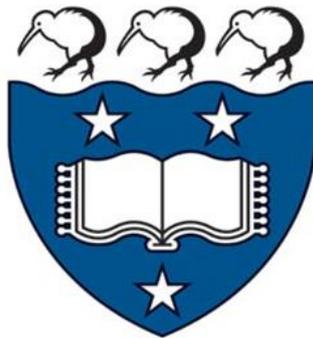


Resilience Through Lived Experience

A Case Study of Micro and Small Enterprises (MSEs) in Ba Province, Fiji

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A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy
in Development Studies, The University of Auckland, 2022.

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Who cares?

Floods are now the worst in history.

Why so bad? Still a mystery

Tired of them? Aren't we all?

Forgotten in its aftermath, are we all.

A poem excerpted from MSE interview participant transcripts.

Abstract

It is well established that micro and small enterprises (MSEs) are adversely impacted by climate-induced hazards, and their vulnerability to such disasters is exacerbated by the growing impacts of climate change. Drawing on Bourdieu's theoretical framework, this thesis critically evaluates the experiences of MSEs in Ba Province, Fiji, and how they have adapted to, coped with, and recovered from multiple flood events. The answers to these questions advance knowledge on resilience - a multi-faceted and contested concept within disaster policy discourse and one that is commonly used as an alternative to managing vulnerabilities.

Considering the multifaceted nature of my study, a qualitative research approach was adopted, and data were gathered from 'talanoa' conversations with 59 MSE owners and 34 disaster management practitioners, through two validation workshops and direct observations from fieldwork. The gathered data were subjected to thematic analysis under four broad categories: hazard impacts on MSEs; synergistic relationships (vulnerability, resilience, and adaptation); disaster capital; and governance (socio-institutional determinants).

My study revealed three key findings. First, MSEs sustained significant damages to property and stocks, as well as disruptions to supply, that related to the external built environment, customers, and suppliers as a direct result of climate hazards. The discussion on impacts also underscored that the vulnerabilities of MSEs exacerbated by the external built environment, which disrupts business operations and complicates recovery of MSEs. To cope with the impact, MSEs draw on various forms of capital across different fields and develop specific habitus. The findings revealed the interplay of capital, where cultural value systems of MSEs had significantly influenced the emergence of other capitals, particularly social capital. I argue that the social networks that were formed through past disaster experiences were not specifically developed to respond to disasters but rather to overcome daily resource scarcity.

The third major finding underscores the need for a bottom-up approach to understanding resilience and the need for greater inclusivity of MSEs in formulating policies and programmes concerning them. My research challenges the multitude of regional and national policy configurations setting out processes to enhance the resilience of the businesses, particularly the relevance of these policies to MSEs. Evidence of how neoliberal systems devolve responsibilities for coping with risks from the state to the vulnerable, which arguably oppress levels of social relations, generate certain stereotypes, and contribute to the uneven distribution of capitals are shared.

The insights from my research make a compelling case to rethink about resilience-building interventions and policies targeted towards the MSE sector. Often, there is a significant disconnect between policy and practice, which I demonstrate is partly due to the top-down, systematic, 'one size fits all,' and deterministic approaches that Disaster Management Institution's employ in policy development.

Dedication

To my late sister, Priyasheel Michael (14/04/1988 – 18/12/2018), I will forever cherish the memories we share, especially your words of encouragement when I felt like giving up.

And to you my daughter, Sophia Michael. I do not know what I would have done without you. I have learnt a great deal from watching you grow, and I would have not made it without you.

Thanks for being my greatest inspiration.

In the spirit of love, I dedicate this thesis to both of you.

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To my supportive supervisors, Professor Andreas Neef and Dr Jesse Hession Grayman, thank you for inspiring me to pursue this research. You both provided intellectual guidance and constructive critique throughout my study. Those discussions have moulded my critical thinking skills. I want to thank you both for the moral support, especially when I felt like giving up. My days of being stuck in Fiji during the COVID-19 pandemic were among the most challenging when completing this thesis and I cannot thank you both enough for your words of encouragement when I found myself adrift in my research. I owe this PhD journey to Professor Neef, whom I had met in 2015 during a summer research programme in Fiji. Thank you for always guiding and encouraging me to complete this journey. Also special thanks to Professor Yvonne Underhill-Sem for her insights and constant reminders on the value of contributing to the wider Pacific knowledge.

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List of Abbreviations and Acronyms

BBB	Build Back Better
BIC	Business Incubation Support Centre
BNPL	Basic Needs Poverty Line
CCA	Climate Change Adaptation
CRED	Centre for Research on the Epidemiology of Disasters
DMI	Disaster Management Institutions
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EM-DAT	Emergency Events Database
ETP	Entrepreneurship Training Programme
FEMA	Federal Emergency Management Agency
FRCA	Fiji Revenue and Customs Authority
FRDP	Framework for Resilient Development in the Pacific
GIS	Geographical Information System
GOF	Government of Fiji
IFRC	International Federation of Red Cross
IPCC	Intergovernmental Panel on Climate Change
ISEF	Import Substitution and Export Finance Facility
MCTTT	Ministry of Commerce, Trade, Tourism and Transport
MDF	Market Development Facility
MOE	Ministry of Economy
MSE	Micro and Small Enterprises
MSME	Micro, Small and Medium Enterprises
NAP	National Adaptation Plan
NCCP	National Climate Change Policy

NCSMED	National Centre for Small and Micro Enterprises Development
NDP	Northern Development Programme
NDRRP	National Disaster Risk Reduction Policy
NGOs	Non-governmental Organisations
PDNA	Post Disaster Needs Assessment
PFIP	Pacific Financial Inclusion Programme
PICs	Pacific Island Countries
PIFS	Pacific Islands Forum
RBF	Reserve Bank of Fiji
RID	Risk Informed Development
SDGs	Sustainable Development Goals
SFDRR	Sendai Framework for Disaster Risk Reduction
SME	Small and Medium Enterprises
SMECG	Small and Medium Enterprises Credit Guarantee Scheme
SPC	Secretariat of the Pacific Community
TC	Tropical Cyclone
UK	United Kingdom
UNDP	United Nations Development Programme
UNDRR	United Nations Office for Disaster Risk Reduction
UNFCCC	United Nations Framework Convention on Climate Change
US	United States of America

Chapter 1: Building resilience to uncertain futures

1.1. Setting the scene: MSEs and climate hazards

Fiji continues to be faced with the existential threat of climate change. After Tropical Cyclone Winston in 2016, more than twelve tropical cyclones have struck Fiji, leaving a price tag of FJ\$9 billion to effectively adapt the Fijian economy against the perils of climate change - much of which is owed to climate-related hazards.

Honourable Aiyaz Sayed-Khaiyum, Attorney General and Minister of Economy, Fiji Government, 31 March 2021, Extract from Speech at the High Level Ministerial on Climate Adaptation and Resilience.

Pacific island countries (PICs) have long been exposed to climate-related hazards such as cyclones and floods, and their vulnerability to these events is exacerbated by the growing impacts of climate change (Arnold, Mearns, Oshima, & Prasad, 2016; Kergomard, 2015), comparatively small size and geographical remoteness (Iyer-Raniga & Marshall, 2020), poor land use planning (Piggott-McKellar, McNamara, Nunn, & Sekinini, 2019), and poor risk governance systems (Mitchell, 2014). In the last twenty years, evidence drawn from the Emergency Events Database (EM-DAT) established by the Centre for Research on the Epidemiology of Disasters (CRED) reveals that PICs have experienced a total of 142 climate hazards, which cumulatively accounted for economic and social losses estimated at US\$23 billion¹ (EM-DAT, 2021; IPCC, 2021). Evidentially, these statistics are alarming, yet serve as a critical reminder of the existential threats that climate hazards have on PICs and their irrefutable effects on the livelihoods, well-being, and economic prosperity of Pacific communities (Crick, Eskander, Fankhauser, & Diop, 2018; IPCC, 2021; Noy & Yonson, 2016). While the impacts of climate hazards serve as a significant backdrop to the narratives shared

¹ Different scholarly sources estimate different dollar amounts of disaster losses due to methodology of assessment. However, it is a common understanding that overall losses from disasters have drastically increased.

by participants in my study, the more important question of my inquiry is how vulnerable groups have prepared for, coped with, and recovered from climate hazard events.

A growing body of disaster scholars have examined how communities have built resilience to hazards (Orhan, 2017; Paton & Johnston, 2001; Yila, Weber, & Neef, 2013), including how the multi-faceted and complex notion of resilience is perceived by those affected (Hanna, 2013; Orchiston, 2013; Paul, Weinthal, Bellemare, & Jeuland, 2016). Likewise, there is a plethora of written work on the reconstruction processes of sectors such as tourism (Albattat & Matsom, 2014; Brown, Rovins, Feldmann-Jensen, Orchiston, & Johnston, 2017; Lo, Cheung, & Law, 2006; Orchiston, 2013), agriculture (Murray & Watson, 2019; G. H. Reid, 2009), manufacturing (Aiemwongnukul, 2014; Neise & Diez, 2019), and others. The concern, however, is that within these sectors and communities there are critical economic subgroups, such as Micro and Small Enterprises (MSEs) whose experiences and practices of building resilience to climate hazards remain unexplored (Crick, Eskander, et al., 2018; Runyan, 2006; Wedawatta, Ingirige, & Proverbs, 2014; Yoshida & Deyle, 2005). Within disaster or development scholarship, MSEs remain under-represented and a rarely cited category of business, with many scholars equating MSEs with Small and Medium Enterprises (SMEs). However, definitional boundaries between MSEs and SMEs differ quite significantly as MSEs include only micro and small businesses and exclude medium-sized enterprises. In this research, the definition of MSEs is drawn from the MSE Act 2002, where 'micro enterprise' is classified as a business with an annual turnover not exceeding US\$15,000 and/or which employs not more than five people, while a 'small enterprise' is classified as one with an annual turnover of between US\$15,000 and US\$50,000 and/or employs between six and 20 employees. These definitions, however, differ from one context to another depending on the size of the economy.

Drawing on Bourdieu's capital theories, my study aimed to address the identified knowledge gap by drawing on firm-level data to distinguish the impacts of climate-related hazards on MSEs in Ba Province, Fiji, as well as their experiences in preparing for, coping with, and recovering from these events. As in many countries, MSEs in Fiji represent a great majority of the private sector and are the cornerstones of the local supply chain (Market Development Facility, 2018; Nair & Chelliah, 2012). However, despite noting their critical role, there is very little known or documented about their experiences or recovery journey in the aftermath of natural hazards.

My study argues that MSEs' knowledge and embodied and emotional experiences from natural hazards is a powerful starting point to opening an inquiry on the processes of building resilience. In exploring MSEs narratives, the intention of my thesis is not only to provide an account of loss and challenges, but also to learn about the adopted practices and methods of coping with and recovering from hazards. Disaster scholars have highlighted that disaster management policies elide local practices that are deemed to be more effective (Izumi & Shaw, 2014; Orhan, 2016). As such, there is an imperative to unlearn perspectives of 'building resilience' inscribed into disaster policy and legal frameworks by experts, policy makers and aid organisations, because the perspectives of the vulnerable are not considered. For instance, a few studies have explained how past disaster experience has specifically influenced MSEs' role in the design and operationalisation of their own adaptation initiatives (see Ates & Bititci, 2011; Crick, Gannon, Diop, & Sow, 2018). Crick et al. (2018), in particular, conducted a survey on the adaptation behaviour of MSEs in semi-arid dry regions of Kenya and Senegal in Africa. Their study revealed that past disaster experiences significantly influenced MSEs' decision to adopt mitigation or adaptation measures, which were unsustainable within their means. However, the deterministic disaster policies in these countries had no mention of common

measures of MSE, which were detail-rich because of the top-down policy making processes (Crick et al., 2018). Numerous scholarly works have also provided crucial insights by identifying several other factors that attribute to behavioural changes, such as affect and emotion (Siegrist & Gutscher, 2008; Västfjäll, Peters, & Slovic, 2008), adaptive capacity (Arunrat, Wang, Pumijumnong, Sereenonchai, & Cai, 2017; Campos, Velázquez, & McCall, 2014), and risk perspective (Jones & Tanner, 2015; Mondal, 2013), as thoroughly discussed in Chapter 2. The increasing concerns of future risks and uncertainties posed by climate hazards have produced a 'collective surge' in understanding resilience in disaster practice (Tierney, 2015). The following sub-section draws attention to the current approaches pursued by scholars in understanding resilience among MSEs, and the issues with these approaches.



Figure 1.1: Submerged area in Ba Town affecting multiple MSEs in the April 2018 floods (Source: Sivendra Michael, fieldwork 2018)

1.2. A critique of approaches for understanding MSE resilience.

Disaster studies highlight that MSEs are highly sensitive to natural calamities and struggle to cope with such events due to several interrelated factors, including their business characteristics. Those attributes include the size and nature of operations (Alesch, Holly, Mittler, & Nagy, 2001; Ngin, Chhom, & Neef, 2020), the locality of their operations (Asgary, Anjum, & Azimi, 2012; Crick, Eskander, et al., 2018; Ngin et al., 2020), their frequently high dependence on their supply chains (Mäkilä, 2014; Wedawatta et al., 2014), and the low levels

of resource and human capacity that they have at their disposal (Izumi & Shaw, 2015; Wedawatta et al., 2014). The limitations of these findings, however, are that these are based on individual disaster events drawn upon in the post-disaster phase,² due to the opportunistic nature of disaster research. Thus, only a partial understanding of resilience is offered. In an attempt to present a more holistic view, my research views resilience as a dynamic process, and as such evaluates accounts of the actions of MSEs in the pre-disaster, during-disaster, and post-disaster phases of multiple events.

Further, extant literature identifies a pressing need to create tools, scorecards and indices that purport to measure or gauge the disaster resilience of businesses in order to better understand how they have adapted or managed to cope in the aftermath of a disaster (Chang & Shinozuka, 2004; Kajitani & Tatano, 2009; Sharifi, 2016). Sharifi's study (2016) critically analyses 36 different resilience assessment tools and indices and distinguishes their common elements. The study revealed that attributes and proxy measures of resilience developed using quantitative approaches provided a limited understanding, because many dimensions of resilience remained unconsidered. Consistent with Sharifi's (2016) study, social science disaster researchers argue that indices can fail to capture factors such as the political economy and socio-cultural differences across types of businesses (Birkmann, Cutter, Rothman, & Welle, 2015; Orchiston, 2013). A significant body of literature has also drawn attention to indices being formulated based on publicly available data or secondary data sources that do not necessarily include micro-level empirical data (Birkmann, 2006b; Revet, 2013; Rose & Krausmann, 2013).

² According to Phillips (2014), a disaster is typically conceptualized as a life cycle, which traditionally consists of preparedness, response, recovery, and mitigation (see also Fothergill, 1998). However, this conceptualization can be challenged as phases of disaster can occur concurrently (Lindell, 2013).

Although many scholars have emphasised the importance of quantitative enquiry or the use of a numerical-based evidence approach, there is also a rationale for examining the experiences and the impacts of natural hazards on MSE using a qualitative approach. A qualitative research framework provides the opportunity to elicit divergent viewpoints and explore socio-cultural factors. For this reason, a number of scholars have noted that a divergence exists between frameworks and the realities faced by businesses, especially MSEs (Aldunce, Beilin, Handmer, & Howden, 2014; Cioccio & Michael, 2007)

1.3. Justification for research and scope of this study

While my interest in disaster research was compelled by my personal experiences, the justification for this thesis expands well beyond these premises — it is of great importance as Fiji and other Pacific Island Countries continue to witness the increasing frequency and intensity of climate-related hazards³, which have ultimately demanded various mitigation and adaptation responses. Over the years, these responses have emerged in a plethora of disaster management literature, plans and policies, promulgated by academics, governments, and non-governmental organisations (NGOs). For instance, the development of National Adaptation Plans (NAPs) by most governments across the world, or disaster management frameworks by NGOs and academic institutions, are all intended to provide guidance on how to prepare for and respond to disasters. Likewise, efforts at raising awareness on preparedness and mitigation initiatives have been increased significantly since the adoption of the Hyogo Framework for Action in 2005, the first comprehensive global blueprint for disaster risk reduction (DRR). However, despite noting the advances made in policy and advocacy, the

³ For PICs, not all climate related hazards have increased in intensity and frequency. For example, droughts are yet to be fully analyzed and statistical evidence reveal that only the intensity of Tropical Cyclone events have increased.

voice that remains missing from the field of analysis is that of the people and MSEs these initiatives are designed for.

My study addresses several knowledge gaps, as identified in the earlier section. First, it addresses the theoretical challenge related to universality. A few disaster studies have advanced knowledge on the vulnerability and resilience of MSEs. However, much of that knowledge is specific to locations outside of small island developing states (SIDS) in the Pacific region. My study focuses on small island developing states, where the notion of disaster resilience in relation to MSEs remains under-studied. As reflected in Section 1.1, the current studies on MSEs' resilience to disasters tend to be conducted within a developed country context—such as the United States (US) and the United Kingdom (UK) — or drawn out of a broader private sector analysis. For instance, their analysis does not focus specifically on the subset of entities within the private sector but rather on the losses and damages incurred by the private sector as a whole, which arguably can be biased to a sample of larger businesses.

Second, disaster research reveals that MSEs, compared to larger businesses suffer disproportionately from disasters and their vulnerability to these events are exacerbated by several factors, such as poorly designed policies, the surrounding built environment, and the increasing impacts of climate change (see Halkos & Skouloudis, 2020; Pathak & Ahmad, 2016; Runyan, 2006). However, existing disaster management policies promote resilience-building initiatives which MSEs may consider irrelevant or unnecessary because needs and capacities are not properly understood. This disconnect between disaster management policies and MSEs is also partly due to the top-down, systematic, 'one size fits all,' and deterministic approaches that researchers and policy makers tend to employ in policy development. Adding to this argument, studies by Crick et al. (2018) and Wedawatta et al. (2014) explain that post-evaluation of disasters is restricted to how well the event was dealt with, and thus does not

offer any learnings or opportunities to draw on the experiences of the affected populations. Disaster researchers have the responsibility to advance more practical disaster management knowledge, which requires re-conceptualisation and contextualisation of vulnerability and resilience to natural hazards based on the perspectives of the affected. My research attempts to address these gaps by drawing on the experiences of MSEs from Ba Province affected by natural hazards, thus offering an opportunity to inform policy with empirical evidence.

Third, adaptive responses to building disaster resilience is influenced by a range of factors, thus requiring a contextualised analysis. Several studies have pointed out that MSEs are reactive in their responses to disaster preparedness and recovery, and their responses are shaped by factors such as emotions, social capital, social networks, and adaptive capacity. For instance, Ngin, Chhom, and Neef (2020) argued that, in Cambodia, MSEs had unplanned responses towards climate-related disasters but the majority were able to recover in the aftermath of a disaster. These scholars drew attention to business characteristics as shaping response. In Fiji, there is a strong sense of solidarity in times of disasters that is historically and culturally associated with indigenous practices. Thus, an in-depth understanding of these complex factors will shed light on Fiji resilience-building approaches.

Finally, disaster studies are often focused on 'easy to reach' social groups or single participant groups, particularly those that are visible and have networks with authorities. Thus, the findings of these studies are argued to be 'partial' or 'biased.' My research therefore explores the disconnect between actors designing and implementing resilience development initiatives, and the MSE owners who are affected by multiple climate-induced hazards.

Beyond its empirical significance, my study is also theoretically relevant. Studies on disaster resilience have pointed out the definitional deficiencies of the term 'resilience' and its linkages to western worldviews, which development programmes have co-opted and applied within the

Pacific context (Knopf, 2015; Mercer, Kelman, Suchet-Pearson, & Lloyd, 2009). Mercer et al. (2009) argued that there is a need to recognise the interaction between indigenous and scientific knowledge bases. However, it is evident that concepts like 'resilience' may not incorporate indigenous worldviews and local narratives that offer possibilities for exploring alternative post-disaster futures (Enarson, Fothergill, & Peek, 2007). My study seeks to address this gap by centring the experiences of MSEs on the multi-scalar process of building resilience. To do this, the study lets theories of resilience fall between the natural segments of stories, rather than become the organising principle, as is often the case in disaster research (Enarson et al., 2007). The findings of this research give weight to the narratives of MSE owners and the concrete ways in which these businesses individually or collectively generate, deploy, and employ a variety of approaches to build their resilience. Overall, the findings will provide policymakers and practitioners with more practical knowledge to develop effective and inclusive disaster risk management (DRM) strategies.

1.3.1. Research objectives

As alluded to throughout this introductory chapter, there are a few gaps in current literature of resilience that need further research. The objective of my thesis is to provide an in-depth understanding of **the key enabling and constraining factors to building disaster resilience amongst MSEs**. The investigation was mainly qualitative, through a case study of MSEs in Ba Province, Fiji. The specific objectives of this research are:

- 1.) To understand how MSEs have been affected by disasters and their specific vulnerabilities in relation to disasters.
- 2.) To identify and discuss the means by which MSEs prepare for, respond to and recover from disasters.

- 3.) To comprehend the successes and challenges faced by MSEs in building disaster-resilience (such as the tools and practices they have used to assess their disaster-risk), the measures they have implemented, and any other aspects of adaptation or disaster risk management.
- 4.) To evaluate the role of disaster reduction institutions in supporting the resilience-building initiatives of the private sector, especially MSEs, by discussing the existing types of support that have been provided, the influences on this support that have been administered, and MSEs' perceptions of disaster reduction institutions and the support rendered.

This thesis seeks to contribute to the narrow body of Pacific knowledge on the factors influencing the resilience-building process of MSEs, both to promote shared learning and to provide critical information to policymakers implementing DRR initiatives for the private sector.

1.3.2. Research questions

Approaching the research objectives above necessitates a set of guiding research questions to ground the purpose of this study. In this regard, the following research questions guide my study.

1. How have climate-hazards, specifically floods affected MSEs in Ba?
2. What key strategies or measures do MSEs consider to be vital to enhance their disaster-resilience?
3. What support has been provided by disaster-reduction institutions to build the resilience of MSEs?

1.4. Research methodology

My study is based on a constructivist positioning which acknowledges that individuals actively construct meanings through their social experiences. Through an interpretivist epistemology, I was immersed in the research through engagement in the data collection and interpretation process; in other words, the research relies on the perceptions and attitudes of participants, as well as social constructions by the researcher. The study thus takes a qualitative approach. Data were primarily collected through talanoa research conversations with MSEs, validation workshops and direct observations. Chapter 4 offers more in-depth discussion on the data collection tools and the data analysis methods adopted by this research.

1.5. Why I undertook the present study

My interest in this research emerges from my own personal experiences. I hail from the Waiyavi community in Fiji, which is frequented by climate hazards, and the memories of volunteering and living in evacuation centres serve as a constant reminder that there are many others braving in silence the brunt of natural hazards. Like many others considered vulnerable, I had no knowledge or concern about what our government or respective stakeholders were doing about these issues. Despite my own experiences, I learnt from the media about the suffering of people, the psychological trauma, health issues, or the widening social inequalities because of natural hazards. My community empathized with those still in temporary shelters and, despite our own struggles, gathered resources to support these people. This strong sense of social solidarity and remarkable disaster response were apparent locally and even internationally, with families overseas sending support to communities for their recovery process.

I then became involved in development work as a researcher for the Pacific Islands Forum (PIFS). At PIFS, I met highly regarded disaster management experts who had been working on policies and mechanisms to address climate-induced migration and displacement in the Pacific but unfortunately, these experts were not from the Pacific. My role as a researcher was to support the documentation and policy ideation process. It was at this moment in my life that reality swiftly set in, that I went from being one of the people most affected by natural hazards to one of the people developing policies for those most affected. However, I saw this shift as an opportunity to share the narratives of my own community with experts, because I constantly observed with frustration how they had labelled Pacific communities as 'victims,' 'at-risk' and 'vulnerable'. I was concerned that these experts had little to no personal experience of what it felt like to be living in these communities, nor had they consulted the affected, yet policies were being developed by them. I often found myself questioning the methodologies for policy formulation when I attended the policy design consultations with government agencies and other development partners. I did not intend to undermine the process, but I did not fully agree with the methodology through which these policies were developed. In hindsight, I may have been inexperienced in participating with 'experts', or perhaps my deep emotional investment overshadowed my awareness of what I knew was culturally inappropriate for me to speak up in front of government leaders.

Over the two and half years at PIFS, and two years at the United Nations, I came to learn that such policy design practices were almost a norm in regional and international policy-making spaces. I attended several regional and international disaster meetings, including the UNFCCC World Climate Summit, where leaders negotiated on frameworks and agreements produced by 'expert' policymakers and development practitioners. The power imbalances were apparent in these spaces as I witnessed how developing countries were referred to as 'aid-dependent,'

or how bigger countries strategically offered collaborations with developing countries solely for the purpose of the former being perceived as responsible agents. Perhaps, it was the starting point of my realisation that the plight of vulnerable communities was falling on the deaf ears of policymakers. The lessons from the lived experiences of people in these vulnerable communities, along with my personal experience, has shaped my role as a researcher, a community activist, a knowledge broker, and more importantly, a Pacific Islander. Along my learning journey, I realised how critical it is to withdraw from inaccessible and non-inclusive policy spaces. Since 2015, I started using my research and development experience to support communities with their on-going disaster preparedness efforts, particularly those groups of people who have received little to no support from external agencies. My support to these vulnerable communities was through a programme I champion called 'Active Citizens', for which I had received funding from the Commonwealth Trust.

From September to December 2015, I lived amongst communities in Ba and volunteered with NGOs like Habitat for Humanity to support disaster preparedness initiatives such as modification of homes and agriculture farming. However, what happened next was beyond anything Fiji was prepared for. Tropical Cyclone Winston (a category 5 cyclone) struck Fiji on February 16, 2016, leaving thousands homeless, 44 people dead, and causing severe devastation. I struggled to find the courage to visit the communities in Ba, as I had received pictures of destroyed homes from some of my NGO friends, as well as pictures of the destroyed projects we had just completed. No words can explain the emotions I felt as I went back to those families in Ba that had given me accommodation and were now taking refuge in evacuation centres. In one of the communities, community youths ran out of the community hall (evacuation centre) to hug me, and I sat amongst them in silence trying to comprehend what they must have gone through. I observed how different organisations had gathered

donations and distributed them to families, but not much was given to those families that still had household members employed or running businesses. Community members' perceptions towards people who were still employed or were running businesses were that they did not need help or that they were not negatively affected by the disaster, even though they were facing their own hardships and fallout from the disaster. As a son of a mechanic, I witnessed how my family fell short of being supported or were excluded due to the assumption that 'business owners have money tucked away somewhere to get back on their feet'. Not many are aware that MSEs in Fiji are the cornerstone of the private sector, providing employment to 60 percent of the nation's workforce. Despite their significance, not much has been documented about how owners of these entities deal and recover from disaster events.

As Elser (2016) reflected in the TC Winston Post-Disaster Needs Assessment (PDNA) report, "around 43 percent of micro and small enterprises have suffered extensive damage and losses. However, due to savings being diverted towards meeting basic household needs and home reconstruction, there may not be enough capital available to restore businesses" (p.56). Fiji has experienced nine more cyclones since TC Winston, and MSEs, like other vulnerable groups, are in a constant state of disaster recovery. However, knowledge of how they cope with or recover in the aftermath of a disaster is seldom shared in literature or reported in mass media (Ayyagari, Beck, & Demirguc-Kunt, 2003; Marks & Thomalla, 2017; Samantha, 2018).

In recognising the critical role that MSEs play in Fiji communities, I feel that there is a need for their untold narratives to be shared. This research hopes to empower other Pacific scholars to start rethinking their role as knowledge brokers and how they can provide platforms for the unheard to be heard. It is my hope that this research will be used to draw attention to issues which have multiple implications for the region and can encourage discussions between policymakers and those labelled as 'vulnerable'.

1.6. Thesis structure

This thesis consists of 10 chapters.

Chapter 1 briefly introduces this research and addresses the limited attention that MSEs have received within disaster scholarship. It then provides an overview of why this research is important and identifies MSEs as a neglected subgroup of the private sector. This chapter also highlights how disaster strategies emerging from the broader development agenda lack an understanding of the contextual vulnerabilities for MSEs. To conclude, the chapter introduces the objectives of my study.

Chapter 2 elaborates on the disaster experience of MSEs globally and the enabling and constraining factors affecting the process of building disaster resilience. It identifies the significant gaps in knowledge and evidence on MSEs and their resilience-building processes, despite the considerable body of knowledge focused on their vulnerabilities. The chapter then presents critical insights on the definitions of resilience, vulnerability, and adaptive capacity, and describes how disaster researchers have applied these definitions.

Drawing on the literature, **Chapter 3** explains the theoretical framework that underpins my study. This part delves into the tenets of social capital and their relevance to my study from a critical development perspective.

Chapter 4 introduces the orientations of this research. The chapter sheds light on Fiji's vulnerability to climate-induced disasters and presents a narrative of major events affecting the country over the last decade. It then presents information on disaster policies and Fiji's MSE sector. The discussions on policies in relation to the MSE sector reveals how the voices of MSEs remain absent and profiles the restrictive perspectives towards enhancing resilience. The chapter concludes by profiling the case study area of Ba Province.

Chapter 5 details the research methodology and data collection methods. The chapter commences with a discussion on the social constructivist position and interpretivist epistemology that were adopted for this research. It then explains the rationale for adopting a qualitative research methodology and the case study design. The methods of data collection and analysis are outlined, along with a discussion on my positionality and the ethical implications of conducting this research. This chapter also offers suggestions for suitable methodological approaches for studying vulnerable populations to gather an in-depth understanding of a complex phenomenon.

The subsequent three chapters present the findings of this research. **Chapter 6** presents an extensive analysis focusing on the narratives of MSE participants and how climate-induced disasters impact their livelihood systems. The chapter offers reflections on past disaster experiences and the contested understanding of why natural hazards are occurring at such an unprecedented rate. In addition, the chapter shares insights on the various types of impacts, some common to the literature, and some novel, such as discussion on affect and emotions. This chapter also examines issues around the external built environment and how it has been problematised by MSEs.

Chapter 7 critically analyses the several strategies and approaches employed by MSEs to navigate through the struggles of dealing with floods, and to sustain their business, which they term as 'everyday' disasters. The findings in this chapter provide novel insights on local practices of building social and cultural capital, as well as the criticality of harnessing these capitals for survival. Overall, this chapter intends to shape understandings around the factors that constrain or enable MSEs from building resilience.

Drawing upon the earlier two empirical chapters, **Chapter 8** extends the focus on the role of DMI's in supporting the resilience-building initiatives of the MSEs and the effectiveness of

these initiatives. The chapter revisits the neoliberal construct of resilience by drawing on modes of governing, including the use of risk aversion tools to promote resilient behaviour. It then unpacks perspectives of DMIs on resilience-building initiatives for MSEs by drawing specifically on the types of support that have been offered to MSE participants. Furthermore, the chapter will bring to light the current narratives of DRR policies around 'risk informed development' in response to the built environment issues discussed in Chapter 6 and 7.

Chapter 9 discusses and analyses the key observations in the results chapters in the light of the relevant literature and the conceptual framework of this research. Discussions are focused on two key themes. First, the extension to Bourdieu's theory of practice by highlighting the importance of local cultural practice that shapes social capital. Besides the conversion of the capitals, attention is also directed towards improvisation as a practice, which emerge due to lack of access to material and non-material capitals. And second, the non-contextualisation of disaster management policies and practices, which remains to a challenge in the current era. The discussion on misalignments between policy and practice prompts the need for a radical reinterpretation of how policy interventions are designed for the vulnerable.

Finally, **Chapter 10** recaps the main arguments of this research, highlighting MSEs' resilience-building processes as complex, long-term, and multi-scalar phenomena. In light of the theoretical implications, it is clear that the phases of preparedness, response and recovery can be constructed as evolving fields of power. These fields of power are characterised by symbolic, political, moral, and human capital. Evidence shows how power dynamics underpin the evolving field of disaster management as institutions leading the design and implementation of resilience initiatives are influenced by access to capital. The findings point towards a complex relationship between social capital and the resilience of vulnerable groups that is not clearly articulated within existing policy frameworks and related studies.

Furthermore, this chapter highlights the implications that arise for research and for organisations that support MSEs, and for the MSEs themselves. It offers policy recommendations and areas that can be explored through further research. To sum up, final thoughts are shared considering the ongoing risks posed by climate hazards to MSEs in Ba, and more broadly the people of Fiji.

Chapter 2: Literature review

This chapter presents a review of published work relevant to the objectives outlined in Section 1.3. The review is divided into three parts. The first part examines disaster scholarship on small businesses and natural hazards. Literature in this section critically reflects on MSEs' vulnerability to natural hazards and how they have prepared for, coped with, and recovered from such events. Although there has been substantial growth in disaster literature, there is an absence of knowledge and evidence about how MSEs have built resilience to hazards. The gaps and limitations in small business disaster research methodologies are also discussed, along with the data collection challenges encountered by researchers in post-disaster settings.

The second part draws attention to the emergence of key concepts like resilience, vulnerability, and adaptation, as well as the interlinkages among these concepts. Various interpretations of these concepts are analysed, and an explanation of their theoretical importance is provided. This analysis sets the direction for Chapter 3, where a theoretical framework is developed to reflect on the process of building resilience, drawing primarily upon Bourdieu's concept of field, habitus, and capital.

2.1. MSEs' vulnerability to natural hazards

Numerous studies have highlighted that MSEs' vulnerability to natural hazards stems from a variety of interrelated factors, which include business characteristics (size, age, location, and business type), reliance on external infrastructure (transportation, supply chain), the risk perception/attitude of owners, and access to financial, social and institutional support (Alesch et al., 2001; Verrest, Groennebaek, Ghiselli, & Berganton, 2020; Wedawatta & Ingirige, 2012; Wishart, 2018). This section explores the intricacies of MSEs' vulnerability in relation to these factors.

2.1.1. Locality of operations

Research highlights that the geographic location in which businesses operate determines their level of risk exposure. However, for most MSE owners, associated risks such as hazards appear to be less of a concern when choosing locality of operations because these businesses operate in competitive environments where continuity is determined by their ability to maximise profits (Alesch et al., 2001; Howe, 2011; Verrest et al., 2020). For example, Howe (2011) argues that businesses in the tourism sector are often situated close to coastal areas despite the existence of risks associated with tropical cyclones, tsunamis, and other potential hazards. Similarly, MSEs operating within the retail sectors are often situated in historic downtowns or older commercial hubs due to their lower costs and customer concentration, even when those areas entail structural or locational hazards (McNamara, 2013; Stephen Yeo, 2013).

Howe's (2011) arguments resonate with the findings of Tierney and Dahlhamer (1997), who surveyed about 2,000 businesses affected by the Northridge earthquake in the counties of Memphis and Shelby in Los Angeles, US. Their study found that 24 percent of the businesses they surveyed were situated in earthquake-prone brick buildings. These types of buildings are considered most likely to collapse or sustain severe structural damage in earthquakes. It was also noted that small businesses, particularly in the service sector, typically established their operations in such structures.

Furthermore, other studies have revealed that small businesses may choose to stay in areas exposed to recurrent hazards because the cost of investing in preventive measures tends to be far less than opting to rent in non-hazardous locations (Pribadi & Kanai, 2011; Verrest et al., 2020). For instance, the studies of Pribadi et al. (2011) and Verrest et al. (2020) revealed that, despite being affected by seasonal floods, MSEs in East Jakarta refrained from relocating,

as their costs of repairs were more manageable than the larger investments required for relocation. Similar findings were also reported by scholars studying MSEs in Pakistan, Turkey, Manila, and Bangkok (Asgary et al., 2012; Asgary & Ozdemir, 2020; Verrest et al., 2020).

Generally, most businesses try to establish themselves in locations where they have access to resources such as transportation, workers, raw materials, and customers, and ideally operate in areas where their business assets are not at risk from hazards. For smaller businesses, however, an ideal location may have substantial cost implications. Hence, as evidenced by prior research (see Halkos & Skouloudis, 2020; Runyan, 2006; Wedawatta, Ingirige, Jones, & Proverbs, 2011), these firms tend to be situated in buildings or areas more vulnerable to disasters.

Recent studies have also reported that densely populated urban areas tend to be particularly vulnerable to severe disasters, due to the risks associated with rapid urbanisation (Resosudarmo, Sugiyanto, & Kuncoro, 2012; UNDP, 2013). For example, in the southern states of Mexico, such as Chiapas and Oaxaca, urban growth has resulted in city boundaries extending to the low-lying edges of river systems (over floodplains) to accommodate further business developments (hosting up to 20,000 small businesses). However, the lack of adequate planning for hydrological infrastructure has meant that businesses in these cities endured severe flood damage between 2007 and 2011 (UNDP, 2013). Nonetheless, operating in densely populated areas, clusters, and urban centres or nearby sites may benefit small businesses during recovery too. The study of Resosudarmo et al. (2012), for example, explained that industrial clusters in Yogyakarta, Indonesia provided small businesses with additional peer support in the aftermath of the earthquake in 2006, while proximity to urban centres was also closely related to recovery.

2.1.2. Reliance on external infrastructure (supply chains)

Over the last two decades, various studies have highlighted how the vulnerability of small businesses to disaster can primarily be attributed to their reliance on external infrastructure such as transportation, roads, utilities (electricity and power), and supply chains (particularly raw materials and inventory). For example, Tierney and Dahlhamer (1997) identified failures in electrical power systems following the Northridge earthquake in 1994 that resulted in significant interruptions and losses to small businesses, with around 23 percent being forced to close. Likewise, significant losses were experienced by small businesses in Des Moines, Iowa, in the aftermath of the 1993 Midwest floods. In this case, however, only 15 percent of businesses had closed due to major disruptions and damage to local water and sewage facilities (Tierney et al., 1996).

There is also a premise that small businesses expect government and disaster risk management institutions to repair the built environment, as it is perceived to be their responsibility. For instance, Tierney (2007), reflecting on the case of Hurricane Katrina, found that most businesses claimed that their losses stemmed directly from the government's failure to proactively implement mitigation measures across affected cities, as well as the delays in their response to restore city infrastructure such as public transport and utilities. Their study also explained how imposed changes to building codes by government were not well received by MSEs as a majority of these businesses were forced to make necessary changes to their built infrastructure, with some resisting the law. Therefore, it can be argued that business vulnerability is composed of several intertwined components beyond simply the threat of physical damage (see also Alesch et al., 2001; Webb et al., 2002; Zhang et al., 2009).

2.1.3. Business characteristics

The global discourse on disaster impacts on the private sector asserts that MSEs are vulnerable due to their unique firm-specific characteristics (Ayyagari et al., 2003; Herbane, 2015; Skouloudis, Tsalis, Nikolaou, Evangelinos, & Leal Filho, 2020; Sullivan-Taylor & Branicki, 2011). It is well known that MSEs are mostly privately owned by single owners (Seidel, Seidel, Tedford, Cross, & Wait, 2008), rely on informal communication flows (Naidu & Chand, 2012), and have relatively small total net assets, investments, and numbers of employees (Ayyagari et al., 2003). Therefore, when exposed to shocks like natural hazards, these businesses face numerous challenges. The analysis below offers insights into the common business characteristics that exacerbate their vulnerability to natural hazards.

