partnerships with big European-based companies, and Europe is our biggest market. So, you know, if there are any market changes, we get that we are in a very frontrunner position to know when the market shifts so that we can actually change our product line for specific market needs within the European nation.”

The internationalisation of sales was also mentioned by multiple interviewees, with several European countries being named as key customer markets. Access to them was usually achieved via intermediary businesses and retail chains that frequently repacked raw materials provided by the analysed businesses. At the same time, some enterprises were adding value to their offerings by performing certain operations, including glazing or skinning, on their own premises. This allowed them to charge greater prices for offering higher-quality products to achieve greater resilience. As noted by some interviewees, this strategy was seen as a top-priority for achieving the analysed organisational goals.

Interviewee 9:

“And from a market perspective too, you know, we've got we're in a good position that we've got very good relationships and partnerships with big European-based companies, and Europe is our biggest market.”

Collaboration with competitors was seen as another instrument ensuring business survival in a turbulent environment. While rivals could be viewed as a threat to resilience in some scenarios, the interviewees noted that all companies in the fishing industry of the Eastern Cape province were exposed to similar external threats. In the case of major macro-environmental trends affecting the whole sector, cooperation or co-opetition could be seen as a more viable option than direct confrontation. Inter-firm rivalry was less dangerous than the risk of bankruptcy due to systemic crises such as COVID-19.

Interviewee 9:

“So, so its competitiveness, but there is also a working relationship because we're all in the same industry.”

Within the scope of learning resilience, the qualitative analysis revealed five factors that influenced the resilience of medium-sized commercial fishing enterprises in the Eastern Cape province. The most important were ‘continuous monitoring of relevant KPIs to maintain high productivity’ and ‘predicting possible future threats and preparing for them’. These two factors reflected the high perceived significance of external environment analysis and risk management discussed by multiple scholars at the literature review level. As seen from the quotes below, continuous monitoring of relevant KPIs had to be based on specific indicators developed by the enterprise itself. This ensured that this medium-sized enterprise could recognise any emerging internal problems and deal with them promptly.

Interviewee 7:

“And on the factory side, we are very driven about productivity, and we have created a model to analyse productivity, basically measuring activity.”

Similarly, future risks were predicted on the basis of knowing both key enterprise vulnerabilities and main environmental threats. This indicates the overlapping nature of different factors within this category.

Interviewee 7:

“So, as I said, how do we prepare ourselves for the vulnerabilities? First, to know them, separate them and third, to try to solve them one by one. Some of them, unfortunately, we cannot tackle, but we need to know that they are there, and we need to have open eyes to track them.”

According to the interviewees, resilience learning could be constructed through both collaboration with competitors and market research to determine consumer needs and by learning how key rivals deal with similar problems, thus achieving sustainable competitive advantage. As noted by multiple interviewees, better knowledge of customer requirements in different spheres, ranging from preferred raw products to processing methods to packaging, ensured repeat orders and created customer loyalty and customer lock-in effects.

Interviewee 9:

“So, we have multiple products that we test [through] trial. And that is based on what the demand is. And obviously, you know, with the higher demand for these products, you get a much better price for it. And we continue to do that. We continue to do market research to see what new product lines might be, what they want in Italy. Because what the Italian market wants is different from what the Spanish market wants is different from what the French market wants. So, we continue to look at that, and then obviously, we look at changing our production lines to cater to those markets.”

4.1.6 Human capital

Several interviewees reported that their organisation provided training on resilience strategies focused on enhancing its employees’ knowledge and skills.

Interviewee 7:

“So, we have got leadership programs here to help. Well, first of all, for unemployed people to get into the industry, we continue to look at training programs for all levels of staff. [...] And then, for the past two years, we, on average, spent about 12% of our net profit on training. So, we that we have a big emphasis on training. And obviously, we did, it is a requirement from our side too to ensure that we do that. So, yes, roughly 12% of our net profit is spent on training.”

Interviewee 4:

“We are very focused on training so that there is not only external training but also internal training where we see if there is a shortcoming somewhere we try to take that and we turn it into a training opportunity so that everybody can learn and grow, so both training internally and externally, we identify for training people up and motivating them as well to be the best they can be in the work place but also personally.”

Interviewee 5:

“So, we are very committed to training staff to be more resilient and to upskill them, and it's not really just to upskill them for the benefit of us. It is to upskill them as individuals.”

4.1.7 Leadership capabilities

Only one interviewee reported that the relationship between leadership capabilities and organisational resilience was strong within their company.

Interviewee 7:

“The good relationship that the senior management has got with the staff members [...] builds us the resilience that we need, especially obviously, you need your key positions for continuity.”

At the same time, it would be wrong to argue that those interviewees who occupied upper management roles did not demonstrate an ability to adapt to external pressures and changes in the marketplace.

Interviewee 5:

“So, we had to change dramatically the way of producing, we had to change the channels of we were selling the product. And on top of that, obviously, we were facing lots of operational problems due to the sickness of COVID.”

Hence, it could be argued that, while the interviewees did not acknowledge the direct effect of leadership on organisational resilience, its indirect effect on this characteristic of performance should not be underestimated.

4.1.8 Resource management and resource allocation

Several interviewees reported that their organisation actively invested in infrastructure and capital goods to enhance their resilience and performance.

Interviewee 3:

“The strategy we’ve done is we’ve invested quite a bit of money into a glazing machine which [...] actually adds value to the fish.”

However, many interviewees indicated that their access to financial resources was limited, which prevented them from investing a great deal of money in their development and resilience.

Interviewee 8:

“The money helps and to be able to adapt better, but the money is not infinite. So, you need to use it wisely in order to generate more because that is then the aim of the companies to generate more money.”

Based on these findings, it can be argued that resource allocation is crucial when it comes to making sure that a small or medium enterprise is able to successfully compete and adapt to both internal and external pressures and changes, including financial crises, demand fluctuations, and pandemics.

4.2 Encountered Challenges to the Building of Commercial Enterprise Resilience

The second research objective sought to determine the challenges encountered in the building of resilience amongst medium-sized commercial fishing enterprises in the Eastern Cape province. The qualitative analysis revealed several challenges that belong to a variety of dimensions, including sub-optimal governmental regulation of this sector, adverse environmental trends, market and exchange rates volatility, supply-chain issues, HRM problems, and difficulties with expanding main business operations due to various resource scarcities. The key challenges to resilience building amongst the selected fishing MSEs in the research area are presented and discussed in this section. It should be noted that the diverse range of the reported issues did not fit any single resilience model discussed at the literature review level. Hence, these factors are discussed in the order of their relative significance based on the number of interviewees simultaneously discussing them.

4.2.1 Coordination challenges

4.2.1.1 Sub-optimal government quota allocation

According to the analysis results, governmental regulations were perceived by many interviewees to affect their company's resilience level. An important challenge mentioned by the interviewees was problems with fishing quotas or sub-optimal government quota allocation. The need to renew these documents or match complex requirements was seen as a major barrier to building resilience by the sampled fisheries. Moreover, some interviewees noted that quotas were not allocated efficiently and fairly, with some bias and political considerations being involved in many of such decisions.

Interviewee 1:

"Well from the part that I see, obviously there seems to be a lot of politics involved. I would prefer not to get into detail, but decisions about quotas—who gets them and who does not—are quite unbalanced [challenge 7]. People get quotas without factories, and factories don't get them."

Interviewee 3:

"I would think the quota security is the biggest factor."

In some situations, they had to settle disputes in this sphere in court proceedings or encounter insufficient quotas for staying financially sustainable. The lack of predictability in this factor was cited as a major barrier to resilience. The government could increase or decrease the permitted amount of catch based on their calculations conducted every year, without consulting industry practitioners.

Interviewee 7:

"Not on the Company 3 side, but on our sister, a company called ..., where the industry per say was reduced by 10% to every operator to give quotas to new categories that they call it businesses. I will prepare, were prepared to lose that quota? No! We are not admitting that. But now it is in the court case, it was an interdict that was accepted. We received the quota back at least until February, which will be decided in court. But the

reality is that if we lost that 10%, we need to move, we need to move and we need to have a plan to get more quota in order to fit our purses.”

For businesses planning to expand, this could come as a complete surprise, meaning that they could not support their investment in new vessels, instruments, or staff members with future revenues; and such businesses could encounter substantial problems with financial sustainability.

Interviewee 3:

“So, I’m saying this in my case like where I have a quota that was reduced, I have a vessel that has a capacity of ex and not viable anymore because the quota has been shared.”

In combination with the dependence on capital availability and business resources, this meant that the selected medium-sized businesses had to rely entirely on themselves in the case of such difficulties.

4.2.1.2 Long turnaround times

The problem of long turnaround times of government authority requests and overall sub-optimal government performance could be seen as another challenge to the earlier discussed issue of ineffective quota allocation and management. One of the interviewees noted that complex supervision in some areas was performed by a single official person, which was clearly unrealistic for achieving prompt responses to organisational queries and requests. Their managers had to follow this government representative across the area to obtain crucial information or submit some product samples required for licensing purposes. This arrangement created multiple bottlenecks, decreasing the overall effectiveness of medium-sized fishing businesses, and preventing them from building greater resilience.

Interviewee 9:

“There’s not a lot of fishing industry or facilities within those areas, but it’s, it’s Port Elizabeth, it is ST Francis Bay, East London. and they have only got one person to pick up samples. In the way, the fishing industry, we know when you want to export fish or even once a month, they have got to test all the fish as well.”

Furthermore, several interviewees pointed out a disconnection between the government and the fishing industry in terms of how the situation is seen and how it should be regulated. For example, an interviewee explained this challenge.

Interviewee 6:

“There’s a dis-link of what is happening on the ground in fishing versus what the government, how they issue their quotas, they will issue quotas to individuals without fish factories or ways of processing at the end making them paper quotas.”

The long turnaround times and sub-optimal government performance partially overlapped with the earlier discussed issues of state quota issuance serving as a major barrier to developing resilience. This challenge was associated with government resource scarcities as well as communication inefficiencies, making their decisions a factor of macro-environmental turbulence.

Interviewee 3:

“No, that's what makes this industry so difficult to survive in because you can plan, but when the decision's made at the top, and you're just left in the dark, it's very difficult to plan.”

Interviewee 4:

“So environmental factors and then, of course, we are subject to, if I can put it this way, political factors because the government is always on the move, and you don't know the rules.”

The produced analysis findings are in keeping with the previously discussed problems with fishing quotas and sub-optimal government quota allocation. This suggests that government regulations and policies are made and implemented without considering the needs of the fishing industry.

4.2.2 Resource allocation challenges

The second-largest issue was the inconsistent availability of high-value raw materials due to humanity’s environmental impact. Global warming, excessive fishing, and unsustainable fishing

practices such as the use of multiple anchors destroying the production of fish were cited as some of the possible factors decreasing the predictability of future supply in this sphere in some of the previously analysed studies. The inability to make long-term plans inevitably led to the focus on tactical rather than strategic decisions, according to the interviewees. For example, interviewees noted that rapidly changing quotas and catch volumes put some businesses on the brink of survival. This was due to the need to reduce their financial budgets or shift to alternative species and raw materials. Since not all companies possessed this degree of flexibility, they could not expand their operations due to the fear of not meeting the set performance targets.

Interviewee 1:

“And then it's very normal to have peaks and troughs where we've got highs and very lows consecutively and you can have a lot of highs, you can have a lot of lows and that's what makes our business different because you don't know how quickly things change.”

Interviewee 9:

“But the biggest challenge unfortunately to us is, unfortunately, the natural resource, you know, the unpredictability of it.”

However, humanity's environmental impact was not the only perceived factor that contributed to the unpredictability of natural resources in the research area. Several interviewees reported that the very nature of fishing was associated with a high level of uncertainty and unpredictability, affecting their fishery's financial sustainability and performance.

Interviewee 4:

“We are dependent on natural resources coming out of the ocean, and that's very unpredictable. So, I think that distinguishes us from most industries where most industries have got raw materials coming in, which is on a fixed basis.”

These outcomes suggest that the inconsistent availability of high-value raw materials is a complex issue that is triggered not only by human beings' activity, but also by natural factors over which the sampled medium-sized businesses have little control.

4.2.3 Constrained organisational and individual capacities and capabilities

The challenge of inconsistent raw material availability overlaps with the influence of the human factor. Most of the analysed businesses were using various HRM policies to motivate their staff. However, the long-term effectiveness of these instruments was frequently hindered by the lack of financial stability and other external forces.

Interviewee 2:

“If I am looking at the labour side, I would not say we have the resources to build it because it's outside forces. You cannot even if you want to. Like I said, OK, you see, we, we, we, we, we, we pay, we are going to pay you this much. But if there are other external forces which are influencing the, the people, even if they wanted to come, then we, I, I don't think we can say we have the resources to influence it.”

While some businesses utilised performance-based remuneration discussed earlier as one of the resilience-building factors, the capability of applying such depended on the scope of production. If such performance-based remuneration was limited due to strict quotas or other external factors, this decreased the levels of job satisfaction and employee loyalty.

Interviewee 1:

“So, but so because so we have lost crew. So, we lost the, we, we have lost the crew members. No, no, we have lost permits. so that the vessels are becoming more difficult to, to, to manage. So, so we, you are having less of the boat design. The boat is designed for, for 18 people. And now after the, the, the, the 15% and the 10% we on 20% less 20 25% less crew than, than design capacity.”)

Multiple respondents noted that their workers could easily change their employer if conditions deteriorated. According to these respondents, the lack of basic motivation factors such as a stable salary led to an instant decline in loyalty and commitment that could not be fully compensated by intangible motivators.

Interviewee 3:

“Your deckman and you can replace as if somebody was getting on the deck and packing the fish. But those, those top five people that you need in order to, to run a vessel, there's a big shortage of that, that would make you vulnerable... And so, we, we actually try, and we steal from each other.”

4.2.4 Risk compliance challenges

The problem of market and exchange rate volatility was also mentioned by several interviewees, according to whom the fluctuating rates of the national currency caused by the instability of South Africa's developing economy had a detrimental effect on the resilience-building activities of all enterprises. This affected both procurement operations and pricing decisions of sampled medium-sized fishing enterprises.

Interviewee 2:

“Yeah, I think on competitiveness, even if the rand goes, the price goes, the exchange of the rate goes up, it will affect the whole spectrum of the industry.”

In a similar vein, another interviewee stated that their company was highly dependent on exchange rate fluctuations as they affected its profitability and financial performance.

Interviewee 2:

“The challenge is there is the exchange rate because now we import directly from overseas. [...] So that if the price goes high, you still have stock until the price, you can wait until to order when the prices are stabilized. Because with this market it goes up and then the next day it's, it's down.”

Based on these outcomes, one could assume that those companies having business operations abroad are more likely to suffer from exchange rate fluctuations. However, even those fishing MSEs that only have local business operations are affected by this economic factor.

Interviewee 5:

“Let's, for example, if the price was good or the exchange was low, then it means we got, we will get good returns. But the moment the price goes up, the rate, the exchange goes up.”

4.2.5 Challenges associated with external organisational environment

A similar macro-environmental challenge was ‘global warming and adverse environmental conditions’ also cited by several interviewees. Effectively, no enterprise could reliably predict the future availability of raw resources in their area.

Interviewee 2:

“So, the fish is there in the water, but due to environmental problems is not concentrated, and it's been a big, big, big challenge for us to catch [anything].”

While the earlier-discussed big data analysis and scientific research could potentially reduce the magnitude of this challenge according to multiple interviewees, such collaboration between various industry stakeholders was missing; while individual enterprises lacked the assets and financial funds required for such large-scale strategic endeavours.

Interviewee 3:

“In terms of business continuity... fishing industry at the moment is very volatile. Currently this year 2023 I think it's actually been the worst year ever because there are depleting resources.”

Another most relevant challenge was ‘supply chain problems and logistics problems’. Two respondents discussing this issue noted that their profits were associated with international sales, which protected them from the fluctuations in the purchasing capacity of local buyers operating in a developing economy. However, this decision also made them more dependent on the changing needs of international customers, and the functioning of supply chains and global logistics.

Interviewee 1:

“Normally the catches are high, and we need to be, our aim is to get the first landing in time for the Christmas holiday season in Europe. And well, the supply chain is strained. It takes longer than normally. And what we do is we make sure our suppliers know how much fish we've got on board where it will land, and we make sure that all the company documentation is ready before it hits the factory.”

Similarly, another interviewee reported that, due to supply chain issues, they had faced certain inventory challenges. Such had hampered their performance and caused additional costs and expenditures.

Interviewee 7:

“In the past, we ordered new stock when we ran out. Now, we are ordering stock even though we still have stock on the water coming here. So, which is a tremendous outlay.”

4.2.6 Communication challenges

Although the interviewees did not provide much information about this factor and its impact, some evidence was still acquired. For example, Interviewee 5 reported that communication helped their company successfully complete the change implementation process by increasing the alignment and coordination between its departments.

Interviewee 5:

“So, the plans were well laid out for those acquisitions to happen, and it was communicated well through the other department. So, everybody got on board with the changes, everybody was adaptable, everybody gave their full cooperation.”

None of the interviewees highlighted the significance and effectiveness of ‘external’ communication with local communities and other stakeholders as a means of building stronger organisational resilience. This omission does not align with the existing literature (Liu et al., 2021).

4.2.7 Leadership challenges

Similarly to the previous factor, the role of leadership in organisational resilience was not widely acknowledged by the interviewees. Nonetheless, Interviewee 2 argued that without effective management, fishing companies in the research area were unable to adapt to environmental changes.

Interviewee 2:

“I believe the only thing that you can do to [adapt to environmental changes] is to improve your own system, you can improve your own management, you can improve your own controls. So better management and better controls will help to some degree.”

Another interviewee highlighted the significance of top management and its role in organisational adaptability and resilience.

Interviewee 8:

“We are fortunate in that regard that we have a board and top management directions, so that the business can be guided in the correct direction. So that was taken into account being versatile, resilient, and adaptable.”

4.2.8 Operational flexibility challenges

The analysis findings have demonstrated that the selected fishing companies faced certain supply chain challenges, which negatively affected their ability to adapt to external pressures. For example, Interviewee 3 and Interviewee 6 reported that their company’s supply chain was broken and ineffective because of regulatory barriers, poor communication with suppliers, and the consequences of the COVID-19 pandemic. However, beyond these issues, no operational flexibility challenges were mentioned by the interviewees.

4.2.9 Data availability

The notion that data availability was an important challenge to organisational resilience was partly supported by the collected data. Specifically, only a few interviewees mentioned or alluded to this challenge.

Interviewee 2:

“You always got to be aware of other types of industries, or other markets out there. Should you have to shift, you do not have to have your eggs all in one basket being competitive [...] We're selling to Europe, it is all fine. And if we had to shift, selling elsewhere, it would have a huge effect. So do not be complacent.”

In turn, in addition to external data availability challenges, one interviewee emphasised the significance of internal data availability as a means of ensuring organisational resilience.

Interviewee 9:

“You've got to be aware of what your competitors are doing at all stages [...] We analyse every single facet of our business on a daily, weekly, monthly basis. So, any challenges that arise, we are aware of it immediately.”

4.3 Factors Affecting MSE Resilience

4.3.1 Anticipation and adaptation

The analysis findings indicate that the target companies prepare for future shocks by anticipating potential threats and taking certain mitigating steps. On the topic of resilience, one interviewee expressed the thoughts given below.

Interviewee 6:

“Try your best to anticipate what lies ahead because if you just work on your current situation and you don't try to anticipate what is around the corner and it does come up, and you're caught by surprise because you don't have an action plan.”

Interviewee 2:

“It is very important in every department in fishing that you must anticipate a plan for the future and [...] look at other business opportunities so not just focus on your main business.”

This thought supported the previous utterance.

4.3.2 Adaptive capacity

The analysis findings demonstrate that none of the interviewees mentioned innovation as a means of resilience while responding to the interview questions. The literature also suggests that SMEs’ adaption to external change can occur through learning and reflection (Rahman and Mendy, 2019). During the data-analysis process, this notion was supported by the following quote.

Interviewee 9:

“So, if you are selling locally, you see what local prices are and so on. If you are selling export, you will also learn the trends of the bigger companies and follow suit, I think.”

Interviewee 8: (a similar response)

“I think that we would look at the big companies and see what they're doing. It is not always a proper guideline because you are at a different level, but it is a guideline to actually follow and work with the trends.”

Taking this approach to resilience is not always effective. This is because SMEs’ access to financial and other resources is much more limited than that of large companies.

4.3.3 Resilience to supply chain disruptions

Several issues related to supply chain disruptions were highlighted by the interviewees who argued that supply chain disruptions challenged the ability of their company to operate as expected.

Interviewee 8:

“The biggest hindrance we’ve got is to ensure a consistent supply of raw material, which as I said, the adaptability goes hand in hand and that we look to buy in fish from other parts of the world which we then reprocess here, we add value and then we sell on.”

In order to respond to supply chain challenges, some interviewees reported that their company purchased raw materials in advance.

Interviewee 7:

“We purchase or order stuff before we need it.”

Interviewee 5:

“Because of diversification into these various fishing sectors (salmon, abalone, rock lobster) and because of strategic relationships, we can adapt to some degree, you got to be like a chameleon in the fishing industry.”

Hence, diversification is another resilience strategy that helps small and medium fisheries in the research area to compensate for supply chain disruptions.

4.3.4 Internal and external factors

Part of the supply chain problem discussed above can be attributed to poorly designed regulations and policies, which hamper business growth and development in the fishing industry. For example, one interviewee argued that the country’s regulations were too tight, which often prevented their company from importing raw materials and other goods on time. The lack of training could also partly explain why fisheries in the research area fail to comply with the government’s requirements.

Interviewee 4:

“There are simple things like SARS regulations which the employees don’t understand, and you have to explain to them carefully so that everyone is in the same lane; you have to make examples for things that they don’t understand.”

Other external factors that could affect SMEs' resilience in the fishing industry include fierce rivalry, changing customer needs and demand patterns, import restrictions and barriers, and poor access to financial resources.

4.3.5 Financial risk identification

This study has also identified certain financial risks to the fishing industry, which must be addressed by small and medium fisheries in the research area to maintain resilience. Specifically, fluctuating exchange rates and market prices were mentioned by several interviewees as factors influencing the profitability of their business.

Interviewee 2:

“Because of the good supply from Morocco, our prices now started to drop. We are being forced to adjust our price. So, we are exposed to on the market to supply from other countries and that affects us.”

The misalignment between the exchange rate, price, and volume was also highlighted by one interviewee.

Interviewee 8:

“You often realise that the profit margins derived from higher prices (this is an internal factor) are good regardless of either high exporting costs (external factor) or high/low ordered volumes (i.e., external factor) due to favourable exchange rates (i.e. external factor).”

Therefore, the examples above indicate that the resilience of small and medium fisheries in the research area is affected by both external and internal factors. Many of these factors have already been covered in the previous sections of this chapter.

4.4 Practical Applications of Findings in Business

The findings of this study provide actionable strategies to strengthen business resilience within the commercial fishing sector. Specifically, the produced empirical outcomes indicate that implementing structured financial planning, optimising cost management, and diversifying funding sources could significantly contribute to enterprises' ability to safeguard against financial instability. Engaging proactively with regulatory authorities and industry stakeholders to advocate for improved quota allocation and more efficient compliance procedures can help create a more enabling business environment. Expanding market reach through value-added processing and leveraging digital platforms can reduce enterprises' reliance on traditional revenue streams and enhance competitive advantage.

Investment in workforce development is essential, with businesses encouraged to provide career advancement opportunities, industry-specific training, and competitive compensation to attract and retain skilled employees. Collaborative industry networks should be strengthened, as partnerships with competitors, suppliers, and policymakers can drive knowledge exchange, improve resource allocation, and enhance supply chain resilience. Sustainability must also be a core focus, with investment in environmentally responsible fishing methods, advanced technological solutions, and long-term resource management strategies ensuring continued industry competitiveness. By applying these strategic insights, medium-sized commercial fishing enterprises can build more resilient business models, secure financial sustainability, and position themselves for long-term growth in an increasingly complex economic and environmental landscape.

4.5 Summary of Data Analysis and Results

The study examined semi-structured interviews with nine respondents from medium-sized commercial fishing enterprises in the Eastern Cape province, identifying key resilience factors and challenges affecting business sustainability. Businesses demonstrated resilience through financial stability, strategic flexibility, strong organisational culture, robust industry relationships, and a commitment to continuous learning. Financial resilience played a critical role in sustaining operations during economic uncertainty, with many enterprises relying on reinvested profits and external funding to manage risks. Strategic resilience enabled businesses to diversify across sectors

and quickly adapt to changing market conditions, ensuring long-term viability. Cultural resilience, supported by team cohesion, employee motivation, and ongoing training, was essential for workforce retention and efficiency. Relationship resilience, strengthened by global partnerships, industry networks, and collaboration with competitors, helped businesses navigate external shocks and regulatory pressures. Additionally, learning resilience, driven by skills development, technology adoption, and knowledge-sharing, fostered innovation and sustainability, positioning enterprises for long-term growth.

Despite these strengths, the study also highlighted several challenges that impede business resilience. Regulatory constraints, particularly inefficient quota allocation, administrative delays, and stringent compliance requirements, hindered operational efficiency and slowed business growth. Environmental and market volatility, influenced by climate change, fluctuating fish stocks, and unpredictable pricing, complicated long-term strategic planning. Financial challenges, including high operational costs, restricted access to capital, and exchange rate fluctuations, placed additional strain on business sustainability. Human capital issues, such as workforce turnover and a shortage of skilled labour, were also prevalent largely due to economic pressures, limited training opportunities, and reliance on seasonal employment.

CHAPTER 5 – Discussion

5.1 Introduction

This chapter critically interprets the study's findings on resilience within medium-sized commercial fishing enterprises (MSEs) in the Eastern Cape, expanding on the analysis presented in Chapter 4. The discussion explores how businesses apply financial stability, strategic adaptability, human capital investment, and external partnerships to enhance resilience.

Additionally, this chapter identifies challenges that impact resilience-building efforts, including regulatory inefficiencies, environmental unpredictability, financial constraints, workforce instability, and technological gaps. These findings are discussed within the broader business and industry context, emphasising their practical implications for enterprise growth and sustainability.

5.2 Organisational-Level Factors Contributing to Commercial Enterprise Resilience

The findings indicate that resilience in the commercial fishing sector is driven by five key organisational factors:

5.2.1 Financial Resilience: Managing Uncertainty in a Volatile Industry

One of the most dominant themes in the study was financial resilience, which emerged as the foundation for business stability. Respondents repeatedly emphasised the importance of cash flow management, reinvestment of profits, and access to external funding in maintaining operations despite economic shocks. Businesses with strong financial planning strategies were more likely to withstand exchange rate fluctuations, rising fuel costs, and supply chain disruptions. Several respondents noted a dependency on reinvested profits, which, while effective for self-sufficiency, also limited their capacity to scale operations. Those with access to diversified funding sources (e.g., private investors, bank loans, or government subsidies) had a greater ability to expand their businesses, upgrade equipment, and adopt innovative fishing technologies.