(i) Size of operations

A number of studies have highlighted business size as a critical factor in MSE vulnerability (Tierney & Dahlhamer, 1998; Webb, Tierney, & Dahlhamer, 2002). Within many countries, smaller businesses account for a significant part of the business sector and are known to be the engines of job creation and innovation. However, these businesses are also inherently more vulnerable to natural hazards than their larger counterparts (Wedawatta & Ingirige, 2012; Zhang, Lindell, & Prater, 2009). This may be for several reasons, including: (i) having a smaller customer base than larger businesses, which is likely to result in negative financial implications because they have low cash reserves to implement disaster management and mitigation measures (see also North et al., 2001); (ii) because they have a smaller workforce, meaning they may well have limited adaptive capacity to address disaster threats (Bannock, 2005; Runyan, 2006); (iii) because they have limited access to expertise such as risk and emergency management professionals that may aid their management of disaster risks (Yoshida & Deyle, 2005); or (iv) factors relating to geographical location and reliance on external infrastructure.

Research has indicated that small businesses operate with only marginal profits within highly competitive sectors such as service and retail, where business failures and turnover among firms frequently occur (Tierney, 2007). Therefore, it can be argued that the inherent size of small businesses, both in normal times and in times of disasters, contributes to their vulnerability (see also Dahlhamer & D'Souza, 1997; Webb et al., 2000).

(ii) Firm's Age

A large body of literature indicates that newly established and younger MSEs tend to be more vulnerable to natural hazards as they have lower market shares and are faced with financial pressures to sustain competition (Asgary et al., 2012; Asgary & Ozdemir, 2020; Dietch & Corey, 2011; G. R. Webb et al., 2002). For instance, in the analysis of flood impacts on small businesses in Pakistan, Asgary et al. (2012) indicated that 25 percent of the affected businesses were five years old or younger. Likewise, both Corey and Dietch (2011) and Webb et al. (2002) found the firm's age to be a predictor of longer disaster recovery periods for small businesses in their respective studies. Business study literature also confirms that infant firms, particularly those with less experience, are more likely to fail when disaster strikes. Such businesses have a higher probability of failure even under normal circumstances when competition tightens or when industry shocks such as input prices or supply chain constraints occur (Webb et al., 2002).

(iii) Ownership Characteristics

Small business literature has also associated vulnerability with ownership characteristics. For instance, Alesch et al. (2001) highlighted that most of the smaller businesses across the US tended to rent rather than own a property, so they were limited in the loss-reduction measures they could take without the consent of the owners. Their study also found that lease agreements between businesses and landlords typically do not adequately address the

circumstances in which both tenants and landlords may find themselves at the time of a disaster. When disasters strike, businesses that are renting tend to rely on their building owners for repairs, particularly for structural damage. Moreover, should the landlord be unable or unwilling to finance the required repairs, businesses were then forced to relocate or operate under adverse conditions. To a large extent, this is a reality across several developing countries, which may shape the attitude of small business owners towards taking precautionary measures that are an important factor affecting disaster preparedness and recovery (Tierney & Dahlhamer, 1998; Webb et al., 2002).

(iv) Informality of operations

Perry et al. (2007) argues that informal businesses are always smaller in size, less efficient (pertaining to lack of technologies), and financially less secure than formal ones. This makes these businesses more susceptible to adverse conditions such as natural hazards and threatens their survivability. However, what Perry and his colleagues fail to acknowledge in their studies are the realities of unaffordable rental rate, the lack of urban spaces, and the tedious businesses registration processes that hamper potential businesses from entering the formal private sector. Furthermore, in many countries, MSEs operating informally are excluded from any forms of formal support (Distinguin, Rugemintwari, & Tacneng, 2016; Nyamwanza, Mavhiki, Mapetere, & Nyamwanza, 2014), including post-disaster recovery efforts (Galbraith & Stiles, 2006; Thomalla et al., 2018). For example, in writing a review about disasters and entrepreneurship, Galbraith and Stiles (2006) explained how MSEs operating informally were restricted from disaster recovery programmes such as government humanitarian support and recovery loans, which impeded their ability to survive in the aftermath of a disaster (see also Asgary et al., 2012; Webb et al., 2000). Likewise, the vulnerability of informal MSEs stems

from their lack of compliance with business norms and regulations such as health and safety standards and insurance obligations (Thomalla et al., 2018).

2.1.4. Risk perception

Studies have shown that disaster risk perception and attitude has been a source of business vulnerability (Battisti & Deakins, 2017; Wedawatta et al., 2014). For example, Wedawatta et al. (2014) indicated that 70 percent of SMEs in the UK that were situated in high-risk flood areas were not concerned about potential floods and had not implemented any protection measures, despite being informed of recurrent floods and their potential impacts. A similar attitude was found amongst most SMEs in Pakistan, including those that had been directly affected by floods in 2010 (Asgary et al., 2012). Many scholars have argued that these attitudes are common amongst smaller businesses for several reasons, including their lack of resources and limited capacity, or simply because they lack expertise and knowledge about disaster risks (Webb et al., 2002; Yoshida & Deyle, 2005). It is also worth noting the smaller businesses tend to underestimate risks of flooding by giving such risks a lower priority because such events occur rarely as opposed the other risks they incur on a day-to-day basis (e.g. micro-credit loan payments or supply chain issues or employee wages) (Sarmiento, Hoberman, Jerath, & Jordao, 2016; Wedawatta et al., 2014). For instance, the study of Sarmiento et al. (2016) showed that SMEs despite having a business continuity plan were unable to adequately prepare for disaster events because they had other competing priorities.

2.2. Disaster impact – failure and prospects

Previous research has shown that natural hazards have both direct and indirect impacts on small businesses which ultimately affect their ability to operate (Webb et al., 2002; Yoshida &

Deyle, 2005). The following sub-sections highlight not only the impacts but also the prospects of natural hazards for the MSE sector.

2.2.1. Direct impacts of disasters

Direct immediate impacts of disasters on small businesses include damage to properties and assets and to non-structural components of the businesses, such as utility systems, inventories, business records and market demand (Chinh, Bubeck, Dung, & Kreibich, 2016; Crick, Eskander, et al., 2018). For instance, Chinh et al. (2016) conducted 378 face-to-face interviews among flood-prone businesses in Can Tho city, in Vietnam's Mekong Delta. Their study found the 2011 flood event had caused substantial physical damage to business property which had hampered recovery. Studies have documented that this damage affects the overall performance of small businesses. Tierney and Dahlhamer (1997), for example, analysed the impact of the Northridge earthquake on businesses and found that the extent of physical damage to business properties was a major predictor of business continuity. Similarly, in analysing the impact of Hurricane Katrina on about 1400 small businesses in Orleans Parish, Lam et al. (2012) found that damage from floods was a significant predictor of post-disaster business performance. This study also highlighted that those businesses impacted by higher water levels were faced with greater challenges with continuity where longer periods of closure were associated with permanent closure (see also Dietch & Corey, 2011; Sydnor, Niehm, Lee, Marshall, & Schrank, 2017).

Another direct impact of disasters are the long-term emotional and psychological effects such as anxiety, fear, helplessness, and anger amongst affected MSEs (Alesch et al., 2001; Harries, McEwen & Wragg, 2018; Thorgren & Williams, 2020). While the emotional impacts of disasters continue to be understated in hazards literature, studies such as that of Alesch et al. (2001) and Thorgren et al. (2020) reveal that it can take months or years for individuals to recover

from the emotional trauma caused by hazards because factors such as stress and depression remain to be oppressed by affected populations, with some preferring not to talk about these issues. Alesch et al. (2001) for example stated, “though businesses had recovered from the effects of the earthquake, MSEs personal disaster continues” (p.68). He shared several narratives to demonstrate his argument. For instance, in one example, he shared how a small business owner was diagnosed and treated for depression a few months after the earthquake, yet despite the treatment and a three-year lapse since the event, the owner still experienced breakdowns when recounting his experiences. In another example, he shared how an owner’s personal relationship with her family members was affected as the owner was non-communicative for several months following the flood. Upon revisiting this owner a few times, Alesch and his colleagues learnt that the owner could not recover and had closed her operations, thus suggesting that she had internalised her loss.

Furthermore, evidence from past studies reflect that natural hazards and significant direct impact on the external built environment in turn affected the recovery of small businesses (Bosher, Carrillo, Dainty, Glass, & Price, 2007; Brown et al., 2017; Djalante, 2014). For instance, a group of researchers revealed that the structural damage to the external environment, such as the aerial environment (paths, roads, and power lines etc.) inflicted by the Christchurch earthquake in New Zealand forced many MSEs out of business because there was no certainty with how long it would take to rebuild the city (Hatton, Seville, & Vargo, 2012; Sarkar & Wingreen, 2013). Hatton et al. (2012) explains that the built environment is significantly affected by hazards such as earthquakes so that restoration is not guaranteed immediately. As such, businesses like MSEs are unable to recover their losses and are forced to shut down.

2.2.2. Indirect and ripple impacts of disasters

Indirect disaster impacts include disruption to the flow of goods and services, the cost of cleaning up, and loss of a business's customer base and suppliers (Tierney, 1997; Webb, Tierney, & Dahlhamer, 2000). Supply chain infrastructure has also been identified as a cause of business collapse after a disaster (Chang & Falit-Baiamonte, 2002; Chatterjee, Ismail, & Shaw, 2016; Mäkilä, 2014). Some studies highlight that employee shortages may also arise due to absenteeism arising from the impact of the disaster on the society (Dietch & Corey, 2011; Stevenson et al., 2014; Wishart, 2018). These studies also reported damage to the external environment as an indirect impact that impedes business recovery. Dietch et al. (2011) revealed that in the aftermath of Hurricane Katrina, MSEs in New Orleans had no power and clean water for almost eight weeks, which severely affected business recovery. They argued that the lack of essential utilities delayed restoration of operations, which in turn affected income levels and recovery efforts.

2.2.3. Perspectives on building business disaster resilience

Although there is a growing body of literature on building disaster resilience, most focuses on non-business units of analysis, such as individuals, households and communities (Moreno, Lara, & Torres, 2019; P. Singh, Tabe, & Martin, 2022; Uekusa & Matthewman, 2017), leaving out important subgroups like small and medium-sized enterprises (SMEs) (Rose & Krausmann, 2013; Zhang et al., 2009). Some scholars have argued that small businesses are implicitly included within disaster analysis at the macro or sectoral level (e.g., Toya & Skidmore, 2007; Xiao, 2011); however, the findings of these studies tend to be generalised and offer a limited account of how individual firms or smaller businesses have built their resilience towards natural hazards (Asgary et al., 2012; Asgary & Ozdemir, 2020; Rose & Krausmann, 2013). Because of

this dearth in the literature, factors associated with building the disaster resilience of small businesses remain poorly understood.

Another important caveat in relation to business resilience is that most studies tend to focus on developed country cases (e.g., Tierney & Dahlhamer, 1998; Webb et al., 2002 – the United States [US]; and Sullivan-Taylor et al., 2011; Wedawatta et al., 2010 – the United Kingdom [UK]), thus providing limited knowledge on the situations for developing countries, where disasters tend to occur more frequently, and resources are limited. Filling this knowledge gap is essential if researchers want to provide insights from cross-national comparisons across the factors related to building resilience in different locations, such as risk management tools available in each country or the types of government assistance to businesses to mitigate and respond to disasters. The following sub-sections discuss enabling or constraining factors in building resilience focused on various disaster phases.

2.2.4. Factors constraining MSE preparedness towards disasters.

There is also a premise in the literature that the degree to which businesses engage in preparedness activities before the disaster may enhance their resilience towards disasters; however, studies have seldom found this to be true (Dahlhamer & D'Souza, 1997; G. R. Webb et al., 2000; Yoshida & Deyle, 2005). Focusing on the determinants of disaster preparedness, Yoshida, and Deyle (2005) employed a logistic regression model to evaluate the mitigation decisions and choices of small businesses in Duval County, Florida. An analysis of survey data from 230 businesses revealed that their access to expertise (e.g., insurance managers, structural engineers, or disaster specialists) was a significant predictor of business owners' decisions to implement disaster mitigation measures (also Webb et al., 2000). Yoshida and Deyle (2005) identified perceived exposure to natural hazards and the nature of their business operations to be key constraining factors in disaster preparedness by small businesses.

However, the authors generalised that those businesses in the finance, insurance and real estate sectors are more likely to have business continuity plans, purchase insurance coverage or invest in physical infrastructure, as they have greater access to expertise.

As discussed in Section 2.1, factors such as property ownership and reliance on external support have been commonly perceived as constraining factors in building resilience (Alesch et al., 2001; Tierney, 1997; Webb et al., 2000). However, several researchers have explained that small businesses rely on their own social networks for support when faced with crisis, as they perceive disaster management institutions and government agencies as top-down centralised structures which seldom provide direct support (Sobel & Leeson, 2006; Tierney, 2007; 2015). For instance, Sobel and Leeson (2006) observed that the Federal Emergency Management Agency's (FEMA) response to Hurricane Katrina was labelled as a top-down disaster response system of the US government that was overly controlled and failed to meet the expectations of disaster-affected small enterprises effectively. Asgary et al. (2012) argues that the situation among developing countries is far worse, as MSEs have limited access to capital, primarily because they operate informally or in marginalised settings.

2.2.5. Factors constraining MSE recovery

During the early 1990s, the University of Delaware's Disaster Research Center (DRC) conducted a series of studies on business recovery focusing on four different disasters in the US, namely the Loma Prieta earthquake in 1989, Hurricane Andrew in 1992, the Midwest floods in 1993 (Tierney et al., 1996) and the Northridge earthquake in 1994 (Tierney, 1997). All these studies were carried out using mail surveys of randomly selected business owners from a stratified sample of the business populations in these disaster-affected regions. However, the principal objective of these studies was to develop a model using ordinary least square (OLS) model to predict the business recovery processes and organisational survival

mechanisms in non-disaster contexts. For instance, focusing on the short-term challenges of businesses affected by the Midwest floods and the Northridge earthquake, Tierney et al. (1996) and Tierney (1997) noted that small businesses took almost 18 months to recover or restore operations 'to pre-disaster state' due to a combination of factors. Interestingly, these studies showed that government aid was perceived as the least important factor for recovery, as business owners perceived aid to create additional problems, such as higher debt levels. Tierney (1997) argued that formal (conventional) sources of aid typically cover only a portion of the loss's businesses experience in disasters, and no amount of assistance can offset problems such as a loss of customers, disaster-induced declines in demand for goods and services, or losses associated with the disruption of local business ecologies. She argued that assistance cannot reverse pre-disaster trends that affect business fortunes over the long term. Her findings were similar to those of Webb et al. (2002), which found that business age, size and financial conditions were key predictors of the long-term recovery for SMEs, as noted in Chapter 2.1.3. Both Webb et al. (2002) and Tierney (1997) argued that businesses which have been long in operation, are relatively more significant or have better financial status, may have higher chances of recovery in the long run. In addition, both these studies reported disaster experience or level of disaster preparedness to be the least important determinant of business viability. However, their analysis excluded businesses that were forced to close, which arguably may be critical information towards understanding of disaster resilience amongst affected businesses. My research also argues that the proposed framework designed by Webb et al., (2002), as well as extensions of their frameworks by Kativhu, Mwale, and Francis (2018), Marshall, Niehm, Sydnor, and Schrank, (2015) and Manyena, Machingura, and O'Keefe (2019) may not adequately capture the potentially vast contextual differences between these disaster areas.

Other research on the recovery of small businesses within similar contexts offers a slightly different understanding of these situations. For instance, Alesch et al. (2001) noted that the recovery of small businesses in the aftermath of Hurricane Andrew and the Northridge earthquake in the US were not only determined by the magnitude of disaster-related losses and disruptions sustained by affected businesses but, more importantly, by the strategic decisions business made. Furthermore, these scholars argue that many businesses did not survive because they failed to recognise how disaster events can alter their operating environment, where factors such as population displacement may mean disappearance of business clientele and a permanent loss of demand. This situation in turn required business owners to objectively assess whether it was worth reopening their business in the same location. From the viewpoint of Alesch et al. (2001), a resilient business is one that is aware of the adverse changes in environment and thus can adapt even if it may mean shutting down, exiting the industry, or changing location. These scholars suggest that business owners should avoid submitting to the “dead business walking” syndrome, or put simply, should not be operating if unprofitable due to the constant adverse impacts of disasters (p.18).

The findings of Alesch et al. (2001) explained that business survival and recovery are not necessarily simple concepts, because recovery is not merely a matter of business survival. As such they considered that defining business recovery as restoring business activity to a pre-disaster state held little meaning for business owners, because even a decade after being affected by a disaster many businesses owners were still struggling to restore their operations to a “normal” level (Alesch et al., 2001, p.14). They further noted that for many businesses, their experiences would never be forgotten, since although the physical appearance of destruction may no longer be visible, the effects of those disasters still lingered socially and psychologically. Reflecting on this view, the researchers stated “[w]e have come to believe

that, for organisations that suffer significant losses from a natural hazard event, return to the status quo ante is a chimaera—a mythical illusion that can never be achieved” (Alesch et al., 2001, p.15).

Furthermore, research examining business risk factors in disaster situations established that the type of sectors in which businesses operate is also a determinant of their post-disaster recovery. Dahlhamer and Tierney (1998), for example, found that businesses in the wholesale and retail sectors were particularly more vulnerable to disasters, partially due to the competitive nature of these industries, and due to their frequently vulnerable locations (historic downtown areas). They found businesses in both sectors took longer to recover compared to businesses in construction, finance, and professional services. As mentioned in Section 2.1, the slow recovery of businesses in the retail and wholesale businesses can also be explained by external environmental factors such as access to raw materials, dependence on a small client base, and dependence on lifeline/utility services (Asgary et al., 2012; Asgary & Ozdemir, 2020; Tierney & Dahlhamer, 1998).

2.2.6. Factors enabling MSE preparedness towards disasters

As discussed above, several interrelated factors can hinder the ability of MSEs to prepare for or cope with and recover from disaster events (Alesch et al., 2001; Webb et al., 2002; Yoshida & Deyle, 2005). Nevertheless, there are several ways in which businesses can overcome the challenges associated with the constraints they face when dealing with disasters (Rose, 2004a; Wedawatta & Ingirige, 2012). Rose (2004a), for instance, categorised enabling factors using the terms ‘inherent’ and ‘adaptive’ resilience. In my study, inherent resilience characteristics are those associated with a business’s ability to cushion itself from the effects of disasters on their operations. This included a business having a diversified market base, engaging employees in disaster preparedness, or setting up financial backup. In contrast, adaptive

resilience is those factors associated with a business owner's decisions to enhance their disaster recovery and preparation options. As argued by Rose (2004a), examples of adaptive resilience are instituting conservation measures for lifeline service disruptions or by preparing backup plans for key services such as generators or collecting rainwater when water systems fail.

Alesch et al. (2001) also examined factors of inherent and adaptive resilience, but explicitly from the viewpoint of business owners and their actions before, during and after disasters. Concerning the inherent dimension of resilience, these scholars underscored the importance of what they term "management mitigation," or "management techniques that are used to reduce both exposure and vulnerability of businesses to disasters through smart business practices" (ibid, p.25). Such techniques included seeking to increase customer diversity, storing inventories in multiple locations, doing business out of more than one location, and backing up and otherwise protecting critical business records. Equally, these researchers emphasised that adaptive resilience, or business owner capacity to innovate and respond realistically to new economic conditions following disasters, was important to their survival. Several other studies referred to resilience characteristics as coping strategies that aid businesses in preparing for, coping with, and recovering from disasters. Examples of the commonly identified strategies or tools for building resilience, according to scholars, are described below.

(i) Property and business asset insurance

In developed countries property and business asset insurance covers are reported to be one of the primary mechanisms used by businesses to manage the financial consequences of risk, including the threat posed by natural calamities (Crichton, 2008; Wedawatta & Ingirige, 2012). For example, Crichton (2008) reveals that about 64 percent of small business customers

across the UK had insurance coverage against business interruption or loss of earnings. The challenge, however, is that in most countries, particularly in developing countries, some disaster risks (such as floods) are perceived as uninsurable by the insurance industry due to the significance of the threat (Wedawatta and Ingirige, 2012). Citing industrial data from insurance companies in the UK, Crichton (2008) explains that many insurance providers considered flooding as an uninsurable risk due to the perception that they are high-risk across many regions. As a result of the influential role of the UK government, the Association of British Insurers (ABI) was encouraged and mandated by law to offer flood cover to existing domestic properties and small businesses that were at significant risk of flooding.

Research also identifies cases where owners believe that they have adequate insurance coverage, only to find that the damage and disruption they experience in disasters is not completely insured or, worse still, that insurers misled them about their insurance cover. For example, Alesch et al. (2001) found that numerous businesses had been sold the wrong type of policy, one that did not cover their losses or did not compensate for their losses because the insurance companies went out of business or had insurance that covered only some part of their business losses. For these reasons it was noted that many businesses expressed concerns that being covered by insurance provided no real assurance for post-disaster recovery support.

Likewise, insurance industries in developing countries are not well aligned with their governments' policies for disasters, despite the increasing threats posed by natural calamities in these countries. Galbraith and Stiles (2006) explain that many MSEs are restricted in their access to disaster insurance cover because many existing insurance plans have strict conditions or are unaffordable. As a result, businesses are unable to buy appropriate cover, especially informal MSEs that are cash strapped. Similar examples can be seen in the study

of Raksakulthai (2003), who reported insurance rates to be extremely highly priced due to the vulnerability of businesses to extreme weather conditions. Raksakulthai (2003) analysed the premium insurance rates of the Jamaican economy for pre- and post-Hurricane Hugo cases and found that most insurers had completely withdrawn property insurance, while others had significantly raised premium rates post-Hurricane Hugo, which smaller businesses could not afford. Consequently, most businesses were found to end up under-insuring their assets or opting out of insurance, leaving them vulnerable to losses in the likelihood of natural hazards. Anecdotal evidence suggests that MSEs in Fiji have limited choice of insurance plans for flood cover since no insurer in the country offers such cover for businesses located in flood-prone areas and there is lack of pressure from government to address this issue (see Section 8.3.4 for findings related to hazard insurance).

(ii) Business continuity planning

Some scholars have identified business continuity planning (BCP) as a strategic tool to aid businesses in preparing for events such as natural hazards (McManus & Carr, 2001; D Paton & Hill, 2006; Douglas. Paton & McClure, 2018). Paton and Hill (2006), for example, use BCP as an umbrella term that not only facilitates business survival but also influences societal resilience and the effectiveness of disaster recovery activities. These researchers noted that the process of BCP includes understanding what the business wants to achieve, identifying the barriers or interruptions that may prevent their achievement, and determining how the businesses can continue to achieve their objectives amidst such interruptions. Crichton (2008) highlights that most small businesses in the UK (69 percent) had no form of business continuity planning. This was similarly reported in the case studies of MSEs in several developing countries (Asgary et al., 2012). This situation can be partly explained by the typical resource

constraints experienced by MSEs everywhere. BCP requires human, technical, and financial resources and knowledge which most small businesses tend to lack (D Paton & Hill, 2006).

Sharing further insights into the process of BCP, Jones and Ingirige (2008) argued that continuity planning tends to focus on specific hazards, rather than several events. In their view, businesses often fail to consider the broader implications of natural hazards, such as the effects on and from supply chain partners and the need for temporary working solutions during and following a disaster.

(iii) Learning from experience in dealing with disasters

Many studies have identified past disaster experience to be a crucial factor in building business resilience as it presents an opportunity to gain experience from past mistakes and identify resources and skills needed for any similar future events (Comfort, 1994; Yoshida & Deyle, 2005; Wedawatta et al., 2014). Comfort (1994), for instance, emphasises the need for a balance between anticipation and resilience which can be established through accrued learning. In Comfort's view, the continual learning process includes representations of the significant shared experiences of individuals, communities, and social groups which are aggregated into collective memory and which in turn affect future decision-making of all shades. To a large extent, this view applies to small businesses. Individual businesses can engage in questioning by self-reflection and information-seeking - all of which enhances resilience (see also Gröbler et al., 2006). Alesch et al. (2001) recognise that learning does not necessarily come easily to businesses affected by disasters, as their experiences tend to hold them back from moving forward. Moreover, these scholars note that this effect can lead some to close their operations (Alesch et al., 2001), and that in such settings, information flow is often disrupted, making decision-making difficult.

(iv) Risk attitude shaped by emotions and affect

Research on affect and decision-making ('affect heuristic') predicts that positive and negative emotions invoked by disaster events can significantly influence risk perceptions and adaptive behaviours towards preparedness or response. For example, the study of Games and Sari (2020) suggested that emotions triggered by prior lived experiences of being affected by hazards significantly shaped risk judgement and adaptive behaviours. Focusing on negative emotions, these scholars explained how earthquakes triggered fears of failure amongst entrepreneurs, which in turn influenced mitigation behaviours. For instance, the study explained entrepreneurs previously affected by earthquakes adopted pro-active measures such as the renovation of their building structure, and in some instances, decisions to purchase insurance. Although the fear of failure is debilitating and can deter entrepreneurial investment decisions, the study of Games and Sari (2020) reported otherwise. Such findings are critical as they demonstrate that factors of entrepreneurial orientation are influenced through emotions. The results of Games and Sari's study are also consistent with other studies such as Siegrist & Gutscher (2008) that found negative emotions were a key factor in explaining why flood victims had taken substantially more precautionary actions against future floods than nonvictims.

Moreover, positive emotions such as feeling of goodness and solidarity are also significant factors in motivating mitigation or coping behaviours (Siegrist & Gutscher, 2008; Slovic, Finucane, Peters, & MacGregor, 2002; Vazquez, Cervellon, Perez-Sales, Vidales, & Gaborit, 2001). For instance, Vazquez et al. (2001) investigated positive emotions among earthquake survivors in refugee camps in El Salvador. Their findings revealed that almost 75 percent of the respondents recalled moments of happiness that could be attributed to either 'being alive' or 'feeling accompanied'. This study also revealed that social activities largely contributed to

positive emotions and the coping behaviours. Similar finding was reported by Tang (2006), who investigated post-traumatic growth of Thai survivors of the 2004 Indian Ocean Earthquake and Tsunami. This study showed that receiving social support and relations with others were crucial to positive adaptation. However, the research studies cited above explain that, when assessing a disaster situation, positive emotions are often overlooked.

(v) Other coping strategies

Like Alesch et al. (2001), Crichton (2008) recommended that businesses should consider coping strategies such as relocation, alternative temporary premises (to be used during and after the event), backing up documents on remote servers (particularly for IT), minimising dependence on individual staff (by encouraging other employees to gain reasonable understanding of critical processes), and, more importantly, obtaining professional advice to manage disaster risks. Crichton noted, however, that these strategies would require business owners to conduct a risk assessment and to identify resources for these measures and when they may be used. Such an assessment could be conducted as part of BCP, but it was questionable to what extent SMEs would conduct such an assessment. For example, both Alesch et al. (2001) and Asgary et al. (2012) highlighted that implementation of coping strategies has been largely ignored by researchers in the past, particularly those related to small businesses. This may have been the case in the last century, since organisations in the past assumed spontaneous, reactive responses towards natural hazards, unlike in the present era where disaster response tends to be more organised.

2.2.7. Gaps in small business disaster research methods

Although there are several studies on small businesses and hazards, most tend to ignore contextual changes such as demised businesses as a direct result of disaster event (Dietch &

Corey, 2011; Kumar et al., 2021; Han & Nigg, 2011; Wedawatta et al., 2011). For example, the study of Dietch and Corey (2011) claimed that they had evaluated small business post-disaster recovery process in New Orleans using a geographically based convenience sample of 183 businesses that were operating before and after Hurricane Katrina. Their analysis however is based on biased methodological choices as it did not include demised businesses, thus the comparison of pre- and post-disaster businesses' performance is argued to offer a narrowed understanding of recovery and resilience. In the same way, several other studies such as Dahlhamer and D'Souza (1997), Tierney and Dahlhamer (1998) and Webb et al. (2002) focused only MSEs that were still operational, with findings generalised to the wider MSE sector. The underlying problem is that demised businesses could serve as critical informants of the research and potentially provide alternative understanding of factors affecting small businesses in times of trouble. Generalised findings have been strongly challenged by scholars conducting a comparative analysis of factors affecting different types of business in the private sector (Crick, Gannon, et al., 2018; Joakim, 2013; Shaw, 2018). Furthermore, a macro or sectoral level analysis may not adequately represent perspectives of disaster-affected sub-groups. The next section will discuss the challenges in collating small business data in the aftermath of a hazard.

2.2.8. Challenges in collating small business data

There have been increasing calls for more research to focus on MSEs and how they have built resilience to natural hazards (Mason, Carter, & Tagg, 2011; Schrank, Marshall, Hall-Phillips, Wiatt, & Jones, 2013). The consensus is that MSEs have minimal chance of survival in the aftermath of a disaster and are perceived to be at greater risk to climate-related hazards due to the impacts of climate change. Mason et al. (2011), for instance, reported that almost 80 percent of affected businesses are predicted to survive for only five years in the aftermath of

a disaster. He argues that closures may be for several reasons, including unsustainable losses, limited recovery financial grant schemes, or external environment challenges. Whatever the reasons may be, closure of MSE operations is at times for factors beyond their control (see also Schrank et al., 2013).

However, research in disaster settings poses unique challenges. First, there are difficulties associated with recruiting participants in the aftermath of a hazard due to displacements. Alesch and his colleagues express that researcher must be cautious in their approach to identifying affected participants, as some may temporarily relocate (Alesch et al., 2001). Second, the timing of the research or data collection is often challenging as it may be considered insensitive to approach people after a disaster. Anecdotal evidence in the Pacific context suggests that people tend to bury their emotions and struggles and discussing such issues may pose significant challenges. This is an important observation to consider for this research. Last, the selection of an adequate group of participants may be difficult. Bourque et al. (2002) assessed the strengths and weaknesses of survey research in post-disaster settings, indicating that the main challenges researchers had to overcome were (i) the extent to which the population can be represented validly in the aftermath of a disaster (a problem of access and generalisability), and (ii) the receptivity of people to interviews after a disaster (issues of access).

While there were challenges to soliciting the narratives of affected MSE owners, my research is part of a larger study that lasted five years, during which I established relationships with many business owners and community members through informal engagements (see Chapter 5.2.1 on positionality).

2.3. Framing the discussion on disaster resilience

2.3.1. The 'disaster' construct

Disaster scholars continue to wrestle with the question of “what constitutes a disaster,” as a way of moving the field forward. Reaching widespread consensus on the definition of the term ‘disaster’ is difficult due to the wide array of interpretations that exist and the varied use of singular notions (e.g., hazard, catastrophe, calamity) to depict the varying conditions linked to the context in which these singular notions are constructed (Mannakkara, 2014). Scholars have shown that definitions of these terms are matters of intellectual discussion and debate within various disciplines (Collins, 2013, 2018; Fordham, 2007; Lee, 2014). In the field of disaster management, the debate on the interpretations of ‘disaster’ is often linked to the seminal studies *Sociology of Disasters* and *What is a Disaster?* authored by Enrico Quarantelli in 1985 and 2005, respectively. In his first publication, Quarantelli draws attention to the lack of precision in conceptualising ‘disaster’ due to the emergence of multiple terminologies such as ‘hazard’ and ‘catastrophe’ and the distinct characteristics among these terms (Quarantelli, 1985). Discussions on definitional deficiencies are extended in the subsequent publication, with Quarantelli acknowledging that there will always be diversity of perspectives on the meaning of ‘disaster’ across research because the term is linked to non-homogenous disciplines both theoretically and empirically. According to Quarantelli (2005), this diversity of perspectives may also vary due to “variation in the social construction of the phenomena” (p.54). For instance, Enarson et al. (2007) explain that some scholars claim that there is no such thing as a ‘natural’ disaster, as they are fundamentally human made because “the global distribution of power and use of natural and built environment is determined by humans” (p.130).

However, the ongoing dialogue about the fundamentals is less of an issue if scholars recognise that the definitional construct of ‘disaster’ is broadly used to explain situations that exert significant negative impacts on society and the wider environment, which requires an emergency response or external support for recovery (Arnold et al., 2016; Collins, 2009). Scholars agree that these situations are unpredictable and can cause losses that exceed the capacity of communities to cope using their own resources (Collins, 2009; Lavell, 2020). For instance, the ongoing global pandemic (coronavirus), which Lavell (2020, p.8) refers to as a “long-wave disaster”, is spreading slowly but constantly, with an undefined temporal extension among vulnerable populations in different parts of the world and is an event that requires emergency response for recovery. Like other types of disasters, the coronavirus pandemic could not be predicted, nor was there any clear evidence to determine associated losses to the global economy. However, to avoid confusion during research processes and when comparing results across knowledge domains, it is essential to define the term ‘disaster’ in the context in which the term is being used.

In this research, I argue that developing a theoretical account of disasters, which encapsulates—but also differentiates between—social disruptions that are temporally focused and those that are temporally diffuse or recurrent. Adopting such a definition advances new lines of thinking to be undertaken because it positions the unexplored phenomena within the purview of disaster research and pushes the study of emerging situations such as climate change. De Smet et al. (2012), for instance, questions the suitability of a temporally and spatially restricted theorization of disasters, on the basis that “the hazard and disaster landscape has evolved to encompass new such as climate change” (p.140). The work of Matthewman (2015) provides even further impetus to depart from traditional accounts of disasters on temporal grounds. He particularly expresses concern about the framing of

disasters as events, instead of processes that can run over extremely long periods of time. For example, drawing on Klinenberg's (2003) study of a heatwave that took place in Chicago in 1995, Matthewman (2015) argues that this event "was ultimately determined by what had already accumulated across entire lifetimes" (p. 136). Additionally, there is the question of when do disaster event end as events involving nuclear testing have an effect on people's lives far into the future and when concluded is not easy to mark.

This research adopts Matthewman's (2015) theorisation of disasters that is orientated to the "everyday" and to the systematic aspects of social breakdowns that are not easy to detect because of the gradual speeds and expansive timescales at which they operate (p. 145). Adopting this "everyday" conception of disasters contributes to a more comprehensive understanding of various challenges people and community's encounter. Matthewman (2015) explains "everyday disasters are regarded business as usual that they invoke no response, much less a recovery" (p. 145). Indeed, there are a number of cases where this dynamic is present such as the rising sea levels as a result of climate change, which appears to be an "everyday" problem people face but in actuality is a slow-moving disastrous occurrence if we consider its impacts to various life systems. In other words, this view proposes an understanding that disasters are less fixated on spectacular events and can be processual, incremental, silent, and historically rooted in unfolding social tendencies. Indeed, there is still quite a lot of terrain left to cover to arrive at a truly comprehensive theorization of disaster. However, the little discussed connect disasters research with other key lines of inquiry in the social sciences.

Throughout this thesis, I refer to climate-related disasters, which are often described in relation to exposure or vulnerability. For instance, the study of Birkmann (2006) identifies climate hazards with hydrological or meteorological events exacerbated by the effects of climate

change and human interventions of natural ecosystems, which may have adverse effects on 'vulnerable' and 'exposed' populations. With a more narrowed view Lavell (2002) refers to hazards as complex and compound events that may displace populations and economic resources located in (exposed to) potentially dangerous settings.

The analysis of studies above confirms that the underlying components of 'disaster' (exposure and vulnerability) are perceived as the materialisation of risk and signify a latent condition that is in itself a social construction (Birkmann, 2006a; Fordham, 2007). In other words, the society constructs what constitutes a 'disaster' in relation to their perception of changes in environmental, economic, and social aspects. The social science meta-theorist, Dubin (1978) also explains that a disaster event can be used as a catalyst for study of a social structure. It makes no difference whether the event studied is a flood, an earthquake or disaster of whatever kind (Dubin 1978, p.116). The ontological basis of understanding 'climate-induced hazards' in this research also lies in the social construction paradigm (described in detail in Chapter 5).

2.3.2. The emergence of resilience in disaster research

The concept of resilience has been widely employed in disaster research since the 1970s and has its origins linked to multiple disciplines, including ecology (Holling, 1973), engineering (Gordan, 1978), psychology (Werner et al., 1971), and economics (Batabyal, 1998). While there are various theoretical angles adopted to define resilience within disaster scholarship, the most common view originates from ecological systems theory, specifically attributed to the work of Crawford Holling (1973), who advanced the idea of resilience as "a measure of the persistence of systems and their ability to absorb change and disturbance and still maintain the same relationship between population variables" (p.14). Holling's 'ecological view' of resilience (persistence and absorptive capacity) has since been applied as a framework to

understand adaptation of various systems during disasters (Reghezza-Zitt, Lhomme, & Provitolo, 2015; H. Zhou, Wang, Wan, & Jia, 2010). For instance, drawing on the theory of an adaptive cycle, scholars like Bruneau et al. (2003), Mileti (1999), and expert groups such as the Intergovernmental Panel on Climate Change (2012), have defined resilience in terms of a bio-physical approach, which primarily focuses on the capacity of a system (i.e., human, ecological and social) to absorb and cope with shocks and stresses in a timely and efficient manner. The idea that disasters are produced through the interplay of social and environment factors is embedded in the theorisation of resilience as a bio-physical approach.

Alternatively, some scholars have interpreted resilience as a social attribute whereby the emphasis is on behavioural responses of individual and communities to apprehend future risks (see Enemark, 2006; Paulina, et al., 2014; Renschler et al., 2010). The United Nations Office for Disaster Risk Reduction (UNDRR) defines resilience as “the ability of a system, community, or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its basic structures and functions through risk management” (p.5). There are also various interpretations of resilience by other development partners that echo the conceptualisation of UNDRR but also add to the notions of ‘bouncing back,’ ‘bouncing forward’ or ‘emerging stronger’ from shocks. In the context of my research, these re-conceptualisations have contributed to new modes of governing risks that are borne upon communities in disaster settings. Table 1 below outlines the various interpretations of resilience by disaster scholars categorised by guiding theories. As evidenced, the notion of resilience is intensely value-laden, political, and linked to issues of equity and justice (Fainstein, 2015; Ziervogel et al., 2017). It can also be argued that the term resilience is far from just an idealised ‘outcome,’ which embodies a linear conception of time (Cutter et al., 2008; Norris, Stevens, Pfefferbaum, Wyche,

& Pfefferbaum, 2008), or the idea of 'bouncing back' and 'returning to normalcy' (Mayunga, 2007). For instance, 'bouncing back' assumes that there is a 'stable' state to return to, while 'bouncing forward' signifies a shift to a new state (Cretney & Bond, 2014). In the context of natural hazards like floods and cyclones, there is an element of understanding regarding forms of risk that people may have to confront. As such, the idea of 'bouncing back' has been challenged in favour of resilience as a process that looks at incremental capacity of individuals and societies to adapt to their changing environments, or their transformational behaviours that allow them to anticipate, prepare for, and respond to disaster events (Cutter et al., 2008; Mayunga, 2007; Norris et al., 2008). However, regardless of the ambiguities in ways resilience has been applied to different scales (systems, communities, households, individuals), the term promotes optimism and has been positively accepted in development and disaster management policy (Reghezza-Zitt et al., 2015; Rose & Lentzos, 2017).