However, the findings also revealed financial inequalities between larger and smaller enterprises. Well-established businesses had better access to credit and financial instruments, while smaller enterprises faced difficulties securing affordable financing. As a result, some businesses were forced to operate with outdated equipment, limiting their efficiency and profit margins.

5.2.2 Strategic Resilience: Adapting to Seasonal and Regulatory Uncertainties

Strategic resilience was another dominant theme, as commercial fishing is a seasonal and highly regulated industry. Respondents highlighted that businesses with multi-species fishing permits and diversified revenue streams could mitigate financial risk more effectively than those that relied on a single species. For example, respondents who targeted hake, squid, and horse mackerel noted that they could balance financial losses in one market with gains in another. This strategic diversification allowed businesses to adjust operations based on quotas, stock availability, and market demand. However, some respondents stated that regulatory barriers made it difficult to obtain permits for multiple fish species, forcing them to operate under high financial risk.

Additionally, businesses that actively monitored market trends and adjusted pricing strategies demonstrated greater long-term stability. Some respondents leveraged export markets and digital sales platforms to increase their market reach and stabilise revenue, reducing reliance on local buyers who were often affected by fluctuating domestic demand.

5.2.3 Workforce and Cultural Resilience: Balancing Employee Retention and Productivity

The study highlighted human capital as a critical factor in business resilience. Several respondents noted that employee retention, skill development, and structured HR practices contributed to higher productivity and operational efficiency. Businesses that offered training programs, structured incentive schemes, and career advancement opportunities were better able to retain skilled workers despite the physically demanding nature of fishing work. However, smaller enterprises lacked the financial resources to implement robust HR programs, making them more vulnerable to high employee turnover and labour shortages.

Another key challenge was the seasonal nature of fishing jobs. Respondents noted that workers often left the sector for more stable job opportunities between fishing seasons, leading to constant recruitment cycles and inefficiencies in workforce management. Some businesses attempted to offer longer contracts and financial incentives to retain skilled labor, but economic limitations often restricted these initiatives.

5.2.4 Relationship Resilience: Leveraging Industry Partnerships and Supply Chains

While financial and strategic resilience were top priorities, some businesses also recognized the importance of strong industry relationships in maintaining long-term stability. Respondents who had long-term supplier agreements and strategic partnerships with global buyers reported higher resilience to market fluctuations and logistical disruptions.

However, many respondents felt that collaboration among local fishing enterprises was weak, with limited knowledge-sharing networks and cooperative industry strategies. This lack of industry-wide collaboration limited resource pooling opportunities and contributed to fragmented market access, making it harder for individual businesses to compete with larger, vertically integrated companies.

5.2.5 Learning Resilience: Technology Adoption and Business Innovation

The study also found that businesses that embraced continuous learning and technology adoption were more resilient in the face of industry challenges. Some respondents invested in digital tracking systems, automated processing, and data-driven market analysis, which allowed them to optimize operations and enhance supply chain efficiency. However, most medium-sized enterprises struggled with high costs of technology adoption. Several respondents cited limited government incentives for technology upgrades, which placed them at a disadvantage compared to larger, well-funded enterprises.

5.3 Challenges in Building Commercial Enterprise Resilience

The study identified several key challenges that medium-sized commercial fishing enterprises (MSEs) face in their resilience-building efforts. These challenges limit businesses' ability to achieve financial stability, adapt to market changes, invest in human capital, and strengthen industry partnerships. While some of these obstacles are common across different sectors, others are unique to the fishing industry. These include regulatory inefficiencies, environmental unpredictability, financial constraints, workforce instability, supply chain disruptions, and limited technological adoption.

5.3.1 Regulatory Barriers and Bureaucratic Challenges

A significant challenge highlighted in the study was the complexity and inefficiency of regulatory processes. Many respondents expressed frustration with slow and unpredictable fishing permit allocations, inconsistent enforcement of regulations, and high compliance costs. These issues created delays in operations, financial strain, and uncertainty in business planning.

Smaller enterprises were particularly affected, as they lacked the financial and administrative resources to navigate these challenges effectively. Larger businesses, in contrast, were often better positioned to comply with regulatory demands due to greater financial flexibility and stronger industry connections. The difficulty in securing permits for multiple fish species further restricted business growth, limiting opportunities for diversification. Unclear communication from regulatory bodies also added to the burden, leading to misinterpretations of policies and unintended compliance failures. This environment made it difficult for businesses to plan for long-term investments or explore new market opportunities with confidence.

5.3.2 Environmental and Market Volatility

Environmental unpredictability and market instability pose significant challenges to the resilience of medium-sized commercial fishing enterprises. Climate change has led to shifts in fish migration patterns, declining stock availability, and an increase in extreme weather events, making long-term

planning difficult. Respondents noted that seasonal variations in fish populations, combined with more stringent sustainability regulations, have added pressure on operations.

Businesses that relied on a single fish species were particularly vulnerable to stock declines. In contrast, enterprises that had diversified fishing permits found it easier to adapt to fluctuating stock levels. However, diversification strategies were not always feasible, as obtaining additional permits required substantial financial investment and compliance with regulatory restrictions.

Market fluctuations further compounded these challenges. Some species that were once highly profitable experienced declining demand, forcing enterprises to adjust pricing strategies or explore alternative revenue streams. Global trade dynamics, including tariff adjustments, shifting consumer preferences, and export restrictions, also affected profitability. Businesses that had the flexibility to shift between different fish species, explore international markets, or adjust supply chains were better positioned to handle these uncertainties. However, enterprises without the financial or logistical capacity to pivot quickly faced greater economic instability.

The study found that enterprises with stronger market intelligence and adaptive supply chain strategies had a competitive advantage, as they could anticipate fluctuations in demand and regulatory changes more effectively. However, smaller businesses with limited resources and market access struggled to compete, leaving them more vulnerable to financial risks and operational disruptions.

5.3.3 Financial Constraints and Limited Access to Capital

Financial challenges were among the most commonly reported barriers to resilience. Respondents described rising operational costs, difficulty securing external funding, and the negative impact of currency fluctuations on business sustainability. The fishing industry requires significant capital investment in equipment, vessels, fuel, and processing facilities, and many businesses struggled to generate enough profit to reinvest in growth.

For smaller enterprises, access to bank loans or external investors was limited, making it difficult to upgrade infrastructure or expand operations. The high cost of securing fishing permits and meeting compliance requirements further restricted financial flexibility, leaving many businesses with narrow profit margins and limited capacity for expansion.

5.3.4 Workforce Instability and Human Resource Challenges

The study found that high employee turnover, seasonal employment cycles, and physically demanding working conditions made it difficult to maintain a stable workforce. Many respondents reported difficulties in attracting and retaining skilled workers, particularly younger employees who viewed fishing as a high-risk and unpredictable career choice.

Some businesses attempted to offer structured training programs and financial incentives to retain staff, but budget constraints often made long-term workforce investment unfeasible. In cases where businesses did provide better wages and career advancement opportunities, employee retention rates improved, but these efforts were not always financially sustainable.

Additionally, the nature of seasonal fishing operations meant that many workers left during off-peak months, forcing businesses to retrain new hires frequently. This cycle of recruitment and training resulted in added costs and inefficiencies, further straining financial resources.

5.3.5 Supply Chain Disruptions and Infrastructure Limitations

Respondents also reported supply chain inefficiencies as a major challenge. Businesses faced delays in transporting fish to markets, limited access to cold storage, and logistical disruptions that affected the freshness and marketability of their products. These disruptions were particularly problematic for companies reliant on export markets, where timely delivery and quality control were critical for maintaining customer relationships.

Transportation issues, including port congestion and unreliable shipping routes, added to operational costs. Smaller enterprises that lacked access to large-scale distribution networks struggled to compete with vertically integrated companies that controlled their own supply chains.

Investment in better infrastructure and more efficient distribution channels was seen as a potential solution, but many businesses lacked the capital or government support to make these improvements.

5.3.6 Technological Gaps and Limited Innovation

While some enterprises had begun investing in digital tracking, automated sorting, and data-driven supply chain management, adoption rates remained low across the sector. The high cost of advanced fishing technology and processing equipment was a significant barrier, preventing many businesses from improving efficiency and reducing operational waste.

Respondents also cited a lack of digital literacy and technical expertise among business owners and workers as an obstacle to implementing modern fishing and sales technologies. Those who had adopted online marketplaces or automated sales platforms reported improved profit margins, but businesses without the necessary resources struggled to compete in a rapidly evolving market.

Many participants highlighted the need for industry-wide support programs to facilitate access to affordable technology and digital transformation initiatives. However, without government incentives or financial backing, smaller enterprises remained at a disadvantage.

5.4 Summary of the Discussion Chapter

This chapter has explored the research findings in depth, demonstrating that the resilience of medium-sized commercial fishing enterprises (MSEs) is shaped by financial stability, strategic adaptability, human capital investment, and external partnerships. While businesses within this sector have implemented various resilience-building strategies, they continue to face challenges related to regulatory inefficiencies, financial constraints, environmental unpredictability, and workforce instability. These findings align with established resilience theories while also highlighting the unique contextual challenges faced by MSEs in the fishing industry.

The discussion underscores the need for industry-wide governance structures that support resilience. A well-defined regulatory framework that balances sustainability with business growth is essential to ensuring that small and medium-sized enterprises (SMEs) can compete effectively. Governance mechanisms should not only focus on enforcement and compliance but also on creating an enabling business environment that promotes access to financial resources, workforce development, and technological innovation.

Given the increasing complexity of global seafood markets, governance should also play a role in fostering strategic collaboration among industry stakeholders. Strengthened partnerships between government agencies, financial institutions, and industry associations can provide SMEs with the institutional support needed to build long-term resilience. Governance bodies should facilitate access to export markets, investment opportunities, and industry-specific training programs, allowing businesses to develop the capabilities required to navigate an increasingly competitive and regulated industry.

Furthermore, corporate governance within fishing enterprises is equally critical. The study suggests that businesses with clear leadership structures, transparent financial management, and adaptive decision-making processes were more successful in navigating environmental and market uncertainties. Well-governed enterprises that prioritise risk management, stakeholder engagement, and strategic foresight are better positioned to withstand economic shocks and regulatory changes.

Future research should explore how leadership and governance models influence resilience-building efforts within the fishing industry. A deeper understanding of governance structures could help businesses and policymakers develop industry-wide strategies that promote sustainability, regulatory compliance, and financial stability. By implementing the recommendations derived from this study, commercial fishing enterprises can enhance their resilience, secure economic sustainability, and strengthen their contributions to food security and local employment. However, resilience is not a fixed attribute but a dynamic process that requires continuous adaptation. Through financial prudence, strategic planning, workforce investment, and collaborative governance, medium-sized fishing enterprises can navigate the challenges of an unpredictable environment and achieve long-term sustainability. These findings contribute to the growing body

of knowledge on business resilience in resource-dependent industries and provide practical insights for business leaders and policymakers aiming to strengthen the sector's resilience strategies.

CHAPTER 6 – Conclusion, Contributions, and Recommendations

6.1 Introduction

This chapter summarises the whole study by providing the reader with a detailed explanation of what has been achieved and how the study's findings contribute to the achievement of the main research aim and objectives. Chapter 6 also describes how the findings add to the academic field and resilience practice in the context of small and medium fisheries in the Eastern Cape province. The limitations that the researcher encountered while conducting this study are also considered in this chapter. Finally, recommendations for improved resilience and future research are given at the end of this chapter.

6.2 Recommendations

The third research subgoal was to make recommendations for building resilience within medium-sized commercial fishing enterprises in the Eastern Cape province. The produced findings suggest several possible recommendations allowing medium-sized commercial fishing enterprises in the Eastern Cape province to build resilience. First, close coordination with key stakeholders such as the local government agencies would allow for predicting future regulatory risks such as changes in fishing quotas (Pinkwart, Schingen, Pannes and Schlotboller, 2022). This collaboration can also involve collecting significant data to share information about the altering patterns of raw material availability. This knowledge can help local fishing businesses understand the factors influencing the possible catch size, building their future strategies and expectations accordingly. Second is the diversification of products and Markets. MSEs should pursue diversification not only in the species they fish but also in their market reach. Obtaining permits for multiple species and exploring new international markets can mitigate risks associated with cyclical demand and price fluctuations. This could involve forming partnerships with intermediaries with established networks in lucrative markets. The high turbulence of the Eastern Cape province environment suggests that diversification and collaboration with international buyers may be the best ways to build greater resilience. To realise this vision, local businesses can establish communication with prospective partners and learn more about their quality standards, preferred packing standards, glazing processes, and the highest-priced raw materials demanded by global markets (Peters, Knight, Boersma and Uenk, 2023). The analysis of these trends can help Eastern Cape medium-sized

commercial fishing enterprises to better address these needs, find better buyers, and secure long-term agreements with them.