In summary, there are many emerging questions that draw attention to ideological, political, and theoretical underpinnings of the term resilience, such as: Who problematises the different forms of risk? Who articulates what gets called resilient? How can one be made resilient? or Whose futures are valued over others'? (see Cutter et al., 2008; Folke, 2016). Sanderson (2016) explains that resilience is part of an 'aspirational paradigm' that has promoted collaboration between various development actions. However, many scholars have expressed concerns that the present-day use of the term has "gained currency in the absence of clear agreement about its philosophical dimensions and a lack of clarity in understanding and defining it and, most importantly, applying it to disaster management theory and practice" (Mayena, 2006, p.435). Rufat (2015) argues that the concept of resilience "is buzzing to the point of becoming a victim of its own success. By being brandished, bargained, and brewed,

it has been morphed into a portmanteau word, borrowed for very diverse ends”, particularly in disaster reconstruction projects (Rufat, 2015, p.201).

The views elaborated in this sub-section reflect the need for careful consideration and use of the concept within disaster research as the changing interpretations are likely to affect how the term is perceived, addressed, and acted on in both a theoretical and practical sense. For instance, the shift towards adoption of neo-liberal approaches to ‘enhance resilience’ – providing technical solutions to individuals’ suffering in the context of crisis – has given rise to a particular ethic that the ‘vulnerable’ are responsible for addressing their own vulnerabilities and ‘become resilient’ (Cretney & Bond, 2014; Rose & Lentzos, 2017). Similarly, newer connotations such as “build back better” (Mannakkara & Wilkinson, 2015, p.327) and “bouncing forward” (Manyena, O’Brien, O’Keefe, & Rose, 2011; p.418) may simply be untenable for the socially vulnerable (see Rose & Lentzos, 2017; Reghezza-Zitt et al., 2015; Tierney, 2015).

My study engages the concept of resilience as an ‘emergent process’ grounded in the lived experiences of MSEs. As such, the focus will be on the capacities of MSE owners, their affective, political and ethical terrains in becoming resilient (Rose & Lentzos, 2017). Disaster sociologists have reiterated that transformative changes occur at each stage of a disaster, which breaks away from “dualism, systems, and linear notions of time and development” and promotes investigation of human interdependence, relationality, and the ethical dimensions of ‘living resilience’ (Gibson-Graham, Hill, & Law, 2016, p.714). The next two sections (Sections 2.3.3 and 2.3.4) look at the complex relationships among resilience, vulnerability, and adaptation, which have been used interchangeably in disaster research. Clarifying these linkages is critical because it helps frame the theoretical underpinnings for this research.

Table 2.1: Definitions of resilience categorised by theme.

Theme	Source	Conceptual framework	Definition
Resilience as a biophysical character	IPCC (2012)	Theory of adaptive cycle	“The ability of a system and its parts to anticipate absorbs, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through ensuring the preservation, restoration, or improvement of its essential basic structures and functions” (p.563).
	IPCC (2007)		“The ability of a social or ecological system to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity for self-organization, and the capacity to adapt to stress and change” (p.880).
	Timmerman (1981)	Timmerman uses climatic application tools used in meteorological studies to explain that society is faced with both natural variations in climate and human-induced climate changes that are vital in understanding resilience and, thus, the ability for people to withstand shocks. As such, Timmerman takes resilience as a biophysical character. Within this framing, the author suggested that resilience should centre on diversity and functional response with perturbations.	“The capacity of a system to absorb and recover from the occurrence of a hazardous event; reflective of a society’s ability to cope and to continue to cope in the future” (p.19).

		Theory of adaptive cycle	
	Mileti (1999)	<p>Mileti suggests that various tools are pertinent for augmenting resilience through land planning, warnings, engineering and building codes, insurance, technology, and emergency readiness. Other tools suggested included holistic government frameworks, hazard risk assessment, and national databases. Most importantly, the author asserted on education and training to mitigate disasters and to measure progress.</p> <p>Theory of adaptive cycle</p>	<p>“The ability to withstand an extreme event without suffering devastating losses diminished productivity or quality of life without a large amount of assistance from outside the community” (p.7).</p>
	Bruneau et al. (2003)	<p>Adaptive systems theory: Essentially, the authors use TOES to show that interactions and associations of various components concurrently affect and are shaped by the system.</p> <p>The four dimensions of community resilience: technical, organisation, economic, and social (TOES)</p>	<p>“The ability of social units (e.g., organisations, communities) to mitigate hazards, contain the effects of disasters when they occur, and carry out recovery activities in ways that minimize social disruption and mitigate the effects of future earthquakes” (p.735).</p>

As a social attribute	Paulina, Ruth, John, and Mark (2014)	The theory concerns the connection between human language and expressions and how it is turned into human knowledge. Social-interactive discourse theory	What is relatively new within the conceptualisation of disaster resilience is the idea of “bouncing back”. The idea of bouncing back can be conceived of in diverse ways, leading to the prioritisation of diverse strategies. For the idea of bouncing back to move from being just a slogan to a useful approach, what is required is “to give more substance to the meaning of bouncing back and its applicability in practice” (p.264).
	Maguire and Hagan (2007)	The theory asserts social resources such as relations, norms, trust, and informal networks as fundamental for change or effective functioning. Social capital theory	The capacity of social groups and communities to recover from disasters.
	Olick and Robbins (1998)		The ability to anticipate risk, limit impact, and bounce back rapidly in the face of turbulent change.
	Renschler et al. (2010)		Resilience may be defined as a function indicating the capability to sustain a level of functionality or performance for a given building, bridge, lifeline network, or community, over a period defined as the control time.
As an instrument of biopower and governmentality	Radcliffe (2015)	Constructivism	“Critical development studies follow the concept of resilience as it becomes not only the logical framework for understanding socio-natural disasters and unpredictable political economic fluctuations. CDS can also draw out how the subject positionings made visible and welcomed under resilience-led policy can be interpreted as consistent with

			neo-liberal expectations of pro-active, self-generating subjects” (p.860).
As a resource-dependent	Marshall, Fenton, Marshall & Sutton (2007)	Marshall, Fenton, Marshall & Sutton (2007) suggest that resource dependency is a description of the unique relationship between resource users and a resource. Sustainable livelihoods theory	Resource dependency scholarship examines how changing the nature of the relationship between users and a resource can inadvertently compromise human prosperity and affect the ability of social and ecological systems to be resilient

2.3.3. Scrutinising the resilience and vulnerability relationship in disaster studies

The term 'vulnerability' has gained recognition in disaster research and policy, but its definition remains widely contested. In disaster management parlance, this term is often constructed as susceptibility to the impacts of hazards, with an underlying assumption that the vulnerable have limited capacity to cope with the risks posed (Birkmann, 2006b; Uekusa & Matthewman, 2017). For instance, Uekusa and Matthewman (2017) argue that the resilience paradigm suggests that "vulnerability can be reduced by promoting resilience because vulnerability and resilience are binary opposites" (p.356). They argue that the definitions for the two terms share a common language albeit framed in contrasting ways. However, some disaster scholars have highlighted that the relationship between 'vulnerability' and 'resilience' is not explicit (Cannon & Müller-Mahn, 2010; Cutter et al., 2008; Zhang et al., 2009). This is perhaps due to the different epistemological traditions from which the two concepts have emerged and how they have been interpreted within the different schools of thought (Fekete, Hufschmidt, & Kruse, 2014; Shim & Kim, 2015). For instance, natural science disciplines have often perceived resilience to be the ability to "bounce back in the sense of returning to the initial state before a disaster", or as "resistance to physical impact", or "maintained function despite disturbances", whereas vulnerability is described as "the degree of sensitivity to damage" due to a range of socio-economic and environmental factors (Reghezza-Zitt et al., 2016, p.34). As evident, the focus is on the characteristics of people that make them susceptible to disasters. For instance, individuals or groups that lack capacity or resources and are exposed to frequent floods are considered 'highly vulnerable' (Cannon & Müller-Mahn, 2010; Manyena, 2006)⁴.

⁴ Manyena (2006) carried out an extensive review of the vulnerability terminology and concluded that the term is often linked to predisposition, fragility, deficiency, or lack of capacity that favour adverse effects on exposed systems to cope with and adapt to extremes and non-extremes.

This is also a common premise used in disaster science to understand risk distribution (Lindell, 2013). However, the question that remains unanswered by natural science scholars is whether the management of vulnerabilities would improve resilience, or vice versa (Matyas & Pelling, 2015; Norris et al., 2008; Vale & Campanella, 2005). For instance, Norris et al. (2008) cites Wisner et al. (2004) to explain that vulnerability in the context of disaster risk management is the most profound manifestation of the social construction of risk. Here, Norris and his colleagues refer to how societies in their interaction with the changing physical world construct disaster risks by transforming physical events into hazards of different intensities through social processes, which may in turn exacerbate the vulnerabilities of various population groups and their livelihoods. Reflecting on this view, it can be argued that managing vulnerabilities may not necessarily improve resilience for all population groups, and perhaps may even exacerbate conditions for some.

There is consensus among social science researchers that vulnerability and resilience are discrete concepts that should not be reduced to physical dimensions (Cutter et al., 2013; James & Paton, 2015; Leong, Airriess, Li, Chen, & Keith, 2007; Uekusa & Matthewman, 2017). Leong et al. (2007), for example, explained how the Vietnamese Catholic Community in New Orleans demonstrated remarkable resilience after Hurricane Katrina, despite being identified as socially marginalized in comparison to other ethnic groups. The findings of their study highlighted that the recovery times of communities differed due to their socioeconomic status, particularly the underprivileged. In their view, vulnerable groups or individuals can be resilient despite their recovery being slower than their purportedly less vulnerable counterparts. Similar arguments have been reflected in the study of Uekusa and Matthewman (2017), which demonstrated how linguistic minority groups and refugees recovered after the Christchurch earthquake despite significant challenges in everyday life such as socio-economic deprivation,

linguistic barriers, higher unemployment, and institutional racism. Their study mentions that most disaster scholars have largely ignored social configurations that generate vulnerability, such as culture, tradition, and norms, which are critical to building resilience. For example, their findings reflected how racial minorities referred to as 'socially powerless' had strong social networks (i.e., shaped by culture or norms) which they strategically employed to mitigate disaster impacts. There are several other disaster sociologists, like Lindell (2013) and Enarson (2007), who have theorized the link between differential disaster suffering and social systems. These studies reveal that social inequalities are largely a function of power relations (class, age, and gender) operative in every society, and pre-existing inequalities affect individuals' ability to prepare for or recover from disasters (ibid). For example, Enarson (2007) shares the example of women's susceptibility to disaster impacts being possibly greater than that of men due to complicated and contextual factors such as their dependence on health care, including shelter from violence. However, the vulnerability variables within current disaster literature are often limited to quantifiable demographic variables, which according to Enarson (2012) is a deterministic approach because it does not consider the conditions in which people live or "situational vulnerabilities" (p.45). This argument sets forward the importance of exploring the less traditional or context-specific factors of vulnerability and their intersectionality with the process of building resilience⁵.

Another important insight offered by disaster sociologists has been around analysis method. As evidenced in disaster research, the analysis of resilience focuses on the strengths and 'assets' of vulnerable populations rather than what they lack (K. De Bruijn, Buurman, Mens, Dahm, & Klijn, 2017; Masten, 2011, 2015; Twigg, 2009). Twigg (2009), for example, looked at

⁵ Literature highlights that people in disasters experience different suffering, but they have social agency to cope and recover (Fordham, 1999; Enarson, 2007).

“what communities can do for themselves and how can they strengthen their capacities” (p.8), which is observed as a more constructive approach for addressing disaster risk compared to the analysis of communities’ pre-existing issues. Enarson (2012) reminds scholars that “vulnerability analysis often picks the low-hanging fruit” (p.45). He scrutinises the deficit approach and calls for a more robust analysis. With a somewhat similar perspective, scholars like Birkmann (2006), Eakin and Luers (2006), and Gallopín (2006) explain that the two terms have an interactive relationship. For example, Birkmann (2006) uses a climate-smart lens to define resilience as “the capacity of a system to absorb shocks and disruptions and to continue to exist with the least damage possible” (p.25). This conceptualisation incorporated three different dimensions, namely: (i) the amount of impact a system can undergo (vulnerability); (ii) the capacity to “restore back” (self-organise); and (iii) the capacity to learn and adapt to the changing context (adaptive capacity).

In summary, vulnerability and resilience may have some converse characteristics, but the two terms are not necessarily exact opposites, as some characteristics of vulnerability coexist with factors that contribute to resilience. For example, Reghezza-Zitt et al. (2016) uses the framework of “resiliency vulnerability” to explain that resilience and vulnerability can be contingent on each other, because resilience consists of both positive and negative effects that are dependent on the nature of the risk and its severity. In their study, positioning vulnerability within this conceptual framework is necessary as they aimed to understand how vulnerable groups coped with a hazardous event. Systematic, deterministic, quantitative, and deductive approaches employed by disaster scholars tend to treat vulnerable individuals and groups as passive or powerless victims without adequate examination of their agency or resilience (Enarson et al., 2007; Uekusa, 2019b). Scholars like Enarson et al. (2007) and Norris (2010) explain that a new paradigm based on inductive and non-deterministic approaches will

not only heighten understanding of people's vulnerability and resilience to disasters, but also adequately theorise experiences. In the context of this research, the term 'vulnerability' is used to identify both the physical factors that make MSEs susceptible to natural hazards, such as locality of operations, business characteristics, township developments, and poor environmental risk assessment practices, as well as the impinging social factors such as networks, living arrangements and community values.

2.3.4. Linking resilience to adaptation

Adaptation (commonly referred to as 'adaptive capacity') is a concept that is widely used in disaster management discourse to explain links between vulnerability and resilience. As Fordham (2007) argues, adaptation variables should not be analysed independently or as a simple aggregate within a disaster context, as they have some salience in understanding how people build resilience or manage vulnerabilities.

Researchers in the disaster field, mainly natural sciences, often refer to adaptation as the propensity to behave in a certain manner and the ability of a system to adjust with a cumulative set of resources, characteristics, and processes (Birkmann, 2006; Newman et al., 2014). The discussion above on the linked vulnerability-resilience relationship revealed that adaptation is prominently mentioned in relation to resilience, but the interlinkages between the two terms have not been properly elaborated by scholars. For instance, the works of Norris et al. (2008) and Engle (2011) conceptualise adaptive capacity as a set of resources that the processes of resilience draw upon, while others such as Klein et al. (2003) view it as a desired outcome for resilience. Thus, the operationalisation of adaptation is usually limited to one of these perspectives (Berman, Quinn, & Paavola, 2012). In addition, most frameworks in the disaster management field that have conceptualised adaptive capacity through the lens of vulnerability

and resilience do not adequately explain the resource base from which capacity is determined (Berman et al., 2012; Wise et al., 2014).

Considering the knowledge gaps identified above, Berman et al. (2012) argue that understanding of capacities can be distinguished between coping capacity and adaptive capacity. They explain that the critical difference between the two is temporal, whereby coping capacity is short-term responses, but its usability and effectiveness remains limited compared to adaptive capacity, which looks at long-term changes in preparation for future events. As such, developing coping capacity as described is expected to reduce vulnerability in the short-term but may not always be sustainable or foster the long-term adaptive capacity that is needed to meet future challenges. For instance, coping capacity would entail MSE owners drawing on available resources and experiences to manage adverse impacts of hazards, whereas adaptive capacity entails influencing policies such as 'building back better' to reduce vulnerability in the face of increasing climate hazards (Berman et al., 2012).

Berman et al. (2012) also argue that transformations should not take away existing coping capacities but build on them to enable longer-term, sustainable, adaptive capacity. To development practitioners, the transition from short-term coping strategies to long-term adaptive strategies is conceived as actions addressing the underlying or new vulnerabilities of the society or, alternatively, enhancing the resilience of vulnerable groups to respond to adverse situations (Engle, 2011; Folke et al., 2002). However, the focus on adaptation strategies has also been criticised for not recognising their place with (i) social and cultural structures, and (ii) how they are interpreted by different actors. For instance, Putnam (2000) explains that coping strategies involve social capital and their use is important in facilitating responses to disturbances, not only in the short run, but also in altering long-term adaptation measures such as establishing social networks that enable systems to continue functioning.

As such, understanding adaptive capacities is critical in the framing of resilience, as well as addressing vulnerabilities (Jones, 2019; Jones, Samman, & Vinck, 2018).

My study applies the theoretical analysis of adaptation by Berman et al. (2012) to understand the coping and adaptive capacities of businesses in the face of increased climate hazards (e.g. Engle, 2011; Folke et al., 2002). The conceptual framework of my study presented in the next chapter envisages the transformation of coping capacity to adaptive capacity, which is embedded within the resilience and vulnerability relationship discussed in Section 2.3.3. Although concerns have been raised that responding to current vulnerability is insufficient to enable long-term adaptation, which is perceived to indirectly infer resilience. For instance, Berman's model breaks resilience down into capacities from anticipatory and absorptive to transformational. The application of types of capacities in relation to vulnerability and resilience is summarised in Figure 2.1 below.

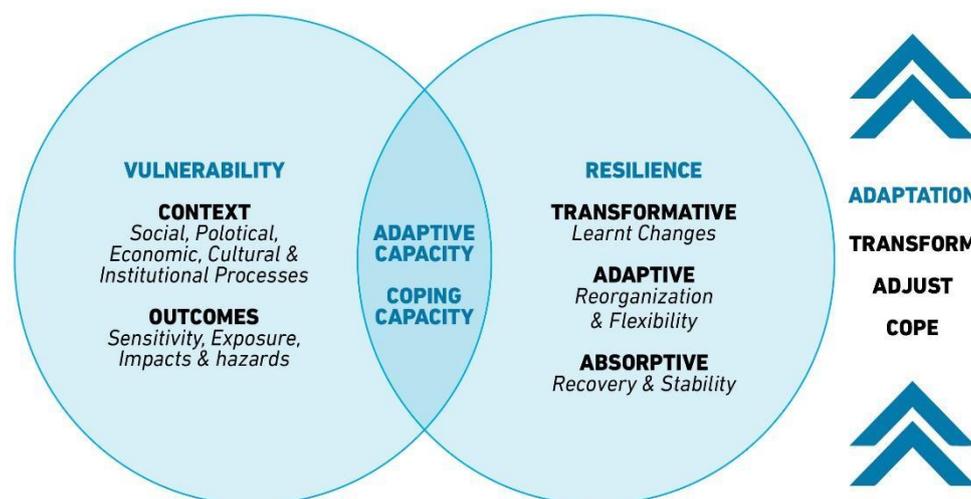


Figure 2.1: Linking resilience and vulnerability to adaptation (Adapted from Dixon, Stringer, & Challinor, 2014)

2.3.5. Framing organisational resilience

Over the last two decades, resilience has become a central concept in organisational behaviour research and practice to explore processes of transformative change in individual actions (Halkos & Skouloudis, 2020; Herbane, 2019; Prayag & Orchiston, 2015). In the face of an unpredictable future, the term organisational resilience has become even more attractive to assess how businesses build a sense of confidence to sustain their operations (Somers, 2009). For instance, from a theoretical viewpoint of adaptive cycle, Sutcliffe and Vogus (2003) and Williams et al. (2017) explain that there are two key approaches to building organisational resilience – first, strengthening the inherent ability of organisations to maintain their performance levels when faced with disaster events, and second, enhancing the organisational capacity to prepare for calamities and emerge out stronger from past experiences. Drawing on similar arguments, Neise and Diez (2019) conducted 69 in-depth interviews to evaluate how Indonesian manufacturing MSEs dealt with sudden onset of floods in their areas. Their findings reveal that floods continue to be a constant stressor for manufacturers, whose behavioural routines and resource (financial and human) capacities help provide an understanding of their resilience mechanisms. Interestingly, in that study, findings were categorised according to business size (small, medium, and large) and business origin (domestic, foreign, and joint venture). It was found that medium and large corporations were able to incorporate more effective adaptation strategies such as modification of their routines and flood anticipation triggers (i.e., monitoring equipment), while smaller businesses that invested in smaller modifications and responded to floods as they occurred, employed ‘wait and see’ tactics, which were more uncertain in terms of effectiveness.

The study by Neise and Diez (2019) also revealed that external factors such as donations, loans, and public infrastructure (i.e., transport, communication, and utility services) played a

critical role in determining the survivability of businesses in the face of floods. By empirically testing adaptation strategies from literature on 69 manufacturing business in Jakarta and Semarang, Indonesia, their study found MSEs to be “extensively dependent on adaptation strategies initiated by state authorities (e.g., transport and utility services) or by NGOs (e.g., donations)” for temporary recovery (Neise & Diez, 2019, p.334). Neise and Diez claimed that businesses in general had three options to deal with in relation to floods - adapt, relocate or surrender - and MSEs would either relocate or surrender operations in most instances. They suggest MSEs that avail themselves of aid supports for adaptation strategies--whether from government or NGOs--are doomed to demise. Such ideological claims are debatable because aid dependency is not a reliable predictor of why businesses demise.

Other authors such as Murray and Watson (2019) assert that the resilience levels of businesses are predominately influenced by their size and characteristics. Their study reviewed the extent to which disaster resilience frameworks and risk management processes are adopted by businesses in the Caribbean Island nations of Trinidad and Grenada. Findings of this research revealed that most small businesses were not adequately prepared for natural hazards and had reactive emergency response approaches in times of natural hazards, as opposed to the prescribed set of processes from disaster risk management frameworks, which were argued to be suitable for larger sized businesses because of compliance regulations and operating environment (i.e., characteristics). Further, Murray and Watson’s study pointed out that both small and medium-sized businesses had limited knowledge of threats posed by other disasters apart from hurricanes, which occurred more frequently in the region. However, when comparing the responses of businesses in the two Caribbean islands, their study found that resilience and adaptation were higher in Trinidad than Grenada, because the sample in Trinidad included prominent firms (medium-sized) that had more financial resources to boost

their risk assessment and upgrade their resilience measures as opposed to the more vulnerable (small-sized) firms dominating the sample of businesses in Grenada. Much of the current literature on business resilience to disasters argues that smaller firms are more sensitive to disasters due to their limited resources or competencies (see Section 2.1) (Runyan, 2006; Shaw, 2018; Skouloudis et al., 2020).

Focusing on how businesses have built resilience to frequent floods, the research by Verrest, et al. (2020) draws attention to preparedness and responsive behaviours adopted by MSEs across the megacities of Bangkok, Jakarta, and Manila. Their study reveals that almost 90 percent of MSEs operating within the three cities were situated in flood-prone areas, but owners were hesitant to relocate or invest towards improving infrastructure for their businesses, which was perceived as additional cost. Their study highlighted that the hesitation towards relocation or investment was largely due to issues of operating informally and limited access to financial services, particularly in the cities of Bangkok and Jakarta. As such, businesses in these two cities adopted precautionary strategies such as (i) modification of business structures (building on poles carved out of pine trees), (ii) keeping minimal stocks, and (iii) investing in mobile business options like carts that are easy to relocate during floods. In contrast, MSEs in Manila had a more advantageous position in preparing against floods as they were provided business continuity training and funding from government. As anticipated, the study revealed that traditional knowledge played a critical role in influencing the adaptive responses of MSE owners.

Scholars have also assessed organisational resilience by looking at the transformations that businesses make in the aftermath of a hazard. For instance, Lengnick-Hall et al. (2011) examined how businesses developed new adaptive capacities to respond to future hazards. These authors operationalised resilience as the firm's ability to develop situation-specific

capacities and to ultimately engage for their survival in transformative activities to adjust to disruptive and potentially threatening situations. This notion of resilience has elements in common with organisational capacities such as flexibility, adaptability, and agility which can help them cope with or adopt and apply adaptive processes, as defined in Section 1.2.

2.3.6. Neo-liberalisation of resilience in policy discourse

Neo-liberalism is a concept associated with the political ideologies of Thatcher and Reagan, who were political leaders that implemented a series of economic reforms targeted towards market competition, cost savings and individual responsibility (Gamble, 2001; Larner, 2000). Political ecology literature argues that the doctrines of Thatcher and Reagan have influenced how governments are organised and how governance is practised in much of the world (Larner, 2000; Peck & Tickell, 2007) However, in recent years, the idea of building resilience has also become a major part of the neoliberal agenda in policy discourse, which tends to obscure pre-existing social injustices (K. Brown, 2016; Manandhar & McEntire, 2014). Most disaster scholars refer to Naomi Klein's (2007) acclaimed work *The Shock Doctrine* to explain how neoliberal capitalist interest take advantage of hazard events to push austerity policies that would otherwise be met with resistance (see also Adams, Van Hattum, & English, 2009; Uson, 2017). For instance, Adams et al. (2009) extensively cites Klein's work to examine the nexus of socioeconomic and political conditions that contributed to the permanent displacement of New Orleans residents. Their findings reveal how living in a state of "responding" is a norm, and characteristic of neoliberal social experiments. Klein (2007) documents the neo-liberal political strategies of oppressive regimes that were used during Hurricane Katrina to exploit and exacerbate existing human inequalities (see Chapter 3.3.4 on symbolic capital). Echoing similar concerns, Tracie Washington, President of the Louisiana Justice Institute, expressed concerns on how policymakers continue to label communities as

'resilient' without acknowledging that the reconstruction approaches in the aftermath of a disaster can also exacerbate vulnerabilities (cited in Davoudi, 2018). Excerpts from her statement read "[w]e are not born to be resilient; we are conditioned to be resilient. I don't want to be resilient [...]. I want to fix the things that create the need for us to be resilient in the first place" (cited in Davoudi, 2018; pp.5-6). This statement is a political rejection of the 'Build Back Better' (BBB) approach to reconstruction that disregards the social and cultural spaces of marginalised communities (see also Kang, 2018). In the context of my research, the reconstruction methodology of BBB was first promoted by the Fijian government following TC Evan in 2012 (Winterford & Gero, 2018). Globally, the BBB approach has been employed by various disaster response agencies; however, it is increasingly seen to be inadequate, as merely restoring 'pre-disaster' standards and not necessarily reducing future risks (Dube, Wedawatta, & Ginige, 2021; G. H. Reid, 2009; Su & Le Dé, 2020).

Reid (2013) explains that BBB approaches tend to focus on the longer-term coordination approach of reconstruction, which is anchored in the principles of resilience. He argues that the BBB approach is a heuristic that can be useful in inspiring discussions about transformative change, but it is normative in the sense that it carries the assumptions regarding at-risk subjects and only draws attention to certain forms of improvements over others (see also Chandler, 2013). Disaster scholars explain that rebuilding for the 'better' tends to "articulate the visions and desires of experts, and political elites while marginalizing the voices of those people who actually experience the brunt of a catastrophe's effects" (Barrios, 2017, p.234; see also Stodart, 2016). As such, a critical analysis of resilience in disaster recovery requires confrontation of hegemonic development ideologies that have neo-liberal underpinnings. My research argues that resilience needs to be reimagined as a process that focuses on situated practices that take place in everyday life.

Another critique of resilience-thinking is around the adoption of actor-centred approaches in policy, where “the focus is on strengthening the capacity of affected communities to recover without external assistance” (Manyena, 2006, p.433). Some disaster scholars like Pulvirenti and Manson (2011) highlight that actor-centred approaches give rise to “blame-shifting” as they echo a particular logic that devolves state responsibility for mitigating and addressing risks to individuals and communities who do not have adequate resourcing (p.44). This phenomenon is evident in global development policy like the Sustainable Development Goals 2030 (SDGs), which set out “ontological commitments” to address material and social inequalities of vulnerable populations by passing on the responsibility to member governments (Dow et al., 2006, p.82). These global aspirations are then adopted and integrated within national development policies and strategies without adequate resourcing or mapping of capacities. As such, the responsibility is shifted towards development partners, NGOs and vulnerable social groups due to the limited capacities of the government itself (Nakamura & Kanemasu, 2020; Neef et al., 2018). Resilience in this sense works in a political fashion, naturalizing the social injustices of communities lacking adequate resources (MacKinnon & Derickson, 2013).

To sum up, the emergence of resilience in disaster management discourse is “part and parcel of neo-liberal ‘worlding’” (Bracke, 2016, p.13). This worlding has reshaped the structure of social relationships into becoming ‘docile’ subjects of a neo-liberal social order (p.14). Many critics point out that resilience largely functions as a mode of neo-liberal governmentality, where human conduct is shaped by those in power (Bracke, 2016b; Cote & Nightingale, 2012). The notion of governmentality, as coined by Foucault (1980), rationalises “how we govern and are governed within different regimes, and the conditions under which such regimes emerge (cited in Dean, 2010, p.33). From Foucault’s perspective, the notion of governmentality

unpacks the operations of power that legitimise practices and ‘regimes of truth’ that configure the possible field of action of others (Foucault, 1980 cited in Watts, 2003, p.12). The regime of truth in a disaster context may refer to the system of ordered procedures for evacuation—through distribution of resources or reconstruction functions—via a circular relation between the systems of power that produce these procedures and the people affected by these procedures. Further, the link between resilience and governmentality can be articulated through the shifting responsibilities between the state and the individuals expected to absorb risks posed by disasters, despite having minimal control over social conditions that produce those risks (Chandler, 2013a, 2013b; Reid, 2013). Evidently, power is exercised in disaster policy and programmes, not only in the way in which their aspirations are shaped, but also the actions imposed on people – ways in which becoming responsible is nurtured. The configurations of power within the context of this research are discussed in Chapter 3.

2.4. Summary

The chapter presented literature about disaster resilience and the related terminology and factors associated with building the disaster resilience of MSEs. It included a discussion of MSEs’ vulnerabilities to natural hazards and the impact of disasters on these businesses. Research evidence indicated that natural hazards seem to have a more significant impact on MSEs than on larger businesses due to various interrelated factors, including business characteristics associated with capacity. Larger and more established businesses are often endowed with greater resource capacity, expert support, both internal and external, and their accessibility to disaster aid and access to information for decision-making. These factors were also shown to constrain the ability of small businesses to prepare for, cope with and recover from natural hazards.

Furthermore, recommendations for what businesses should do to build resilience towards disasters appear to be flawed. As indicated by the study of Alesch et al. (2001), most recommendations emphasise protecting the business property and its contents, developing disaster response plans, setting up alternative locations, and obtaining professional advice to manage the disaster risk, which may sound ideal but may not be practical for MSEs due to various intersecting factors such as limited resources, poor capacity, and financial constraints (discussed in Chapter 7). Likewise, guidance on planning and worker safety generally does not address other issues, such as what to do if a hazard radically alters the overall business climate or results in a decline in demand for the goods and services a business offers. Similar non-contextualised recommendations are noted in disaster preparedness literature. It does not offer clear suggestions on how businesses may cope through months and perhaps even years of disaster-induced disruption. Evidently, most frameworks for business disaster preparedness or recovery remain distant from the actual problems businesses experience when faced with natural hazards. These arguments will be supported with evidence in Chapter 8 and discussed further in Chapter 9.

The latter part of the review focused on the intersection of resilience with the concepts of vulnerability and adaptation, including epistemologies of these terms. Evidently, the term has been deployed in different ways across different contexts, which offers standpoints for broadening the ontological orientation of resilience. As critical scholars have rightly questioned, the hegemonic deployment of resilience frameworks tend to elide issues of power, justice, and equity. Moreover, concerns have been raised on how the practice of building resilience has reshaped social relations, moral orientations, and subjectivities to suit modernist and neo-liberal ideas (Bracke, 2016b). For instance, trends in resilience thinking may focus on the imperative of becoming self-sufficient and adaptive, without adequately reflecting on how

the needs of various individuals and communities are met. However, limiting views to such neo-liberal underpinnings of resilience deters scholars from understanding how resilience is constructed and operationalised in different contexts (Cretney and Bond, 2014; Grove, 2018). This research argues that resilience can be reimagined by drawing on the everyday and embodied experiences of those affected, which in the context of my study are MSEs.

Chapter 3: Conceptual framework

The previous chapter highlighted several definitional issues associated with the notion of resilience yet asserted that resilience building demands consideration of social vulnerabilities that are systemically created and reproduced. Indeed, several studies have cautioned researchers from overlooking the power, politics, and participation in the resilience-building process (Chandler, 2013b; Endress, 2015; Mu, 2020). Herein lies Bourdieu's sociology that questions not only the unequal distribution of resources but also whether there is the potential to transform structural inequalities. Therefore, to theorise and elaborate on the process of building resilience, this chapter draws on Pierre Bourdieu's scholarship of practice, and his central theorems of field, habitus, and capital.

Pierre Bourdieu was a French philosopher and leading social theorist, whose work has been hugely influential in disciplines across social sciences and humanities (Harker, Mahar, & Wilkes, 2016; Swartz, 1996), and more recently in disaster management (Matthewman & Uekusa, 2021; Uekusa, 2018a, 2020; Uekusa & Matthewman, 2017). In the sections to follow, I first introduce Bourdieu's sociology of field and habitus. Here, I draw attention to: (i) underlying power dynamics within particular fields, (ii) the objective structures of the relations between the positions occupied by agents who compete for the legitimate form of specific authority, and (iii) the different systems of dispositions that individuals acquire by internalising a determinate type of social and economic condition (i.e., the habitus within the field). Then, I contextualise the discussions on field and habitus within the disaster management field. Of importance to discussion on field and habitus is the process of 'reflexivity', whereby the researcher reflects on their own position relative to the people they study and how that shapes their interpretation of data (refer to Section 5.4). Next, I further discuss Bourdieu's scholarship on forms of capital and its possible links with assessing the process of building resilience. In

doing so, I discuss the interplay between capitals (i.e., capital conversion) and connect the discussion with field and habitus. In the chapter conclusion, I summarise Bourdieu's triad of habitus, capital and field and its relevance to this research.

3.1. Overview of Bourdieu's sociology of habitus, capital, and field

Pierre Bourdieu's scholarship is profoundly influenced by the works of Karl Marx and Max Weber's theories of economism and social reproduction (Harker et al., 2016; Swartz, 1996). In the early 1960's Bourdieu began exploring theories around social inequalities by looking at historical materialism and the relations between class conflicts and material interests in Algerian societies. Linking aspects of human consciousness (agency) to material life, Bourdieu refuted the Marxist idea of class reductionism and argued that individuals are not aware of their own subordination to powerful agents (Bourdieu, 1977). He wrote extensively about culture and social classes and the sociology of language based on his ethnographic experiences (Navarro, 2006; Susen & Turner, 2011; Swartz, 1996). Without going much into the criticism that Bourdieu was faced with, it is fair to say that his main intention was to create a theory that confronted the epistemological debates between subjectivism and objectivism. In doing so, he looked at the theories around practice, where important concepts like field and habitus were introduced, to contextualise the conditions and circumstances in which individuals compete for material and non-material forms of capital (Bourdieu, 1977, 1986). In his book "Distinction", Bourdieu offered the widely quoted formula "[Habitus x Capital] + field = practice" that defines how his concepts of habitus, capital, and field relate to each other and constitutes practice. Bourdieu argues that practices are understood as the site of where social meaning is negotiated, and structure and agency are simultaneously expressed (Bourdieu, 1977, 1990). Indeed, a few scholars have drawn on Bourdieu's theory of practice, with its central theorems of habitus, capital and field as a way to overcome simplistic understanding

of resilience as outcomes of purely rational decisions (Matthewman & Uekusa, 2021; Obrist, Pfeiffer, & Henley, 2010; Uekusa, 2020; Uekusa & Matthewman, 2017). These scholars' affinity with Bourdieu's works might partially be due to his commitment to combining empirical and theoretical research, which in turn contributes to practice. Even Bourdieu emphasises this point by acknowledging that most social practices are "pre-reflexive" and should be conceived as habitual and routinised actions informed by practical knowledge and an implicit "practical sense" (Bourdieu, 1993, p.167). In the following sub-sections, I elaborate on Bourdieu's conceptualisation of habitus, capital, and field by drawing on Bourdieu's theory of practice. The intention of detailing these concepts is to help understand what systems of dispositions (habitus) and types of resources (capital) are fundamental to the resilience-building process. An example relevant to the context of this research can be drawn from the study of Nathan (2008), who had examined 'risk perception as a 'social practice' by looking at livelihoods of urban poor living in slums of La Paz under conditions exposed to landslides. Nathan argued that people perform "risk perception strategies", which are mediated through prior experience, and that informed their "adaptation of expectations" (p.342). His findings showed that individual decisions to live in a risk environment was not only linked to risk perception, but also structured by their subaltern position within society. In this case, Bourdieu's logic of practice helps Nathan explain individuals' choices and why they exposed themselves to hazards, which is also a question I explore in my research.

3.1.1. Habitus: the structured and structuring of practice

Social practices are enacted through peoples' habitus, a concept that Bourdieu (1977) uses to describe the deeply inscribed conditions of existence, which "in imposing different definitions of the impossible, the possible, and the probable, causes one group to experience as natural or reasonable practices or aspirations that other groups find unthinkable or

scandalous” (p.78). For Bourdieu, habitus is “an embodied manner of being, seeing, acting, and thinking, a schema of perception, conception and action” (Wacquant & Deyanov, 2002; p.43). As Navarro (2006) argues, Bourdieu’s definition of habitus forms a foundational basis of circumventing the impasse of subjectivism and objectivism. For instance, reacting against the structuralist perspectives such as those of Claude Lévi-Strauss, who argue that action and interactions of people, plus the way people represent the world is predetermined through structures, Bourdieu acknowledged the role of agency, where people’s actions are subjective. He argues that habitus is the product of the dialectical relationship between objective structures and subjective phenomena, defined by ‘practice’, which is neither a mechanical imposition of structures nor a product of free will (Bourdieu, 1977, p.261). In other words, it is not an individual trait, but a social facet, which varies across time, places, and capital distribution in different fields. For instance, he explains, habitus is shaped by individuals’ collective histories, institution, and social networks, which arguably are known to also shape the structures within society. Individuals may develop multiple habitus by internalizing specific structures (e.g., laws, rules, norms, value systems, power relations and capital), which in turn shapes their learnings in a specific field (Bourdieu, 1990). It is also critical to note that habitus is transferable to distinct spheres of practice, which can help us understand the past to the present and the present to the future (Bourdieu, 1990). Simply stated, habitus is the intermediary variable (i.e., middle ground) between structure and agency, which also changes as individuals move between fields (Malsch, Gendron, & Grazzini, 2011). However, in examining pathways to social change, the work of Swartz (1996) flagged that sometimes dispositions of habitus do not sync with the rules of a field because individuals encounter social and physical environments that are too different to the ones to which they are objectively adjusted. Bourdieu terms this as ‘hysteresis’, which basically encompasses changes in structure of the field due to exogenous forces, challenging existing views about how practice

should be (Bourdieu, 1990, p.62). As alluded to in Section 3.1, variations in practices can also result from individuals being exposed to new ideas that influence the reflexive consideration of their own habitus in relation to the field. For example, Walker, Gleaves, and Grey (2006) examine the appraisal of resilience and its associated concepts within the context of higher education. Their findings revealed that interventions in higher education such as the practice of assigning weighting to students' learning can be victimising. As such, student's habitus were "outside the realm of conscious and decisions making" (p.255).

What comes to the fore here is that habitus is ontologically complex such that it can be either consciously or unconsciously informed. This thesis examines the resilience of MSEs operating in a hazard-prone locality. Evidently, MSEs have nurtured a predisposition towards the practice of improvising and being resourceful (i.e., habitus). However, their decisions and strategies around improvisation are rooted in past experiences, learning processes, and cultural values. Another telling example of habitus would be the cognitive competencies that inform risk behaviour towards climate-induced disasters, which in turn informs the practice of improvisation (see Chapter 7 and Chapter 9 for further details). The study of De Bruijn and van Dijk (2005) emphasises habitus when exploring the livelihoods of Fulbe pastoralists in central Mali. Their results show adaptation and mitigation strategies of different groups as outcomes of an unfolding process in collective history. However, habitus is a necessary condition, but not entirely sufficient to explain all the social actions and practices. As alluded in Bourdieu's equation, various forms of capital are equally critical for consideration. The next section reflects the discussions accordingly.

3.1.2. Capital: what defines social position

The notion of capital plays a central role in Bourdieu's scholarship (Swartz, 2012; Tittenbrun, 2016; Uekusa, 2017; Uekusa, Matthewman, & Lorenz, 2022). According to Bourdieu (1986),

capital is a rare resource, which has a potential capacity to (re)produce itself in identical or expanded forms. Bourdieu distinguishes between four types of capital, being (i) economic capital (command over economic resources, mainly financial assets), (ii) cultural capital (legitimate knowledge of one kind or another, that is, attitudes, norms, prior experiences, and education), (iii) social capital (valued relations with significant others), or (iv) symbolic (rewards accrued from status such as honour, recognition, and prestige). These forms of capital directly interact with individual dispositions (*habitus*) in a field of play (Bourdieu, 1986). In general terms, Bourdieu's understanding of capital is "accumulated labour" in its materialised, embodied and symbolic form, which enables social agents, both individually and collectively, to appropriate social power "in the form of reified or living labour" (Bourdieu, 1986; p.46) As such, the volume and composition of the capital matters as social agents try to accumulate more and better-quality capital, whatever is available to them, because it determines their social status in a particular social space (Bourdieu, 1986). He argues that capital in its objective or embodied form takes time to accumulate because the structure of the distribution of the different types and subtypes of capital at a given moment in time represents the imminent structure of the social world. i.e., the set of constraints, inscribed in the very reality of that world, which govern its functioning in a durable way, determining the chances of success for practices. (Bourdieu, 1986, p.242) Two key things can be drawn from the quote above. First, the structure of capital distribution in all its forms is an expression of regularity in the social world. Second, the relative positions of domination (e.g., enforcement of the structure in order to maintain its regularity) of social actors are determined by not only the appropriation of different forms of capital, but also by the way it is perceived and valued in respective social fields (Bourdieu, 1986). As such, the unequal distribution of capital represents durability, stability, and reproducibility of the social world.

Although Bourdieu's concept of capital was originally developed to explain existing educational inequality and the social reproduction of inequality through education, many social science scholars have used his concepts to explore cultural and social relations of power (Julien, 2015; Uekusa, 2017; Uekusa, Matthewman, & Lorenz, 2022). As alluded to in the previous chapter, several studies have highlighted that MSE owners rely on various forms of tangible and intangible capital to prepare for, cope with and recover from natural hazard events (Herbane, 2019; Hizam-Hanafiah, Yousaf, & Usman, 2017; Runyan, 2006; Skouloudis et al., 2020). The findings in most of these studies highlighted that the outcome of access to capital and its exchange within the social field of disaster determined the vulnerability and resilience of social agents. For instance, individuals with inadequate levels of capital were perceived to be more vulnerable and less resilient to hazard. Stafford et al. (2013), for instance, examined the effects of capital ownership on survival and growth of family-owned businesses in the aftermath of a disaster. Their findings revealed that businesses that had access to economic and social capital were more likely to survive and grow compared to others. While this result may hold true for businesses surveyed in the study by Stafford et al. (2013), Bourdieu argues that the value of capital is field-dependent and convertible, thus implying that the quality and weight of capital may also be dependent on other types of capital, which in turn may be converted or created from other form(s) of capital under certain conditions (Bourdieu, 1986, 1990). For example, in the wake of a disaster event, individuals rely on various forms of social capital and the interplay of these types of capital that shape people's disaster experiences in each disaster phase – prior to, during, and in the aftermath (field). The following discussions provide a brief overview of Bourdieu's four types of capital and offers some empirical examples from the disaster literature.

(i) Social capital

Disaster researchers frequently use Bourdieu's concept of social capital to describe social networks or social infrastructure. Bourdieu (1986) describes social capital as:

The aggregate of the actual or potential resources linked to the possessions of a durable network of more or less institutionalized relationships of mutual acquaintances and recognition – or in other words, to membership in a group, which provides each of its members the backing of collectively-owned capital (p.242).

Bourdieu argues that social capital is primarily an individual property, which is unequally distributed in society due to class and power relations between the socially advantaged and disadvantaged. In an expanded sense, social capital helps individuals or members in a group share other forms of capital through their networks. Bourdieu's conceptualisation of social capital gained significant recognition through the works of several renowned scholars such as Coleman (1988), Lin (1993) and Putnam (2000). For example, Robert Putnam's (2000) book 'Bowling Alone: The Collapse and Revival of American Community' drew on Bourdieu's concept of social capital to explore the features of social organizations, such as trust, norms, and networks, which he argued could help improve efficiency of a society's coordinated action. Putnam distinguished between two forms of social capital. These were explained as: (i) 'bonding' social capital – connections within a group characterised by common identities and functions, (ii) 'bridging' social capital – connections that link people from different networks together, which are critical for source of information and resource. Extending Putnam's categorisation, Szreter & Woolcock (2004) introduced 'linking' social capital as reference to connections between individuals in different formal or institutionalised hierarchies.

In the same vein, Bourdieu's social capital has gained prominence in disaster scholarship to examine social agency and to explain the non-linearity of resilience in disaster situations

(Aldrich, 2011; Julien, 2015; Klinenberg, 2002; Uekusa, 2017). Aldrich (2011), for instance, adopted Putnam's (2000) definition to examine recovery rates in two similar demographic communities in Kobe, Japan after the 1996 Great Hanshin-Awaji earthquake. He concluded that social capital was a more significant recovery factor than economic capital (i.e., support provided by the government), which is typically used to support post-disaster recovery. Aldrich (2011) argues that social agency as manifested in community solidarity and durable social networks is critical to building resilience to disasters. Informed by Bourdieu's idea of social capital, Uekusa and Matthewman (2017) examined how immigrants and refugees in Canterbury, New Zealand and Tohoku, Japan coped with respective earthquakes. Their study revealed how durable social networks were common features amongst refugees. However, these social networks were developed as part of their earned strength – an unexpected form of cultural capital. These scholars also reiterate that the socially vulnerable occupy a position of relative deprivation yet were considered disaster resilient as they embodied cultural capital. Therefore, they claim that individuals and groups can be simultaneously vulnerable and resilient in disasters, and their resilience is shaped by their vulnerability. The study of Uekusa and Matthewman (2017) also shows how transnationalism exists in the disaster context, whereby governance and support for affected immigrants comes from their home countries (see also Sapat & Esnard, 2012; Yila et al., 2013). This example demonstrates a case of social capital reinforced through cultural norms, or what Bourdieu (1986) refers to as cultural capital (see Section 3.3.2 for more detailed discussion).

A more recent work of Uekusa et al. (2022) conceptualises the notion of disaster social capital, which is informed through Bourdieu's sociology of capital, field, and habitus. These scholars argue that disaster disrupts field and habitus as they cause unexpected social situations. Therefore, the stable systems of rules and predictable behaviours are not applicable. Another

compelling reason for the differing conceptualisations was that disaster social capital is argued to be more 'context and purpose specific' because it is believed to be a group formation that materialises under conditions of extreme stress; thus, patterns of social cohesion are argued to be temporary. Moreover, within the framework, these scholars established that disaster social capital is deployed to group advantage (collective well-being) and not oriented towards self-help.

Besides Uekusa, there are several other studies that recognise the role of social capital as a constitutive feature of resilience-building (Aldrich & Meyer, 2015; Chamlee-Wright & Storr, 2011; Klinenberg, 2002; Meyer, 2013) These studies argue that the resilience paradigm has adapted multiple versions of social capital theory such as Bourdieu (1986) to demonstrate the importance of 'social resources', which binds people together and positively influences disaster recovery. However, despite the extensive literature on the importance of social capital in disaster situations, discourse within resilience research has also problematised the concept of social capital. A telling example can be drawn from the study of Patterson, Weil, and Patel (2010) that highlights, "community cohesion in disaster response may encourage members to remain in vulnerable locations because they have a false sense of security or desire to maintain community solidarity" (p.139). Here, Patterson and his colleagues are referring to instances where certain cultural practices, beliefs, or norms such as gendered roles represent a negative cultural capital, and community members have limited choices but to share this negative resource through their social capital (see also Hishida & Shaw, 2014). As argued by Uekusa (2018), we should not treat social capital as a 'special' characteristic that can only attribute positive outcomes. He argued that social agents who develop and deploy different forms of social capital have their reasons such as lack of access to other forms of capital or the reality that social capital is most easily accessible in that respective field.

Furthermore, it is worth noting that most disaster practices are adequately incorporated or reflected in policy. As evidenced by the empirical study of Jianwen and Han (2018), reconstruction support from government failed to reach vulnerable groups such as older people and ethnic minorities in earthquake-stricken rural communities in Wenchuan, China. Their study found that social units such as families and friends stepped up to rebuild the homes of affected households. The promotion of social capital to build resilient communities across disaster management policies is extremely dubious because the development of such capital involves passive and active processes, while most policy-making processes ignore the practices of social agents who choose who they develop social networks for in times of disaster (Cheshire, 2015; Cheshire, Pérez, & Shucksmith, 2015). As explained by Cox and Perry (2011), social networks are not necessarily pre-planned, as some people develop them out of necessity. By way of explanation, social capital is intangible and constantly morphing and evolving, therefore the way in which this form of capital can be converted to tangible economic capital through disaster recovery contributions within a community is unpredictable and cannot be accurately represented in disaster management policies.

This research explores the role of social capital in enhancing the resilience of MSEs. As recognised by small businesses literature, MSEs are social units that serve social functions within communities (Herbane, 2019; Torres, Marshall, & Sydnor, 2019). Often, these businesses are motivated by social norms such as community relationships that are also built on the premise of trust and reciprocity (Albrecht, 2018; Anger, 2003). Studies have shown that MSE survival is also influenced by the non-market relationships shared with the communities in which they operate (Cheshire et al., 2015; Marín, Bodin, Gelcich, & Crona, 2015). In times of crises like natural hazards, businesses are generally called upon to serve both the economic and non-economic needs of nearby communities (Herbane, 2019; Xiao, Wu, & Finn, 2018).

Xiao and her colleagues explain how household and business recovery decisions are contingent on each other and can positively influence the recovery processes of the wider community. Here, they refer to the example of businesses utilising their social resources to support displaced households, such as by providing essential consumer goods or informal employment to sustain family incomes. Several other studies have also emphasised the value of social resources being a prominent characteristic for MSE survival during disasters, although these studies did not specifically refer to Bourdieu's scholarship (Auzzir, Haigh, & Amaratunga, 2018; Kanji & Agrawal, 2020; Rela, Awang, Ramli, Md Sum, & Meisanti, 2020; A. Rose & Krausmann, 2013).

In keeping with Bourdieu's theoretical perspectives, Mayunga (2007) corroborates a shared standpoint by explaining the role of social capital in the resilience-building interventions of businesses, in the importance of interpersonal ties and linkages to address their collective concerns. The argument is that social network is a critical component of social capital, which individuals rely on to adequately deal with a disaster event. Anecdotal evidence suggests that disaster management organisations coordinate their responses through networks to support various groups of stakeholders during disaster situations. For instance, in Fiji, governments, humanitarian organisations and regional/international institutions are assumed to be working closely with private sector bodies such as PIPSO and FCEF to implement activities related to DRR (e.g., business continuity training). Equally, governments and disaster management institutions are assumed to include similar private sector bodies in the design and implementation of policy guidelines related to DRR (e.g., Framework for Resilient Development in the Pacific).

As Bourdieu would argue, social capital is habitus-dependent as everyday interactions and negotiations create the dynamic relationships or networks that individuals materialise in the

wake of a disaster event. Often, in disaster literature, terms such as “solidarity” (Oliver-Smith, 1999), “social utopia” or “pro-social behaviour” (Dynes & Rodríguez, 2007) are used to describe communal behaviour or as acts of altruistic behaviour informed through social capital. However, these are subjective attitudes embodied (*habitus*) by individuals that have a common goal of doing good. The above discussion provides examples of Bourdieu’s argument that the effectiveness of social capital depends on other forms of capital, and access to these forms of capital is *habitus* and field dependent.

(ii) Cultural capital

Bourdieu first introduced the concept of cultural capital in his book *Outline of a Theory of Practice* to explain social inequalities in education systems. In a general sense, Bourdieu argued the crucial relevance of culture as a ‘producer’ of valued resources, and as a result, a form of capital (Bourdieu, 1977). Cultural capital, in Bourdieu’s view, includes social characteristics such as race, gender, attitudes, norms, and education, which arguably play a central role in producing symbolic violence and reinforce social differences amongst individuals and groups (*ibid*). However, considering the various elements of culture itself, Bourdieu establishes that cultural capital can exist in three different forms – (i) the embodied state, (ii) the objectified state, and (iii) the institutionalized state (Bourdieu, 1986). He explains that cultural capital depends on what cultural systems and institutions in each field value as resources (*ibid*).

Drawing on Bourdieu’s categorisation of cultural capital, ‘embodied cultural capital’ is understood as culturally acquired resources such as knowledge, traditions, attitudes, and language, which are all important aspects of *habitus* (Bourdieu, 1977). Indeed, the ways in which we as social agents comport ourselves, how we live in our bodies and carry ourselves in society, are all projections of cultural capital. A few social science scholars have expanded

on Bourdieu's notion of embodied cultural capital to explore subculture (Thornton, 1995), ethnic differences and gendered roles (Huppatz, 2009), which arguably is convertible from/to other forms of capital such as symbolic capital. Bourdieu (1986) explains that this embodied capital, external wealth converted in an integral part of a "person, into a habitus, cannot be transmitted instantaneously (unlike money, property rights or titles of nobility) by gift or bequest, purchase, or exchange" (p.244-245). Forms of embodied cultural capital may be shared within a family through their social capital; therefore, such capital is produced or transferred through socialisation. Likewise, a few disaster studies highlight how the possession of embodied cultural capital (e.g., traditional disaster knowledge) by socially disadvantaged people is a critical factor shaping disaster response and recovery (James & Paton, 2015; Movono & Becken, 2018; Neef, Elstner, & Schad, 2013). A telling example relevant to the context of this research can be drawn from Movono and Becken's study (2018) about how indigenous communities in Nadroga, Fiji relied on the practice of solesolevaki⁶ to respond to disparities triggered by tourism developments. They showed how the practice of solesolevaki represents a form of embodied cultural capital, which is centrally important to the way of life in the iTaukei culture and known as people working together for a common good without expectation of individual payment. Movono and Becken (2018) argued that indigenous communities are non-homogeneous in nature, and are constantly in transition, responding and adapting to internal and external shocks over time. They explained that communities in Fiji always rely on their internal bonds, which shape levels of social capital within their smaller social units in times of crisis.

⁶ Solesolevaki is an iTaukei term used to describe the process of people working together, which draws upon social capital and entails indigenous values and ethos (Movono & Becken, 2018).

Comparatively, 'objectified cultural capital' as explained by Bourdieu (1986) includes "material objects and media, such as writings, painting, monuments, instruments etc." (p.246), which can easily be transferred from one person to another. These cultural resources are "appropriated both materially, which presupposes economic capital, and symbolically, which presupposes cultural capital" (Bourdieu, 1986, p.247). And lastly, 'institutionalised cultural capital' is explained as "legitimised resources such as academic qualifications and credentials" (Bourdieu, 1986, p.247). In disaster research, there is less mention of objectified or institutionalised forms of cultural capital. Yet, anecdotal evidence reveals that the historical accounts of disasters reflected through oral narratives shape the way in which social agents respond. Nagamatsu, Fukasawa, & Kobayashi (2021), for instance, explore how storytelling drawn from ancestral narratives has become a tool for building resilient communities. Their study revealed that 'disaster tales' promote disaster education and shape the actions of how current generations respond to disasters. While this is certainly true for many communities in the Pacific, tales of how people survived or responded are mostly heard or shared amongst those communities frequented by disasters compared to others. In most instances, cultural capital such as disaster knowledge is passed on from generation to generation, orally and or through artifacts, which according to Bourdieu (1986) can be transferred via social networks. Not all social agents would have adequate access to disaster knowledge such as location-specific disaster preparedness, a lack which can arguably contribute to their vulnerability (see also Uekusa, 2018b)

Cultural capital can also be manifested as attitudes, norms or values. Montgomery (2014)) focuses on a case study of the 2011 Canterbury earthquakes in New Zealand and the role of volunteerism (cultural attitude) in supporting communities to respond to, and cope with disasters. The findings of his study highlight that vulnerable communities took advantage of

the volunteer support provided by the broader society. In a similar way, Uekusa and Matthewman (2017) reconceptualise McIntosh's (2007) concept of 'earned strength' to explain how immigrants and refugees face everyday hardships and forms of oppression such as racism and language barriers. These scholars explained that immigrants from conflict zone drew on their experiences (cultural capital) to develop tighter community connections. In Fiji, the cultural values of 'veilomani' (loving one another), 'veikauwaitaki' (caring for one another) and 'veivakaliuci' (putting others first) are part of everyday living, but more importantly inform practice or materialise forms of embodied cultural capital (Seruvakula, 2000). These values are commonly reflected in times of disaster events. For instance, in the case of Fiji, one can reflect on the 'Stronger than Winston' campaign that was initiated in the aftermath of Tropical Cyclone Winston in 2016 (see Figure 3.1). This campaign launched by local community members received mass attention throughout the world, including governments, CSOs and private sector partners, and ultimately became a statement to reflect the community relationships and resourcefulness of local people (Finau et al., 2018).



Figure 3.1: 'Stronger than Winston' message shared by Fiji's students to express empathy towards those affected (Source: Fiji Rugby Union, 2016)

Disaster studies have also reflected how issues of power relations emerging from cultures are often overlooked (James & Paton, 2015; Leong et al., 2007; Uekusa, 2018a). Insights from these studies explicitly discuss how ethnically diverse populations and their social connections with religious organisations have been instrumental in influencing disaster recovery interventions. As such, context-specific cultural factors need to be thoroughly examined.

(iii) Economic capital

Bourdieu (1986) uses the notion of economic capital to refer to economic resources that are “immediately and directly convertible to money and may be institutionalized in the form of property rights” (p.243). Bourdieu explains that there are various forms of economic capital such as private property, monetary profit maximising practices, and wage labour. In times of disasters, the financial support or relief supplies provided to affected populations by the governments and other parties are forms of economic capital. However, studies highlight that vulnerable groups have limited access to such forms of economic capital, thus affecting their ability to recover from natural hazards (Aldrich, 2012; Enarson et al., 2007; Morrow & Smith, 1995). Aldrich (2012), for example, explored the recovery of communities in the aftermath of the 1995 Kobe earthquakes, and concluded that the poorer had limited recovery assets (e.g., income savings, insurance, health benefits) and were far less prepared for disasters compared to affluent households. Recent studies have also found that vulnerable groups have limited access to such economic capital as low-interest disaster loans and grants during disasters (D. S. K. Thomas, Phillips, Fothergill, & Blinn-Pike, 2009). McCoy and Dash (2009), cited in Thomas et al (2009), concluded that racial minorities in the US were less likely to receive economic capital, with the majority being ineligible for low-interest loans and federal grants, thus reflecting the intersecting institutionalized factors (cultural or symbolic capital) that influence access to economic capital. As discussed in the next chapter, the Fijian government

also has several post-disaster recovery loans and grants for affected communities and businesses, but structural factors such as collateral for loans or coverage applicability for specific types of damage are perceived to be restrictive factors (Government of Fiji, 2018; MDF, 2018).

It is undeniable that economic capital in a disaster context is influenced by other forms of capital. For instance, Zang and Peacock (2012) explain that primary resources for material recovery such as housing are usually sourced through private savings, loans, and insurance, which are dependent on factors such as the individual's knowledge of insurance programmes, access to institutions that provide these forms of support, and the individual's risk perception. As explained in Sections 2.2.4 and 2.2.5, risk perception and levels of disaster preparedness are influenced by non-monetary factors such as age, occupation, gender, education, past-experiences, attitudes, and social capital. In this sense, it can be argued that even the "wealthier and more privileged may become situationally vulnerable" if they lack knowledge of risks or are not adequately informed of economic resources that they can invest in (see Enarson, 2007, p.267). Bourdieu (1986) explains that economic capital can be converted from resources and opportunities in the field that are not readily accessible but require 'disguised' economic capital such as cultural, social, and symbolic capital.

(iv) Symbolic capital

Bourdieu's ideas of symbolic capital were greatly influenced by the work of renowned scholars such as Ernst Cassirer, Jacques Lacan, Jean-Paul Sartre, and Jean Piaget (Atkinson, 2019; Fischer, 2009). These scholars elucidated the power and meaning of symbols in modern life from various perspectives such as philosophy, linguistics, and psychology. For Bourdieu, the role of power within various fields of practice served as an impetus to understand the systems of knowing (Bourdieu, 1989). As such, he introduced the idea of symbolic capital and defined

it as “the degree of accumulated prestige, celebrity, consecration, or honour and is founded on a dialectic of knowledge and recognition” (Bourdieu, 1989, p.7). However, to adequately understand the highly confusing notion of symbolic capital, I often tracked back to his earlier works where he used the term “symbolic violence” to indicate how “powerful groups allowed for the naturalisation of domination”, which were “representations of legitimacy” (Bourdieu, 1977, p.5). Bourdieu argued that legitimacy existed in a form of misrecognition that governed “the transmutation of the different forms of capital into symbolic capital” (Bourdieu, 1979, p.83). As alluded to in Chapter 2, the notion of resilience has accumulated symbolic value within the neoliberal framework. For example, MSEs that are able to adapt to hazards through their own efforts are labelled as resilient, and those who cannot adapt are classified as vulnerable. According to Bourdieu, “the determination of the objective classification and of the hierarchy of values granted to individuals and groups” can be shaped by this misrecognised power (Bourdieu, 1989, p.21). Undeniably, the imposition of neoliberal values such as “responsibilisation” may not benefit those who do not have status and power within the community. Therefore, when such neoliberal approaches are not questioned, the symbolic value of resilience can be (mis)recognised as legitimate. In Chapter 8 and 9 of my study, I problematise the misrecognised legitimate value of resilience-building interventions for MSEs. Yet, what remains unclear from the discussions above is how symbolic capital is meaningfully distinct from social capital and/or cultural capital, or more broadly, what forms of capital assign symbolic value in the field. Several scholars have argued that symbolic capital is one of the least understood but most durable forms of Bourdieu’s typology of capital, and arguably the most important (Mu, 2020; Uekusa, 2018a, 2019a). The durability of symbolic capital can also be confusing as forms of economic capital such as land are surely more durable than the examples of symbolic capital previously mentioned. However, Bourdieu’s conception of

durability is not merely physical durability but rather the ability of capital to reinforce and reproduce power structures. Economic capital such as land can be sold, transferred, or grabbed. Social capital requires the maintenance of social relationships. Cultural capital is also highly durable but for Bourdieu, not as durable as symbolic capital. The distinction between cultural capital and symbolic capital requires the researcher to define what they mean by culture and what culture is being examined. This in itself is an ontological exercise that has epistemological implications. While symbolic capital and cultural capital are similar, Bourdieu's use of symbolic capital transcends the role of capital from a purely structural analysis to a way of explaining how individuals can lose agency when completely enchanted (to use Lacan's words) by the symbolic order of a system of power – whether it be the colonialism he witnessed during his early field work in Algeria or the neoliberalism which he criticized in his later work (Bourdieu et al., 1999).

Bourdieu's notion of symbolic capital builds on other forms of capital because it is more about how power is instantiated by some actors to “constitute and to impose [what is] universally applicable” (Bourdieu, 1993; p.112). In my view, it represents the underlying symbolic order within the society that helps us to understand symbolic power. For instance, an individual's status and power within a community such as a chief may welcome more favourable treatment from others—a clear distinction from social capital, which refers to relationships amongst people within a society that can be drawn upon for the betterment of the community, especially during times of disaster. Likewise, it is distinct from cultural capital, yet often misunderstood because the broader system of knowing is argued to be rooted in history, religion, education, and values (dimensions of cultural capital) (Kelman, 2006; Uekusa, 2018a). Evidently, the construct of resilience has been legitimised in the disaster management field. However, the

framing and understanding of the term is imposed by those with power, which is indeed worth exploring.

3.1.3. Emotions and affect – is it an extension of Bourdieu’s capital theorem?

Bourdieu’s ideas on habitus and capital above reiterates that individuals are not only shaped by societies, but they can also shape societies. In essence, his analysis of embodiment as “practical sense” maps emotions and ‘affect onto experiences displayed and constituted by enculturated social actors (Bourdieu, 1993, p.167). As reiterated by Bourdieu (1990), habitus “is predisposed by its range of historical uses to designate a system of acquired, permanent, generative dispositions (p.53). Bourdieu’s later writings (2000) assigned more plasticity to the notion of habitus, explaining that it constitutes “a system of lasting and transposable dispositions...which functions at every moment as a matrix of perceptions, appreciations and actions” (p. 82-83). In other words, habitus is generative of its own possibilities, thus indicating a site of transformative emotion practices (Cottingham, 2016)

Indeed, the works of Bourdieu have been influential across a number of disciplines to theorise emotion and affect in terms of relations and encounters, including the capacities of affecting and being affected (Cottingham, 2016; Probyn, 2004; Reay, 2000; Zembylas, 2007). Nowotny (1981) has been commonly cited for theorising emotional capital using Bourdieu’s work. She defined emotional capital as a form of social capital and saw it as social and cultural resources generated through affective relations, particularly in a sphere of the family. As defined by Nowotny (1981), emotional capital denotes the “knowledge, contacts, and relations as well as access to emotionally valued skills and assets, which hold within any social network characterised at least by affective ties (p.148) (cited in Reay, 2000). Likewise, Zembylas (2010) extended Bourdieu’s capital schema to theorise emotional capital in the field of education. He conceptualises emotional capital as the biographical understanding we attach through our

socially constituted dispositions (*habitus*) – the link between emotions, affect, and embodiment. In a broad sense, Zembylas (2010) examined two critical questions. First, how emotional capital was accumulated and exchanged for other capital. And second, how emotional capital was generated by and contributed to the generation of *habitus*. Although the work of Zembylas is framed within the education field, his approach to theorising affect and emotions using Bourdieu's *habitus* and capital ideas is relevant for this thesis.

Citing Massumi (2002), Zembylas (2007) argued that affective experiences precede cultural categories that enable individuals to put sensations into words and make them into emotions. In his view, “basic ‘affects’ of anger, fear, disgust and so on are universal and embodied, but social interpretations and cultural experiences of embodiment of emotions allow much variation” (p.444-445). Zembylas goes on to argue that embodied experiences of emotions and their cultural understandings converge through socialisation, which are indeed constituted through ongoing relational practices. Simply stated, the constitution of emotional attachments and meanings depends on “how emotions are attached to objects, bodies and signs” (Zembylas, 2007, p.445). Bourdieu would argue that such a process is crucial in the constitution of subjectivity. Indeed, *habitus* makes up our habitual patterns of understanding and inhabiting the world, where we produce embodied experiences that coincide with objective structures (Bourdieu, 1990). To put it in layman's terms, affect is filtered through *habitus* into emotions, and emotions may be redirected by readjusting our *habitus*.

Another critical work on emotions and *habitus* can be drawn from Williams (1977) (cited in Zembylas, 2002). Williams talks about the concept of ‘structure of feeling’ as a critical aspect of bridging gaps between social structures and the tendency to analyse feelings only in terms of individual and psychological significance. He offers a mediation between lived experience in the study of cultural practice and objective structures by emphasising the value of locality.

Williams (1977) explains 'structure of feeling' provides us "with a heuristic speculative for illuminating the crucial issues for the development of norms" within any context because "cultural and discursive dimensions of our experience do not neglect that experiences are also felt and embodied" (cited in Zembylas, 2002, p. 198). Besides the two studies mentioned above, a few studies in the field of disaster management have looked at the gendered nature of emotional capital (Alburo-Cañete, 2021; Rushton, Phibbs, Kenney, & Anderson, 2021). Both these studies revealed how women were naturally more nurturing and caring, thus more emotional than men in the wake of hazard event. While such discourses may be criticised for perpetuating traditional gender roles, I argue that such criticism is unfair if there is no consideration of the specific context in which these arguments are made. These scholars are not claiming that women have more emotional capital but within the sphere of disaster response that gendered nature of emotional capital is powerful. Although my study does not explore gendered dimension, the findings in these studies are of relevance as it underscores the importance of emotional capital within the broader disaster management field.

Although Bourdieu himself never refers to explicitly conceptualised emotions, the discussion above unpacks the interconnections amongst various forms of capital and the importance of emotions within habitus. The theorising of emotional capital and its relation to Bourdieu's scholarship is indeed relevant. It is worth acknowledging that my own understanding on the role of emotions has emerged through lived experiences of supporting various disaster-affected communities. Evidence of how emotions are a crucial capital is reflected in Chapters 7 and 9. Broadly speaking, in these chapters I examine whether emotional capital is rooted in histories and is systematically transformed into social and cultural capital, as well as how emotional resources have been circulated and exchanged amongst MSEs in Ba. Informed by Bourdieu, the next section progresses discussion on convertibility or transformability of capital,

3.1.4. Transferability of capital

As earlier sections have indicated, some forms of capital are interdependent with others due to interactions between field and habitus. For example, Bourdieu (1986) explains how different types of capital can be derived from economic capital, but only at the cost of transformation (greater or less effort) which is needed to produce the type of power effective in the field in question. He further emphasises that some forms of economic capital can be accessed immediately without secondary costs, while others can only be obtained by virtue of social or cultural capital, which presupposes a specific labour; that is, a gratuitous expenditure of time, care, and concern.

Scholars who adopt Bourdieu's concept of capital explain that economic capital is at the root of all types of capital and all capital that is transformed or reproduced is in 'disguised' forms of economic capital, which cannot be reducible to the definition of economic capital (Desan, 2013; Uekusa, 2018a). Bourdieu (1986) explains that everything that helps to disguise the economic aspect also tends to increase the risk of loss, particularly the intergenerational transfers. Here, he is referring to the incommensurability of the different types of capital that introduce a high degree of uncertainty into all transactions among holders of different types of capital. The argument is that the value of capital can constantly be negotiated through the dialectics between field and habitus, resulting in a need to consider the micro practices of social agents in the specific context they operate. Uekusa (2018) cites Moncrieffe (2006) as an example of a female parliamentarian in Uganda who expressed pride in the achievements of women and their efforts against male-dominated agendas (her public face), yet at the same time acknowledged her experiences of not being able to share meals on the table with her husband and kneeling before male visitors (her private face) (p.98). This is a clear example of symbolic capital being negotiated between multiple social fields, and how convertibility of

capital is dependent on value systems, which are challenged and modified through the interactions between field and habitus.

To conclude, it is critical to acknowledge that the process of conversion and transfer of capital prompts the question of arbitrary appropriation (Bourdieu, 1986). For instance, some social agents are holders of capital that are inherited from birth (e.g., access to land due to being a chief's son) or are bestowed with rights from the positions people hold in the community. Therefore, they are believed to have greater power and privileges than others which they can exploit to convert to existing types of capital. This is equally applicable in disaster research as some social actors have more capital possessions and will have higher level of resilience. For instance, in the context of my research, this privilege can be applied to large corporations that have access to networks that can leverage political support as opposed to MSEs. Further discussion on the issue is presented in Chapter 8.

3.1.5. Field: the social space of positions and dispositions

As explained to in Section 3.1.1, the habitus is in what Bourdieu calls a 'field'. Bourdieu uses the term 'field' to describe "a network, or configuration, of objective relations between positions" (Bourdieu & Wacquant, 1992; p. 97). As reflected in the formula for practice cited in Section 3.1, Bourdieu sometimes analogises field to a card game, where winning depends on two trump cards: the habitus (embodied and assimilated properties), and the capital or combinations of capital (resources defining possibilities inherent in the field) (Bourdieu, 1993, p.150). In Bourdieu's perspective, "these trump cards determine not only the style of play, but also the success or failure in the game" (ibid, p.150); the game being the field or the variety of social spaces where social actors contest to determine what resources and actions become legitimate (Bourdieu & Wacquant, 1992).

According to Bourdieu, in any field, power struggles remain to be the main facet of social arrangements because all practices of individuals are oriented towards accumulation of capital to secure a better social position (i.e. to impose their views and wield their power) over others (Bourdieu & Wacquant, 1992). This reinforces that fields are logically structured to a significant extent by their own internal mechanisms and are relatively autonomous from external domains (Bourdieu, 1993; Navarro, 2006). His ideas on field also establish that the social world can be divided into various fields such as intellectual, art, religion, education, sports, and law and so on (Bourdieu, 1993). However, despite fields being nested within other fields, Bourdieu (1993) posits that each field is dependent on the agent, their interests, and stakes, and thus the value of a particular form of capital is not universal. In other words, he argues that “capital is effective in relation to a particular field, and therefore within limits of the field, and that is only convertible into another kind of capital on certain conditions” (ibid, p.73).

From the discussions above, it is apparent that the concept of field rests on a tension between the autonomy and specificities within each field, and its imbrication in relation to power. The comparison that Bourdieu is trying to make is that each field in relation to another has established beliefs considered legitimate, which retain control over what counts as relevant in the field as opposed to the emergent beliefs outside the established order, which challenges the power and influence of the former.

This research focuses on the broader field of disaster management, which consists of numerous fields of practice. A sub-field within disaster management is the emerging field of resilience, adaptation and even loss and damage. Moreover, MSEs, and DMIs, as organisations and business entities, are fields consisting of social actors competing over capital, recognitions, and the issues that require greatest attention. Then there is the policy field, where all the disaster management practices are legitimised through actors who embody dispositions

and structure the field of DRR practice. In Bourdieu's perspective, the external structures internalized in each agent through socialization become habitus, which in turn generates or reproduces certain perceptions and practices (Bourdieu & Passeron, 1977). Therefore, by drawing on Bourdieu's concept of field, disaster researchers can apprehend the situation-specific relationships between social agency and structure, including the power relations, which are dependent on the individual's habitus.

3.2. Field and habitus applied in disaster research

As highlighted in the preceding section, Bourdieu's theories of field and habitus can guide disaster scholars to explore how structure shapes an individual's experience, and how individuals create and reinforce the structure, and thus their habitus, in times of hazard events. Bourdieu argues that dominant agents in each field have a stronger influence on the distribution of capital over others; however, during a hazard event, the value of capital can be negotiated depending on the individual's habitus (agency). Masten (2001) explains that everyone in the human world belongs to some field and has some form of capital and habitus, so that resilience is a normative function of human adaptational systems. He argues that human beings construct fields and reality, and this social construction can include hazards and risks. Fields, habitus, and the role of capital can be adapted, adjusted or superseded in unexpected situations or over a long period of time (Bourdieu, 1990).

My research adopts a Bourdieusian lens to analyse how MSEs have built resilience to climate-induced disasters. It conceptualises two fields – the socio-cultural field and the broader disaster management field. I argue that each field influences the way in which MSEs build resilience. Within the socio-cultural field, practices are more influenced by a system of values and social relationships, whereas the disaster management field relies more on processes influenced through policy and development practice. As argued by Bourdieu (1986), dominant

players in every field can influence habitus and distribution of capital, which are negotiable in times of crisis. Therefore, in a broader sense, my research mobilises Bourdieu's ideas to explore the enabling and constraining factors within each field that influence processes of building resilience.

3.3. Summary and application of Bourdieu's theoretical framework

This chapter outlines how Bourdieu's theoretical framework is relevant to disaster research, particularly the context of my research. Bourdieu's theory reveals the hidden systems of transformation by mapping fields of power, inventorying resources (different types of capital and identifying the habitus of individual actors. Together, Bourdieu's theory and the framing of resilience as a process in the context of my research can open possibilities for challenging post-disaster governance practices for MSEs. In developing a conceptual framework to explore the process of resilience, my research points to the importance of focusing on the experiences of MSEs from disasters, as well as the institutional practices (neoliberal) that propose ways of building resilience. As explained by several disaster scholars, hazard events shape the role of power, the situatedness of recovery practices, and the formation of subjective identities and social relations, all of which are entangled in the process of building resilience.

While many disaster studies have employed Bourdieu's theoretical constructs of capital, most do not make visible the hidden power relations that perpetuate power inequalities such as capitalism and neoliberalism. In addition, many scholars who have applied Bourdieu's framework to disaster research do not use the concepts as an integrated framework, but separately. For instance, Marsten (2001) focuses more on the field and less on habitus, while discussing the agency of the people. This focus would therefore provide a narrowed perspective of power dynamics and its reproduction within a particular field. My study attempts to use Bourdieu's triad of field, capital, and habitus to illuminate the structures, process, rituals,

and forms of capital in the field used to build resilience against disasters. The review of literature in Section 3.2 indicates how studies may not apply reflexivity to their work or acknowledge the evolution of Bourdieu's concepts. To address this gap, reflexive approaches are detailed in the chapters to follow, and Bourdieu's evolving work is cited throughout this thesis.

Chapter 4: Contextual background

Fiji is prominently featured in global disaster management reports as one of the most 'disaster-prone' countries in the world (P. Brown, Daigneault, & Gawith, 2017). This chapter starts with discussion on the broader Fiji context and the economic situation. It then provides an account of past disaster events that have affected Fiji, including the factors contributing to such events.

The chapter then draws attention to the various disaster management policies and practices adopted by the country in response to the increasing recognition of threats posed by hazards and the varying degrees of coordination issues experienced in responding to these events. To contextualise the research setting, the Fijian MSE environment and the minimal focus that existing policy initiatives have on managing risks posed to the sector are discussed. The chapter concludes with a background to the research case study area, Ba Province, Fiji.

4.1. Country context - Fiji Islands

Fiji is situated in the heart of the Pacific Ocean, approximately 1,848 kilometres north of Auckland, New Zealand. It consists of around 300 islands and 550 smaller islets spread across 18,274 square kilometres of land area, surrounded by 1.3 million square kilometres of ocean (Jayaraman, Choong, Ng, & Bhatt, 2018; World Bank, 2018). However, despite the large ocean and geographic area, only 110 islands of Fiji are inhabited, with the two largest islands, Viti Levu and Vanua Levu, encompassing 87 percent of the total land area (Fiji Bureau of Statistics, 2018; International Monetary Fund, 2019).

In terms of Fiji's demographic profile, the overall population tripled between 1950 and 2019, from 289,000 to 864,132 (Fiji Bureau of Statistics, 2021). The Household Income and Expenditure Survey (HIES) of 2019/2021 indicates that around two-thirds of the population are concentrated in the urban areas of the two largest islands, while the remaining 44 percent are

mainly concentrated within rural and maritime communities (ibid). The significant increase in urban population can be explained by rural-urban migration factors⁷. Statistical records indicate that Fiji's rural population relative to total population had decreased from 67 percent in 1970 to 44% in 2019 (ibid). To date, around 62 percent of the rural population lacks access to basic services, which is clearly reflected by the increasing incidence of rural poverty reported in the HIES (ibid).

Ethnically, the Fijian population is classified into three groups: the iTaukei, formerly known as indigenous Fijians, making up 62 percent of the population; Fijians of Indian descent, formerly known as Indo-Fijians, accounting for 34 percent; and Fijians of other descents, including Chinese, Caucasians, and other Pacific Islanders or mixed ethnic groups, representing the remaining four percent (Fiji Bureau of Statistics, 2021). This spread reflects a significant shift in the ethnic composition of the iTaukei population, with the share of Fijians of Indian descent declining since the 2007 census (ibid).