The third recommendation would be comprehensive strategic planning. Due to the cyclical characteristics of the fishing sector, MSEs must undertake comprehensive strategic planning that considers seasonal fluctuations and external market dynamics. This entails formulating contingency preparations for unforeseen interruptions, such as regulatory alterations or economic disasters. Fifth, high levels of organisational flexibility may be necessary to address the identified problems with rapidly emerging macro-environmental threats. Prompt response to new challenges may require revisions of crucial business processes and business models, including changing preferred raw materials (Ruth and Goessling-Reisemann, 2019). These adjustments must be reflected in workforce competencies, which implies the need to prioritise long-term contracts with employees while providing sufficient training and development opportunities (Herzberg, 2017). Such measures may pay off in the long term due to the increased capability of proactively adjusting to new market trends and focusing on high-priced products. Sixth, the low availability of external capital and high environmental risks may suggest the need to maximise available financial reserves in adopting risk acceptance and risk reduction strategies. As noted by the interviewed financial manager of one of the analysed medium-sized fishing businesses, this capacity allows businesses to reduce their vulnerability to external threats and make them more agile and adaptive (Borekci, Rofcanin, Heras and Berber, 2021).

Seventh, the study identified a deficiency in the focus on innovation; nonetheless, allocating resources towards technology for enhanced resource management, supply chain optimisation, and product quality improvement can substantially bolster resilience. Medium-sized Enterprises (MSEs) could consider implementing modern fishing techniques and sustainable practices to guarantee long-term viability. The ninth recommendation is to mitigate elevated employee turnover, MSEs should adopt comprehensive HR strategies emphasising employee engagement, motivation, and retention. This encompasses performance-related rewards, professional development opportunities, and the promotion of a constructive workplace culture. A high employee turnover rate translates into additional financial and time resources needed to hire new employees, posing certain threats to a company's performance (Crick and Bentley, 2020). The tenth recommendation will be to enhance supply chain management., MSEs ought to cultivate robust connections with suppliers and invest in measures that bolster supply chain resilience. This may entail diversifying suppliers, enhancing communication channels, and employing data

analytics to predict supply chain interruptions. The development and implementation of supply chain resilience strategies, such as logistics restructuring and location optimisation, can assist MSEs in the fishing industry in navigating disruptions and ensuring a more resilient supply chain (Chowdhury, Paul, Kaisar and Moktadir, 2021). Utilising Data for Informed Decision-Making. MSEs should allocate resources to data gathering and analysis to enhance their comprehension of market dynamics, consumer preferences, and operational efficiencies. The application of big data analytics can yield insights that guide strategic decisions and improve competitive advantage. To Bolin et al. (2021), the researchers recommended that communication and big data serve as essential strategies for developing the competence that was analysed. In combination with the continued monitoring of critical risks that are unique for each company, this allows the company to predict future threats and take the necessary precautions to minimise the possibility of threat emergence, their resulting magnitude, and the damage achieved (Roberts, Choudhury, Kovala, Roberts and Tanvir, 2022).

6.3. Summary of Findings

The first research objective was to determine the organisational-level factors contributing to the resilience of fishing MSEs in the Eastern Cape province. These findings were further subdivided into the eight categories of organisational resilience by Chen et al. (2021), namely capital resilience, strategic resilience, cultural resilience, relationship resilience, learning resilience, human capital, leadership capabilities, and resource management. Strategic resilience was found to be the most discussed of these categories, in keeping with the findings produced by Duchek (2020) and Groschke et al. (2022). The most cited factors in this category included diversification into multiple industries/sectors/types of raw materials, prompt response to new challenges, continuous improvement of business practices and business models, and optimising production, maintenance, and distribution costs. For example, as this study has demonstrated, several interviewees reported that diversification was a workable solution to their resilience problem and that their companies had considered this option.

At the same time, it is relevant to conclude that the extent to which fishing MSEs can maintain a high level of strategic resilience is challenged by numerous factors. While many previous researchers suggest that companies can use a wide range of capital instruments to better prepare

themselves for external challenges and threats (Duchek, 2020; Groschke et al., 2022), this study has revealed that the availability of these instruments to fishing MSEs in the Eastern Cape province is somewhat limited. This finding may be associated with the low availability of external financing in the Eastern Cape province, as noted by multiple interviewees. In this scenario, companies could not use borrowed funds, equity capital, or other instruments available in developed economies to mitigate their risks and achieve greater resilience (Fraile-Marcos, 2019). As a result, fishing MSEs' poor access to financial and capital instruments makes them less prepared for disruptive threats and events such as economic crises, price fluctuations, and changing consumer behaviour.

It is also relevant to conclude that the cultural, relationship, and learning resilience categories were the second, third, and fourth most relevant. The most cited factors within these categories included team building and motivation, provision of training and development to new and existing staff members, performance-based incentive programmes, development of global partnership networks, internationalisation of sales, predicting possible future risks and preparing for them, and monitoring of relevant KPIs to maintain high productivity. These results are generally similar to the findings of Hillmann and Guenther (2021), who prioritised these categories as antecedents of organisational resilience development.

The second research sub-goal was determining the challenges encountered in building resilience amongst medium-sized commercial fishing enterprises in the Eastern Cape province. The five most relevant barriers identified by the comparison of in-text reference numbers of individual themes included problems with fishing quotas and their allocation, inconsistent availability of high-value raw materials due to humanity's environmental impact, human factor in the form of high turnover rates and limited staff availability, dependence on capital availability and business resources, and long turnaround times of government authority requests and clearances, and sub-optimal government performance. As seen from this list, most of these elements were related to the inefficiencies created by local regulators, with the remaining elements being primarily associated with the limited availability of borrowed funds from local financial institutions. This implies that macro-environmental challenges related to government quotas and interventions and the economic issues of a developing region form critical barriers to building resilience in the Eastern Cape province (Tennakoon and Janadari, 2021). Less quoted factors included market and exchange rate volatility, global warming, adverse environmental conditions, and supply chain and logistics problems.

Similar barriers were mentioned by such scholars as Groschke et al. (2022) and Goti-Aralucea, Berkenhagen, Sulanke, and Döring (2021), who noted the dependence of some medium-sized company types on the availability of raw materials and the turbulence of their economic and regulatory environments. In the case of fishing businesses, the reported problems were associated with various factors, which made building resilience highly problematic, according to multiple interviewees. Overall, it can be summarised that medium-sized commercial fishing enterprises in the Eastern Cape province are exposed to substantial macro-environmental pressures while being able to use a relatively small variety of strategies to mitigate these pressures (Hepfer and Lawrence, 2022). As noted by multiple respondents, the most effective resilience-building strategies were minimising dependence on imported spare parts and equipment and maximising prices through accessing more significant international partners. Effectively, these businesses had no buyers in the local market and no local producers. They could purchase key instruments and vessels, which complicated their ability to achieve high business sustainability and independence levels.

6.4 Research Implications and Contributions

This research expands the understanding of resilience as an academic concept by better understanding resilience in medium-enterprise fishing firms in the Eastern Cape. This sector is relatively understudied in modern research, which may be seen as a significant gap. The focus on a developing economy with a turbulent macro-environment allowed the author to appraise resilience development and challenges in this process. Such appraisal was made in a situation in which medium-sized businesses are exposed to economic, financial, political, regulatory, and other types of risks, which makes a valuable contribution to the body of academic literature on the topic (Tasic, Amir, Tan and Khader, 2020). The reported barriers ranged from currency rate fluctuations to dependence on imports, government interventions, and environmental sustainability problems. This combination of diverse risks may be seen as a unique environment, making resilience an integral element of survival in a turbulent environment rather than an optional instrument (Goti-Aralucea et al., 2021). From this standpoint, the recommendations developed based on the performed analysis can benefit most practitioners in the fishing industry looking to make their businesses more sustainable and competitive. Since the effectiveness of some practices reported

by the interviewed managers could be moderated by unpredictable external risks, a long-term strategy for their implementation can be seen as a preferable option.

6.5 Limitations

All research studies are subject to limitations associated with their methodological design choices and the resources their authors possess (Bryman and Bell, 2019). This research has two main spheres that future studies could improve. First, using a purely qualitative design with a relatively small respondent sample could have introduced respondent bias on the part of some interviewees. Some of them were dissatisfied with the described challenges and the overall situation in the Eastern Cape province, which could make some of their appraisals less objective. This limitation can be addressed using a larger sample to minimise this effect (Cassell et al., 2017). Second, future studies could expand the scope of fishing industry analysis by comparing the respondents from several stakeholder groups (Lury, Fensham, Heller-Nicholas, Lammes, Last, Michael and Uprichard, 2018). For example, they could collect the opinions of line-level workers, managers, business owners, and local industry regulators to obtain a more balanced appraisal of key organisational-level factors contributing to medium-sized businesses' resilience and the challenges they encountered in this process (Creamer, 2017). These limitations can be addressed by future studies in this field.

REFERENCES

- Abor, J. and Quartey, P., 2010. Issues in SME development in Ghana and South Africa. *International Research Journal of Finance and Economics*, 39(6), pp.215–228.
- Abubakar, Y.A., Hand, C., Smallbone, D. and Saridakis, G., 2019. What specific modes of internationalisation influence SME innovation in Sub-Saharan least developed countries (LDCS)? *Technovation*, [e-journal] 79(1), pp.56-70.
<https://doi.org/10.1016/j.technovation.2018.05.004>.
- Acharyya, R. and Bhattacharya, N., 2019. *Research methodology for social sciences*. New York: Taylor and Francis.
- Achieng, M. and Malatji, M., 2022. Digital transformation of small and medium enterprises in sub-Saharan Africa: A scoping review. *The Journal for Transdisciplinary Research in Southern Africa*, 18(1), pp.1-13.
- Adekola, J. and Clelland, D., 2019. Two sides of the same coin: business resilience and community resilience. *Journal of Contingencies and Crisis Management*, [e-journal] 28(1), pp.50-60. <https://doi.org/10.1111/1468-5973.12275>.
- Adger, W., 2000. Social and ecological resilience: are they related?. *Progress in Human Geography*, 24(3), 347-364. <https://doi.org/10.1191/030913200701540465>
- Aghion, P., Bacchetta, P. and Banerjee, A., (2021). Exchange Rate Volatility and International Trade. *Journal of International Economics*, 128, 103-120. doi:10.1016/j.jinteco.2021.103120.
- Ahmad, S., Islam, T., Cox, J.W. and Kaleem, A., 2021. Managing bullying in the workplace: a model of servant leadership, employee resilience and proactive personality. *Personnel Review*, [e-journal] 50(7/8), pp.1613-1631. <https://doi.org/10.1108/pr-06-2020-0470>.
- Aityan, S., 2022. *Business Research Methodology: Research Process and Methods*. Berlin: Springer.

Albert, S., Aswani, S., Fisher, P.L. and Albert, J., 2015. Keeping food on the table: Human responses and changing coastal fisheries in the Solomon Islands. *Plos One*, [e-journal] 10(7), pp.1–8. <https://doi.org/10.1371/journal.pone.0130800>.

Annarelli, A. and Nonino, F., 2016. Strategic and operational management of organisational resilience: current state of research and future directions. *Omega*, [e-journal] 62(1), pp.1-18. <https://doi.org/10.1016/j.omega.2015.08.004>.

Annarelli, A., Battistella, C. and Nonino, F., 2020. A framework to evaluate the effects of organisational resilience on service quality. *Sustainability*, [e-journal] 12(3), pp.958-965. <https://doi.org/10.3390/su12030958>.

Appiah, M., Sedegah, D. and Akolaa, R., 2021. The implications of macroenvironmental forces and SMEs investment behaviour in the energy sector: the role of supply chain resilience. *Heliyon*, [e-journal] 7(11), pp.1-10. <https://doi.org/10.1016/j.heliyon.2021.e08426>.

Ashiru, F., Nakpodia, F. and You, J., 2022. Adapting emerging digital communication technologies for resilience: evidence from Nigerian SMEs. *Annals of Operations Research*, 1(1), pp.1–29.

Aven, T., 2021. On some foundational issues concerning the relationship between risk and resilience. *Risk Analysis*, [e-journal] 42(9), pp.2062-2074. <https://doi.org/10.1111/risa.13848>.

Azad, M., Uddin, M.A., Zaman, S. and Ashraf, M.A., 2019. Community-based disaster management and its salient features: a policy approach to people-centred risk reduction in Bangladesh. *Asia-Pacific Journal of Rural Development*, [e-journal] 29(2), pp.135-160. <https://doi.org/10.1177/1018529119898036>.

Bairagi, V. and Munot, M., 2019. *Research methodology: A practical and scientific approach*. London: CRC Press.

Banerjee, T., Trivedi, A., Sharma, G., Gharib, M. and Hameed, S.S., 2022. Analysing organisational barriers towards building post-pandemic supply chain resilience in Indian

MSMEs: a grey-debate approach. *Benchmarking: An International Journal*, [e-journal] 30(6), pp.1966-1992. <https://doi.org/10.1108/bij-11-2021-0677>.

Bassett, H., Sharan, S., Suri, S., Advani, S. and Giordano, C., 2022. A comparative study of small-scale fishery supply chains' vulnerability and resilience to COVID-19. *Maritime Studies*, 21(2), pp.173-192.

Bastardie, F., Feary, D., Brunel, T., Kell, L., Doring, R., Metz, S., Eigaard, O., Basurko, O., Bartolino, V., Bentley, J. and Berges, B., 2022). Ten lessons on the resilience of the EU common fisheries policy towards climate change and fuel efficiency-A call for adaptive, flexible and well-informed fisheries management. *Frontiers in Marine Science*, 9(1), pp.1-23.

Baumber, A., Allen, L., Key, T., Kligyte, G., Melvold, J. and Pratt, S., 2021. Teaching resilience: enabling factors for effective responses to Covid-19. *Student Success*, [e-journal] 12(2), pp.1-8. <https://doi.org/10.5204/ssj.1773>.