Despite the diversities in ethnicities, Fiji is known to be a largely 'Christian' nation, with almost 62 percent of the population belonging to various Christian dominations, while others follow mainly Hinduism, Islam and Buddhism (McCarthy, 2011; Ryle, 2007). It is well known that people in Fiji closely link their religion or faith to their culture and ways of life (Burley, 2013; McArthur, 1959; Nabobo-Baba, 2008; Ryle, 2007). This epistemology is critical to my research as it aids in understanding the roles and relationships across individuals (Djalante, 2014; Douglas, Eti-Tofinga, & Singh, 2018), and how individuals and communities govern disaster management activities (Nakamura & Kanemasu, 2020; Neef et al., 2018; Yila et al., 2013). The following sub-section offers some insights into Fiji's economy.

⁷ The rural-urban migration issues can be attributed to several factors. Analysis of migration trends by Thorton (2009) and IOM (2020) reveal that rural people leave to urban areas in search of adequate medical facilities, higher education opportunities, and employment opportunities.

4.1.1. Overview of the Fijian economy

Fiji is one of the most developed Pacific Island economies and is largely dependent on the trade and service industries, which jointly account for almost two-thirds of its total economic output (Douglas et al., 2018; Ewins & Akram-Lodhi, 2013)). These industries have expanded since structural reforms in 1989, when Fiji pursued export-oriented investments⁸ (Ewins & Akram-Lodhi, 2013). However, despite the significant reforms, the country's real growth over the last two decades has been sluggish, averaging less than three percent annually (Brown et al., 2017; Jayaraman et al., 2018; Brown et al., 2017; Jayaraman et al., 2018). Figure 4.1 below clearly shows how real growth rates have deteriorated over the periods in which Fiji experienced natural calamities or when political instabilities occurred.

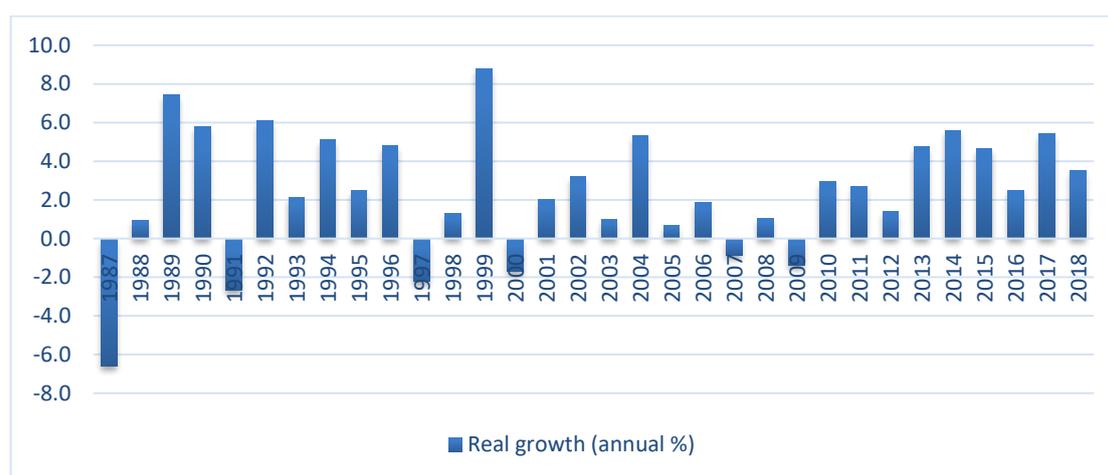


Figure 4.1: Real growth levels of Fiji (1987 – 2018) (Source: World Bank Database, Accessed 4 April 2021)

As reflected in Figure 4.1, Fiji's growth performance has been volatile, with contractions linked to natural hazard events, political instability events and external shocks such as the global crisis (Asian Development Bank, 2019). Records indicate that Fiji suffered major floods and

⁸ Incentives for export investment include the creation of tax-free zones, 13-year tax holiday schemes, income deduction schemes, dividend exemption schemes, double taxation agreements, and accelerated depreciation and duty suspension schemes for all export industries. Additionally, sector-specific investment allowances have been made for the ICT, manufacturing, agriculture, fisheries, forestry and mining sectors (Jayaraman et al., 2018; Kumar & Prasad, 2007).

cyclones in 1993, 2004, 2009, 2012, 2014, 2016, 2018, and 2020, which resulted in significant growth contractions (Fiji Village, 2020; World Bank, 2018).

For the period in which my research was undertaken (2019-2021), growth rates were projected to increase up to 3.4 percent due to improved economic performance of the tourism and export sectors (Reserve Bank of Fiji, 2019). Unfortunately, because of the global pandemic (COVID-19) and two tropical cyclones in 2020 (TC Harold and TC Yasa), Fiji's economy experienced major setbacks, which forced growth levels to decline by 21.7 percent (Fiji Times, 2020; Narayan, 2020).

Moreover, Fiji's fiscal performance has triggered concerns. The country has been operating in deficit since 2008 with current capital expenditure levels being almost threefold what they were a decade ago (Asian Development Bank, 2019). The Asian Development Bank report on "Building Inclusive Institutions for Sustained Growth" explains that 90 percent of the Fijian government's financing needs are met by the domestic market and tax revenue⁹ (Asian Development Bank, 2019), but it fails to discuss how these debts have undermined private sector investment. From a financial viewpoint, the government's excessive borrowing from the domestic market has forced interest rates to increase, which in turn has affected the cost of borrowing for others, particularly MSEs, as Fiji's financial sector is not that competitive and deep (Reserve Bank of Fiji, 2014).

In summary, Fiji's economic environment has been volatile and recovery efforts have been hindered by political unrest events, natural calamities, and COVID-19. This next section gives

⁹ Apart from borrowing domestically, the government of Fiji are creditors to export-import banks in People's Republic of China, Malaysia, and India (Asian Development Bank, 2019).

an overview of Fiji's susceptibility to climate-induced disasters and provides a brief history of major disaster events that have distorted economic growth in Fiji.

4.1.2. Fiji's climate-induced disaster susceptibility

Like its neighbouring PICs, Fiji is extremely prone to climate hazards due its geographical location in the vicinity of a tropical cyclone belt and the Pacific Ring of Fire (Brown et al., 2017; International Monetary Fund, 2019, World Bank, 2018). The tropical cyclone belt on which Fiji is located is where most cyclones in the South Pacific Ocean develop and pass through (Fiji Meteorological Service, 2011). The disaster records of CRED indicate that a total of 43 tropical cyclones have passed through Fiji in the last two decades, which is twice the recorded number of cyclones experienced a decade prior (EM-DAT, 2021; World Bank, 2018). The rising scale and intensity of climate hazards are attributable to the growing impacts of climate change (Arnold et al., 2016; Brown et al., 2017; IPCC, 2021). A recent study by the World Bank predicts that Fiji is expected to suffer losses exceeding a total of US\$750 million and casualties in excess of 1,200 people by 2050 due to the global climate crisis (World Bank, 2018). However, several communities in Fiji continue to bear the main brunt of extreme climate hazards, which undeniably have posed existential threats to their home, culture and livelihoods (Brown et al., 2017; Yeo, Blong, & McAneney, 2007). To visualise Fiji's vulnerability to floods and cyclones, Figure 4.2 was produced based on the susceptibility of communities to these hazards (based on elevation levels and past impact records) with data from the past 20 years. The key on the top left corner indicates levels of risk, with the darkest shade of red colour indicating "highest risk", and the lighter shades showing "moderate" to "lowest risk".

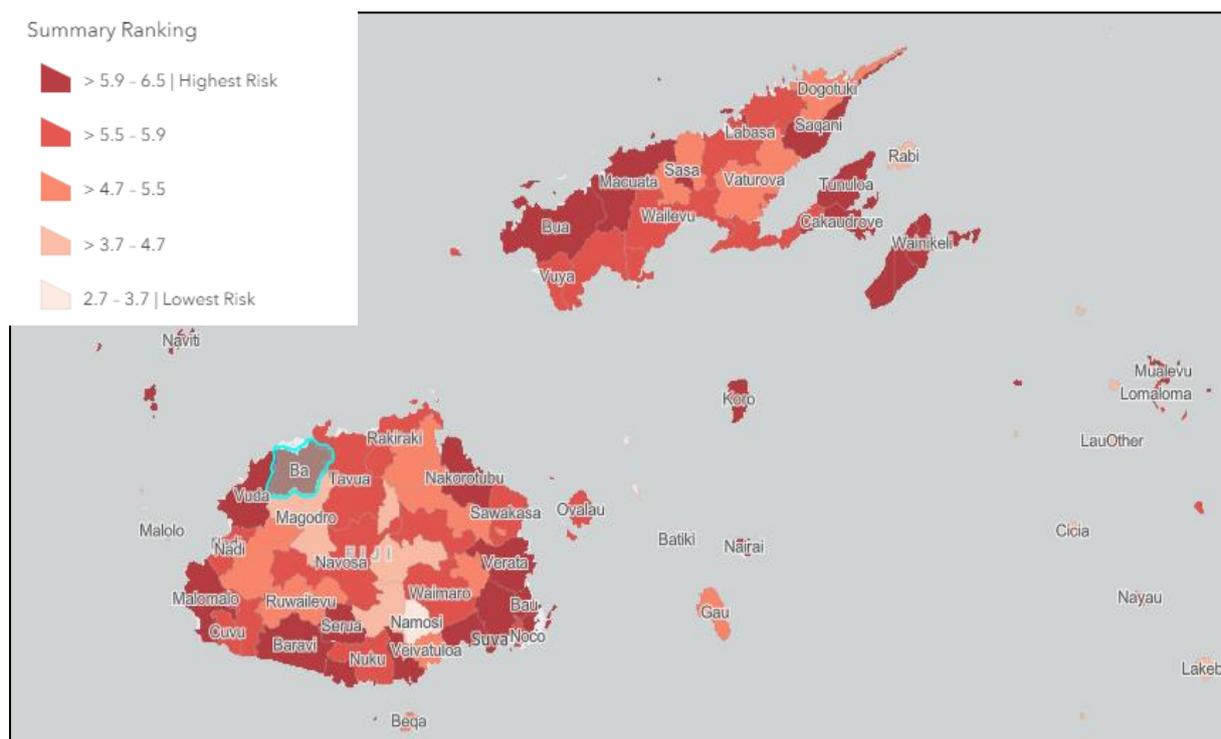


Figure 4.2: Climate-induced disaster vulnerability map of Fiji (Source: ArcGIS embedded platform through United Nations Satellite Centre)

Reflecting on the country's climate regime, the Koppen Climate Classification System uses 10-year time-periods to categorize Fiji as having average monthly temperatures of above 18°C due to the buffering effect provided by the maritime conditions (UNISDR, 2019; World Bank, 2018). The warmest months in Fiji are January-February and the coolest ones are July-August, with the variation in average temperature only around 2-4° Celsius (McAneney, van den Honert, & Yeo, 2017; Yeo, 2013). Fiji has two distinct seasons – the dry season, which runs from May to October; and the wet season, which is also the tropical cyclone season and extends from November to April. These seasons are dictated by the movement of the South Pacific Convergence Zone (SPCZ)¹⁰ throughout the year (Yeo, 2013; 2015).

¹⁰ The SPCZ is where the two bands of wind result from persistent anticyclones - one in the southwest Pacific near New Zealand moving east, and the other from the southeast Pacific moving west (Fiji Meteorological Office, 2009).



Figure 4.3: Satellite images of Nasau Village before and after TC Winston (Source, NDMO, 2018)

Moreover, Fiji's risks from climate hazards are heightened by factors such as the poorly built environment, inadequate town planning and weak disaster management policies (World Bank, 2018). Ba town, for instance, is built upon a flood plain and has been exposed to several flooding events in the last century (Stephen Yeo, 2013, 2015). Nonetheless, the administration for the town council continues to approve the construction of buildings on low-lying plains and along water catchment areas (ibid). This is an exemplar of how unchecked development creates risk by permitting infrastructure in harm's way, and how disaster management policies are inadequately enforced. The major climate hazards that have affected Fiji since 2008 and its impacts are documented in Table 4.1 below.

Table 4.1: Major disasters and effects in Fiji 2009-2019

Year	Details of Hazard	Associated Hazard	Affected Regions (Central, Eastern, Northern or Western Province)	Number of people in evacuation	Number of deaths	Number of homes destroyed ¹¹	Estimated Damage (US\$ in million)	Declared State of Emergency or Natural Disaster
2008	TC Gene	Floods	All provinces	2,733	7	61	35.4	No
2009	TD 04F – Flood		Northern and Western Province	10,556	12	440	43.2	Yes
2009	TC Mick	Floods	Central and Western Province	3,845	3	Not reported	29.7	No
2010	TC Thomas	Floods	All provinces	10,083	1	649	39.4	Yes
2012	TD 06F – Flood	Land Slide	Western Province	4,561	10	97	22.3	Yes
2012	TD 17F – Flood	Land Slide	Western Province	14,984	5	53	72.0	Yes
2012	TC Evan	Floods	Northern and Western Province	14,039	0	2,094	108.4	Yes
2015	Drought		Western Province	0	0	0	3.6	No
2016	TC Winston	Floods	All Provinces	62,012	44	11,030	862.3	Yes
2016	TC Zena	Floods	Northern and Western Province	3,500	2	Not reported	6.8	No
2018	TC Gita	Floods	Western Province	1,105	0	22	2.3	No
2018	TC Josie	Floods	Western Province	2,696	7	65	8.2	No
2018	TC Keni	Floods	Northern and Western Province	18,212	1	151	14.8	Yes
2019	TC Sarai	Floods	Eastern Province	2,511	2	19	2.3	No
2020	TC Tino		Eastern Province	3,115	2	0	2.8	No
2020	TC Harold	Flood	Central and Western Province	6,240	1	228	43	Yes
2020	TC Yasa	Flood	Northern and Western Province	24,413	4	2,209	252.2	Yes
2021	TC Ana	Flood	Central and Western Province	5,298	3	113	93.03	Yes

(Source: EM-DAT, 2021; Esler, 2016; Fiji Broadcasting Cooperation, 2018; National Disaster Management Office, 2009, 2010, 2012, 2018, 2018b, 2019, 2020, 2021)

¹¹ Disaster reports indicate both partial and fully damaged homes. The records reflected in this column only account for fully damaged homes.

As highlighted in Table 4.1 above, flood hazards are a common epiphenomenon of tropical cyclones and are attributed to dominant geophysical features such as low-lying plains, streams and rivers found across most parts of the country (Piggott-McKellar et al., 2019; World Bank, 2018). These events are more frequent in the northern and western provinces of Fiji because much of its land is low-lying, with an average elevation of around two metres above sea-level (Fiji Meteorological Service, 2011). With the apparent losses and damage triggered by floods across Fiji, the government has made significant progress in revisiting its existing laws and policies related to disaster management. The next section provides a brief overview of the disaster management laws and policies adopted by Fiji, and its governing mechanisms.

4.1.3. Disaster management policies of Fiji

Fiji's disaster management framework has transformed significantly over the last two decades. In the pre-colonial and colonial era, the Emergency Services Committee (EMSC) and the Hurricane Relief Committee (HRC) were established to coordinate disaster management and response activities for communities (Campbell, 1984; Chung, Kaloumaira, Planitz, & Rynn, 2000). The EMSC and HRC retained a dominant role in post-disaster responses in the country until 1995 when the government established the National Disaster Management Plan (NDMP) and its governing structure, the National Disaster Management Office (NDMO) (Chung et al., 2000). Since then, the NDMO has been responsible for coordinating all disaster management activities in Fiji (Government of Fiji, 1998).

The NDMO operates through recognised administrative structures at the national, divisional, provincial, and district level. For instance, at the national level, the NDMO, through the Ministry of Rural & Maritime Development, is responsible for managing the disaster preparedness, response and rehabilitation efforts of all other government departments and other disaster management stakeholders (UNISDR, 2019; Winterford & Gero, 2018). At the sub-national level,

however, local government officers, such as the Divisional Commissioner, the Provincial Head (Roko Tui) and the Town Council Head (Mayor), have the authority to coordinate disaster efforts on behalf of the NDMO. These respective officers have the responsibility for organising evacuation centres and managing post-disaster relief within their respective provinces or local administrative boundaries (Winterford & Gero, 2018). There is also a critical coordination role performed at the community level through by Government-appointed focal points, commonly referred to as 'District Advisory Councillors (DAC)' or the 'Turaga ni Koro'(TK)¹². Despite, the roles and responsibilities of DAC or TK being undocumented, reports have highlighted that disaster response and recovery coordination at the grassroots is 'near impossible' without these individuals as they provide key information to NDMO, which then provides adequate relief supplies (Government of Fiji, 2011; Pacific Humanitarian Team, 2016).

In 1998, Fiji adopted its first disaster legislation, the National Disaster Management Act (NDMA). The Act was developed to strengthen disaster management practices, particularly the operational activities during and in the aftermath of the disaster. For instance, the Act enacted the expanded functions of disaster management administrative structures and the establishment of the National Emergency Operations Centre (NEOC), which is accountable for disaster monitoring and communication (Government of Fiji, 1998). In addition, the Act introduced newly formed positions of National Controller (NC) and National Coordinator (NCO) to provide advisory support on operational matters during disasters (Winterford & Gero, 2018). In practice, if a disaster is declared, the NDMO and the NEOC inform the NC, who then convenes a meeting of the National Disaster Management Council (NDMC) for referral of a decision to the Cabinet (Government of Fiji, 1998)¹³. The relationships between the roles

¹² DACs are appointed focal points for non-indigenous or mixed communities, whereas TKs are specifically for indigenous communities. Both are responsible to report to the Provincial administrators.

¹³ The sub-committees of the National Disaster Management Council (NDMC) are chaired by the Minister responsible for disaster management activities in Fiji (Government of Fiji, 1995).

enacted through the Act within Fiji's disaster management organisational structure are illustrated in Figure 4.4 below.

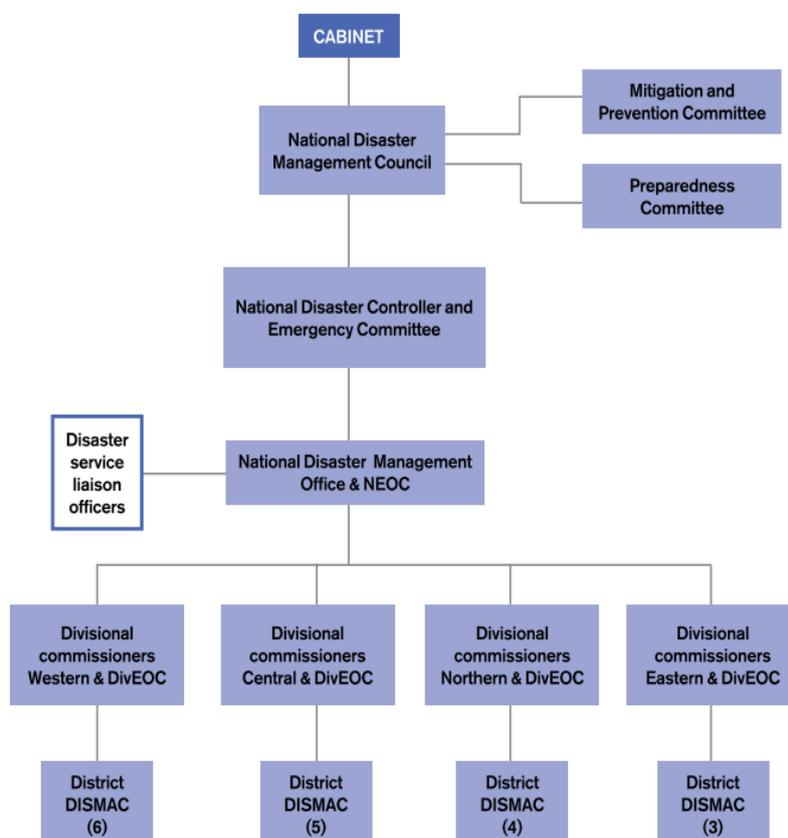


Figure 4.4 –Fiji's disaster management organisational structure (Source: Government of Fiji, 1995; 1998)

However, despite the formulation of a robust organisation management structure, coordination of disaster response remains fragmented (UNISDR, 2019; Winterford & Gero, 2018). For instance, in practice, disaster response arrangements for the rural areas are governed by the Ministry of Rural and Maritime Development through the Provincial Government Offices, whereas in the urban areas it is the responsibility of a few different government Ministries and town councils. Then there are various governance structures for humanitarian response, which are also siloed and disconnected from those responsible for national and sub-national disaster response (NDMO, 2021). In the same way, governance arrangements for recovery are also different to those for response. The newly-developed National Disaster Recovery Framework

(2016) indicates that the Ministry of Economy has overall responsibility for the coordination and monitoring of recovery priorities at the national level, with no mention of equivalent governance structures at the sub-national levels (Winterford & Gero, 2018). Thus, a lack of coherence in disaster response, recovery, emergency, and humanitarian governance impedes harmonised coordination between different levels of administrative structures (Pacific Humanitarian Team, 2016).

In an attempt to address the coordination issues, based on past disaster experiences, the government commenced a review of NDMP and the NDMA in 2018 (Fiji Times, 2018; UNISDR, 2019). While the review is yet to be completed, it is hoped the following factors will be considered:

1. The formalisation of external agencies' roles within existing disaster management policy frameworks (UNISDR, 2019; Winterford & Gero, 2018). Studies reveal that the Republic of Fiji Military Forces continue to play a critical role in the post-disaster response, yet there is no mention of their role or responsibility in the existing disaster policy frameworks (Sakai, Jurriëns, Zhang, & Thornton, 2014; Tarte, 2010). In the same vein, the role of the private sector and communities in mainstreaming DRR and Climate Change Adaptation (CCA) initiatives has never been formally acknowledged or appreciated (Esler, 2016; Ngin et al., 2020; UNISDR, 2019; Yila et al., 2013).
2. The accountability of disaster management grants and aid from all sources, including those received in-kind by civil society organisations (Ministry of Economy, 2015; UNISDR, 2019). Although Fiji is known to have a robust Public Financial Management (PFM) system, there is no disaggregated data to differentiate the level of spending on activities related to disaster management or the utilisation rates of aid and grant provided by external sources (NDMO, 2021). Thus, there is no reliable way to evaluate areas for prioritisation or policy improvements.

3. There are out-of-date normative tools for disaster risk assessment, including the lack of inclusion of emerging risks such as climate change. As evidenced by several studies, changes in global climate amplify the risks of climate-related disasters (Brown et al., 2017; UNDP, 2018). Current disaster statistics reveal that the frequency and intensity of climate-related disasters have increased significantly as a result of the climate crisis, highlighting the imperative for building resilience of vulnerable communities rather than implementation of ad-hoc response measures (Cannon & Müller-Mahn, 2010; Djalante, 2014; Kergomard, 2015).

Alongside the ongoing review of the NDMP and NDMA, the Fijian government has undertaken comprehensive regulatory reforms to promote harmony between CCA and DRR measures across laws and policies. This process started in 2017 with the government conducting a nation-wide consultation to develop a 5-Year and a 20-Year National Development Plan (NDP). This policy document pools together visions set out by global instruments: The Paris Agreement 2015, Sustainable Development Goals (SDGs), and the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR) - by offering prescriptive measures that are in line with a disaster-risk reduction viewpoint (Government of Fiji, 2017). Building upon the NDP, the government then established the National Adaptation Plan (NAP) in 2018, which devotes attention to the implementation guidelines of different global and regional instruments. The NAP also makes cross-cutting links with the Boe Declaration 2018, and the Framework for Resilient Development in the Pacific 2016, which calls on governments to rebuild for the 'better' (IFRC, 2020; UNISDR, 2019).

In relation to DRR reforms, the government has renewed the National Disaster Risk Reduction Policy (NDRRP) 2018-2030 (Government of Fiji, 2018). The NDRRP recognises communities in relation to disaster risk governance and outlines the responsibilities of private sector stakeholders (ibid). In 2019, the government also adopted the renewed National Climate

Change Policy (NCCP) 2018-2030, which builds upon the original NCCP of 2012. One of its noteworthy features is the dedication to localised efforts, such as the role of local government agencies, in the delivery of policy objectives (Government of Fiji, 2019). The NCCP also shadows the disaster management organisational structure and proposes to: (i) re-establish a National Climate Coordination Committee (NCCC) to guide interactions for the NDMC on cross-cutting objectives; (ii) create a Cabinet Committee on Climate and Disaster Risk (CCCDDR) to improve high level oversight of CCA and DRR responses; and (iii) establish climate change focal points within all line Ministries to improve cross-governmental coordination and inform institutional arrangements (ibid). This institutional reorganisation, however, needs to be supported with the proper legislative tools, which are yet to be developed.

In 2021, Fiji passed its Climate Change Bill (2019), which “enshrines, in law, the country’s domestic response to the climate crisis in a comprehensive, holistic and understandable way” (IFRC, 2020; p.42). The key elements in the provisional text of this Bill include (i) the powers and duties of ministers and divisional heads for effective coordination across governmental structures, (ii) ministerial capacity to adopt secondary legislation, that being, regulations and the code of practice, which would warrant efficient implementation of the Bill, (iii) operative and adaptive processes for addressing risks of climate and disaster-driven displacements, and (iv) arrangements for data collection and distribution on climate change for improved public awareness and disaster-risk preparedness (IFRC, 2020; Government of Fiji, 2022).

The Fijian government also released a new Disaster Risk Management Bill in early 2020 with the intention of strengthening disaster legislation. The Bill builds upon the existing disaster policy framework but has a greater focus on the integration of DRR and support for climate change adaptation across all levels of government and the different sectors (IFRC, 2020). Although the consultation process for this Bill is yet to commence, some of the key features include: (i) the emphasis on risk management activities in the preparedness, response and

recovery phases of the disasters; (ii) the localisation of DRM structures at the sub-national level; (iii) plans to regulate the establishment and coordination of disaster management councils at the divisional, provisional, district, as well as the communal level; (iv) the inclusion of sub-national entities in the formulation and implementation of the new NDMP; and (iv) the guaranteed protection and accessibility measures for those at risk of displacement (IFRC, 2020).

To summarise, almost all regulatory instruments analysed above make strong reference towards strengthening coordination among all levels of the government, NGOs, private sector, and the community, as well as the institutional governance systems that oversee the implementation of these instruments. A further element that is widely traceable in the above-mentioned instruments is the intersecting commitments set forth by global and regional frameworks, as illustrated in Figure 4.5 below. There are rich references on risk reduction measures for ‘vulnerable’ groups exposed to climate hazards and their inclusion in CCA/DRR policy planning and policymaking processes.

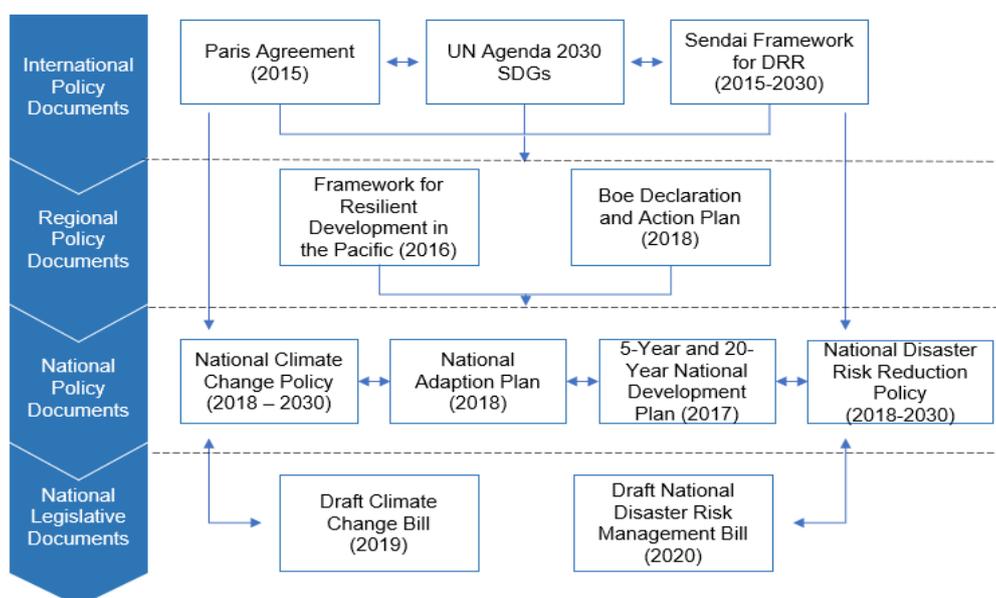


Figure 4.5: National CCA/DRR policy and legislative alignment process (Source: IFRC, 2020)

In summary, the analysis of Fiji's instruments on DRR and CCA highlights priorities to build resilience among vulnerable groups through the implementation of several 'proposed' adaptation and mitigation measures. In addition, these instruments actively promote the idea of 'ownership' by implying that vulnerable groups must assess their own risks and identify measures relevant to them. However, the operationalisation of such calls to action requires deeper consideration of capacities amongst vulnerable groups, their levels of accessibility to resources, and their perspectives (IFRC, 2020). Against this backdrop, the next sub-section discusses the vibrant nature of the Fijian MSE environment and the initiatives that have either supported or constrained the growth of the sector.

4.2. The Fijian MSE environment

As in other developing countries, MSEs in Fiji operate in quite a complex environment (Prasad & Singh, 2013). Literature on the MSE sector of Fiji reveals that most entrepreneurs are faced with an unstable and highly bureaucratic business environment and complex governing laws around registration and taxation, which perhaps contribute to the issue of operating informally (Market Development Facility, 2018; G. Singh, Pathak, & Naz, 2010). Aside from these complexities, MSEs globally are known to be operating in a competitive and uncertain environment; thus, issues such as limited access to financial capital and firm-specific characteristics are known to hinder their growth (Ayyagari et al., 2003; Seidel et al., 2008). However, despite these challenges, a study led by the Market Development Facility (MDF) in 2018 revealed that MSEs in Fiji accounted for 72 percent¹⁴ of about 24,500 registered businesses and provided employment to almost 60 percent of the country's total labour force (MDF, 2018). In terms of economic inputs, the MSE sector contributes around 18 percent

¹⁴ The disaggregated statistics of this study revealed that 48 percent were classified as micro businesses, and a further 24 percent were small enterprises (Market Development Facility, 2018).

(approximately US\$392 million) annually to the overall gross domestic product (GDP), which is a significant growth compared to the nine percent average reported a decade ago (ibid). The evidence gathered through the MDF study reflects on the critical role of the MSE sector to the Fijian economy and the need for a more flexible operating environment and conducive policies to promote growth. Table 4.2 below provides an overview of the laws and policies adopted by the various institutions to promote the growth of the MSE sector. Statistical evidence on the number of MSEs benefiting from each programme is drawn from analysis of reports and confidential documents of various government institutions.

Table 4.2: Policies and programmes supporting growth of Fiji's MSE sector

Year	Enforcing institution	Policy/ Programme	Details of support provided	Type of support
2015	National Centre for Small and Micro Enterprises Development (NCSMED) ¹⁵	Business Incubation Support Centre (BIC)	Programme is for MSE start-ups that require mentoring and training in various aspects of business management. Other services include provision of seed capital, workspace, office equipment and secretarial services	Two BICs were established in 2017 to support MSEs. As of September 2019, a total of 93 MSEs have benefited from the services of BIC
2018		Entrepreneurship Training Programme (ETP)	Programme offers range of business management courses and workshops specific to industry requirements. All courses are fee-based and administered by industry professionals, thus MSE owners are required to register for courses when advertised. The programme was discontinued in January 2020	Overall, a total of 15,297 MSE owners have benefited from this programme
2019		Northern Development Programme (NDP)	The programme provides equity of up to US\$1,500 through a grant's mechanism. However, it was only eligible for MSEs in Northern Division with a focus on expansion of operations	294 MSE have been supported since inception with total grants amounting to US\$10.75 million
2015	Ministry of Commerce, Trade, Tourism	Micro and Small Business Grant (MSGB)	Support MSEs with registration costs and expansion activities. With this initiative, MSEs can receive a maximum of FJ\$1,000, provided they meet the prequalification	Between 2015 to 2020, a total of 38,636 business, with total

¹⁵ NCSMED is a statutory organisation incorporated under the Micro and Small Business Act (2002). It was established in 2002 to support the creation and development of MSMEs in Fiji under the authority of the MCTTT.

	and Transport (MCTTT)		requirements, which entails a business activity plan and business licence	disbursements amounting around FJ\$18.55 million
2009	Reserve Bank of Fiji (RBF)	Microfinance under Banking Supervision Policy (BSP)	Financial inclusion policy developed in direct response to the strict lending policies of mainstream commercial banks that hindered MSME/MSE access to formal finance for MSMEs with no collateral. The policy sets out compulsory requirements for commercial banks to develop MSME specific micro-finance products and have dedicated micro-finance divisions	As of September 2018, a total of 367 micro and 1,035 small businesses entrepreneurs have benefited through BSP policy. Total value of loans made accessible amounted to US\$89.77 million
2010		Import Substitution and Export Finance Facility (ISEF)	Initiative to promote export diversification and import substitution in areas that MSMEs have competitive advantage. The initiative provides concessional interest rates (5 percent per annum) to MSEs involved in export	As of September 2018, a total of 175 businesses have benefited, with total loan values amounting to US\$121 million
2012		Small and Medium Enterprises Credit Guarantee Scheme (SMECG)	The scheme was designed to promote local business industry and improve private sector lending to SMEs. Under this scheme, the government provides guarantee for up to 50 percent of the principal outstanding amount of any defaulted SME loans, up to a limit of FJ\$50,000 per business. However, the guarantee covers lending to all sectors except for loans to sugarcane farmers or a government-subsidised business	As of September 2019, a total of 1,979 loans valued at US\$56.25 million have been guaranteed.

(Sources: Hunt et al, 2015; MDF, 2018; NCSMED, Personal communication, February 5, 2019; RBF, 2019; RBF; Personal communication with informant MITT, February 12, 2019).

Apart from the sectoral growth programmes reflected in Table 4.2 above, the Government of Fiji has also designed and adopted specific assistance programmes to support MSEs in the aftermath of a disaster. Considering that a part my research reviews the role of institutions in supporting MSEs with disaster recovery, a detailed account is provided.

1. In 2009, the RBF established the Natural Disaster Rehabilitation Facility (NDRF) to support businesses (and homeowners) with their recovery efforts. The initiative was allocated US\$20 million which, in times of disasters, is accessed by lending institutions at a one percent concessional interest rate and advanced to businesses at a maximum rate of five percent per annum. However, eligible businesses can access no more than US\$250,000.
2. In June 2020, the Government of Fiji through MCTTT launched a dedicated COVID-19¹⁶ support programme for MSEs. There were several components of this programme. First, an additional US\$2.5 million was committed to the SMECG scheme (Table 4.2), with the government increasing its guaranteed threshold on default loans from 50 percent to 60 percent. Second, the government committed US\$18 million for the revival of the Fiji Investment Corporation Limited to aid MSEs with immediate equity injections and refinancing opportunities. Third, an additional US\$30 million in loans were made available through the NDRF to support MSEs experiencing financial burdens. Fourth, the government provided for deductions in taxable income and the abolishment of stamp duties for businesses. For instance, businesses were permitted to offset losses up to US\$10,000 against their personal income and granted an exemption on the five percent provisional tax. In addition, penalties for late lodgement of tax returns had been waived. Last, a 300 percent tax deduction was offered to

¹⁶ On April 15, 2020, the Fiji Government declared the COVID-19 as a natural disaster. This declaration was made in reference to Section 17 of the Natural Disaster Management Act 1998 and on the advice of the Emergency Committee (Fiji Times, 2020).

businesses for any donations made towards the government's COVID-19 donor fund (Government of Fiji, 2020).

4.2.1. Factors restricting growth of Fiji's MSE sector.

As evidenced by literature, there are several internal and external factors that affect the operating environment of MSEs (see Ayyagari et al., 2003; Nand, 2014). Studies that focus on external factors, for instance, have widely examined the policy environment (Siegrist & Gutscher, 2008), market competition (Nand, 2014) and the broader role of financial markets (Pratt, 2001). In the same manner, internal factors such as firm-level capacities, and management systems known to be peculiar to MSE operations have been widely examined (Ahmad et al., 2010; Baum and Locke, 2004).

Although there is not much written work on Fiji's MSE sector, empirical studies (e.g., Fairbairn, 1988; Hailey, 1985) and the recently commissioned MDF study argue that MSEs are faced with several barriers to growth, some of which are unique to the local environment. First, the scarce information on the MSE sector contributes to ineffective policy-making process (MDF, 2018; Nand, 2014). Despite the multitude of policy interventions adopted to support MSE sector growth (Table 4.2), information on the effectiveness or relevance of such initiatives is still lacking. As such, the argument of policies being developed based on market demand cannot be justified.

Second, external factors such as the size of the domestic market, accessibility to alternative markets and supply chain issues are common challenges faced by MSEs in Fiji (Fairbairn, 1988; MDF, 2018; Nand, 2014; Prasad & Singh, 2013). Studies by MDF (2018) and Prasad et al. (2013) both draw attention to the increasing cost of running a business in Fiji (e.g., rent, bank charges, business registration renewals) and the inconducive regulatory requirements, which in turn discourage MSEs from operating formally. The MDF (2018) study, for example,

revealed that MSE owners spend close to US\$1,000 to obtain business registration because they have to meet several requirements such as fire safety training, occupation health and safety clearance and tax registration prior to registration. This process itself can take one to two months depending on the response time of compliance authority personnel (MDF, 2018). All businesses irrespective of size incur the same cost, which is 'unjust' in the perspective of MSEs (ibid). These high costs of running a business explain why most of the MSEs in Fiji continue to operate informally.

Moreover, MDF (2018) reported that behavioural factors significantly hampered MSEs' growth in Fiji. The results from MDF (2018) landscape assessment revealed that most the MSEs were instinctive spenders and had a low propensity to save due to a lack of financial management skills. MDF (2018) establishes that obligations linked to cultural norms, along with resistance to behavioural change, were common barriers to growth unless MSE owners are offered a large incentive (e.g., fear of expanding due to greater competition) (see Fairbairn, 1988). Aside from these common barriers to the growth of MSEs, a growing body of scholars have also explained how financial institutions are risk-averse to lending to smaller businesses (Ayyagari et al., 2003; Nand, 2014; Prasad & Singh, 2013). Despite the existence of MSE lending policies, most banks in Fiji have shown reluctance to issuing loans to MSEs, partly due to the absence of a credit bureau (MDF, 2018). This reluctance by financial institutions explains why most of the MSE owners borrow from non-formal channels (e.g., money lenders, friends, and family).

Equally, the insurance agencies have been discriminatory towards supporting MSEs. A recent survey conducted by the Pacific Financial Inclusion Programme (PFIP) revealed that almost all insurance providers across Pacific nations offered conventional insurance products that were unaffordable to MSEs (UNDP, 2016). The PFIP survey results indicated that insurance agencies showed little interest in supplying insurance specifically for MSEs as the design costs and delivery mechanisms to serve this sector are not attractive, or in their words 'non-

economical'. The challenge is far greater for MSEs located in disaster-prone areas, as local insurance companies have refused to underwrite insurance cover against hazards, and in instances where covers have already been issued, the premiums have increased dramatically (McNamara, 2013). The issue is not only around restrictive financial security services, but the neglect and disregard of MSEs' needs.

In sum, it can be argued that the MSE policy environment is still in its early stage of development. Despite the multitude of policies and programmes focused on stimulating growth in the MSE sector; issues around enforcement regulations tend to be overlooked (MDF, 2018). There is also very little empirical evidence on the effectiveness and relevance of the sector-specific programmes, and in most cases MSEs are not involved or consulted in the design of policy interventions (ibid). The next sub-section discusses the typical characteristics of Fijian MSEs, such as their ownership and size.

4.2.2. Firm-specific characteristics of Fijian MSEs

Internal factors such as business characteristics can significantly influence the operational environment of MSEs (MDF, 2018; Nand, 2014). My research investigates the firm-specific characteristics of ownership and size to contextualise MSEs in Fiji.

In Fiji, ownership of MSEs has widely been categorised in relation to entrepreneur ethnicity or type of business entity (e.g., sole trader, partnership, or private company). The latter, also known as legal ownership status, is dependent on the type of registration undertaken by MSEs (Prasad & Singh, 2013). A few studies have established that a majority of MSEs in Fiji operate as a sole trader, with less than two percent operating as a private company or as a partnership (Douglas et al., 2018; Prasad & Singh, 2013). However, this straightforward categorisation does not account for the large number of MSEs operating in the informal sector.

The alternative categorisation of business ownership in Fiji is by ethnicity. There are only two types of ownership under this categorisation, either indigenous-owned or non-indigenous owned (Prasad & Singh, 2013). Indigenous-owned businesses, otherwise known as mataqali-owned,¹⁷ are usually operated and managed by members of the community who have autonomy to make decisions concerning land use (Fairbairn, 1988). The mataqali does not own the business per se, but rather gives customary approval for the business owner to operate within a particular setting (ibid). Such arrangements are common in rural areas of Fiji, where customary land laws still apply. According to the findings of Fairbairn (1988, 2006) and Prasad et al. (2013), many indigenous-owned businesses have heightened risk to failure due to several factors, namely: (i) the cultural obligations and communal commitments placed upon the owners (e.g., demand for financial contributions to village projects); (ii) the absence of entrepreneurial tradition; and (iii) shortage of business management skills that is prevalent amongst indigenous entrepreneurs¹⁸. Interestingly, a study on indigenous entrepreneurship in Fiji by Hailey (1985) suggested that businesses should continue to respect the obligations and communal commitment inherent in the local culture. While Hailey's findings contradict the empirical results of Fairbairn (2006) and Prasad et al. (2013), they do strengthen the argument of my research that cultural orientation can influence business practices, including the way in which disaster risks are managed.

On the other hand, non-indigenous owned businesses categorisation includes those operated and managed by Fijians of Indian descent or Fijians of other descent, including immigrants (Nand, 2014; Prasad & Singh, 2013). According to Nand (2014), owners of non-indigenous businesses are known to have robust knowledge in running a business or have acquired some

¹⁷ Customary land in Fiji is land owned and governed by the values and customs of the mataqali, a clan-like unit primarily composed of groups of families linked through kinship ties, which has come to represent the basic social unit of indigenous Fijian society (Sofield, 2003, p. 286).

¹⁸ Purchasing on credit and allowing for such transactions due to cultural relations (Fairbairn, 1988).

form of business training prior to venturing into their own business. Anecdotal evidence suggests that most of the non-indigenous owned businesses in Fiji are situated within the boundaries of urban or peri-urban areas, with a great majority operating under state or private lease contracts.

MSEs around the world are also widely categorised by operational scale in terms of income turnover, employee numbers and asset value (Ayyagari et al., 2003). However, the adoption of such a categorisation in Fiji appears to be problematic due to definitional differences (Market Development Facility, 2018). For instance, under the Small and Micro Enterprise Act (2002) a 'micro enterprise' is classified as one with annual turnover not exceeding US\$15,000 and/or employs not more than five people, while a 'small enterprise' is classified as one with annual turnover of between US\$15,000 and US\$50,000 and/or employs between six and 20 employees. In contrast, the Fiji Revenue and Customs Authority follows the definitions set out by the Companies Act (2015) and categorises 'micro enterprises' as those entities with annual turnover up to US\$250,000 and 'small enterprises' as those entities with annual turnover of up to US\$2.5 million. These definitional deficiencies have implications on the application of policies and regulations (Market Development Facility, 2018). The financial institutions, for example, do not differentiate their lending requirements between the two types of entity despite noting their varying capacities (ibid).

4.3. Study Site – Ba town

My research draws attention to MSEs operating in the township of Ba, which was home to the first Indian settlers (Yeo and Blong, 2010). The town of Ba is often referred to as the 'sugar boomers,' producing approximately 40 percent of Fiji's sugar (ibid). Geographically, Ba is situated on the north-west side of Viti Levu, one of the main islands in the Fijian archipelago, with a land area of 327 square kilometres (Yeo, Blong, & McAneney, 2007). Ba town has a

population of 39,372 individuals, which accounts for 9,345 households (Fiji Bureau of Statistic, 2017). This is a significant increase in population when compared to the 18,526 people and 5,215 households reported in the 2007 census (Fiji Bureau of Statistics, 2007). Ba also has one of the largest rural populations of Fiji, with almost 63 percent of the population residing in rural communities (Fiji Bureau of Statistics, 2018). Recent statistical records from the household and income expenditure indicate that the incidence of rural poverty has worsened in Ba with around 17.8 percent of the total population in Ba Province living under the Basic Needs Poverty Line (BNPL) of FJ\$41.90 per adult per week (ibid).

In terms of physical geographic features, Ba township is separated by a major river (Ba River) and two creeks, namely Elevuka and Namosau, which are the entry points of flood waters into the town area (McAneney et al., 2017). Ba town has been affected by floods and cyclones for decades. Studies confirm that the township of Ba remains one of the worst affected by floods because it is located on a low-lying floodplain, along with the geophysical features mentioned above (P. Brown et al., 2017; S Yeo et al., 2007; Yila et al., 2013). A vulnerability assessment conducted by the World Bank forecasts floods across Western parts of Fiji to increase twofold by 2050 compared to the 2012 averages (World Bank, 2018) The vulnerability assessment based on satellite remote sensing data revealed that a majority of the communities in Ba are considered at “high-risk’ to climate hazards. Figure 4.6 visualises Ba’s risk levels to floods and cyclones. The map produced using hydrological model data, elevation data and past hazard records categorises Ba as ‘extremely high risk’ to floods.

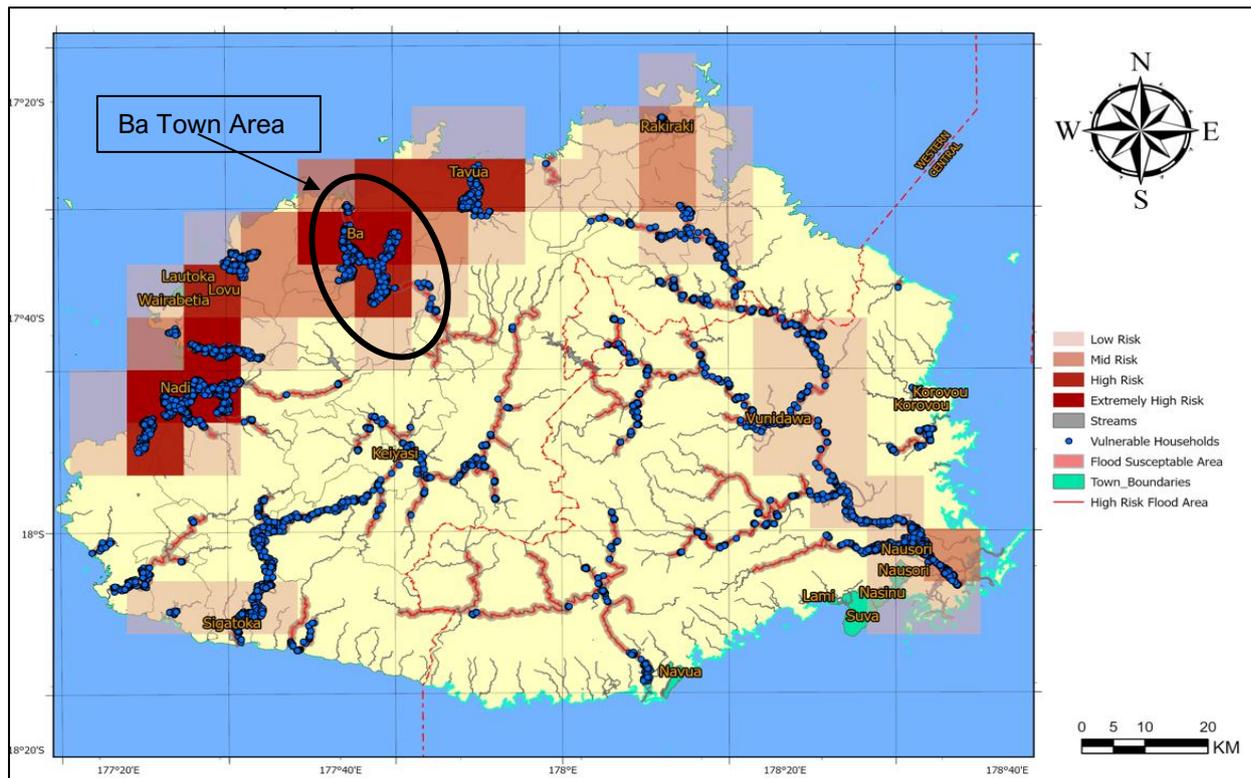


Figure 4.6: Ba as one of the hotspots for climate-induced hazard risks in Viti Levu (Source: ArcGIS Software, version 10.4)

A geospatial vulnerability assessment of Ba has also been conducted through a Commonwealth project known as CommonSensing¹⁹. The analysis indicates high levels of exposure to coastal inundation and riverine floods (Commonwealth, 2020). The project leverages off Analysis Ready Data (ARD) and uses risk scoring methodology to provide contextual analysis of hazards, vulnerability, and coping capacities of all areas in Fiji. Figure 4.7 produced by the CommonSensing project summarises Ba town's overall exposure to natural hazards and the susceptibility of communities to those hazards.

¹⁹ The CommonSensing project is funded through a £9.6 million grant from the UK Space Agency's International Partnership Programme (IPP) and implemented through the United Nations Institute for Training and Research (UNITAR), through its Operational Satellite Applications programme (UNOSAT) (The Commonwealth, 2020).



Figure 4.7: Risk analysis of case study site area (Source: Commonwealth CommonSensing GIS Database, 2021)

According to the study of Yeo (2015), Ba town experienced a total of 32 major flood events between 1982 and 2013. Although most of these floods are associated with cyclones or tropical depression events, anthropogenic factors are also known to be major contributors. For instance, the study of Yila et al (2013) explains how government development projects such as hydro-dams, iron-sand mining and logging activities have continued apace despite noting the risks posed by these projects. Yeo and Blong (2010) and McAneney et al. (2017) have also mentioned issues of poor development practices. These scholars argue the commercial development of the floodplains have raised flood depths and velocities overtime.

Apart from floods and cyclones, the location of Ba town also makes it susceptible to meteorological drought when there are prolonged dry periods (Nawai, Gusyev, Hasegawa, & Takeuchi, 2015). Understanding the physical geography and history of flood events will aid in contextualising the findings of my research presented in Chapter 6 and 7. Figure 4.8 below refers to the most recent flooding event that occurred during the fieldwork.



Figure 4.8: Ba town under water during April 2018 floods (Left image: water levels up to 4 feet. Right image: water levels up to 1.7 feet in height during the April 2018 floods) (Source, Sivendra Michael, Fieldwork, 2018).

Further, the township of Ba was chosen as a case study area due to the range of businesses that operate within the township of Ba. For instance, well-known retail, construction and building companies such as RC Manubhai & Co and Vinod Patel Co Ltd, the Motibhai Group, Ba Motor Parts, Dayal Group of Companies, A Jan Group of Companies and Bhikabhai & Co. Ltd operate in Ba (Nawai et al., 2015). The town is also located in close proximity to Lautoka city, which is the supplier hub for the Western Division. The talanoa with the CEO of the Ba Town Council revealed that around 227 MSEs operated in Ba. However, it was difficult to verify these statistics due to the unavailability of such official information even from the Ministry of Commerce, Industry and Trade (MIT) that oversees business registration. Figure 4.9 below refers to the boundaries of the Ba township, and the spatial locations of the intended MSE respondents for my research.

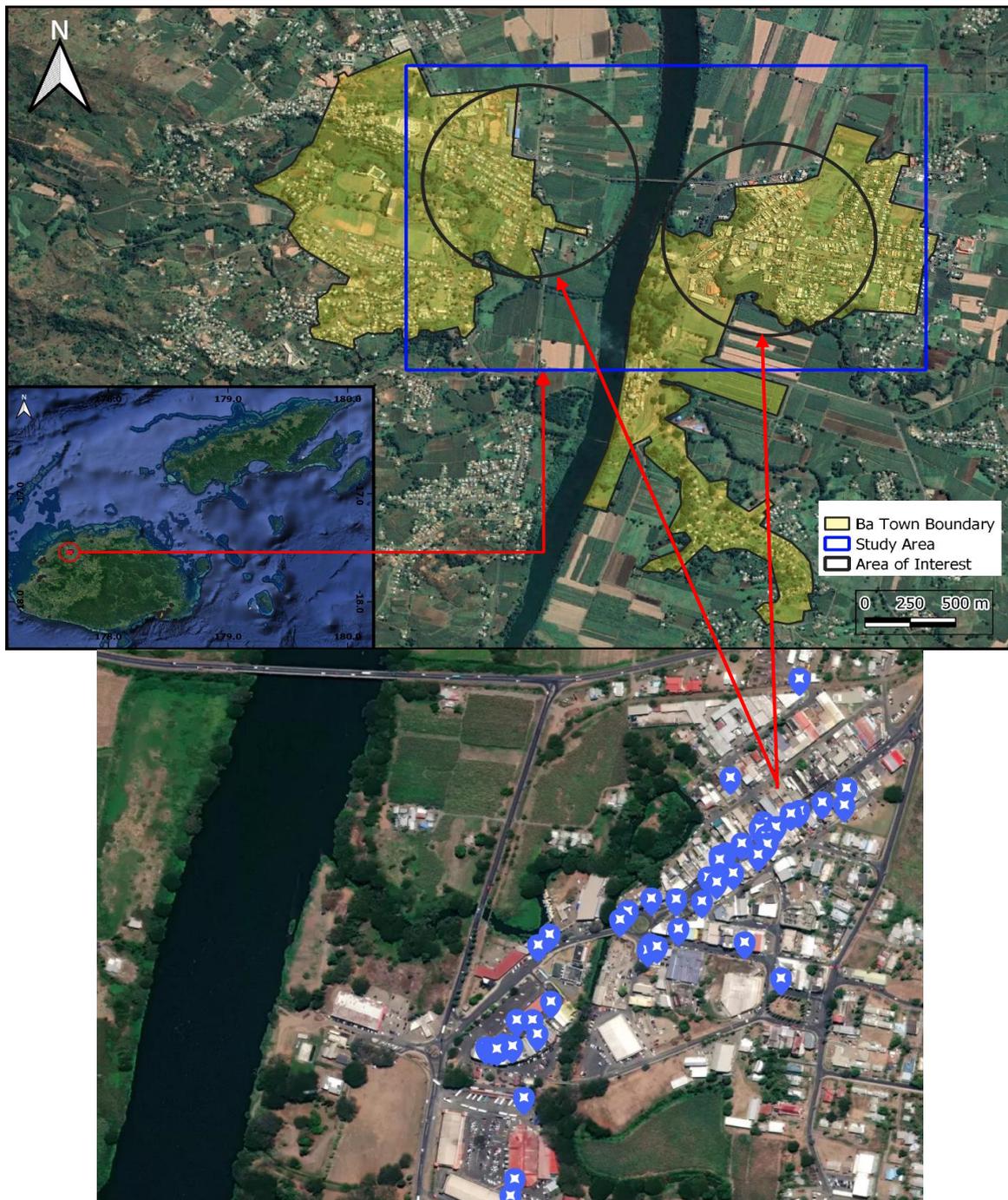


Figure 4.9: Case study site area and area of interest (Source: ArcGIS Software, version 10.4: Sivendra Michael, Fieldwork 2018 <https://sivendra.craftyapps.com.fj/>)

4.4. Summary

It is the intention of this chapter to elaborate on Fiji's vulnerability to climate hazards and contextualise the disaster management policy landscape over the last two decades. This contextualisation helps to understand how the shifts in policy focus towards building resilience of vulnerable groups is not only influenced by urgent need for action, but also by a country's commitment towards regional and global instruments. The chapter also highlights the current dilemmas facing vulnerable groups, such as their accessibility to resources and their perspectives within these policies. The MSE sector, for instance, is known to be extremely vulnerable to natural hazards, yet there is no specific reference within Fiji's national or regional disaster management policies on how to enhance the resilience of these entities, nor their integral role in disaster response.

Further, the discourse on the Fiji's MSE landscape draws attention to the multitude of policies and programmes focused on stimulating growth in the sector which have evolved out of varying development and political priorities. Related to this analysis, the chapter then presents the case study site and discussions around the vulnerability of MSEs located in this area. The discussion in this chapter will be further applied in the results chapters.

Chapter 5: Methodology

Disaster scholars have emphasised the need to advance epistemologies and disaster research approaches that reflect the local realities of disaster experience (Bankoff, 2001; Gaillard, 2019). As emphasised in the earlier chapters, disaster studies have tended to privilege western knowledges and approaches to conducting research, which may leave out the voices of the marginalised in the knowledge production process. To amplify marginalised voices, my research adopted participatory research methods that contribute to the promotion of epistemic diversity (co-production of knowledge with local study participants) in disaster scholarship. The sections below detail the methodological choices and research tools adopted in this study. To start, a critical examination is made of the social constructivist paradigm and its application to my research. I then present the specific research techniques used in the case study, its influence on the design and implementation of the research process, and my positionality. Of importance to discussion here is the use of talanoa research-style conversation and approaches for participant selection considering the two different groups of participants chosen for this study. The chapter ends with a discussion on the data analysis framework, along with the ethical considerations and issues concerning the transferability, reliability, and validity of my research.



Figure 5.1: Researcher listening to MSE owner explain flood entry points using maps (Photo by Sivendra Michael, October 2018)

5.1. Understanding research practice through a social constructivist lens

Many theorists use the term 'warranted knowledge' to indicate "the necessity of justifying the answers one gives to research questions" (Graham, 2005, p. 9). To situate the warranted knowledge produced by my study, this section briefly explains the philosophical position and empirical strategy of social constructivism. At its core, social constructivism is founded on the premise that knowledge is socially constructed and does not exist in isolation from its context (Chipangura, Van Niekerk, & Van Der Waldt, 2016; Heron & Reason, 1997). The social constructivist paradigm challenges the hegemonic stances of objectivism and essentialism of understanding social phenomenon (Berger & Luckmann, 1966). From the perspective of Crotty (1998), constructivists assert that "[t]here is no objective truth waiting for [researchers] to discover [...] Truth, or meaning, comes into existence [through their] engagement with the realities in [the] world [...] Meaning is not discovered but constructed" (p.8). Here, the argument is that social reality itself is a sedimentation of meaning as "it exists in an irreducible dialectic with moment(s) of its own" (Stavarakakis, 2002; p.67). In Stavarakaki's view, 'meaning' is not associated with the object of analysis but rather the prevailing cultural frame of social, linguistic, and symbolic representations.

In the same way, disaster scholars that have adopted the constructivist perspective argue that exposure to hazards is fundamentally a 'social construction' through the interaction of economic, cultural, and political processes operating at different scales (Dynes & Rodríguez, 2007; Allan Lavell & Maskrey, 2014; Quarantelli, 1998). This perspective reflects an emerging understanding that the notion of disaster is inherently subjective, as individuals' perceptions of disasters are primarily shaped by their day-to-day experiences, their historical exposure to hazardous events and their contemporary social influences. The emphasis on understanding disasters through a constructivist lens has a strong explanatory value as it integrates different perspectives applicable to a specific local context and accounts for the role of social structures

and value systems (Chipangura et al., 2016; Rufat, 2015; Sherman-Morris, Houston, & Subedi, 2018). In addition, the perspective of Hilhorst (2003, 2018) draws attention to the intimate links between natural and socio-cultural realms because "social systems appear to humans in the form of physical things and it is by means of those [physical] objects that our social practices are organised, and such practices take their meaning from those objects themselves" (Mariyani-Squire, 1999, p.102).

It is widely acknowledged that the epistemological dimension of social constructivism was introduced through the seminal work of Berger and Luckmann (1966), who argued that social institutions (e.g., societies) are created by humans and their interactions. Their study argued that the 'objectivity' of social institutions is illusory, as it "does not acquire an ontological status apart from the human activity that produces it" (p.78). However, Berger and Luckmann fell short of providing an account of the structure-agency relationship, as their argument on construction of social structure ignores how interactions shape or develop meanings (Bhaskar, 1979).

In disaster research, scholars are urged to recognise structure and agency relationships as well as the ontological features of social reality when adopting research methodologies (Philips, 2014). Thus, emphasis is placed on the context in which the study is conducted and how 'reality' is constructed from the hermeneutic-dialectic interaction between study participant(s) and the researcher(s). In this regard, the present research is concerned with understanding how people who own MSEs have built resilience to climate-induced disasters. Further, in contextualising resilience, the study draws on the shared narratives of MSE owners based on their lived realities (ontology), and the development actors involved in planning and managing DRR programmes for them and other businesses in the private sector. In relation to this latter group, my research conducts a critical examination of organisational roles, disaster management governance processes, and the implications that these processes have on MSEs.

Knowledge in this thesis therefore integrates (i) the subjective realities drawn from the narratives of people who own MSEs and other development actors, (ii) the researcher's own understanding of the historical, political, social, and cultural context in which these narratives were shared, and (iii) the researcher's reflections and interpretations of (i) and (ii). This philosophical positioning, and the qualitative research tools and techniques utilised in my study, are explained below.

5.2. Research approach

The research questions addressed in this thesis required a qualitative research approach. A qualitative research approaches allow research participants to narrate and interpret their own stories as well as offer insight on their perceptions, viewpoints and experiences (Creswell & Creswell, 2017; Meo-Sewabu, 2015). According to Creswell and Creswell (2017), qualitative research produces holistic understandings of rich, contextual, and generally unstructured non-numeric data, by engaging in conversations with research participants in 'natural' settings. In addition, the rationale for adopting a qualitative research approach also lies in the philosophical paradigm of constructivism, which underpins my research.

In terms of research design, my research drew on a case study design that is explained in depth in Section 5.3.1. Despite the various tools applied in disaster research, my study adopts ethnographic research tools of talanoa and direct observation that are contextually relevant to generate narratives that capture the complexity of human experiences, relationships to place, and emotions. The indigenous method of talanoa is a culturally appropriate tool for facilitating dialogue around sensitive issues. Several scholars have referred to talanoa as the most prominent research inquiry method applied across the Pacific (Halapua, 2013; Nabobo-Baba, 2008; Vaioleti, 2017). According to Halapua (2013), talanoa is 'the telling of stories to each other absent [of] concealment of the inner feelings and experiences that resonate in our hearts

and minds” (p.1). In the Fijian context, talanoa does not simply entail applying the principles of informal discussions; rather it is a “culturally and emotionally embedded reciprocal exchange between research and participants” (Nabobo-Baba, 2008, p.94). Talanoa deals with the deeper epistemological and ontological underpinnings of the lived realities of participants within their context, which is central to my research and supports the constructivist position explained in Section 5.1.

In Fiji, talanoa is widely understood as involving shared emotion. Talanoa is grounded in empathetic values and is a time-intensive process (Nabobo-Baba, 2008; Vaioleti, 2017). My research contends that talanoa allows participants to feel involved in the research process as it promotes open communication between the researcher and the participants. According to Gaillard (2019), such research tools value the contribution of local epistemologies over ‘orientalist’ Western standpoints. The use of talanoa as a technique can elicit memories, aspirations, emotions, and rationalities, which are all implicated in people’s responses to calamities (Farrelly & Baba, 2019).

5.2.1. Case study design

A case study design is considered a sound approach for evaluating the ‘how’ questions of my study (Creswell & Creswell, 2017; Yin, 2013). As explained by Yin (2013), the foundation of a case study inquiry is grounded within the philosophical position of constructivism and is best suited for the analysis of a heterogeneous group. In my study, MSEs represent non-homogeneous entities which are constantly adapting to external and internal changes, whether related to the environment, politics, or the owners’ personal lives. It would therefore be difficult to make generalisations about MSEs due to the significant variations that exist within the group itself. For instance, the nature of each business, the sector they operate in, their customer base, the number of their employees and their turnover vary across businesses.

According to Stake (2011), case studies may be categorised in three distinct ways. The first category - 'intrinsic' case study - focuses on a single case study, and its design draws on inductive and participatory techniques. In contrast, 'instrumental' case study focuses on a single case to provide an understanding of a targeted phenomenon. 'Collective' case study focuses on multiple 'instrumental' cases studies occurring in the same or different sites. Considering that the focus of my study is to provide an in-depth understanding of the resilience of MSES in Ba, the instrumental case study design has been adopted.

Although scholars such as Gerring (2004) and Yin (2014) argue that case studies are an effective method to explore subjectivities and "the meanings participants attach to behaviours" (Yin, 2014, p. 3), both scholars also explain that case studies offer something of value to the topic of research or serve a particular purpose. In my research, MSEs in Ba province were specifically chosen as the primary unit of analysis given their position of marginality within the private sector and their vulnerability to flooding events. Enarson et al. (2007) explains how the perspectives of disaster-affected individuals can help reveal and contest not only local and global power structures that shape disaster experiences but also the power relations within micro spaces that constitute the social terrains of disaster.

5.2.2. Research phases

In my study, the organisation of research activities accommodated the need to learn and adjust accordingly, which in turn allowed for greater reflexivity. The research process was organised into four interrelated phases, as shown in the figure below.

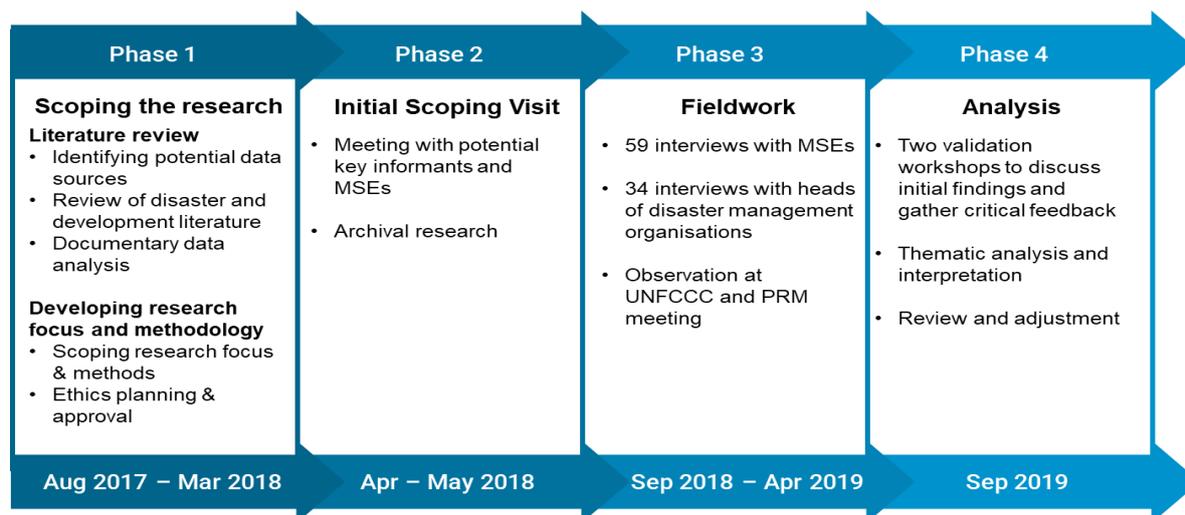


Figure 5.2 – Phases of the research process

Phase 1: In the first phase, a thorough literature review was conducted to familiarise myself with the scholarship on disaster, the evolving debates on resilience, and how disaster resilience was contextualised to study individuals, communities, and businesses. Additionally, various disaster-related theories were reviewed to help me understand the theorisation of resilience as a process. By doing this review, I gathered theoretical and empirical insights, which aided in focusing the scope of my research.

In addition, I also analysed documents relating to MSEs and disaster management, specifically, project proposals, reports from disaster management organisations, official and unpublished reports and Fiji government policy documents, media documents (newspapers, press releases, speeches, and statements), and documents which covered the contextual fields of disaster management, risk reduction, disaster preparedness, and climate change in Fiji. This process helped to build my understanding of the discourses around disaster management practices in Fiji, as well as to retrieve the meanings of key disaster and resilience themes that arose. It also helped to identify research methods used previously, and the key ethical aspects needing consideration. As the next steps, an ethics application for my research was prepared and submitted to the University of Auckland Human Ethics Committee (see Section 5.3). The approval for fieldwork was obtained on 8 September 2018 (see Appendix B).

Phase 2: For the second phase, I visited the case study site and engaged in informal discussions with 18 MSE owners to gauge their interest in being involved in the research and to elicit further contacts for other MSEs within the province to expand the number of research participants. This preliminary visit was essential for identifying the study site and refining the tools and strategies for my research. This phase also served as an opportunity to build relationships with various study participants and gather deeper knowledge about the case study area. In addition, it aided in identifying potential participants in local disaster management institutions that were involved in implementing resilient-building interventions for the private sector. I also visited the National Archive of Fiji with the hope of finding photographs of Ba Province from the colonial days and the town restructures, along with the relevant information on flood impacts from news agencies in Fiji.

Phase 3: The third and most intense phase of my research was the fieldwork phase conducted between October 2018 and May 2019. During this phase, talanoa were carried out with MSEs in Ba and with key informants from national, regional, and international organisations implementing resilience-building interventions for MSEs. The rationale for including both MSE owners and representatives from disaster management organisations as informants was triangulation of the data collection (Patton, 2014) – that is, to gather a more holistic understanding of how the policies and programmes benefiting the private sector were developed and implemented.

During the fieldwork, direct observation methods were also used to take note of the physical setting in which these businesses operated, to contextualise the information shared during the talanoa-style research conversations. For instance, after the talanoa conversations, I walked around and interacted informally with staff members while observing the physical environment such as the preparatory flooding measures implemented by each business, and any existing damage to business infrastructure. Supporting the constructivist approach, such observations

are critical to understanding the social context better and to interpret shared narratives. To document my observations, I wrote field notes and used a digital audio recorder, where permitted by the research participants.

In addition to the observations at community level, I observed official meetings. Most notable were the 21st, 23rd and 24th sessions of the United Nations Framework Convention on Climate Change (UNFCCC) and the Pacific Resilience Meeting (PRM). At these meetings, I mostly observed negotiations on Private Sector Initiative (PSI), where Pacific delegates and key players in the private sector such as the Chamber of Commerce and Fiji Commerce and Employers Federation spoke about catalysing the involvement of the private sector in the wider adaptation community. I took notes on how policy discussions progressed, the representation of stakeholders in those spaces, the interests, and influencers of those involved, and the methods of discussion. However, despite me being a government delegate, some sessions at these meetings were not accessible. For instance, the main plenary sessions with heads of civil society organisations were classified as a 'closed session' and I was not allowed to observe these sessions as I was a representative of the government. To gain access to these sessions, I had to seek the permission of the head delegate of the Pacific Islands Associate of Non-Governmental Organisations (PIANGO), who provided me accreditation as an observer.

Phase 4: The final phase of the research project involved analysis of fieldwork data and discussing the results with research participants. For data analysis, I had drawn on Braun and Clark's (2006) thematic analysis methods to identify, analyse and report patterns within data collected. The results analysed were then shared at two validation workshops in September 2019, one with MSE participants and the other with disaster management organisations. Rather than a conventional presentation, I designed the workshops using a talanoa approach as a way to assist the discussion of my findings. As the discussions took place, participants were encouraged to share further thoughts. The main objective of these validation workshops

was not only to test my own interpretations of the data, but, more importantly, to accommodate alternative interpretations from participants, as well as to discard any information which the informants felt uncomfortable with.

5.3. Ethical considerations

There were several ethical issues considered in my research. Most related to conducting research with human participants, maintenance of confidentiality, data handling procedures, and procedures for data management. The ethical requirements of the University of Auckland Human Participants Ethics Committee (UAHPEC) were met (see Appendix B). Further, consideration was given to requirements outlined by Fiji's Information Act (2018) and the Doctoral Research Grant. Although I did not require a research permit from local authorities in Fiji, I voluntarily registered the research with the iTaukei Trust Fund and the Ministry of Education. In doing so, the Ba Provincial Council was also made aware of my research and my whereabouts to ensure my safety and accountability.

Throughout the research, I ensured that the requirements outlined by the institutions above were honoured, respected, and met. At times, I was faced with challenges when managing obligations around being explicit about my role as a PhD researcher and taking responsibility for protecting participants' contributions. In adhering to the requirements and obligations as a PhD researcher, the following procedures were observed. First, all participants were provided with an information sheet that described the research objectives, the talanoa process and the value of their participation towards a PhD (see Appendix C). Thereafter, talanoa-style research conversations were scheduled only with those participants who contacted me. Prior to the start of an interview, verbal and written consent was obtained from participants to confirm that their participation was voluntary, and they could be quoted anonymously in this thesis. In terms of voluntary participation, all participants were informed of their right to withdraw from the

research at any time without giving a reason and their right to withdraw data within 30 days after the date of their interviews. Consent was also sought to record interviews.

Further, confidentiality was guaranteed, as the personal details of participants were replaced with a pseudonym. However, participants from disaster risk institutions were given the opportunity to be anonymous or have their contribution publicly acknowledged. For instance, in many cases, heads of institutions volunteered to be identified in association with their institution to highlight the work that their organisation had done in terms of building the resilience of the private sector. For this purpose, consent was obtained and clearly articulated in written consent forms (see Appendix C). Following the fieldwork phase, transcribed copies of interviews were sent back to participants for review. Thus, the information used in this thesis reflects data that have been validated.

In terms of data handling procedures, a list of participant names with references to their pseudonyms is kept separately in a secured place. Hard copy documents (consent forms and interview transcripts) from the fieldwork are stored in a locked cabinet, while the computer files are backed up on a password-protected flash drive. Access to the data is protected and restricted to the researcher and supervisors. At the completion of the PhD research project, all information will be stored securely for six years and then destroyed.

5.3.1. Positionality: reflecting on social constructivism

Constructivists in disaster studies are often confronted with matters concerning their positionality, the nature of power relations, and how the voices of their participants are represented (Carstensen-Egwuom, 2014; Crabtree, 2019; Gaillard, 2019). Gaillard (2019), for example, explains that the production of knowledge depends on the researchers, some of whom may have “limited knowledge of the disaster-affected areas and with insufficient time to collect enough background information, to learn the local language, and to get to know the

local culture, leading regularly to misconceptions” (p.111). To navigate around these issues, a critical reflection is required of the researcher’s positionality in relation to how knowledge is produced, for whom that knowledge is constructed and the role of the researcher in producing knowledge.

Reflexivity Note 1: Framing ‘resilience’

Two months into the fieldwork, I was asked to attend a function by a MSE owner whom I had interviewed. As usual, I introduced myself and discussed my research project. However, when it came to explaining resilience or the process of building resilience, I struggled to translate the term into local language. I realized that this would be an issue if not corrected, so I started talking about communities that I worked in and how they did little things to adapt to or mitigate the risks posed by specific types of hazards. Perhaps, this was not the best explanation, and I realized that I had assumed that people would understand the rather simple explanation, but apparently this was not true. Language does matter, and so do the terms used. So, to address this issue, I asked people about how they prepared for, coped with, and recovered from disasters and what their actions meant to them. I realized that the whole notion of ‘becoming resilient’ was politicized and I needed to shift the framing of the term from the perspective of the researcher to the dynamic perspectives of various participants. Such researcher-researched encounters are a great learning experience and demonstrate the importance of understanding local perspectives.

Reflexivity involves "becoming aware of [the researcher’s] own assumptions, positionality, and ways of making meaning [.....] as a means of avoiding the false neutrality and universality of so much academic knowledge" (Dowling & Brown, 2012, p.31). The researcher is acknowledged to be the key instrument making the crucial decisions based on their curiosity or interest concerning the issue being studied, as they determine what is relevant data based on their own data collection and analysis processes (Crabtree, 2019). Reflexivity played a central role in describing my positionality as a researcher, as often I had to reflect on the approaches used to manage interactions with my participants. The reflexivity note below gives

an insight into my learning experience on the importance of shifting my own standpoint to understand local perspectives:

5.3.2. My positionality

Positionality is determined by the researcher-research participant relationship and is a strategy to contextualise research interpretation (Merriam et al., 2001), especially as power relations change with the fluidity of social categories. For researchers, power relations refer to the specific insider/outsider position in the research process and its shifting nature according to the relational and contextual factors (Carstensen-Egwuom, 2014; Crabtree, 2019; Gaillard, 2019). To better understand my struggles with the insider/outsider dichotomy during the research, I provide a brief background about myself.

My name is Sivendra Michael. I hail from the Cakaudrove Province of Fiji, with maternal links to Ba Province. I identify as a Fijian and am a passionate Pacific Climate Warrior (PCW), educator, entrepreneur²⁰, and a development practitioner with over a decade of work experience in development policy. My interest in this specific research originates from my involvement in disaster response and recovery, as well as my lived experiences of being affected by climate hazards. As mentioned in Section 1.5, my career in the disaster management field started from being a policy analyst, then a humanitarian worker, and now a researcher. Each experience has made me reflect critically on the complexities around response and recovery, particularly the ongoing negotiations between affected populations and organisations implementing post-disaster response strategies.

²⁰ Active Citizens Pacific was recognised for Excellence in Development Work through the Commonwealth Youth Award in 2017 and at the G20 Global Solutions Summit (<https://thecommonwealth.org/media/news/2019-commonwealth-youth-awards-finalists-announced>).

My exposure in the field has been overwhelming, particularly navigating through emotions when working with communities affected by disasters. Yet, this process has led me to become more active in local, regional, and international dialogues around climate change and DRR.

The above account of myself aids in understanding the shifting positionalities that I had to adopt when engaging with research participants. First, going to the field site posed several dilemmas for me. As a researcher with maternal links to Ba, I felt a personal connection to this setting. In the Fijian culture, when we introduce ourselves, we acknowledge our identity by stating first our paternal links and then our maternal links, a process called 'vasu.' Through such introductions, one can ally with you almost immediately, as they can associate you as a distant relative ('naita') or as 'others' (outsider). Carrying this identity helped establish rapport with participants as, at times, we spent hours getting to know each other before scheduling a talanoa. This was extremely beneficial for my study as participants felt more comfortable in sharing their experiences of climate-related events, which at times triggered strong emotions. Conversely, part of this identity was associated with being a 'researcher' from the University of Auckland. The role or identity of a researcher is an important factor that most disaster studies have overlooked. As evidenced by the research of Fordham, (1999), disaster scholars may intend to empower disaster survivors by sharing their stories, but the process of research can unintentionally victimize and disempower the participants as well as the researcher. For instance, Fordham (1999) explained how his research participants had talked about the 'label effect', whereby they were constantly labelled as victims by policymakers, which in turn resulted in them believing they were vulnerable. In an attempt to address the issues of unintended hurt to participants, my positionality as an outsider was acknowledged. I had openly mentioned that I had no knowledge and drew no presumptions about their experience and had no right to re-tell their stories without their knowledge. In addition, my experience of working in disaster rescue and recovery served as a reminder of the sensitivities in discussing

concerns that may trigger unintended harm. However, like most Pacific researchers, I was faced with the ethical dilemma of obtaining written consent to conduct talanoa as participants felt uncomfortable signing forms but preferred verbal consent. Therefore, my positionality had to be negotiated continuously during the talanoa-style research conversations to explain the ethics process of University of Auckland.