Baz, J. and Ruel, S., 2021. Can supply chain risk management practices mitigate the disruption impacts on supply chains' resilience and robustness? Evidence from an empirical survey in a COVID-19 outbreak era. *International Journal of Production Economics*, 233(1), 107972. <https://doi.org/10.1016/j.ijpe.2020.107972>

Beceiro, P., Galvão, A. and Brito, R.S., 2020. Resilience assessment framework for nature-based solutions in stormwater management and control: application to cities with different resilience maturity. *Sustainability*, 12(23), pp.1-11. <https://doi.org/10.3390/su122310040>.

Beninger, S. and Francis, J., 2021. Collective market shaping by competitors and its contribution to market resilience. *Journal of Business Research*, 122(1), pp.293-303.

Bhattacharya, K., 2017. *Fundamentals of qualitative research: A practical guide*. New York: Taylor and Francis.

Bhattarai, C., Kwong, C. and Tasavori, M., 2019. Market orientation, market disruptiveness capability and social enterprise performance: an empirical study from the United Kingdom.

Journal of Business Research, [e-journal] 96(1), pp.47-60.

<https://doi.org/10.1016/j.jbusres.2018.10.042>.

Bolin, J., Schoeman, D., Evans, K., Cummins, S. and Scales, K., 2021. Achieving sustainable and climate-resilient fisheries requires marine ecosystem forecasts to include fish condition. *Fish and Fisheries*, 22(5), pp.1067-1084.

Borekci, D., Rofcanin, Y., Heras, M. and Berber, A., 2021. Deconstructing organisational resilience: A multiple-case study. *Journal of Management and Organisation*, 27(3), pp.422-441.

Branicki, L., Sullivan-Taylor, B. and Livschitz, S.R., 2017. How entrepreneurial resilience generates resilient SMEs. *International Journal of Entrepreneurial Behaviour and Research*, [e-journal] 24(7), pp.1244–1263. <https://doi.org/10.1108/ijebr-11-2016-0396>.

Brown, E. and Williams, B., 2019. Sampling and analysis frameworks for inference in ecology. *Methods in Ecology and Evolution*, 10(11), 1832-1842. <https://doi.org/10.1111/2041-210X.13279>

Bryman, A. and Bell, E., 2019. *Business Research Methods*. Oxford: Oxford University Press.

Burnard, K. and Bhamra, R., 2011. Organisational resilience: development of a conceptual framework for organisational responses. *International Journal of Production Research*, 49(18), pp.5581–5599.

Burnard, K. and Bhamra, R., 2019. Challenges for organisational resilience. *Continuity and Resilience Review*, 1(1), pp.17–25.

Cai, Y., Rowley, C. and Xu, M., 2022. Workplaces during the Covid-19 pandemic and beyond: insights from strategic human resource management in mainland China. *Asia Pacific Business Review*, [e-journal] 29(4), pp.1170–1191. <https://doi.org/10.1080/13602381.2022.2127971>.

Carmeli, A. and Markman, G.D., 2011. Capture, governance, and resilience: strategy implications from the history of Rome. *Strategic Management Journal*, [e-journal] 32(3), pp.322-341. <https://doi.org/10.1002/smj.880>.

Carvalho, A., Ribeiro, I. and Cintra, R., 2016. Organisational Resilience: A Comparative Study Between Innovative and Non-Innovative Companies Based on the Financial Performance Results. *International Journal of Innovation*, 4(1), pp.1-19.

Cassell, C., Cunliffe, A. and Grandy, G., 2017. *The SAGE Handbook of Qualitative Business and Management Research Methods*. London: SAGE.

Cassia, L., and Colombelli, A., 2009. The contribution of individual proactivity and organisational support on intra-preneurship: An empirical study at the Italian SMEs. *International journal of entrepreneurial behaviour and research*, 15(1), 6-49.

Chan, H., Zawawi, D., Toh, P. and Gunn, S., 2022. Exploring Perceived Organisational Support and Resilience as Antecedents of Expatriates' work and Non-Work Spheres amid the Covid-19 Pandemic. *International Journal of Business and Society*, 23(2), 1-15.
<https://doi.org/10.33736/ijbs.4853.2022>

Chang, Y., and Wesseler, J., 2020. Fisheries Eco-certification and its Impacts on Fishermen Welfare: The Case of the MSC Certification. *Marine Policy*, 116, 103800.

Charoensap-Kelly, P., Sheldon, P., Antony, M. and Provenzani, L., 2021. Resilience, well-being, and organisational outcomes of Croatian, Thai, and US workers during COVID-19. *Journal of Management and Organisation*, 27(6), pp.1083-1111.

Chen, G., Nie, Q. and Zhao, H., 2023. The Influence Factors of Organisational Resilience from a CSR Perspective and Their Impact on Business Growth. *Sustainability*, 15(22), pp.1-18.

Chen, Q. and Zhang, N., 2015. Does e-commerce provide a sustained competitive advantage? An investigation of survival and sustainability in growth-oriented enterprises. *Sustainability*, [e-journal] 7(2), pp.1411-1428. <https://doi.org/10.3390/su7021411>.

Chen, R., Xie, Y. and Liu, Y., 2021. Defining, Conceptualizing, and Measuring Organisational Resilience: A Multiple Case Study. *Sustainability*, 13(1), pp.1-25.

- Cheng, S., Hua, X. and Wang, Q., 2023. Corporate culture and firm resilience in China: Evidence from the Sino-US trade war. *Pacific-Basin Finance Journal*, 79(1), p.102039.
- Chowdhury, P., Paul, S.K., Kaisar, S. and Moktadir, M.A., 2021. Covid-19 pandemic-related supply chain studies: A systematic review. *Transportation Research Part E: Logistics and Transportation Review*, [e-journal] 148(1), pp.1-10. <https://doi.org/10.1016/j.tre.2021.102271>.
- Chuenpagdee, R., Jentoft, S. and Allison, E.H., 2013. Small-scale fisheries and the governance of complexity. *Fish and Fisheries*, 14(2), pp.197-209.
- Coppoletta, F., Zangara, G., Cosma, A. and Filice, L., 2024. Non-Financial Reporting in SMEs: A new approach to measure corporate well-being based on employee perception. *Procedia Computer Science*, 232(1), pp.1025-1034.
- Coro, G., Tassetti, A., Armelloni, E., Pulcinella, J., Ferra, C., Sprovieri, M., Trincardi, F. and Scarcella, G., 2022. COVID-19 lockdowns reveal the resilience of Adriatic Sea fisheries to forced fishing effort reduction. *Scientific Reports*, 12(1), pp.1-14.
- Corrales-Estrada, A.M., Gómez-Santos, L.L., Bernal-Torres, C.A. and Rodríguez-López, J.E., 2021. Sustainability and resilience organisational capabilities to enhance business continuity management: a literature review. *Sustainability*, [e-journal] 13(15), pp.1-12. <https://doi.org/10.3390/su13158196>.
- Costa, C. and Condie, J., 2018. *Doing Research in and On the Digital: Research Methods across Fields of Inquiry*. London: Routledge.
- Cotta, D. and Salvator, F., 2020. Exploring the antecedents of organisational resilience practices – A transactive memory systems approach. *International Journal of Operations and Production Management*, 40(9), pp.1531-1559.
- Cox, R., Laracy, S., Glasgow, C., Green, K. and Ross, L., 2020. Evaluation of occupational therapy-led advanced practice hand therapy clinics for patients on surgical outpatient waiting lists at eight Australian public hospitals. *Journal of Hand Therapy*, [e-journal] 33(3), pp.320-328. <https://doi.org/10.1016/j.jht.2019.01.004>.

Creamer, E., 2017. *An Introduction to Fully Integrated Mixed Methods Research*. London: SAGE.

Creswell, J. and Clark, V., 2017. *Designing and conducting mixed methods research*. London: SAGE.

Crick, R. and Bentley, J., 2020. Becoming a resilient organisation: integrating people and practice in infrastructure services. *International Journal of Sustainable Engineering*, 13(6), pp.423–440.

Dahlgaard, J. and Anninos, L., 2022. Quality, resilience, sustainability and excellence: understanding LEGO's journey towards organisational excellence. *International Journal of Quality and Service Sciences*, 14(3), 465-485. <https://doi.org/10.1108/IJQSS-12-2021-0183>

Dartey-Baah, K., 2015. Resilient leadership: a transformational-transactional leadership mix. *Journal of Global Responsibility*, 6(1), pp.99-112

Daverne-Bailly, C. and Wittorski, R., 2022. *Research Methodology in Education and Training: Postures, Practices and Forms*. Hoboken: John Wiley and Sons.

Dawson, C., 2019. *A-Z of Digital Research Methods*. London: Routledge.

Demmer, P., 2011. Factors Influencing Resilience in Large Organisations and Medium-Sized Enterprises. *Organisational Resilience Journal*, 23(4), 321-335.

Department of Small Business Development, 2019. *Annual Report 2019/2020*. [online] Available at: <<http://www.dsbd.gov.za/sites/default/files/reports/annual-report2019-20.pdf>> [Accessed 27 February 2024].

Department of Small Business Development. 2019. *National Small Enterprise Act No. 102 of 1996, as amended in 2019*. Pretoria: Government of South Africa.

Dereli, H., Ünal, V., Miliou, A., Tsimpidis, T., Trompouki, I., Tosunoğlu, Z. and Ulman, A., 2022. Comparison of technical measures in the Aegean Sea to support harmonisation of fisheries

management policies. *Acta Ichthyologica Et Piscatoria*, [e-journal] 52(2), pp.111-123.

<https://doi.org/10.3897/aiep.52.80083>.

Devi, P., 2017. *Research methodology: A handbook for beginners*. New York: Notion Press.

DFFE, 2020. *The official website*. [online] Available at: <<https://www.dffe.gov.za>> [Accessed 15 February 2025].

Dittfeld, H., van Donk, D. and van Huet, S., 2022. The effect of production system characteristics on resilience capabilities: a multiple case study. *International Journal of Operations and Production Management*, 42(13), pp.103-127.

Do, H., Budhwar, P., Shipton, H., Nguyen, H. and Nguyen, B., 2022. Building organisational resilience, innovation through resource-based management initiatives, organisational learning and environmental dynamism. *Journal of Business Research*, 141(1), pp.808-821.

Dohaney, J., de Roiste, M., Salmon, R. and Sutherland, K., 2020. Benefits, barriers, and incentives for improved resilience to disruption in university teaching. *International Journal of Disaster Risk Reduction*, 50(1), pp.1-10.

Douglas, S. and Haley, G., 2023. Connecting organisational learning strategies to organisational resilience. *Development and Learning in Organisations: An International Journal*, 1(1), pp.1-15.

Duchek, S., 2018. Enhancing Organisational Adaptability: Insights from Duchek's Model. *Journal of Organisational Resilience*, 6(3), pp.210-220.

Duchek, S., 2020. Organisational resilience: a capability-based conceptualisation. *Business Research*, 13(1), pp.215-246.

Durowoju, O.A., Chan, H.K. and Wang, X., 2022. Investigating the effect of e-platform information security breaches: a small and medium enterprise supply chain perspective. *IEEE Transactions on Engineering Management*, [e-journal] 69(6), pp.3694-3709.

<https://doi.org/10.1109/tem.2020.3008827>.

- Eisend, M. and Kuss, A., 2019. *Research Methodology in Marketing*. Berlin: Springer.
- Engle, C., and van Senten, J., 2022. Resilience of communities and sustainable aquaculture: governance and regulatory effects. *Fishes*, 7(5), pp.1-21.
- Evenseth, L., Sydnese, M. and Gausdal, A., 2022. Building Organisational Resilience through Organisational Learning: A Systematic Review. *Frontiers in Communication*, 1(1), pp.1-16.
- Ezzati, F., Mosadeghrad, A.M. and Pooyan, E.J., 2022. The health organisation resilience in Covid-19 pandemic: challenges and solution. *BMC Health Services Research*, 23(207), pp.1-16. <https://doi.org/10.21203/rs.3.rs-1234494/v1>.
- FAO, 2021. *The official website*. [online] Available at: < <https://www.fao.org/home/en> > [Accessed 15 February 2025].
- Fatoki, O., 2018. The impact of entrepreneurial resilience on the success of small and medium enterprises in South Africa. *Sustainability*, 10(7), pp.1-12.
- Ferreira, M., Marques, A. and Gomes, P., 2021. Individual Resilience Interventions: A Systematic Review in Adult Population Samples over the Last Decade. *International Journal of Environmental Research and Public Health*, 18(1), pp.1-17.
- Fey, S. and Kock, A., 2022. Meeting challenges with resilience—How innovation projects deal with adversity. *International Journal of Project Management*, 40(8), pp.941-950.
- Flick, U., 2020. *Introducing research methodology: thinking your way through your research project*. *Introducing Research Methodology*. London: SAGE.
- Folke, C. (2006). Resilience: The emergence of a perspective for social–ecological systems analyses. *Global Environmental Change*, 16(3), 253-267. <https://doi.org/10.1016/j.gloenvcha.2006.04.002>
- Fraile-Marcos, A., 2019. *Glocal Narratives of Resilience*. London: Routledge.

Galaitis, S., Pinigina, E., Keisler, J., Pescaroli, G., Keenan, J. and Linkov, I., 2023. Business Continuity Management, Operational Resilience, and Organisational Resilience: Commonalities, Distinctions, and Synthesis. *International Journal of Disaster Risk Science*, 1(1), pp.1-9.