Reflexivity Note 2: Feeling distanced

Many anthropologists share about their challenges in interacting with participants because they are perceived as outsiders. In my provisional year of PhD, I boldly told my research committee that I will not encounter as many issues with positionality because I was a Fijian with maternal links to Ba and was known by at least some community members from my prior research engagements. Clearly, the smirks on their faces should have been an indicator to be prepared. When visiting Ba during the scoping mission, my assumptions were indeed challenged. The MSE owners saw me as just another person collecting information for his/her own benefit and therefore were reluctant to engage. Lost for words, and worried, I found myself sharing how I felt to one of the MSE owners that agreed to be part of my study. I recall asking him how I was ever going to get potential participants if they are not interested. To this question, he mentioned how MSEs in Ba have grown wary of researchers who come to collect data and then disappear. He narrated “researchers come and take information from us and then assume to be experts in the field about our problems. How can you spend six months and call yourself an expert?”. It became obvious that they assumed I was another researcher who would claim to have expert knowledge through this research. I could not comprehend the feeling that emerged when I thought about what the MSE owner had shared. So, I acknowledged that I needed to do something to bridge the distance I felt. Overtime, I became friends with that same MSE owner who invited me to informal gatherings where we shared kava. Through him, I met other MSE owners, we exchanged views on various issues and laughed at local jokes. This was a process of its own, but it did help earn that trust toward my research.

Second, my physical appearance and surname brought about varying dynamics with the insider-outsider position. My grandparents and parents share diverse ethnicities; thus, my physical complexion and English surname created some curiosity amongst participants. For

these reasons, some of the participants categorised me as an outsider, and it was almost normal to be asked about my uncommon surname or told that I looked like a 'kailoma'. In Fiji, the term 'kailoma' is commonly used to describe Fijians of European descent (Bruce, 2007). I was fully aware of my appearance and my inability to speak participants' dialect, as growing up I mostly spoke in the Bauan iTaukei dialect or English. Therefore, to get past the stereotyping, I lived amongst local families while conducting my research and gradually learnt enough to converse with locals during cultural gatherings like the kava sessions. Although it would be naïve of me to think that I became an insider through these activities, attending cultural communal events helped establish genuine relationships.

Third, being a son of a micro-entrepreneur who worked in Ba for several years brought about complexities around my insider position. In the initial stages of fieldwork, I noticed how participants struggled to talk about past disaster experiences and to suppress their memories; they would say things like 'you can ask anyone how devastating disaster experiences are,' indicating they all had a similar story to tell. In such times, I empathised with them by sharing the difficulties that my father faced when operating in Lautoka, and this created a starting point for further conversations. At times, the challenge was to ensure that my own emotions were controlled both while sharing my father's story and when listening to their stories. Given that part of the talanoa focused on my own and participants' personal experiences with the impacts of natural hazards, I sometimes struggled with deciding when to ignore questions that could trigger emotions, as I was more concerned about the mental well-being of both participants and researcher.

The above reflections indicate how intensely personal my fieldwork experience was. In acknowledging my shifting positionalities and the interpersonal dynamics these raised, I also briefly shared the research process used to negotiate relationships in a respectful manner. In

what follows, I confront issues regarding representational authority and describe the methods adopted to address the contradictions of representing voice.

5.3.3. Ethical limitations

Issues of accessibility to participants were a major issue for my research. I had to negotiate with University of Auckland's Ethics Committee for approval to conduct fieldwork and gain access to participants with lived disaster experience. On the other hand, research participants negotiate the power dynamics of the relationship and thus have an opportunity to assert their power by refusing to participate or share information. What perhaps concerned me the most was my power to define 'knowledge', as often I was asked on how I was going to make change through my research or whether my findings would bring about any future good for the participants. These power dynamics led me to openly disclose my positionality as a researcher, discuss the knowledge production processes, and acknowledge the findings as part of a PhD thesis. Such overt questions made me more conscious of my limitations as a researcher.

My experience of working with individuals in policy spaces made me conscious of power relations. As a former employee of the Forum Secretariat and United Nations, I remain connected with individuals working in disaster management policy spaces for the private sector. Some of these individuals are in influential roles and actively engage in decision-making spaces for the state and the region. However, despite knowing them personally, meeting with people of such influence was a challenge, as they were concerned about their job security if they mentioned something against the organisations they were employed by. For instance, getting them to openly talk about issues around the governance processes of working in the private sector was difficult, as their opinions could be construed to be that of the organisation rather than their personal views. Essentially, as a previous insider with knowledge about the projects and programmes that these organisations governed, I was able

to refer to non-public information and gather insights on shelved policies. Yet, despite this background, I was still considered an outsider from their perspective, as I was no longer associated with the organisation. They therefore treated me like any other researcher that may, whether intentionally or not, 'out' them. In such circumstances, I negotiated what was in the best interests of both my research and the participants. While these power relations did make me uncomfortable at times, I have learned from my experience of working in these organisations about bureaucracy and diplomacy.

5.4. Participant recruitment and participant profiles

Recruitment of participants in disaster research can be challenging due to the sensitivity of questions around personal experiences. However, an appropriate selection of participants is essential for an accurate representation of population of interest. Recruitment can be identified as a “dialogue between an investigator and a potential participant prior to initiation of the consent process” (Patel et al. 2003, p. 229). This section explains the processes for identifying and recruiting MSE and DMI participants, as well as the selection criteria applied to identify participants that closely represented the targeted group and met the scope of this study. In the latter half of this section, a profile of MSEs and DMIs is presented.

5.4.1. Identifying and recruiting participants

MSE owners and managers: The MSE participants were purposively selected using a two-stage approach: (i) an initial selection of individuals who owned or managed local small or micro enterprises and were willing to speak with the researcher (n=18), and (ii) then using a snowballing approach (Patton, 2014) to augment the sample size. I strove to optimise representativeness of MSE diversity in the final sample by recruiting participants according to a range of the following attributes: ethnic background, age, and gender of the owner/manager; business type and length of operation; and business location. I continued recruitment of MSE

participants till the point of data saturation – where no new information was revealed by additional participants (Guba & Lincoln, 1985). The recruitment of MSE participants began during the scoping study and usually I was referred to other business owners they knew who were more severely affected by climate-related hazards. I scheduled talanoa-style research conversations with MSE owners at a time convenient to them, which was usually after business operating hours.

Organisations implementing resilience-building initiatives for MSEs: In approaching representatives from these organisations, formal emails were sent prior to the fieldwork. In the successive stages of fieldwork, a formal letter and an information sheet were sent to potential participants. Overall, there was a favourable response to this request for assistance, with most contacts referring me to other potential organisations who they felt could contribute to my research, a method coined 'snowball sampling'. In total, 34 disaster institutions were recruited to participate in my study, with 21 of them confirming their support by email and the remainder recruited through referrals. The following types of institution were represented.

- i. **Government agencies:** Local government authorities (Ba Town Council and Ministry of Rural and Maritime Development & National Disaster Management) and **government-operated authorities** such as the National Centre for Small and Micro Enterprise Development, National Disaster Management Office (NDMO), the Reserve Bank of Fiji (RBF) and the Fiji Business Disaster Resilience Council (FBDRC).
- ii. **Insurance companies and brokers:** All three major insurance companies in Fiji and two insurance brokering companies.
- iii. **International and regional development/ aid organisations:** Several UN agencies and regional development agencies that provide disaster risk-reduction support to the private sector.

It is worth noting that resilient-building interventions for MSEs are expected to significantly differ between the types of organisations mentioned above. For example, development agencies are known to mediate and influence the behaviour of government organisations through their policies and funding. Likewise, large-scale private sector organisations such as insurance companies focus on specific types of intervention.

5.4.2. Selection criteria for MSE recruitment

The selection of MSEs was based on the classification provided in Section 5.4.2 that categorises business type based on number of financial employees and financial turnover. However, since information on financial turnover of MSEs was difficult to obtain, due to the data sensitivity issues, I used the number of employees as the sole criterion to select my sample. All MSEs selected for talanoa fell under the micro or small business category.

Like many other qualitative disaster studies, my study draws on a non-probabilistic purposive sampling technique (also known as selective or subjective sampling) for participant selection (see Yila et al., 2013). For instance, Yila et al. (2013) selected communities from Ba that had a long history of being affected by floods. Generally, purposive sampling allows researchers to choose participants who would contribute meaningfully towards their research (Wu Suen, Huang, & Lee, 2014), and/or based on common characteristics participants possess (Creswell & Creswell, 2017). The researcher decides what needs to be known and specifically seeks participants who can and are willing to provide relevant comment on the issue of interest (Creswell & Creswell, 2017). Although the recruitment of participants using purposive sampling techniques tends to suffer from selection bias, Rivera (2019) and other social science researchers have established that purposive sampling is best used in exploratory research when intending to develop a more in-depth understanding on issues of interest (see also Braun & Clarke, 2013; Patton, 2002). Simply stated, the subjective nature of purposive sampling is

not to convince readers that the sample is representative of the total population but of pragmatism. For my study, the choice to engage in purposive sampling was also dependent on two key factors. From an accessibility perspective, I am from the Western Province of Fiji and have maternal connections to Ba, as articulated in Section 5.3.1. Also, over the years, I have worked with development agencies with whom I have established good relationships. Therefore, leveraging off my personal connections complemented the selection of sampling method. Second, the choice of purposive sampling was deemed contextually relevant in my study because of the sensitivities associated with discussing disaster experiences. One may not find it comfortable to openly discuss such experiences with someone they had met for the first time.

5.4.3. Profile of MSEs interviewed

A total of 59 sole proprietor MSEs (51 micro enterprises and 8 small enterprises) in Ba Town were purposively selected for the talanoa-style research conversations²¹. The selected sample distribution by sector was as follows: retail firms (22%); automotive (30%); manufacturing (6%); professional services (6%); and hospitality (36%).

Geographically, 53 businesses were located (Ba main town and market subdivision) within a one-kilometre proximity to the Ba River or to the creeks that run through the central part of the town. The remaining six were located on the upper end of the Ba town, an area not prone to flooding, yet exposed to cyclone risk (see Figure 5.2). MSEs operating in both locations were chosen purposively to compare the differences in impacts and resilience-building processes to climate-induced hazards.

²¹ The talanoa-style research conversations were held with MSE owners, but in the case of six small businesses, managers were interviewed with the permission of the owners.

Table 5.1: Participants' years of operation in current location (n=59)

Years of operation	< 2 years	2-5 years	6-10 years	>10 years
Number of participants	10	21	12	16

With regard to tenure status, the majority of participants (52) rented or leased their building, while the remaining seven had inherited ownership through family. Participants who owned the building were mostly small businesses. Businesses under two years of operation accounted for 16 percent of the sample; between two to five years accounted for 36 percent; between six and 10 years accounted for 21 percent; and over 10 years were 27 percent (see Table 6.1 below).

Among MSEs who participated in the talanoa-style research conversations, gender and ethnic diversity factors were also critical. In total, 23 females, 34 males and 2 non-gender binary business owners took part. The sample is biased towards men, which can be explained by the widespread customary practice of women staying home to do housework and look after children. There were also challenges in recruiting ethnically diverse participants because most of the business owners in Ba were of Indian or non-iTaukei ethnic background. Accordingly, 80 percent of the MSE owners were Fijians of Indian descent, 15 percent were Fijians of other descent, and the remaining 5 percent were of iTaukei descent.

A large majority (53 of the 59 MSEs interviewed) employed only one or two staff members who worked full-time or part-time, of which most were extended family members or friends. The remaining MSEs had no employees other than the manager or owner. While financial information about MSE businesses were not provided, the talanoa-style research conversations revealed that their primary costs were rent, employee salaries, stock, electricity, and water. In relation to rent, most had some form of formal agreement that was negotiated

with building owners. However, the upkeep for their premises and fixtures was placed upon them as occupants of the building. **Appendix A** provides details of business category and other relevant information as discussed above.

5.4.4. Sample of organisations supporting resilience-building of MSEs

As stated in Chapter 1, the inclusion of organisations supporting resilience-building initiatives is to provide an in-depth understanding of the overall impact and effect of these institutions on the experience of MSEs. A total of 43 organisations were approached to be part of the talanoa-style research conversations for my research; however, only 34 responded to the requests. The distribution of participants by organisation type are as follows: (i) ten participants from government organisations (ii) three participants from regional political and economic policy organisations; (iii) ten participants from international and local development partners; three participants from insurance companies; (iv) two participants from financial institutions; and (v) four participants from national private sector representative organisations. Geographically, most of the participants from organisations supporting DRR were based in Suva (capital of Fiji), but four were situated within the case study site. The organisations located within the case study site were mostly responsible for DRR governance at the municipality (district) level. For ease of reference, I categorised these organisations within the sector of disaster management, thus the use of acronyms – DMI (disaster management institutions).

5.5. Data collection methods

The data collection methods for my research were guided by the research questions, the literature review (Chapters 2), and the theoretical framework for my research (Chapter 3). Talanoa, direct observations, and feedback from the validation workshops were key sources of data. These methods were complemented by analysis of policy and programme documents related to disaster management in the private sector. Each method is discussed in detail below.

5.5.1. Talanoa-style research conversations

During the fieldwork, I conducted 93 talanoa-style research conversations; 59 were with MSE owners and 34 with senior officials from several organisations involved in building MSEs resilience to climate hazards (list of participants in Appendix A). For MSEs, the talanoa conversations focused on owners' experience in dealing with the impacts of climate hazards and their response and recovery strategies to such events, whereas for DMI's (see Section 5.3.2 for details), the conversation was framed around understanding their roles and the various MSE focused resilience-building initiatives.

All research participants were briefed at the beginning of the talanoa process. Informed consent was obtained by stating the purposes, the methods, and the ethical considerations of the project in detail. To facilitate the consent process, I developed information sheets for the participants in their local language (see Appendix C).

Although talanoa is participant-driven, its approach is semi-structured in the sense that the discussions are framed using guiding questions. Two different sets of guiding questions (one for MSEs and the other for DMIs) were prepared to guide the discussions. However, I would usually let participants talk about their own stories and probe for clarification only when needed. For example, during a talanoa-style research conversation with a MSE participant, I asked whether he could share about his experiences of dealing with hazards while operating in Ba. He started to share how thankful he was to still be alive and then went on to share pictures of how life-threatening flooding events have been for him. He used a photograph to then talk about the damage sustained from a particular flood event and what he had done to save his business.



Figure 5.3 Damage from April 2018 floods (Source: Research participant, 2018 – consent obtained for using photograph)

As evidenced by this example, talanoa is a holistic and embodied amalgamation of knowledge, emotions, interest and experiences between the researcher and the participants. Usually, talanoa is carried out with the understanding that local knowledge systems are in a constant state of flux and are perpetually negotiated alongside new knowledge and ways of knowing (as acknowledged in Section 5.2.1 and 5.2.2). Culturally, talanoa sessions are mostly held to enhance discussion on socio-cultural or sensitive issues (Vaiolati, 2017), or to amplify the voices of less powerful groups (Farrelly & Baba, 2019). In my research, talanoa prompted the sharing of narratives on how individuals were adapting to and coping with disasters, which helped shape the bigger story of building resilience. However, when using this approach, researchers need to be self-aware of sensitive issues regarding local context or issues related to the field of disaster resilience.

Reflexivity Note 3: The talanoa process

Administering the talanoa-style research conversation for data collection was largely an exercise of learning by doing and reflexivity. Generally, talanoa dialogues are unstructured but when used by researchers, conversations are bound to be centred around a particular thematic area. Therefore, some scholars might argue that it is somewhat structured. At the beginning of the talanoa, I provided participants with a brief introduction about my research and issues around human ethics. I then asked participants to share their experience (if any) from a past flood or cyclone event and how that had impacted their business. Participants would generally start with discussing the impacts, and I would probe using the set of guiding questions or when something in the conversation required more insight.

On average, a talanoa-style research conversation lasted for about one and a half hours, the shortest taking an hour and the longest over two and a half hours. I was concerned that the length of talanoa-style research conversations may exhaust the participants, but participants stated it did not feel long as it was more of a conversation. As part of the dialogic process of talanoa, I checked on participants during the talanoa to see if they were comfortable to continue. I was conscious of the risk that sharing about traumatic experiences from a disaster could potentially release emotions, which is detrimental to the well-being of the participants. Therefore, I continuously gauged their body language while listening and the pitch of their voice, to stop discussions if needed until they were comfortable to continue. I also consulted with colleagues working in counselling services to provide me with a list of referral services should the participants require assistance. Overall, it seemed that the talanoa was not only an avenue for participants to share their stories but also confront emotions of loss, anxiety and fear developed from past disaster experiences.

Lastly, the talanoa-style research conversations were conducted in the first language of participants (i.e., Hindi or Fijian). For the purposes of transcription, all talanoa-style research conversations were audio recorded, after permission was granted.

5.5.2. Document analysis

As a supplement to the talanoa-style research conversations, document analysis was conducted to understand the research context and identify knowledge gaps from past studies that explored the disaster resilience of MSEs. During fieldwork, I had also gathered many confidential documents (project documents, government reports and meeting records) that were not available in the public domain, yet relevant to my study.

I was fully aware that most documents were produced for a specific context and purpose; thus, an element of scholarly bias existed in the analytical process. The documents selected for analysis were directly relevant to the research problem and the conceptual framework of the research. The authenticity, credibility, and the extent to which these documents cover the topic broadly was also considered.

5.5.3. Direct Observation

Direct observation is generally associated with exploratory research objectives that underlie observable actions (Creswell & Creswell, 2017). This technique is non-obstructive as the researcher plays a non-participant role in observing types of behaviour, process, interactions, or activity that serves the research needs (ibid). Usually, direct observation techniques take a structured or unstructured form. As explained in Section 5.3.2, direct observation methods were used to gather an intuitive understanding of the context in which businesses operated and the private sector disaster management policy processes. This process also provided me with the confidence to interpret my results. In the view of Creswell and Creswell (2017), direct observation is also considered appropriate for triangulation, as data collected via one method can be verified with observations. In my study, observations were recorded as part of field notes and memos.

In terms of research processes, for site visits, I had sought verbal permission from the owners to walk through their premises and take photographs of physical damage and disaster measures in place. Usually, depending on the site itself, the observational process took around 15 to 20 minutes. For the international, regional, and local meetings, I had sought accreditation from the Fijian Government and was required to attend all briefings before, during and after events.

5.6. Data management

The talanoa-style research conversations were recorded using a Livescribe smartpen and a digital voice recorder. The additional copy was to ensure that back-up was available in case a recording was unclear. Recordings were then transcribed and checked against the audio recordings for accuracy or missing data. However, caution to not overestimate the reflective qualities of interview transcripts was exercised by documenting my reflections as memos rather than within the transcript (Creswell & Creswell, 2017).

Considering that the talanoa approach was used, there were many 'non-verbal cues' (e.g., emotional pauses), which were partially captured during the transcription phase using 'thick descriptions' and notations to indicate the particular action. For direct observation, field notes documented in my research journal were transcribed for further analysis. When documenting observations, I had to make careful interpretations about what I had heard or seen. Doing this helped me to manage data in a meaningful way and my interpretations.

The other step in data management was to derive data from my reflexive and interpretative reading of the transcripts. In managing this process, I relied on my insider knowledge to draw on my perceptions and experiences documented from my field notes. Usually, I would summarise my day-to-day account and then later re-read the notes to analyse my interpretations. However, the challenge associated with reflexive reading is explicitly recording

how I arrived at those interpretations and consistently questioning my assumptions. Nonetheless, this process helped to develop the operational framework for data analysis discussed in the next section.

5.7. Data analysis

The analysis of data was assisted through the extensive use of Atlas.ti, a computer-assisted qualitative analysis software (CAQDAS). I used this software as it was considered more time-efficient compared to traditional methods of analysis, particularly during the iterative coding process (see Section 5.6.1 below). I also found the functions of the software very efficient as it helped me organise codes in a synthesised manner, which were then analysed. Often, the use of a software is confused with the role of the researcher; therefore, it must be acknowledged that I did the analytical work, while the software simply aided in organising, coding, and linking data sources.

Talanoa-style research conversations are a central part of my study, as they provide useful raw data on how MSEs have built resilience, as well as about the roles of those people who govern resilience-building initiatives²². Thus, most material used in Chapters 6 to 8 consists of comments made by participants. Social science disciplines that employ ethnographic research methods explain that researchers often use the voices of informants in a casual manner, which entails 'giving' words to the individuals they quote, because they assume that the participants had difficulty in expressing what they 'really' meant. or to clean up the grammatical idiosyncrasies (Carstensen-Egwuom, 2014; Phillips & Phi, 2014). While many scholars may have no objection to this process, it does have implications for those studies that rely on

²² Although the research had a well-designed theoretical framework, the overall direction of this research emerged from the morass of talanoa and observations during the field visits.

quotations to explain in detail the liberties which researchers have taken with them. In this thesis, excerpts are reproduced in full; however, at times some material from long passages was removed to condense statements. The evaluative element includes the comments made by the participants during the validation workshop, as well as the observations made during the fieldwork.

In terms of interpretation of data, the study employed an explanation-building technique (a form of pattern-matching), whereby analysis of data was done through a close reading of field notes, followed by thematic analysis. Thematic analysis is a qualitative analytic method that has been "used to identify, analyse and report patterns (themes) within data" (Braun & Clark, 2006, p.79). This method "minimally organises and describes data sets in rich detail; however, it goes further than this and interprets various aspects of the research topic" (Braun & Clark, 2006, p.79).

This method was preferred for my study because a rigorous thematic approach to the data can produce insightful analysis of the research questions. It also allows for a systematic review of the data, allowing the research process to be explicit and replicable. For my research study, the explanation-building technique complements the investigation of the data collected, from two perspectives:

- i. The data-driven perspective, in which information is coded inductively.
- ii. From the deductive perspective, in which the development of analytical claims is guided by the established links between the themes, the research questions and the conceptual framework of the study.

The inductive approach complements the constructivist paradigm of my research because the knowledge (findings) emerged from the frequent, dominant, or significant themes inherent in the data. According to Thomas (2006) the inductive approach condenses extensive and varied

raw data text into a summary, and also establishes clear links between research objectives and the findings derived from raw data.

5.6.1. Iterative data coding process

Two cycles of coding were conducted during the analysis phase. In the first cycle, 'In Vivo' and 'Open' coding methods (Saldaña, 2015) were used to look for potential categories in the transcripts and the documents relevant to the research questions. I then reorganised these categories by going through the initial codes and the accompanying quotes. The field memo notes were also incorporated in these categories, and in some instances had to be documented as a sub-category. For instance, all information concerning preparatory stages was coded 'pre-disaster', which was then refined using a secondary set of codes.

In the second cycle, I employed a 'pattern coding' technique (Saldaña, 2015), whereby I searched for commonalities and differences among the codes. This step required detailed reading of the data while at the same time drawing on the categories already identified in prior reading of literature (Chapters 2 and 3). Next, these categories were thoroughly examined and organised with themes emerging from my interpretations. This analysis was closest to an interpretive and reflexive reading which Mason (2002) explains as "constructing or documenting a version of what you think the data means or represents, or what you think you can infer from them." (p.149). The thematic categories helped structure the analysis presented in the later chapters of this thesis.

5.6.2. Audit trail

An audit trail refers to the step-by-step documentation procedures of how information is handled (Creswell and Creswell, 2017). In my study, various cycles of coding were conducted using different coding approaches. For instance, in support of the explanation-building techniques, I employed descriptive, process and affective coding methods in the first cycle of

coding to group codes according to categories (themes) based the research questions (Saldaña, 2015). These categories were refined through the second cycle of coding. In the steps following the coding process, code maps and query functions were used to assist with the analysis.

5.6.3. Analytical notes

As explained by several scholars, the coding and analysis processes co-occur, with each process continually refining the other (Braun and Clark, 2006; Saldaña, 2013). This iterative process can become quite overwhelming but can be managed with analytical memos. Therefore, throughout the coding process, I used analytical notes to link codes, question my thinking process, document emergent themes, create potential queries, and reflect on the knowledge production process. This iteration, in turn, aided in refining my coding process and became an essential resource for drawing out themes. This process, along with my reflexive entries, brought together disparate aspects of the data into more coherent meanings.

5.8. Transferability, trustworthiness, and reliability of a single case study

“From the moment the researcher engages in the research project, to the probing and asking of questions, through the transcription of field notes, the voices of participants have already been interpreted” (Hesse-Biber & Piatelli, 2007, p.143). Hesse-Biber and Piatelli suggest that researchers have considerable power in interpreting findings even with the adoption of participatory methods. This influence of researchers can problematise not only who has the agency to speak in the research, but also who wields the authority to do so.

Throughout the research process, my supervisors and colleagues in the Development Studies discipline queried the process of formulating findings and whether it had adequately represented my participants’ perspectives. As acknowledged earlier, the knowledge co-

production process is contingent upon the social context in which research is conducted. While conducting fieldwork, I acknowledged my positionality in relation to the research, including concerns about issues of reciprocity and representation. Beyond that, I documented research encounters and the ways in which my positionality was being negotiated.

Scholars have often raised issues concerning the transferability, trustworthiness, and reliability of results in qualitative research (Saldaña, 2015). Traditionally, notions around transferability and trustworthiness are closely tied with positivist research practices, where binding laws are assumed to emerge or correspond to the observable reality (Creswell et al., 2017). Drawing on the objective of transferability, I acknowledge that the results may not be generalisable to other MSEs; however, the narratives provide a plausible understanding of the processes embedded in building resilience. Further, the study offers more than a detailed description of a localised case. The documented experiences refer to common disaster management practices in Fiji, which may apply to MSEs operating in other locations around Fiji that experience similar types of disaster events, or to other locations with similar geo-physical and structural characteristics, as well as similar socio-cultural-political situations.

In some qualitative studies, researchers deviate from controlled research settings (Saldaña, 2015). As such, trustworthiness depends on "information richness, the analytical skills of the researcher and the plausibility of how well interpretations fit with data" (Waitt, 2005, p.178). During the research, I conducted talanoa-style research conversations with several disaster experts as well as MSEs, which provided multiple perspectives. At the end of the fieldwork, interim analytical summaries were presented to the principal supervisor of my research for discussion. I then cautiously analysed transcriptions and recorded reflexive notes for my interpretations. However, as explicitly indicated earlier, I had selected quotes that best represented my analysis shared in the results chapter. For example, there were several MSEs talking about traditional knowledge as a factor of social capital to support both preparedness

and recovery. However, despite the many quotes, I selected one or two quotations that provided examples and that I believed were well articulated.

Further, in terms of enhancing the validity of findings, several methods recommended by Guba and Lincoln (1985) were adopted. First, data triangulation was carried out during the data collection and analysis phase. For instance, talanoa data from key informants were compared with data from documents collected from the field. Second, respondent validation workshops were conducted to ensure that the voices of participants were balanced and reasonably accounted for in the interpretations. Third, reflexive methods, as explained in the earlier sections, were a large part of the data collection and analysis phase. These approaches aided in organising themes and generating understanding of contextual evidence.

Moreover, the issue of reliability is less of a concern in my study as the intention is not to produce findings that can be duplicated. Nevertheless, to ensure that the information extraction process was done consistently and rigorously, the research process and its conceptual logic are made transparent in Section 5.3.2.

5.9. Summary

This chapter focused on the epistemological and methodological approaches used to formulate the research inquiry. In understanding the research approach, social constructivism and its application to my research were discussed at length. Issues of insider/outsider positionality and the application of ethics in research were also explored in terms of their implications for my research. Finally, to contextualise the knowledge production process, this chapter discussed the research design, the data collection methods, and the means of data analysis. My research drew on three tools: (i) talanoa-style research conversations, (ii) document analysis, and (iii) direct observation. The reasoning for using purposive sampling for talanoa-style research conversations was also discussed. The next chapter provides

empirical evidence on how MSEs in Ba Province have been affected by disasters, by drawing on the thematic analysis of interviews, documents, observations from the field, and my own reflexive journal entries.

Chapter 6: “They come, they destroy, they leave” – MSE perspectives on climate hazard impacts

Over the last two decades, disaster researchers have explored understandings of how climate hazards such as flooding have affected diverse industries within the private sector (Ghaderi, Mat Som, & Henderson, 2015; Tierney, 2007). However, despite acknowledging that MSEs are a critical player within every industry of the private sector, existing studies, including global reports on climate change assessments (e.g., IPCC Assessment Reports) have ignored MSE owners’ perspectives. To address such knowledge gaps, this chapter explores the research question - How have climate hazards affected or impacted MSEs in Ba? - to identify the factors that contribute to or constrain MSEs from becoming resilient to climate hazards.

The chapter starts with a brief profile of the MSE owners who were interviewed, and then describes disaster experiences and impacts that MSEs have. An examination of the varying impacts clarifies the operating environment of MSEs and how vulnerabilities towards floods are exacerbated by the built environment. This chapter forms the foundation to understanding how MSEs have been affected, and the extent of coping and adaptive strategies adopted that will be presented in Chapter 7.



Figure 6.1: Flooding in Ba town on 1 April 2018 (Source: Sivendra Michael, Fieldwork, 2018)

6.1. Reflecting on past disaster experience – perspectives of MSEs

In Ba, climate-induced disasters, specifically floods, are a part of MSEs' everyday realities. These businesses have been experiencing floods for over six decades, with some of them having to relocate or shut down their operations as they are no longer able to cope with the varying levels of impact. During the talanoa-style research conversations, a majority of MSE participants expressed feelings of being “neglected” and “forgotten” by the outside world because of the assumption that businesses are ‘profit-seeking’ agents, thus they would be able to recover the losses incurred. They felt that the inadequate attention of the government and development partners to address the ongoing flood problems served as a clear indication that they did not care about how business survived. While sharing her views on being neglected, a footwear and tailoring shop owner operating in Ba for the last 30 years said:

We are invisible in the eyes of our government. What we experience during the floods and how we survive is never a concern for anyone apart from those that experience the same pain as us. I was shocked when you told me that you came to learn about my experiences because no one in the last 30 years has even bothered to ask if I was doing okay [stops speaking with tears in her eyes]. (MSE003)

An important aspect of MSEs' grievance is their untold lived experiences of coping with floods, let alone the everyday struggles of sustaining their operations. The study by Kothari and Arnall (2019) draws attention to everyday life as a means for understanding environmental change to illuminate how “nature” and “society” are intimately connected and sustained on a day-to-day basis (p.132). However, they argue that the everyday tends to get neglected because it is often regarded as “less relevant...to the grand task of understanding broad forces of changed within fields of climate and sustainability science” (Kothari & Arnall, 2019, p.131). Supporting the argument of Kothari and Arnall, my study underscores the urgent need to unpack the lived experiences of MSEs in dealing with disasters, which are ubiquitous and largely misconceived

in policy. Reflecting on his experience of dealing with floods, a bookshop owner operating in Ba for the past 72 years said:

I have grown up with these floods and I was taught that running a business in Ba should never be taken for granted. We deal with these floods as they come and go. They either destroy everything, or they spare us. We will never be safe operating in a flood prone area and that is a reality we must accept. Some people might think losing stocks can easily be replaced because it is material, but they must also realise that it is our livelihood. (MSE021)

Disaster situations are inevitably emotionally laden and affectively charged environments (Navaro-Yashin, 2012). As such, MSE owners, like other disaster survivors, are subject to emotional responses such as trauma, anxiety and fear when operating in a flood-prone area. For instance, a gift shop owner operating in Ba for five years stated:

[I]n 2009, I almost died during the floods. We had flash flooding at early hours of the morning, and I got stuck inside the shop while trying to save my items. My husband could swim but I could not. He swam out and got me help just in time or else I do not know if I would be alive today. (MSE053)

It is also critical to note that MSE participants linked emotions to flood types. During the talanoa-style research conversations, participants had made distinctions between big and small floods while describing their emotional response. For instance, MSEs categorized ontologically significant or “big” flood events with terms like “devastation” and “chaos.” For instance, the gift shop owner who used the terms “terrifying” and “given up” to describe the frightening scenario of a rescue during the 2009 flood. She also described flood as a “sorrowful moment” when sharing about going back to inspect her premises in the aftermath of a flood. In another example, the owner of a seafood shop operating in Ba for eight years described flood risks as threatening the sustainability of her business. She explained that big floods have caused long-lasting challenges to her beliefs and assumptions about risks. For example, when

sharing her experience from the 2012 floods, she said “I can never feel normal ever again and flood risks are always in the back of my mind” (MSE035). She also acknowledged her reliance on the society to protect her business by stating “we can’t cope if it was not for the people of Ba”.

It is worth noting that my study was conducted five months after two tropical cyclones (TC Josie and TC Keni), which triggered three consecutive floods; thus, the impacts reported by participants are more likely to be associated with their recent flood experience rather than an objective assessment of effects of previous flood events. As argued by Berkhout et al. (2004), individuals find it difficult to interpret climate stimuli unless there is an appropriate frame of reference. Before discussing the impacts of the flood events, the next section expands on perceptions of floods worsening over time and from diverse causes.

6.2. Contested understanding of flood causes

Flood issues in Ba are not well understood due to the lack of scientific data made available by relevant authorities (Yeo, 2013). Drawing on my interviews with representatives from the Fiji Meteorological Office (FMO), the NDMO, as well as the MSE participants, emphasis was placed on the need for long-term hydrological information to address existing flooding issues. In emphasising his point on the importance of using past records for planning, the NDMO official referred to the study of Yeo et al. (2007), saying:

Stephen (author Yeo’s first name) and his colleagues compiled 111 years of flood data on Ba River, but sadly neither the FMO nor we [referring to NDMO] have utilised their data to forecast flood frequencies or inform urban planning in Ba. It is an overlooked issue.

While recognising the missed opportunities to use historical data, the NDMO also confirmed that there were several projects through the UN agencies and SPC around strengthening of

forecasting services, but the extent to which these interventions have addressed flood problems is yet to be seen. In expressing similar sentiments, Yeo (2015) emphasised “[f]or a town of its size, and given the frequency and severity of flood damage, it is surprising that Ba is not serviced by an automatic gauge, or at least, by an official manual gauge that monitor floods” (p.17). He reiterated that (p.17):

[I]n installing technology provides no assurance that it will be maintained or read, or that hydrological data will be archived to extend this Ba River flood series going forward. It is sobering that no Fijian Government department documented the heights of the severe floods of 2009 and 2012 at Ba. Clearer definition of responsibilities, with appropriate training, and ongoing resourcing, need to be provided to ensure this essential hydrological data is not lost.

MSE participants expressed concerns towards the inability of disaster management institutions to develop solutions for the flood crisis that has continued to affect the people of Ba for decades. Participants mentioned that it was unusual for flood events to occur every year, let alone three times in a month. Additionally, they mentioned that the number of times the town had experienced flood events within a year had also increased, although not all these events were categorised as major flood events by NDMO (MSE001, MSE007, MSE033, MSE039). Aside from these common perspectives, MSE participants also mentioned that the duration of rainfall and the rapidity of flood waters rising compared to the past (MSE009, MSE018, MSE020, MSE031). For example, sharing his experience from the recent flood event, an automotive car parts owner operating in Ba for 16 years said:

The April 2018 floods happened so fast. In 2009, I recall that it had rained for almost 3 days before the town got flooded. At that time, we anticipated floods because it rained continuously, and the flood levels increased gradually. But this time (referring to April floods), it only started raining heavily on the evening of March 31st and by 8am, the main street was completely flooded with water levels as high as the 2009 floods. (MSE009)

This owner went on to explain that it was uncommon for the town to get flooded at levels above 4 feet (circa 120 cm) with less than twelve hours of rainfall. He stated “I still cannot believe that flood waters rose so fast with just a night of rain. Obviously, there is something wrong somewhere.” (MSE009)

When I asked participants why the floods were becoming so frequent and intense, they provided various reasons which can be broadly categorised into natural, human-made, or supernatural. Narratives reflecting their perspectives are summarised in the table below.

Table 6.1 Participants reasoning for more frequent and intense flooding

Cause Type	Participant Perspectives	Participant References
Human-made	Sea level rise related to climate change	MSE014; MSE039
	Extreme weather conditions caused by climate change	MSE027
	Subsidence of the delta caused by human interference, such as excessive extraction of groundwater	MSE016; MSE022
	Improper logging practices in the upper stream areas	MSE050; MSE027
	Lack of dredging of the Ba River	MSE018; MSE045
	Increase number of infrastructure projects in floodplains	MSE0004; MSE045
	Attitudes of complacency by public in terms of poor waste disposal practices	MSE011; MSE045
Supernatural	Punishment from God for the sins of the people	MSE003; MSE056

Explaining the rationale on climate change, participants shared observations on recent increases in rainfall intensity, and frequency of Category 4 and 5 cyclones in Fiji such as Tropical Cyclone Winston and Tropical Cyclone Keni (MSE 014, MSE027, MSE 039). There was also a general observation that flood events associated with cyclones may not be considered severe, but the force of the wind made flood currents stronger, thus resulting in similar degrees of impact to those from a major flood event.

Likewise, a manufacturing suppliers distributor that closed after the April 2018 floods claimed how the construction of the Vaturu dam in 2015 contributed to frequent flooding events in Ba. In expressing his perceptions of flood causes, he commented:

The workers at Vaturu and Monasavu dam had told us that they release excess water to prevent the dams from getting damaged. We are not sure what the technical reason is behind releasing excess water, but someone needs to investigate it. People have been saying that the reason why Ba town experiences more flash floods is due to the dams releasing water. (MSE026)

Besides the construction of the new dam at Vaturu, Ba, MSEs also attributed flood causes to ongoing infrastructure development projects to accommodate more businesses (MSE016, MSE023, MSE028). These participants explained that in accommodating development forays by donor agencies, the town council had approved construction of building in high-risk flood-prone areas, which was believed to have blocked waterways during floods. The owner of a café located in the newly constructed building since 2019 commented:

The town council did not assess the risks posed from the infrastructure projects despite knowing the everyday realities of flood. Now, whenever we get floods, we (the tenants in that building) are worst affected because we are directly in the pathway of where the floodwaters leave the town. Since the launch of the building, it has never been fully occupied, so what is the use of having an empty building? (MSE028)

When I asked the representative of the Ba Town Council to identify examples of poor development decisions, he mentioned that flood risks were taken into consideration during the construction phase and geo-spatial maps produced as part of the environmental impact assessment (DMI001). However, while explaining further, he stated that “the pressure to build in areas at risk of flooding was beyond the control of the municipality due to the lack of alternative spaces” (DMI001). These comments related to lack of alternative spaces do not justify the fact that poorly risk-informed development practices have created greater risks for

MSEs, which in this case are victims of a capitalist development project appropriated by agents of power, in this case the donor agencies.