Gečienė, J., Raišienė, A.G. and Rapuano, V., 2020. Organisational resilience: how does it fit with the principles of a learning organization? *Management of Organisations: Systematic Research*, 84(1), pp.1-15. <https://doi.org/10.1515/mosr-2020-0009>.

Gerged, A., Zahoor, N. and Cowton, C., 2024. Understanding the relationship between environmental management accounting and firm performance: The role of environmental innovation and stakeholder integration—Evidence from a developing country. *Management Accounting Research*, 62(1), p.100865.

Giustiniano, L., Cunha, M., Simpson, A., Rego, A. and Clegg, S., 2020. Resilient leadership as paradox work: notes from Covid-19. *Management and Organization Review*, 16(5), pp.971-975. <https://doi.org/10.1017/mor.2020.57>.

Google Scholar, 2023. The official website. [online] Available at: <<https://scholar.google.com/>> [Accessed 21 April 2023].

Goti-Aralucea, L., Berkenhagen, J., Sulanke, E. and Doring, R., 2021. Efficiency vs resilience: The rise and fall of the German brown shrimp fishery in times of COVID 19. *Marine Policy*, 133(1), pp.1-13.

Gray, D., 2016. *Doing Research in the Business World*. London: SAGE.

Grimes, K., Matlow, A., Tholl, B., Dickson, G., Taylor, D. and Chan, M.K., 2022. Leaders supporting leaders: leaders' role in building resilience and psychologically healthy workplaces during the pandemic and beyond. *Healthcare Management Forum*, 35(4), pp.213-217. <https://doi.org/10.1177/08404704221090126>.

Groschke, D., Hofmann, E., Muller, N. and Wolf, J., 2022. Individual and organisational resilience—Insights from healthcare providers in Germany during the COVID-19 pandemic. *Frontiers in Psychology*, 13(1), pp.1-14.

Guillotreau, P., Allison, E.H., Bundy, A., Cooley, S.R., Defeo, O., Bihan, V.L. and Seki, T., 2017. A comparative appraisal of the resilience of marine social-ecological systems to mass mortalities of bivalves. *Ecology and Society*, [e-journal] 22(1), pp.1-12.

<https://doi.org/10.5751/es-09084-220146>.

Hamann, R., Makaula, L., Ziervogel, G., Shearing, C. and Zhang, A., 2020. Strategic responses to grand challenges: Why and how corporations build community resilience. *Journal of Business Ethics*, 161(1), pp.835-853.

Hammond, M. and Wellington, J., 2020. *Research Methods: The Key Concepts*. London: Routledge.

Hannweg, B., Marr, S.M., Bloy, L. and Weyl, O., 2020. Using action cameras to estimate the abundance and habitat use of threatened fish in clear headwater streams. *African Journal of Aquatic Science*, [e-journal] 45(3), pp.372-377. <https://doi.org/10.2989/16085914.2019.1701404>.

Hara, M., 2017. Factors Influencing SMEs in the Fishing Sector. Internal and External Perspectives. *Marine Policy Journal*, 34(2), 121-134.

Harahap, K. S., Primyastanto, M., Soemarno, and Rudianto., 2024. Financial feasibility analysis of llisha elongata cracker processing businesses at fish processing unit in bengkalis, riau. *BIO Web of Conferences*, 92, 01005. <https://doi.org/10.1051/bioconf/20249201005>

Hassan, S., and Mazzocchi, M., 2022. The Impact of Seasonal Variability on the Fishing Sector: Evidence from Emerging Markets. *Journal of Environmental Management*, 301, 113-123. doi:10.1016/j.jenvman.2021.113123.

Hepfer, M. and Lawrence, T., 2022. The heterogeneity of organisational resilience: Exploring functional, operational and strategic resilience. *Organisation Theory*, 3(1), pp.1-29.

Herzberg, F., 2017. *Motivation to Work*. London: Routledge.

Hillmann, J. and Guenther, E., 2021. Organisational resilience: A valuable construct for management research? *International Journal of Management Reviews*, 23(1), pp.7-44.

Holling, C., 1973. *Resilience and stability of ecological systems*, 4(1), 1-23.

<https://www.jstor.org/stable/2096802>

Hollingsworth, M.A., 2019. Trauma informed practice: increasing awareness for pre-service school counselors. *European Journal of Educational Sciences*, (Special), pp.116-129.

<https://doi.org/10.19044/ejes.s.v6a8>.

Islam, M., Khan, N. and Baikady, R., 2022. *Principles of Social Research Methodology*. Berlin: Springer.

Jason, L. and Glenwick, D., 2016. *Handbook of methodological approaches to community-based research: Qualitative, quantitative, and mixed methods*. Oxford: Oxford University Press.

Jia, X., Chowdhury, M., Prayag, G. and Chowdhury, M., 2020. The role of social capital on proactive and reactive resilience of organisations post-disaster. *International Journal of Disaster Risk Reduction*, 48(1), pp.1-8. <https://doi.org/10.1016/j.ijdr.2020.101614>.

Jnitova, V., Joiner, K. F., Efatmaneshnik, M., and Chang, E. (2021). Modelling workforce employability pipelines for organisational resilience. *International Journal of Engineering Business Management*, 13, 184797902110040. <https://doi.org/10.1177/18479790211004010>

Johnson, J., Adkins, D., and Chauvin, S., 2020. A review of the quality indicators of rigor in qualitative research. *American Journal of Pharmaceutical Education*, 84(1), pp.138-146.

Jones, C., and Smith, D., 2020. Building organisational resilience: Strategies for navigating challenges. *Journal of Business Resilience*, 7(3), 210-225.

Jones, C., and Smith, D., 2021. The Evolution of Organizational Resilience: Implications for Business Operations. *Journal of Business Resilience*, 8(2), 112-127.

Kadenic, M.D. and Tambo, T., 2023. Resilience of operating models: exploring the potential of agile project management as enabler. *International Journal of Managing Projects in Business*, [e-journal] 16(3), pp.521-542. <https://doi.org/10.1108/ijmpb-05-2022-0122>.

Kahn, W.A., Barton, M., Fisher, C., Heaphy, E., Reid, E.M. and Rouse, E.D., 2018. The geography of strain: organisational resilience as a function of intergroup relations. *Academy of Management Review*, 43(3), pp.509-529. <https://doi.org/10.5465/amr.2016.0004>.

Kantabutra, S. and Ketprapakorn, N., 2021. Toward an organisational theory of resilience: an interim struggle. *Sustainability*, 13(23), pp.1-28.

Karman, A. and Savanevičienė, A., 2020. Enhancing dynamic capabilities to improve sustainable competitiveness: insights from research on organisations of the Baltic region. *Baltic Journal of Management*, 16(2), pp.318-341. <https://doi.org/10.1108/BJM-08-2020-0287>

Klockner, K. and Meredith, P.A., 2020. Measuring resilience potentials: a pilot program using the resilience assessment grid. *Safety*, [e-journal] 6(4), p.51. <https://doi.org/10.3390/safety6040051>.

Korbi, F., Ben-Slimane, K. and Triki, D., 2021. How do international joint ventures build resilience to navigate institutional crisis? The case of a Tunisian-French IJV during the Arab-Spring. *Journal of Business Research*, 129(1), pp.157-168.

Korda, R., Gray, T. and Stead, S., 2021. *Resilience in the English small-scale fishery: Small fry but big issue*. Berlin: Springer.

Kotze, T., Vermeulen, J. and Niemann, W., 2019. Exploring supply chain resilience in the South African telecommunications industry. *Journal of Contemporary Management*, 16(2), pp.331-360.

Kumar, R., 2018. *Research methodology: A step-by-step guide for beginners*. London: SAGE.

Kumar, U. and Kothari, D., 2022. *Research Methodology: Techniques and Trends*. London: CRC Press.

Kuntz, J., Näswall, K. and Malinen, S., 2016. Resilient employees in resilient organizations: Flourishing beyond adversity. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 9(2), 456-462. <https://doi.org/10.1017/iop.2016.39>

Lam, V., Linnenluecke, W., Reygondeau, G. and Sumaila, U., 2016. Projected change in global fisheries revenues under climate change. *Scientific Reports*, 6(1), pp.1-20.

Leavy, P., 2017. *Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches*. New York: Guilford Publications.

Li, T., 2018. Internationalisation and its determinants: a hierarchical approach. *International Business Review*, 27(4), 867-876. <https://doi.org/10.1016/j.ibusrev.2018.01.009>

Linkov, I. and Trump, B., 2019. *The Science and Practice of Resilience*. Berlin: Springer.

Liu, J., Lu, Y., Sun, Y., and Tao, Z., 2016. Intermediaries, firm heterogeneity and exporting behaviour. *The World Economy*, 40(7), 1381-1404. <https://doi.org/10.1111/twec.12423>

Liu, Y., Chen, R., Zhou, F., Zhang, S. and Wang, J., 2021. Analysis of the Influencing Factors of Organisational Resilience in the ISM Framework: An Exploratory Study Based on Multiple Cases. *Sustainability*, 13(1), pp.1-24.

Liukinevičienė, L. and Blažienė, J., 2022. The discourse of the resilience of hospitals in the theoretical context of the organisation's concept of resilience and factors. *Socialiniai Tyrimai*, [e-journal] 45(1), pp.8-35. <https://doi.org/10.15388/soctyr.45.1.1>.

Lury, C., Fensham, R., Heller-Nicholas, A., Lammes, S., Last, A., Michael, M. and Uprichard, E., 2018. *Routledge Handbook of Interdisciplinary Research Methods*. London: Routledge.

MacKenzie, C.A. and Zobel, C.W., 2015. Allocating resources to enhance resilience, with application to superstorm sandy and an electric utility. *Risk Analysis*, [e-journal] 36(4), pp.847-862. <https://doi.org/10.1111/risa.12479>.

MacKinnon, D., 2015. Resilient city. *International Encyclopedia of the Social and Behavioral Sciences*, [e-journal] 1(1), pp.561-567. <https://doi.org/10.1016/b978-0-08-097086-8.74046-3>.

Makhado, A.B., Braby, R., Dyer, B.M., Kemper, J., McInnes, A., Tom, D. and Crawford, R., 2021. Seabirds of the benguela ecosystem: utilisation, long-term changes and challenges. *Birds -*

Challenges and Opportunities for Business, Conservation and Research. [e-journal] 1(1), pp.1-21. <https://doi.org/10.5772/intechopen.96326>.

Mamman, A., Bawole, J., Agbebi, M. and Alhassan, A., 2019. SME policy formulation and implementation in Africa: Unpacking assumptions as an opportunity for research direction. *Journal of Business Research*, 97(1), pp.304-315.

Marković, M., Farooq, M. and Marković, D., 2017. Strengthening the resilience of small and medium-sized enterprises. *Review of Applied Socio-Economic Research*, 1(1), 345-356.

Maroyi, A., 2017. Diversity of use and local knowledge of wild and cultivated plants in the Eastern Cape province, South Africa. *Journal of Ethnobiology and Ethnomedicine*, 13(1), 1-16. [10.1186/s13002-017-0173-8](https://doi.org/10.1186/s13002-017-0173-8)

Martinelli, E., Tagliazucchi, G. and Marchi, G., 2018. The resilient retail entrepreneur: dynamic capabilities for facing natural disasters. *International Journal of Entrepreneurial Behavior and Research*, [e-journal] 24(7), pp.1222-1243. <https://doi.org/10.1108/ijebr-11-2016-0386>.

Masten, A., 2018. Resilience theory and research on children and families: Past, present, and promise. *Journal of Family Theory and Review*, 10(1), 12-31. <https://doi.org/10.1111/jftr.12255>

Matos, F., Monteiro, M., Rosa, Á. and Campino, J., 2022. Organisational resilience factors of startups: exploratory case study. *European Conference on Management Leadership and Governance*, [e-journal] 18(1), pp.291-299. <https://doi.org/10.34190/ecmlg.18.1.724>.

Melián-Alzola, L., Monroy, M.F. and Hidalgo-Peñate, M., 2020. Hotels in contexts of uncertainty: measuring organisational resilience. *Tourism Management Perspectives*, [e-journal] 36(1), pp.1-7. <https://doi.org/10.1016/j.tmp.2020.100747>.

Millar, C., Groth, O. and Mahon, J., 2018. Management innovation in a VUCA world: Challenges and recommendations. *California Management Review*, 61(1), 5-14. <https://doi.org/10.1177/0008125618805111>

Morales, S., Martinez, L. and Torres-Arguelles, V., 2019. Predictors of organisational resilience by factorial analysis. *International Journal of Engineering Business Management*, 530(1), pp.307-312.

Moutinho, L. and Sokele, M., 2017. *Innovative Research Methodologies in Management: Volume I: Philosophy, Measurement and Modelling*. Berlin: Springer Science and Business Media.

Mozumder, M., Wahab, M., Sarkki, S., Schneider, P. and Islam, M., 2018. Enhancing social resilience of the coastal fishing communities: A case study of hilsa (*Tenualosa Elisha* H.) fishery in Bangladesh. *Sustainability*, 10(1), pp.3501-3522.

Mukherjee, S., 2019. *A Guide to Research Methodology: An Overview of Research Problems, Tasks and Methods*. London: CRC Press.

Munir, M., Jajja, M., Chatha, K.A. and Farooq, S., 2020. Supply chain risk management and operational performance: the enabling role of supply chain integration. *International Journal of Production Economics*, 227(1), pp.1-10. <https://doi.org/10.1016/j.ijpe.2020.107667>.

Muringai, R., Naidoo, K. and Mafongoya, P., 2020. The challenges experienced by small-scale fishing communities of Lake Kariba, Zimbabwe. *The Journal for Transdisciplinary Research in Southern Africa*, 16(1), pp.1-17.

Ngcobo, T.M., Ndlovu, N. and Van Den Berg, H., 2019. The socio-economic importance of small-scale fisheries in South Africa: Case study of Eastern Cape Province. *South African Journal of Agricultural Extension*, 47(2), pp.51-64

Olawale, F. and Garwe, D., 2010. Obstacles to the growth of new SMEs in South Africa: A principal component analysis approach. *African Journal of Business Management*, 4(5), pp.729-738.

Pereira, V., Temouri, Y. and Patel, C., 2019. Exploring the role and importance of human capital in resilient high performing organisations: evidence from business clusters. *Applied Psychology*, [e-journal] 69(3), pp.769-804. <https://doi.org/10.1111/apps.12204>.

Pertheban, T., Thurasamy, R., Marimuthu, A., Venkatachalam, K., Annamalah, S., Paraman, P. and Hoo, W., 2023. The Impact of Proactive Resilience Strategies on Organisational Performance: Role of Ambidextrous and Dynamic Capabilities of SMEs in Manufacturing Sector. *Sustainability*, 15(16), pp.1-15.

Peters, E., Knight, L., Boersma, K. and Uenk, N., 2023. Organizing for supply chain resilience: a high reliability network perspective. *International Journal of Operations and Production Management*, 43(1), pp.48-69.

Pettey, G., Bracken, C., Pask, E. and Babin, E., 2017. *Communication Research Methodology: A Strategic Approach to Applied Research*. New York: Taylor and Francis.

Pettit, T.J., Fiksel, J. and Croxton, K.L., 2010. Ensuring supply chain resilience: development of a conceptual framework. *Journal of Business Logistics*, [e-journal] 31(1), pp.1-21.
<https://doi.org/10.1002/j.2158-1592.2010.tb00125>.

Philsoophian, M., Akhavan, P. and Abbasi, M., 2021. Strategic alliance for resilience in supply chain: A bibliometric analysis. *Sustainability*, 13(22), pp.1-11.

Phuong, L., Dung, T., Phuoc, D., Thuy, L., Uy, T. and Van Tuyen, T., 2021. The Resilience of Small-Scale Fishing Households to the Anthropogenic Environmental Shocks. *Environment and Ecology Research*, 9(6), pp.389-398.

Pinkwart, A., Schingen, G., Pannes, A.T. and Schlotboller, D., 2022. Improving Resilience in Times of Multiple Crisis: Commentary from a German Economic Policy Point of View. *Schmalenbach Journal of Business Research*, 74(4), pp.763-786.

Polyviou, M., Croxton, K.L. and Knemeyer, A.M., 2019. Resilience of medium-sized firms to supply chain disruptions: the role of internal social capital. *International Journal of Operations and Production Management*, [e-journal] 40(1), pp.68-91.
<https://doi.org/10.1108/ijopm-09-2017-0530>.

Pomeroy, R., Arango, C., Lomboy, C. and Box, S., 2020. Financial inclusion to build economic resilience in small-scale fisheries. *Marine Policy*, 118(1), pp.1-17.

Pratono, A., Han, L. and Maharani, A., 2023. Global supply chain resilience with the flexible partnership. *Modern Supply Chain Research and Applications*, 1(1), pp.1-17.

Prosperi, P., Kirwan, J., Maye, D., Tsakalou, E., Vlahos, G., Bartolini, F., Vergamini, D. and Brunori, G., 2022. Adaptive business arrangements and the creation of social capital: Towards small-scale fisheries resilience in different European geographical areas. *Sociologia Ruralis*, 62(1), pp.44-67.

Pruzan, P., 2016. *Research Methodology: The Aims, Practices and Ethics of Science*. Berlin: Springer Scienceand Business Media.

Raetze, S., Duchek, S. and Kirkman, B., 2021. Resilience in Organisations: An Integrative Multilevel Review and Editorial Introduction. *Groupand Organisation Management*, 46(4), pp.1-21.

Rahid, A., 2022. SME financing of commercial banks in Bangladesh: policy directions based on sme loan borrowers' view. *International Journal of Small and Medium Enterprises*, [e-journal] 6(1), pp.1-8. <https://doi.org/10.46281/ijsmes.v6i1.1831>.

Rahman, M. and Mendy, J., 2019. Evaluating people-related resilience and non-resilience barriers of SMEs' internationalisation: A developing country perspective. *International Journal of Organisational Analysis*, 27(2), pp.225-240.

Rahman, M., 2021. Covid responses: the case of Bangladesh small and cottage industries corporation (basic). *Journal of Community Positive Practices*, [e-journal] 21(3), pp.31-48. <https://doi.org/10.35782/jcpp.2021.3.03>.

Roberts, D., Choudhury, I., Kovala, S., Roberts, S. and Tanvir, J., 2022. *Business Resilience: A Practical Guide to Sustained Progress Delivered at Pace*. London: Kogan Page Publishers.

Rosenbusch, N., Brinckmann, J. and Bausch, A., 2011. Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs. *Journal of Business Venturing*, [e-journal] 26(4), pp.441-457. <https://doi.org/10.1016/j.jbusvent.2009.12.002>.

Ross, A., Anderson, J., Selveindran, S., MacBride, T., Bowie, P., Sherriff, A., Young, L., Fioratou, E., Roddy, E., Edwards, H. and Dewar, B., 2022. A qualitative study of organisational resilience in care homes in Scotland. *Plos One*, 17(12), pp.1-19.

Ruiz-Martin, C., Lopez-Paredes, A. and Wainer, G., 2018. What we know and do not know about organisational resilience. *International Journal of Production Management and Engineering*, 6(1), pp.11-28.

Ruslin, R., Mashuri, S., Rasak, M., Alhabsyi, F., and Syam, H., 2022. Semi-structured Interview: A methodological reflection on the development of a qualitative research instrument in educational studies. *IOSR Journal of Research and Method in Education*, 12(1), pp.22-29.

Ruth, M. and Goessling-Reisemann, S., 2019. *Handbook on Resilience of Socio-Technical Systems*. New York: Edward Elgar Publishing.

Rutihinda, C., 2011. Factors influencing the internationalization of small and medium size enterprises. *International Business and Economics Research Journal (IBER)*, 7(12), pp.1-10. <https://doi.org/10.19030/iber.v7i12.3312>.

SAMA, 2020. *South African Maritime Safety Authority*. [online] Available at: <https://www.samsa.org.za/> [Accessed 5 May 2024].

Sawalha, I., 2015. Managing adversity: understanding some dimensions of organisational resilience. *Management Research Review*, 38(4), pp.346-366.

Saxer, S. and Rosenbloom, J., 2018. *Social-Ecological Resilience and Sustainability*. New York: Aspen Publishing.

Schanze, J., 2016. Resilience in flood risk management – exploring its added value for science and practice. *E3S Web of Conferences*, [e-journal] 7(1), pp.1-9. <https://doi.org/10.1051/e3sconf/20160708003>.

Schmidt, H., Mason, R., Bruwer, J. and Aspelung, J., 2017. Access to finance problems for small retail businesses in South Africa: comparative views from finance seekers (retailers) and finance providers (banks). *Banks and Bank Systems*, 12(2), pp.20-30.

Sekaran, U. and Bougie, R., 2016. *Research methods for business: A skill building approach*. Hoboken: John Wiley and Sons.

Serfontein, E. and Govender, K., 2021. The relationship between resilience and organisational control systems in the South African aviation industry. *Journal of Transport and Supply Chain Management*, [e-journal] 15(1), pp.1-12. <https://doi.org/10.4102/jtscm.v15i0.598>.

Seville, E., Brunsdon, D., Dantas, A., Le Masurier, J., Wilkinson, S. and Vargo, J., 2008. Organisational resilience: Researching the reality of New Zealand organisations. *Journal of Business Continuity and Emergency Planning*, 2(3), pp.258-266.

Seville, E., Van Opstal, D. and Vargo, J., 2015. A primer in resiliency: seven principles for managing the unexpected. *Global Business and Organisational Excellence*, 34(3), pp.6-18.

Shekarian, N., Ramirez, R. and Khuntia, J., 2022. Resilience through operational flexibility for crisis response: an international investigation of firm responses during Covid-19. *Aslib Journal of Information Management*, [e-journal] 75(6), pp.1253-1279. <https://doi.org/10.1108/ajim-04-2022-0204>.

Shela, V., Ramayah, T. and Noor Hazlina, A., 2023. Human capital and organisational resilience in the context of manufacturing: A systematic literature review. *Journal of Intellectual Capital*, 24(2), pp.535-559. <https://doi.org/10.1108/JIC-09-2021-0234>

Siagian, H., Tarigan, Z. and Jie, F., 2021. Supply chain integration enables resilience, flexibility, and innovation to improve business performance in Covid-19 era. *Sustainability*, [e-journal] 13(9), pp.1-10. <https://doi.org/10.3390/su13094669>.

Smith, J. and Johnson, R., 2018. The Impact of Technology on Communication and Collaboration in Organizations. *International Journal of Business Communication*, 46(1), 312-330. <https://www.scirp.org/journal/paperinformation?paperid=135099>

Smith, J., 2018. The global fishing economy: Impacts and challenges. *Cambridge: Cambridge University Press*.

Smith, J., 2018. The roles of large and medium-sized enterprises in the global economy. *Journal of Economic Studies*, 45(3), pp.123-135.

Smith, S., Golden, A., Ramenzoni, V., Zemeckis, D. and Jensen, O., 2020. Adaptation and resilience of commercial fishers in the Northeast United States during the early stages of the COVID-19 pandemic. *PloS One*, 15(1), pp.1-31.

Song, H.J., Yeon, J. and Lee, S., 2021. Impact of the Covid-19 pandemic: evidence from the U.S. restaurant industry. *International Journal of Hospitality Management*, [e-journal] 92(1), pp.1-8. <https://doi.org/10.1016/j.ijhm.2020.102702>.

South Africa Travel Online, 2013. *South Africa's provinces*. [online] Available at: <<https://www.southafrica.to/provinces/provinces.php>> [Accessed 15 February 2025].

Sreenivasan, A. and Suresh, M., 2023. Readiness of financial resilience in start-ups. *Journal of Safety Science and Resilience*, 4(3), pp.241-252.

Staden, L., 2022. The influence of certain factors on South African Small and medium-sized enterprises towards export propensity. *Development Southern Africa*, 39(3), pp.457-469.

StatsSA, 2019. *Five facts about poverty in South Africa*. [online] Available at: <<https://www.statssa.gov.za/?p=12075>> [Accessed 21 March 2023].

Stevens, A. and Teal, J., 2023. Diversification and resilience of firms in the agrifood supply chain. *American Journal of Agricultural Economics*, 15(1), pp.1-17.

Su, S., Baird, K. and Munir, R., 2022. Organisational resilience: the role of organisational culture from an organisational life cycle perspective. *International Journal of Manpower*, [e-journal] 44(3), pp.403-421. <https://doi.org/10.1108/ijm-11-2021-0631>.

Suharti, T. and Kumala, M. T., 2019. Fishing quotas regulation as the embodiment of fish resources protection. Proceedings of the International Conference on Innovation in Research (ICIIR 2018) – Section: *Economics and Management Science*. <https://doi.org/10.2991/iciir-18.2019.40>.

Suharti, T. and Kumala, M. T., 2019. Fishing quotas regulation as the embodiment of fish resources protection. Proceedings of the International Conference on Innovation in Research (ICIIR 2018) – Section: *Economics and Management Science*. <https://doi.org/10.2991/iciir-18.2019.40>

Sun, J., Balakrishnan, S. and Zhang, Z., 2020. A resource allocation framework for predisaster resilience management of interdependent infrastructure networks. *Built Environment Project and Asset Management*, [e-journal] 11(2), pp.284-303. <https://doi.org/10.1108/bepam-06-2020-0109>.

Swaminathan, R., 2022. How can resilience create and build market value? *Journal of Creating Value*, [e-journal] 8(2), pp.204-218. <https://doi.org/10.1177/23949643221125287>.

Tahir, S. H., Moazzam, M. M., Sultana, N., Ahmad, G., Shabir, G., and Nosheen, F. 2020. Firm's risk and capital structure: An empirical analysis of seasonal and non-seasonal businesses. *The Journal of Asian Finance, Economics and Business*, 7(12), 627-633. <https://doi.org/10.13106/jafeb.2020.vol7.no12.627>

Tasic, J., Amir, S., Tan, J. and Khader, M., 2020. A multilevel framework to enhance organisational resilience. *Journal of Risk Research*, 23(6), pp.713-738.

Teng-Calleja, M., Hechanova, M., Sabile, P.R. and Villasanta, A., 2020. Building organization and employee resilience in disaster contexts. *International Journal of Workplace Health Management*, [e-journal] 13(4), pp.393-411. <https://doi.org/10.1108/ijwhm-09-2019-0122>.

Tennakoon, W. and Janadari, M., 2021. Organisational resilience: What it is and what it isn't? A Conceptual Review. *Wayamba Journal of Management*, 12(1), pp.1-30.

Thilmany, D., Canales, E., Low, S. A., and Boys, K. A. 2020. Local food supply chain dynamics and resilience during covid-19. *Applied Economic Perspectives and Policy*, 43(1), 86-104.

<https://doi.org/10.1002/aepp.13121>

Thomas, P., and Suresh, M., 2022. Exploring organisational resilience capabilities and technology adoption for sustainability: A systematic literature review. *Technology in Society*, 68, 101866. <https://doi.org/10.1016/j.techsoc.2022.101866>

Ting-hua, L., Kou, F., Liu, X. and Elahi, E., 2022. Cluster commercial credit and total factor productivity of the manufacturing sector. *Sustainability*, [e-journal] 14(6), pp.1-8.

<https://doi.org/10.3390/su14063601>.

Trunk, A. and Birkel, H., 2022. No resilience without partners: a case study on German small and medium-sized enterprises in the context of COVID-19. *Schmalenbach Journal of Business Research*, 74(4), pp.537-574.

Ungar, M., 2021. *Multisystemic resilience: Adaptation and transformation in contexts of change*. Oxford: Oxford University Press.

Vakilzadeh, K. and Haase, A., 2021. The building blocks of organizational resilience: A review of the empirical literature. *Continuity and Resilience Review*, 3(1), 1-21.

<https://doi.org/10.1108/CRR-04-2020-0002>

Villasante, S., Macho, G., Silva, M., Lopes, P., Pita, P., Simon, A., Balsa, J., Olabarria, C., Vazquez, E. and Calvo, N., 2022. Resilience and Social Adaptation to Climate Change Impacts in Small-Scale Fisheries. *Frontiers in Marine Science*, 9(1), pp.1-18.

Virdin, J., Basurto, X., Nico, G., Harper, S., del Mar Mancha-Cisneros, M., Vannuccini, S. and Franz, N., 2023. Fishing for subsistence constitutes a livelihood safety net for populations dependent on aquatic foods around the world. *Nature Food*, [e-journal] 4(10), pp.874-885.

<https://doi.org/10.1038/s43016-023-00844-4>.

Walker, B. and Salt, D., 2006. *Resilience Thinking: Sustaining Ecosystems and People in a Changing World*. London: Island Press.

Weber, M., 2017. *Methodology of Social Sciences*. London: Routledge.

Wieland, A. and Wallenburg, C.M., 2013. The influence of relational competencies on supply chain resilience: a relational view. *International Journal of Physical Distribution and Logistics Management*, [e-journal] 43(4), pp.300-320. <https://doi.org/10.1108/ijpdlm-08-2012-0243>.

Williams, T.A. and Shepherd, D.A., 2016. Building resilience or providing sustenance: different paths of emergent ventures in the aftermath of the Haiti earthquake. *Academy of Management Journal*, [e-journal] 59(6), pp.2069-2102. <https://doi.org/10.5465/amj.2015.0682>.

Woods, P., Macdonald, J., Bárðarson, H., Bonanomi, S., Boonstra, W., Cornell, G., Cripps, G., Danielsen, R., Farber, L., Ferreira, A. and Ferguson, K., 2022. A review of adaptation options in fisheries management to support resilience and transition under socio-ecological change. *ICES Journal of Marine Science*, 79(2), pp.463-479.

World Bank, 2024. *SME Finance*. [online] Available at: <https://www.worldbank.org/en/topic/sme/finance> [Accessed 28 February 2024].

Wu, B. and Wang, T., 2021. The small and medium-sized enterprises financing: a perspective of the private bank. *E3S Web of Conferences*, [e-journal] 275(1), pp.1-5. <https://doi.org/10.1051/e3sconf/202127501038>.

Wut, T., Lee, S. and Xu, J., 2022. Role of Organisational Resilience and Psychological Resilience in the Workplace—Internal Stakeholder Perspective. *International Journal of Environmental Research and Public Health*, 19(1), pp.1-14.

Yang, H., Tang, M., Chao, X. and Li, P., 2021. Organisational resilience in the Covid-19: a case study from China. *Journal of Management and Organization*, [e-journal] 27(6), pp.1112-1130. <https://doi.org/10.1017/jmo.2021.59>.

Yang, M., Wang, J., Jing, Z., Liu, B. and Niu, H., 2022. Evaluation and regulation of resource-based city resilience: Evidence from Shanxi Province, China. *International Journal of Disaster Risk Reduction*, 81(1), pp.1-13.

Yaya, R., Suryanto, R., Abubakar, Y.A., Kasim, N., Raimi, L. and Irfana, S.S., 2022. Innovation-based diversification strategies and the survival of emerging economy village-owned enterprises (voes) in the Covid-19 recession. *Journal of Entrepreneurship in Emerging Economies*, [e-journal] 16(2), pp.339-365. <https://doi.org/10.1108/jeee-06-2021-0213>.

Yu, J., Yuan, L., Han, G., Li, H. and Li, P., 2022. A Study of the Impact of Strategic Human Resource Management on Organisational Resilience. *Behavioral Sciences*, 12(12), pp.508-527.

Zabłocka-Kluczka, A. and Sałamacha, A., 2020. Moderating role of corporate reputation in the influence of external support on organisational resilience and performance. *Engineering Management in Production and Services*, 12(3), pp.87-102. <https://doi.org/10.2478/emj-2020-0021>.

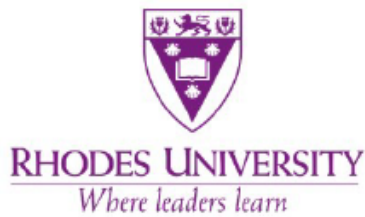
Zahari, A.I., Mohamed, N., Said, J. and Yusof, F., 2021. Assessing the mediating effect of leadership capabilities on the relationship between organisational resilience and organisational performance. *International Journal of Social Economics*, [e-journal] 49(2), pp.280-295. <https://doi.org/10.1108/ijse-06-2021-0358>.

Zhou, Q., Edafighor, T.E., Wu, C. and Doherty, B., 2022. Building organisational resilience capability in small and medium-sized enterprises: the role of high-performance work systems. *Human Resource Management Journal*, [e-journal] 33(4), pp.806-827. <https://doi.org/10.1111/1748-8583.12479>.

Zighan, S., Abualqumboz, M., Dwaikat, N. Y. and Alkalha, Z., 2021. The role of entrepreneurial orientation in developing SMEs resilience capabilities throughout covid-19. *The International Journal of Entrepreneurship and Innovation*, 23(4), pp.227-239. <https://doi.org/10.1177/14657503211046849>

Appendix A

Ethics Approval



Rhodes University Human Research Ethics Committee

PO Box 94, Makhanda, 6140, South Africa

t: +27 (0) 46 603 7727

f: +27 (0) 46 603 8822

e: ethics-committee@ru.ac.za

<https://www.ru.ac.za/researchgateway/ethics/>

17 July 2023

Ms. Nomkhitha Mfono

Email: g20m5163@campus.ru.ac.za g20m5163@campus.ru.ac.za

Review Reference: 2023-7049-7729

Dear Ms. Nomkhitha Mfono

Title: A study on the resilience of medium sized commercial fishing enterprises in the Eastern Cape Province.

Researcher: Ms. Nomkhitha Mfono

Supervisor(s): Ms. Leticia Greyling,

This letter confirms that the above research proposal has been reviewed and **APPROVED** by the Rhodes University Human Research Ethics Committee (RU-HREC). Your Approval number is: 2023-7049-7729

Approval has been granted for 1 year. An annual progress report will be required in order to renew approval for an additional period. You will receive an email notifying you when the annual report is due.

Please ensure that the ethical standards committee is notified should any substantive change(s) be made, for whatever reason, during the research process. This includes changes in investigators. Please also ensure that a brief report is submitted to the ethics committee on the completion of the research. The purpose of this report is to indicate whether the research was conducted successfully, if any aspects could not be completed, or if any problems arose that the ethical standards committee should be aware of. If a thesis or dissertation arising from this research is submitted to the library's electronic theses and dissertations (ETD) repository, please notify the committee of the date of submission and/or any reference or cataloguing number allocated.

Sincerely,

Mr. Joyce Sewry

Acting Chair: Rhodes University Human Research Ethics Committee, RU-HREC

cc: Ethics Coordinator

Appendix B

Interview schedule and questions.

Topic: A study on the resilience of medium-sized commercial fishing enterprises in the Eastern Cape Province

Introduction

My name is Nomkhitha Mfono, and I am an MBA student at Rhodes University. I am conducting a research study on resilience of medium-sized commercial fishing enterprises in the Eastern Cape Province as part of my academic requirements to complete my MBA degree. The goal of my study is to investigate factors contributing to the resilience of medium-sized commercial fishing enterprises in the Eastern Cape province. The study aims to investigate barriers encountered in building resilience amongst medium-sized commercial fishing enterprises. Consequently, the study will also focus on determining the organisational-level factors that contribute to the resilience of medium-sized enterprises in the fishing industry and make recommendations for improvement to achieve resilience. The interview is estimated to take a duration of between 45-60 minutes for each participant.

Introduction section will clarify what resilience means in terms on the Study:

Resilience is defined as an organisation's ability to survive in the face of significant changes in the commercial and economic environment, and/or the ability to resist shocks and catastrophic occurrences. The definitions and measurements of SME resilience that have been agreed upon include the most common components of resilience, which take into account factors like adaptability, maintaining positive performance (growth), company responsiveness capabilities, competitiveness, the company's ability to minimize vulnerabilities, and quick recovery from a

disruptive state. These factors are the most comprehensive factors in terms of describing resilience and will be adopted as a framework to investigate the resilience concept in Small and Medium Enterprises “SMEs” under this study.

QUESTION 1

General Questions

1. Please describe your position within the organisation.
2. How long have you worked within the fishing industry?
3. What makes your industry different from other industries?
4. How do you see the future of fishing industries in terms of business continuity in the Eastern Cape?

QUESTION 2

Questions to determine the organisational-level factors which contribute to the resilience of medium-sized commercial fishing enterprises in the Eastern Cape province.

There are several factors to contribute to organisational-level resilience. We will discuss each of them in this section:

- a. Please share your opinion on the organisation’s ability to adapt or capability to change to accommodate industry/environmental changes or shifting market conditions.
 - b. Where possible, share examples to illustrate this characteristic.
 - c. What, in your opinion, are the challenges to the organisation being addressed to remain resilient regardless of the changing environment?
 - d. What hinders your organisation from adapting to changes?
 - e. What, in your opinion, are practices, initiatives, or plans that need to be put in place to improve adaptability within your organisation? What related improvements can you suggest for your own, or other organisations?
2. Explain what is maintaining positive performance (growth)for your own organisation:

- a. Please share your opinion on your organisation's strategies for maintaining a positive performance. Where possible, share examples to illustrate this characteristic.
 - b. What, in your opinion, are the challenges to the organisation in maintaining a positive performance growth in this changing environment? What hinders your organisation from adapting?
 - c. What, in your opinion, are practices, initiatives, or plans that need to be in place to improve and result in a positive performance within your organisation? What related improvements can you suggest for your own, or other organisations, and the industry as a whole?

3. Explain what responsive strategies are adopted by your organisation to phenomena that occur related to both internal and external factors, as a consequence of maintaining business stability.
 - a. Please share your opinion on your organisation's responsiveness to the changing environment. Where possible, share examples to illustrate this characteristic.
 - b. What, in your opinion, are the challenges to the organisation, being responsiveness to changing environment or market shift? What hinders your organisation from being responsive?
 - c. What, in your opinion, are practices, initiatives, or plans that need to be put in place to improve your organisation responsiveness? What related improvement can you suggest for your own, or other organisations, and the industry as a whole?

4. Explain what competitiveness is for an organisation?
 - a. Please share your opinion on your organisation's competitiveness. Where possible, share examples to illustrate this characteristic?
 - b. What, in your opinion, are the challenges to the organisation, being competitive in this changing environment? What hinders your organisation from being competitive?
 - c. What, in your opinion, are practices, initiatives, or plans that need to be put in place to improve your organisation's competitiveness?

5. Explain what minimising vulnerabilities is for your organisation.

- a. Please share your opinion on your organisation's strategies implemented to minimise vulnerabilities. Where possible, share examples to illustrate this characteristic.
 - b. What, in your opinion, are the challenges to the organisation in implementing a strategy to minimise vulnerabilities in this changing environment? What hinders your organisation from implementing this strategy?
 - c. What, in your opinion, are practices, initiatives, or plans that need to be placed to improve your organisation vulnerabilities?
6. What related improvement can you suggest for your own, or other organisations, and the industry as a whole?
 7. Is there training related to resilience strategy provided to enhance performance of individuals in your organisation? if so, what is the percentage of the budget for training for individuals relative to the Net profit of the organisation?
 8. In your view, what do you think will be the risks of not adapting to emerging threats?

QUESTION 3

Question to determine the challenges encountered in the building of resilience amongst medium-sized commercial fishing enterprises in the Eastern Cape province.

1. What challenges do you experience in building resilience in your organisation?
2. Does your business have key resources needed for building resiliencies, if so please explain.
3. How do these key business resources affect your business's ability to build resilience?
4. How can your organisation improve its resilience capabilities?
5. How does your organisation foster resilience?
6. In your opinion do you believe that challenges faced in your organisation are resolved timeously, if not, explain the main reason they are delayed?
7. What impact do you think the lack of, or delayed response could have to the organisation?
8. In your opinion what opportunities are there for building resilience within this organisation or other similar organisations in this industry?

Conclusion

Do you have any additional information relevant to the study that has not yet been covered in the interview?

Can we contact you soon if the researcher has any other queries?

The researcher would like to thank the participant for participating in the research.