6.3. Impacts of climate hazards on MSEs in Ba

The relationship between natural hazards and development has been a central theme in disaster scholarship. MSEs typically experience short-term impacts such as property damage, the destruction of assets and stock, business interruption inside the flooded area, and electricity shortages, as well as long-term impacts such as trauma and business closure, which tend to be neglected by researchers (Davlasheridze & Geylani, 2017; Samantha, 2018; Wedawatta et al., 2014). It is also worth noting several factors that increase the exposure of MSEs to flood impacts, such as MSEs' inherent characteristics (size, age, location, and type), reliance on external infrastructure (transportation, supply chain), risk perception/attitude of owners, and access to financial, social and institutional support (Alesch et al., 2001; Verrest et al., 2020; Wedawatta & Ingirige, 2012; Wishart, 2018). Figure 6.2 below provides a visualisation on the interrelatedness of flood impacts on MSEs in Ba.

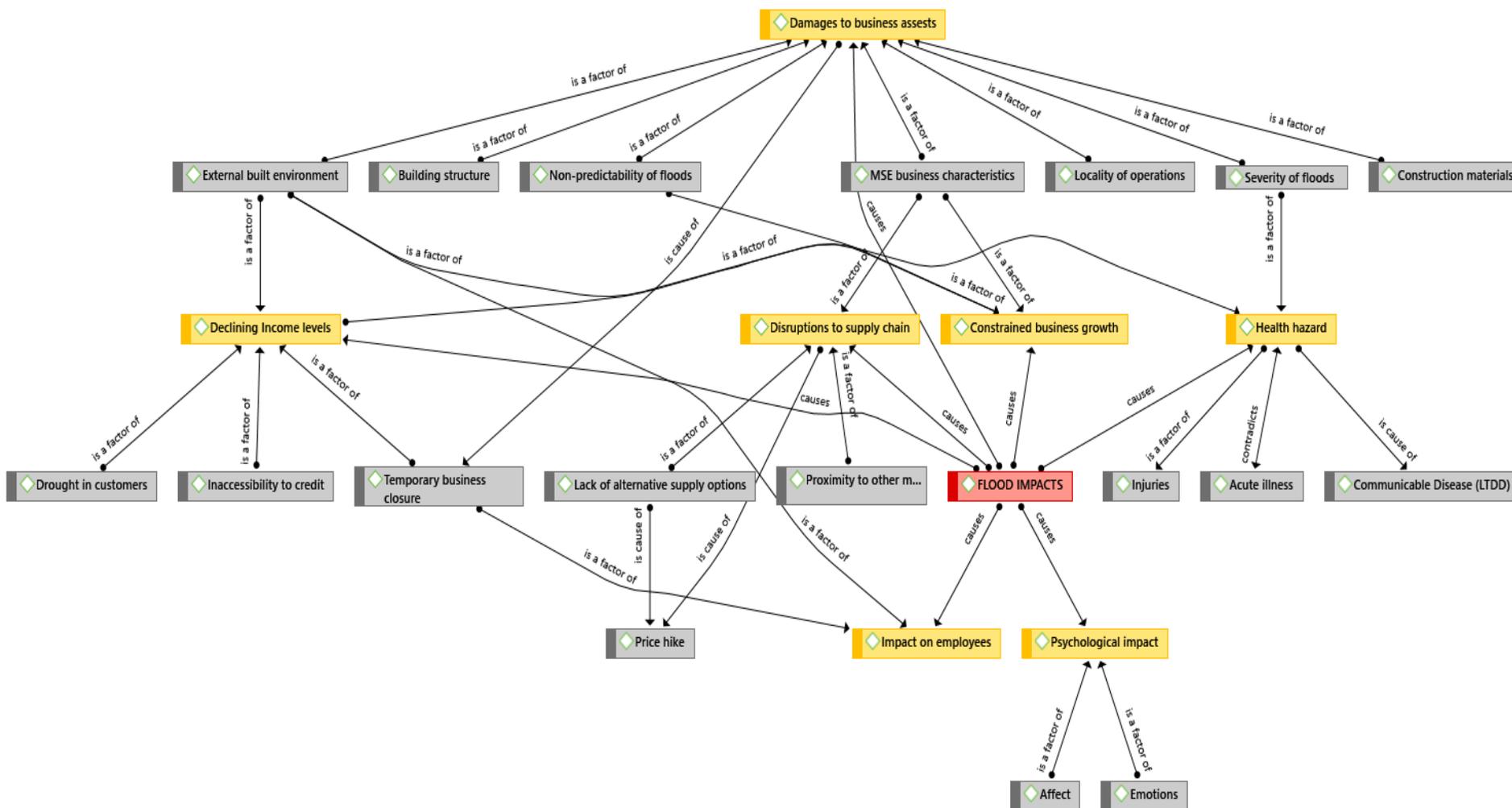


Figure 6.2: Analysis of flood impacts on MSEs in Ba (Source: own thematic code analysis using Atlas.ti)

In the following discussion, I draw on the experiences of MSE participants to expand on the varying levels of impacts from flood events, integrating MSEs' perceptions of the factors that exacerbate impacts to offer an understanding on how MSEs perceive their own vulnerability. This is a novel way of looking at disaster impacts, where prior studies have categorised impacts and factors of vulnerability separately. I discuss direct and indirect impacts under major themes that emerged out of the talanoa-style research conversations. I show that disruption to business performance is exacerbated by transportation system damage. Likewise, governmental action such as cordoning off highly damaged areas can directly affect business performance. In the same way, customer turnover is dependent on a range of factors that can be linked to supply chain issues, health issues and temporary closure of business.

6.3.1. Damage to business assets

The talanoa-style research conversations with MSEs revealed that both flooding, and cyclone events inflicted severe structural and non-structural damage to the premises they occupied. In most cases, parts of their premises had been damaged due to the strong force of flood waters, or the wrath of cyclone winds. Typical structural damage reported by MSE participants included: (i) complete collapse of walls, particularly for those businesses operating in older buildings or semi-engineered buildings with plyboards; (ii) damage to water and sanitation infrastructure; and (iii) progressive damage to interior structures (MSE040, MSE043, MSE057). Describing the damage from the April 2018 floods, the owner of a barber shop that was no longer operational said:

We experience severe damage to our property because the buildings in Ba are relatively old. This town was built during the colonial days when construction materials may have not been designed to sustain the current levels of flood impact. My shop endured several 'major' floods since 2012, and finally in 2018, the exterior walls collapsed, which made the building no longer habitable. We had no option but to close our business. (MSE043)

Building structure (old vs new), construction materials (e.g., semi-engineered building with plywood) and “flood type” were perceived to be critical factors in determining the extent of structural damage. “Flood types” were assessed by MSEs not only on the water levels and extent of devastation experiences, but MSEs’ own experiences of surviving them.

In addition to structural damage, almost all participants reported moderate to severe damage to non-structural elements in their properties, specifically business assets and utilities. For instance, MSE participants running cafés and restaurants explained how flood waters had deteriorated the conditions of shelves, chairs, and tables, which eventually required replacement (MSE006, MSE008, MSE028, MSE057). Stocks, inventory, and equipment were common items that were reported to be damaged from floods. While reflecting on his recent experience of impacts, a restaurant owner operating in Ba for twelve years said:

Stocks and equipment items can easily get damaged from floods because we cannot determine with certainty the severity of the flood. During the April 2018 floods, I did not expect water levels to be so high on this side [the main street of Ba town] of the town. Also, the force in which the flood waters enter the town is also something beyond our control. If the riverbanks break, we can expect the worst. (MSE008)



Figure 6.3: Business owners cleaning out damaged stocks after April 2018 floods (Source: Sivendra Michael, Fieldwork, 2018)

Several others described damage to non-structural elements being dependent on the severity of flood and locality of the business. The MSEs explained that the market area, which was located close to the main river, had greater risk of stock damage, as flood heights are higher on that side of the town compared to the main street. However, the force of the flood waters was an equally critical factor. Business type was also a critical element in the varying levels of non-structural property damage. For instance, most MSEs owners in the automotive (part shops) and hospitality sectors (restaurants and café) reported more extensive damage to stock and equipment compared to others.

Furthermore, MSEs explained how damage to utility infrastructure significantly affected operations. Almost two-thirds of the MSE participants expressed frustration at how both floods and cyclones had disrupted power and water supply, which significantly damaged their electrical supplies. A clothing shop operating in Ba for five years commented:

The power and water infrastructure in Ba are poorly designed. During floods, there is a 99.99 percent chance that one of the powerlines or water pipes will get damaged, and because of that, the electrical circuits blow. It is indeed frustrating that the government would not take ownership to pay for the damage MSEs incur because of their non-resilient infrastructure. We end up paying for electrical repairs, including power restoration fees, which I believe is unjust and a money-making scam. (MSE034)

MSE participants went on to explain that it is mandatory for all businesses to get their power boards checked by a certified electrician in the aftermath of a climate hazard. They argued that the costs associated with the electrician and replacement of circuit boards should not be borne by them but by the government, which is responsible for investing in resilient utility infrastructure. While this argument offers valuable insight on how the external built environment can expose MSEs to greater harm, it also raises the important question on whether shifting responsibilities to the already vulnerable is a common strategy of building resilience (see Chapter 8).

6.3.2. Loss of income (declining levels of profitability)

Climate hazards contributed to major income losses for MSE businesses. MSE participants noted that major parts of the town are closed for up to three days in the aftermath of a flood event because authorities cordon off highly damaged areas from members of the public. During this time, the authorities, specifically the armed forces (Fiji Military and Fiji Police), would wash the town and remove flood waste (e.g., debris and mud), while MSE owners also cleaned up their premises. However, in the perspective of MSEs, the period of closure is an “additional expense” because, at times, they have to rent equipment for cleaning their own premises, such as water pumps, as well as buy additional labour and cleaning supplies, which are not recoverable until their daily income (sales) levels are restored.

MSEs participants noted that it takes almost two to three months for the town to get “busy as usual” (MSE017, MSE037, MSE041 and MSE046). The owner of an electrical supplies store used the term “drought in customers” when explaining how customers were reluctant to come to town due to transportation and health issues. Likewise, a café owner operating in Ba for seven years commented:

People do not have the money to come and eat in restaurants and drink coffees, they would just come and get the necessities and head back. This is because they are already struggling to cope. During the April flood, we made sales as little as \$10 or \$20 per day, so we decided to temporarily close till the number of customers in town had picked up. (MSE046)

Several MSEs estimated their sales in this period to be less than 20 percent of usual daily revenue (MSE 007, MSE 026, MSE041, MSE056). They attributed the reduction of customers in Ba as linked to the poorly designed external built environment such as transportation networks, bridges, and roads, which are often destroyed during floods. Sharing her perspective, a tailor operating in Ba for nineteen years said:

My customers call and tell me that they are unable to come to town because the roads or bridges in the area are damaged, and the buses would not go to those areas until the infrastructure is restored. Sometimes, they don't come back, and we have no choice but to treat potential income as bad debt. (MSE026)

MSEs also noted that, where alternative routes were made available to customers, the fares charged by those independent service providers were extremely high. This discouraged people from going into town. As emphasised by owners of café and hairdressing businesses, factors such as built environment, transportation services and influx of customers significantly affect profitability levels. These factors have also shaped critical business decisions such as the temporary closure of shops (see Chapter 7), which not only affected profitability levels (MSE037 and MSE029), but also meant laying off employees as a strategy to minimise costs (MSE029, MSE052, MSE028 and MSE019).

Although not many MSE participants openly talked about accessibility to financial credit (economic capital), those who did often referred to the reluctance of commercial banks to provide loans. They explained how financial institutions' credit criteria impeded their recovery (see Chapter 8), thus leading them to resort to coping strategies (see Chapter 7). Some MSEs had declared bankruptcy and ceased operations permanently because of their inability to recover the losses incurred from floods (MSE026, MSE043, MSE057).

6.3.3. Disruption to supply chain

In Ba, floods tend to inflict significant disruption to the supply chain, particularly for businesses such as eateries that significantly rely on fresh produce to stay operational. Restaurant owners described how the scarcity of products such as vegetables, meat and seafood had significantly affected their income. Seafood and vegetables supplied from local communities in Ba were difficult to acquire due to the destruction in transportation routes (roads cut off) and the farms of local suppliers being affected by flooding (MSE001, MSE015, MSE032 and MSE046). For

instance, a seafood restaurant owner operating in Ba for 23 years, in explaining about local suppliers being affected, stated:

Usually, we get our produce from market vendors in Ba but during the floods their farms are severely affected. Even our alternative suppliers are unable to deliver the goods because the roads between Ba and the highlands are cut off. (MSE015)



Figure 6.4: Flood impact on cabbage and eggplant produce in Ba province (Source: Participant, consent obtained)

Further, MSE owners explained that prices of fresh products are significantly inflated after the floods due to shortage of supply. The issue of ‘price hike’ is twofold. Firstly, MSEs incur additional transportation costs to acquire fresh produce from non-flooded communities, and second, they pay a higher price to suppliers that take advantage of the market supply shortage situation. A typical example of impact was mentioned by a restaurant owner who had to source vegetables from the capital and had to pay transportation cost of \$60 in addition to the vegetables worth \$150, which she claimed would have been half the price if purchased from local communities. The restaurant owner also mentioned “it is quite difficult to get hold of reliable suppliers that would not overcharge you because there are many that take advantage of such situations”. It was interesting to learn that despite the price hike issues within the supply chain, MSE were not able to increase their menu costs because it would deter customers from buying (MSE 015, MSE055, MSE057).

MSEs also noted that flood events also compromised quality of fresh produce. According to a few restaurant owners, buying seafood and vegetables after floods is always a “bargain on health” because of the low quality. These owners explained that floods caused major pollution, which affects the quality of soil for vegetable produce and seafood catch (MSE007, MSE015, MSE039). A restaurant owner describing the disruptions to supply chain said:

The quality of the vegetables like eggplants and tomatoes, or root crops like cassava and dalo are so bad after floods. It may look good from outside, but when we cut them up, it is all rotten inside. Also, buying seafood is a major health risk. Fish poisoning is a common issue after floods, and there are instances of death. So, it is really a bargain on health and life [if] we decide to take that risk. (MSE015)

Discussions during the verification workshop revealed that supply chain disruptions extended to delays in importation of goods. A group of MSEs from the automotive sector explained that their entire sector relied on suppliers in Asia for spare parts and accessories. Therefore, a delay in import because of closed businesses had resulted in loss of sales and customers. Sharing his experience, the director of an automotive spare parts shop stated, “we have been in situations where we have had to refund customers for the pre-ordered suppliers because they have opted to go to bigger suppliers and pay a higher price instead of dealing with prolonged delays.” MSE owners explained that this had created a negative customer view of their business, which ultimately could lose them customers.

Similarly, the sole construction MSE included in my study commented how floods had caused project delays because they were unable to acquire construction materials from local suppliers due to supply being prioritised for the government. The construction company owner, operating in Ba for eleven years, said “construction companies have major setback because suppliers prioritise government’s reconstruction needs of schools and public infrastructure. We only managed to get supplies after six weeks” (MSE059). As evidenced by disaster

literature, MSEs are on the lower end of the supply chain, thus have greater difficulties in accessing resources adequately.

6.3.4. Health impacts

Natural hazards can have direct and indirect impacts on the health of an exposed population. Although past studies on the relationships between hazards and health remains scant, post-disaster reports (Esler, 2016; Government of Fiji, 2009; NDMO, 2009) have emphasised issues of fatalities, injuries, communicable diseases, and acute illness. For the MSEs in Ba, flood events pose significant health risks because, as water levels recede, there are vast amounts of silt, mud, and debris, which leave behind a putrid smell. One participant said, “[after] the floods, the town looks like a war zone because there is mud all over. It really stinks.” Similar statements were made by several other MSEs, who explained that the smell is unbearable and caused acute illness (MSE012, MSE033, MSE037 and MSE044). A clothing store owner operating in Ba for four years mentioned that he had no choice but to bear the smell while cleaning, which resulted in respiratory problems. In the same vein, a restaurant owner operating in Ba for nine years explained that the putrid smell made her feel nauseated and lose her appetite. The participants asserted that even after the mud was removed and the town was washed, the smell had stayed around until the town was completely dried, which they argued was one of the reasons why customers did not come to town. They believed that the odour from the flood waters stayed around because the mud was contaminated by sewage and debris.

Floods are usually accompanied by wet and cold weather conditions, which cause short-term sickness such as flu (MSE 009, MSE012, MSE029). MSEs participants explained that often they are caught in the rain during and after the floods while either moving stock or cleaning up, and at times they get sick. In their perspective, such short-term sickness was normal and

could have been caused at any other time as well. In addition, some MSE participants discussed concerns about communicable diseases and epidemics of infectious disease (MSE004, MSE013, MSE020). Following the floods in Ba in 2009 and 2012, there was an outbreak of leptospirosis, typhoid fever, dengue, and diarrhoea (LTDD) cases (World Health Organisation, 2012). For instance, in the aftermath of the January 2012 floods, 51 LTDD cases were reported (Government of Fiji, 2012). Once again, MSEs argued that the water-related diseases were related to the contamination caused by sewage and debris. They explained how water is usually not safe for drinking following a flood, but it is not a cheap commodity, thus they have to resort to either rainwater or boiling water for consumption. While relating to her own experience, a restaurant owner operating in Ba for two years stated:

Despite people taking precautions, there is still a high likelihood of contracting waterborne diseases in places like Ba... [tears rolling down her face], my daughter lost her new-born son to dengue fever in 2012, it is not easy. (MSE033)

The most obvious direct impact on the health of MSEs affected by flood was injuries. Although, the injuries reported were not severe and did not require hospitalisation, there were effects on their physical well-being. Some MSEs reported that injuries occurred commonly during evacuation as people panicked and were disorientated (MSE008, MSE018, and MSE029). In addition, they attributed injuries to visibility issues, depending on the severity of the rainfall. A convenience store owner, for instance, complained about the built gardens around town that were not visible when submerged, resulting in injuries to her employees as they were moving stock out to the car.

It is also important to note, health effects of natural hazards are not purely of a physical nature. While literature on the emotional effects of disasters on MSE business owners is limited, my study argues that these untold experiences are a significant dimension of resilience. In the

next section, I bring to light the untold stories of the psychological effects that floods have had on MSEs.

6.3.5. Affect and emotions – MSE owners’ psychological struggles

There are diverse definitions of affect and emotions in social science literature. The term ‘affect’ has been often regarded as an unqualified ‘pre-social’ or ‘pre-subjective’ intensity that is felt by individuals but not necessarily articulated or named. In contrast, emotions are recognized as subjective intensity or energy brought into the ambit of the social feelings, which we know and name, such as anger, fear, grief (Thrift, 2008). However, I argue that viewing the two concepts in a dualistic way counters our understanding of the relationships between the two terms. Drawing on Barrios (2017), I argue that the affect is embodied in and through human practices and interactions, and emotions are an ‘affective experience’, which is expressed by people within a particular social-cultural milieu (Barrios, 2017). As such, the discussion to follow maintains that affect cannot be disentangled from emotion, nor from its relations to social and non-human environments.

MSE owners’ descriptions of their experiences were peppered with terms such as “stress”, “scared”, “anxious”, and “traumatised” as they spoke about the impacts of floods on their lives. From the perspective of MSE owners, negative disaster experience continues to affect their mental well-being as it invokes fear and anxiety each time they deal with floods. Recounting her experiences of walking through rapidly rising waters during January 2009 floods, a gift shop owner operating in Ba for five years stated:

I fear floods. During the April 2018 floods, I started crying when I saw the shop going underwater. I do not know how others feel but witnessing flood water rise brings back all those memories. Disasters have really taken a part of my life. (MSE053)

As evidenced by the research of Matthewman and Uekusa (2017), people's vulnerability to disasters may be compounded by certain factors like emotional experiences and magnitude of impacts, which in turn can hinder their ability to cope with future events (also see Marlowe, 2015). While listening to participants share their experiences, I noticed how 'loss of belongings' had caused a profound sense of disorientation and distress amongst participants. For instance, a gift shop operating in Ba for the last four years alluded to her experience of trying to save her stock during the April 2018 floods, which resulted in a near-death experience and her changing relationship with the material items. She commented:

I got washed away by the floods for almost ten metres and to date I still get nightmares thinking about that experience. But floods have taught me that material things can be recovered, but my life will never be. We need to learn to live with such realities and be grateful to be alive. (MSE037)

Although MSEs expressed that it was "stressful" for them to accept the devastation caused by the flood, "giving up" was not a much of an option. The owner of a hairdressing business said, "I stood there, cried my heart out, and then accepted that I will have to just have to deal with it because how else will I support my family". References to surviving with depression were greater amongst participants who had had near-death experiences. As the previous participant described:

The shop is all we have, and I have been working very hard to pull through for the last two years. When the April floods happened, I could not eat or function properly. I was depressed and ended up in the hospital. (MSE037)

Although the statements above allude to negative emotions of "fear" and "anxiety", they also incorporate positive emotions such as being "grateful" to be alive. I argue that 'affective experiences' have significantly shaped MSEs' decisions to adopt measures to prepare for, cope with and recover from future events (discussed in Chapter 7).

6.3.6. Constrained business growth opportunities

As evidenced in disaster scholarship, losses associated with hazards are known to negatively affect MSEs' survival and growth (Kemp, 2017; Stafford et al., 2013; Zhou & Botzen, 2018). MSE participants confirmed that growth opportunities were limited because of their inability to access external finance for disaster recovery, expansion or even diversification of product lines. Quite often MSEs mentioned that they had resorted to using their personal savings to recover in the aftermath of a disaster (MSE001, MSE021, MSE039 and MSE053). A bookstore owner operating in Ba for 72 years said:

Any business will jump at the opportunity to expand, but we just do not have the financial means to do so. The banks are reluctant to the idea of lending to smaller businesses like mine because of the cash-flow issues we face in times of disasters... We have no choice but to use our personal savings to make ends meet. (MSE021)

Apart from the financial constraints, some MSEs had indicated that business expansion opportunities were not viable because of the recurring nature of flood events in Ba (MSE003, MSE012, MSE014, and MSE027). These participants explained that business growth opportunities were also restricted by two key factors. First, the compounding disaster losses over the years left many MSEs in a constant cycle of recovery. Two participants noted that the temporary closure of their shops meant that they needed to find alternative ways to recuperate their losses. They explained that increasing product prices were not viable options due to the risk of losing customers. Secondly, there was an increased cost of adaptation measures—measures taken to deal with the impacts of frequent flooding events. The owners of footwear and restaurant businesses explained that cost of adaptation measures had increased with the recurring nature of floods. Thus, most businesses had to prioritize such decisions in the interest of safeguarding their business assets. For instance, the director of an automotive spare parts shop operating in Ba for sixteen years commented:

My inventory back-up system and shelves were all destroyed during the 2012 floods, so I had to get new equipment and build new shelves. However, acquiring new equipment and rebuilding shelves meant sacrificing restocking options. (MSE009)

It was common amongst MSE to operate with tight budgets or low profit margins, thus underscoring the reasons why business growth opportunities are a secondary thought.

6.3.7. Impact on local workforce

Flood events are known to affect workforce patterns, with the loss of jobs in some sectors and job openings in other sectors (Chang-Richards, Seville, Wilkinson, & Walker, 2013; Marshall et al., 2015). In the case of Ba, flood events attributed to the transient displacement of employees because MSEs struggled to cover for the cost of wages during the temporary closure of their businesses. MSE participants commented that the decision to lay off employees was rare, yet dependent on the magnitude of disaster impacts (MSE003, MSE019, MSE022, and MSE054). For instance, a footwear business owner said, “if the damage from floods would require repairs that would take us more than a month, then I have no choice but to temporarily lay off my staff”. However, he went on to explain that before laying off his staff, he would explore other options such as any ‘unemployment subsidy’ from the Fiji National Provident Fund to help support his employees. For employees to access the unemployment subsidy, however, a letter from the MSE owner was required indicating tenure of contract.

We treat our employees like family, and we understand each other’s struggles. We know that it is not just a job for them, it is their source of livelihood, just like they understand that the business is our livelihood. But sometimes we have to make tough decisions and we refer them to alternative jobs. (MSE022)

As reflected in the excerpt and discussions above, MSE owners and employees shared understandings of the challenges posed by the recurring flood events. Unlike larger corporations that offer employees redundancy packages, MSE owners made a conscious

effort to empathise with their staff, and vice versa. Also, employees had access to their superannuation funds as means to support their livelihood. For instance, a convenience store manager described his employee showing up to work after the 2018 disasters despite knowing he could not be paid. He said his employee told him that he did not feel right to ask for pay, because he knew that there was no source of income. However, he had paid the employee a bonus when business was back on track.

Another impact of flooding on workforce patterns was employee absenteeism. Most of the MSEs had explained how their employees were not able to return to work because of inaccessible roads, lack of public transport, and more importantly, dealing with floods in their own homes. This absenteeism had most MSEs worried, as they relied on their employees' support for the recovery of their business (MSE017, MSE043, and MSE037). Some of the MSEs participants noted that their employees had worked for them for decades, thus their knowledge of stock and relationships with customers were essential to income recovery (MSE011, MSE017, and MSE046). A café owner operating in Ba for seven years, for instance, noted:

[M]y staff returned after four days since they had to clean their own homes as well before they came back to work. If she was here to help, we would have opened sooner as she knows everything to be done. But I understand that her family needed her help first. (MSE046)

To summarise, the discussion above identifies critical dimensions of cultural and social capital, which will be further explored in Chapters 7 and 8. However, it is worth noting that strong social relations are shared between the MSE owners, and their staff are a critical determinant of impact on the local workforce.

6.3.8. External built environment damage

In the prior sections, I have provided several examples of how damage to the external built environment, such as roads, water supply and electricity, have had significant impacts on MSE owners, employees and even customers. Evidently, MSEs rely extensively on the external infrastructure for normal functioning. On a day-to-day basis, they depend upon utilities like electricity, water, and telecommunication to operate. They also rely extensively on transportation services for survival, which when affected has ripple effects on their customers, suppliers, and employees.

As MSE participants had explained during the talanoa-style research conversations, damage to utility infrastructure tends to be a recurring problem, even during non-flood times (MSE012, MSE017, MSE031). Usually, power and water services are cut off prior to the floods and restored days after floods following mandatory checks. Such disruptions affect businesses' ability to adequately prepare and recover from floods. For instance, the manager of a convenience store operating in Ba for nine years mentioned:

[We] have to use our phone torches to move stocks around during heavy rain because the power goes off. The government should really investigate this issue. The water is not so much a problem, but electricity and telecommunication are. (MSE031)

MSE participants said that it was even more disturbing for them to read news articles that lives were lost during TC Keni because the back-up systems in emergency places like hospitals were not functioning (MSE011, MSE017, MSE033). Although most of the MSEs in my study did not have back-up systems like generators, they had plans to buy them in the near future because of the ongoing power failures.

A few MSEs also commented how the combination of destruction to transportation and telecommunications had a grave effect on their ability to respond or stay connected with their families, suppliers, and other businesses (MSE022, MSE046). For instance, a café owner noted

how a majority of the MSE were connected through social media, which was the most effective way of updating each other during all phases of a disaster. However, the failure of telecommunication systems led them to explore alternative sources such as traditional knowledge to respond adequately (see Chapter 7). The owner of a textile shop in Ba operating for six years said:

If networks are down, we rely on traditional knowledge or word of mouth if we wait for the official advice from Fiji Meteorological Office and National Emergency Operations Centre, we might as well plan to fail. (MSE022)

The quote above raises a critical issue on the effectiveness of disaster communication, which is explored in Chapter 8.

6.3.9. Positive impacts of floods

As evidenced by several studies, MSEs that are not directly affected by hazards take over reduced supply from businesses whose production is impaired by the hazard (Hallegatte & Dumas, 2009; Ngjin et al., 2020; Zhou & Botzen, 2018). During the fieldwork, three MSEs in electrical and construction sectors had reported increased income or demand for their services (MSE017, MSE038, MSE059). These MSEs had mentioned that flood events had 'boosted income'. For example, owners of convenience store and electrical supplies businesses, in the electrical services sector, commented that immediately after floods, revenue had increase as they gained authority from Energy Fiji Limited (EFL) to conduct mandatory assessments for homes and businesses in Ba. As such, they had raked in sales from this process. Moreover, they also explained that most of the people are in need of electrical supplies like bulbs, solar lights, and surge protectors, both prior to and after floods. Therefore, when flood alerts were issued or after the floods, they would have high volumes of customers buying such items.

Likewise, a construction business owner mentioned that the construction sector is usually in high demand because damaged properties need to be repaired. However, despite receiving offers to conduct maintenance work, he struggled to accept new contracts due to supply chain issues (lack of material availability), as well as workforce issues (unavailability of people). This case underscores how MSE business growth opportunities are compromised due to skills shortages and construction material market constraints, which larger businesses do not seem to experience (see Wedawatta, Ingirige, & Amaratunga, 2010; Wedawatta, Ingirige, Jones, & Proverbs, 2011).

I also observed how the experiences of feeling neglected and forgotten had enhanced levels of social capital amongst MSEs, as well as generating behavioural change (see Chapter 7). In Bourdieu's perspective, people put aside their historic enmities (see Matthewman, 2014) and demonstrated positive qualities of supportiveness. Chapter 7 elaborates how disaster experience can challenge the legitimacy of disaster policies and has been a precursor to shaping MSEs responses to floods.

6.4. Summary

The analysis in this chapter describes how MSEs in Ba, Fiji have been affected by recurring floods over the past decade. It provides an account of experiences across a range of MSEs and the contested understanding of flood causes, along with an understanding of survival through everyday struggles from the lens of the vulnerable.

Several learnings can be drawn in relation to flood impacts. First, MSEs are likely to experience a range of flood impacts simultaneously rather than in isolation. Damage to business and stock, as well as disruption to supply, affected external built environment, customers, and suppliers. Likewise, transportation disruptions were reflected in reduced profitability and employee absenteeism. The knock-on effects on the external built environment disrupted business

operations and complicated recovery, which in turn endangered the survival of these businesses. Tierney (2007) found external infrastructure to be a critical factor in business closure, including those that were not directly affected by floods. My findings also underscored how damage to utility infrastructure impeded MSEs' ability to continue operations. Second, disaster experiences of MSEs may not be as simple as previous disaster literature has assumed. Apart from the already known economic impacts due to the lack of financial capital, MSE owners, like any other disaster survivors, are subject to emotional responses such as trauma, anxiety, and fear. Emotional responses emerge from a place of lived experience, which many MSE owners had never openly shared previously because they had no one to share their experiences with. Finally, MSE are likely to underestimate the multifaceted flooding impacts if the interconnecting factors that exacerbate their vulnerabilities are not considered. The findings showed that, aside from experience, there were multiple factors linked to understanding the extent of impacts, such as inherent business characteristics, intensity of disasters, locality of operations, supplier options, access to credit, and market demands.

To sum up, the results show that the effect of floods has a consequential effect to even those who may not be directly affected by floods, such as communities located in non-flooding areas. The results of this chapter form the foundation for the next chapter, which will examine how MSEs in Ba have prepared for, coped with, and recovered from disasters.

Chapter 7: Framing resilience through the lens of MSEs

The imperative to mitigate uncertainties posed by climate hazards has redefined approaches for doing business in Ba, as told through the experiences of MSEs. On the one hand, resilience for MSEs is about processes of transformation, and the workings of emotions, aspirations and social relations with people and the environment, which together provide an alternative perspective to earlier views about what counts as ‘resilience.’ On the other hand, resilience for MSEs is about managing the ways in which disaster risks are problematised and acted upon by disaster management agencies. Taking inspiration from the work of Gibson-Graham, Hill, and Law (2016), this chapter offers the perspective of ‘lived resilience’, which “breaks with dualisms, systems, linear notions of time, development and change” (p.714). This approach brings into focus the plurality of means for navigating, imagining, and adapting to the indeterminacies of managing business operations in the face of recurring disasters like floods.

In this chapter, I present an analysis on the perspective of ‘lived resilience’, which focuses on the regenerative and transformative endeavours of the MSEs rather than as an outcome. Put simply, the ethical dimensions of ‘living’ do not focus on generalising explanations of what resilience is, does or maintains, but rather on the ability of MSEs to adopt, (re)shape and improvise new practices in the face of uncertainties. I first discuss how past experiences had shaped the risk behaviours of the participants, along with the elements of cultural capital, by focusing on the self-transformed approaches of MSEs. I then draw attention to traditional knowledge systems and MSEs’ unique relationship with nature in comparison to larger businesses or corporations, which also focuses on elements of cultural capital. Then I discuss the role of social capital and its apparent importance with MSEs’ operational world. Here values of *solesolevaki*, *veilomani*, and *yalodei* are interconnected and are key conditions for recovery.

Indeed, the communitarian values to building resilience to existing and future threats are a part of cultural capital (Movono & Becken, 2018).

7.1 Past disaster experiences a cultural capital

The talanoa-style research conversations revealed that MSEs participants who had been affected previously by major flood events had robust knowledge and skills on how to prepare for, cope with and recover from future flood events. Interestingly, participants had said that their risk-averse behaviour was influenced not only by prior negative flood experience (loss of business assets or near-death experience), but also by their observations of changing climatic conditions, which they believed contributed to the severity of flood events in recent years. When asked what they had learned from past flood events, MSE owners mentioned they do not need to be told what to do when flood warnings are in force. For instance, a café owner operating in Ba for seven years commented:

There is no such thing as a safe place in Ba. I learnt it the hard way by not preparing well. But now, as soon as there is heavy rain, my employees and I start moving stocks onto the flood decks or to the bulks back home. Usually, we do not rely on the warnings anymore. From years of experiencing floods in Ba, we know what to do. (MSE046)

Likewise, an automotive car accessory owner who has been operating in Ba for sixteen years said “floods are nothing new to us because we have lived and grown up with them. It is a part of our lives” (MSE004). Responses such as “floods have been a part of our lives” was a common narrative amongst MSE owners who had talked about the need to be mentally prepared for more severe events in the future. At most times, MSE owners noted that their experiences from past flooding events was used as a “benchmark” to design pre-disaster and post-disaster interventions. For instance, a tailoring shop owner who had been operating in Ba for four years said:

From the 2009 floods, we know that flood levels can go above five feet in this area [Yalalevu, outer Ba town region], so I have used that as a benchmark when building my flood decks. As you can see [participant pointing at the flood decks], we have lifted the roof of the shop to accommodate extra space, but no one can ever be certain about these floods. But you can see we have little stock because that is also a strategy to prepare (MSE025).

As reflected in the two quotes above, MSE participants located in flood-prone areas had adopted preparatory strategies such as buying minimal stock during the monsoon season and building flood decks and shelves using previous flood heights as a benchmark. In addition to these measures, MSE participants had developed back-up documentation systems to overcome the struggles of tax compliance. They explained that tax authorities demanded supporting documents for annual tax returns which commonly got destroyed during the floods. An automotive car part owner commented:

During the 2009 floods, all the paperwork was damaged. We had to get statutory declarations signed for destroyed documents that year. So, we had invested in a computer filing system in July 2009, where all our information was on the computer system and regularly backup dropbox [cloud storage system]. It is a small price to pay but filing tax is much easier too because we can just send FRCA whatever documents they want via email. (MSE004)

However, not all the MSE owners invested in computer filing systems, but they did have some form of back-up documentation system. For instance, the tailors and restaurant owners had used their mobile phones to capture all documents required for paperwork, while electrical shops had still used manual bookkeeping methods but summarised transactions on a shared cloud space. Evidently, the types of backup system were dependent on the nature of the business and the size of MSE operations.

MSE owners also expressed aspirations for continuous improvements to their businesses such as investing in off-site bulks. However, factors such as lack of urban spaces and unaffordable

rental values had hindered their decisions. The owner of an automotive car part supplies shop shared that the rental price for bulk spaces in non-flooded areas was thrice the amount he had paid in his current location despite the space being much smaller and the location of the shop being further away from the town centre (MSE009). For this reason, most MSEs residing in non-flood-prone areas used their own residence for bulk storage, while others had improvised with the existing space in the shop and kept minimal stock.

Although the talanoa-style research conversations were filled with comments like “we have been through it, and we know that floods would not spare anyone”, at times, MSE participants mentioned how they were unprepared for floods due to factors beyond their control, such as the timing and uncertainty of flood events. For instance, an agriculture supplies shop owner operating in Ba for nine years said:

I was caught off-guard during the 2018 floods because the flood water levels went above the height we had expected. We had built our flood decks based on the 2009 flood heights, which was the worst flood recorded in the history of Ba. We could have avoided the damage to our stocks had we taken the stocks home (MSE051).

Similarly, most shared concerns about the timing of floods to affect their preparedness levels. For instance, a footwear shop owner operating in Ba for thirty-five years mentioned:

When floods occur at late hours of the night, we are handicapped because [neither] our staff nor we can take risks to come into town. Usually, the town is closed off by authorities and we know that MSE owners come into town to secure their stock at that time, but we don't. Usually, we come the next morning with hope that our stock in the higher shelves and flood decks are not damaged. (MSE014)

The owner went on to share how he was often of two minds about taking the risk to go to town or just accepting that they prepared to their best and there was nothing else that could have been done. He stated, “I am often faced with a ‘maybe or maybe no’ situation and sometimes tough decisions come with a price, but I have learnt to accept it” (MSE014).

The quotes above demonstrate a “risk-acceptance” attitude, which is an element of risk-averse behaviour (see Davies, 2015, p.238), but more importantly, it highlights a significant learning from past disaster experience, that the well-being of people comes before material possession. As evidenced in Section 6.4.5, negative disaster experiences continued to trigger fear and anxiety amongst MSE owners, so that business decisions were prioritised. A chemical supplies shop owner emphasised “material things can be restored over time, but once your life is gone, then what is the point in even having a business” (MSE040). He went on to explain that despite the several fatalities recorded during previous floods in Ba, he feared for those business owners who risked their lives and the lives of their staff in prioritising material possessions.

Aside from the time-bound and uncertainty factors that compromised the effectiveness of disaster preparedness measures, most of the MSE participants expressed disappointment in the resilience-building initiatives promoted through development, as well as the disaster communication efforts of the National Disaster Management Office (NDMO) that simply do not work for them (discussed in Chapter 7.5). For instance, most of the MSEs noted how the Ba Chamber of Commerce, along with donor partners, held business continuity training that MSEs perceived as irrelevant. They argued that the development partners should be supporting MSEs through provision of preparedness equipment such as mobile shelves, or instead upgrade the external built environment, which they argue is a significant factor of increased flood frequency and severity (MSE021, MSE028, MSE038, MSE050).

Building resilience against hazards is imbued with moral implications. Media and external agencies have continuously criticised MSEs for being poorly prepared for disasters. Nolet (2016) argues that there is a “cultural tendency to consider dangers and hardships only once they have materialized” (p.721). However, MSE participants regarded themselves as proactive agents irrespective of factors that exacerbated their vulnerabilities, particularly factors beyond their control. A convenience shop owner stated:

Development partners do not understand our issues and how we prepare but are eager to develop business disaster preparedness kits, which recommends practices that we do not have capacities to adopt. So, unless they fund it, they should not make big ideas about us without us. (MSE036)

In the same vein, MSE participants raised concerns about ‘trustworthy’ weather forecasting systems at the FMO (MSE004, MSE017, MSE036). They indicated that information was not provided in a timely manner, and often inaccurate²³. Sharing her experiences on issues with early warning messaging, a café owner operating in Ba stated:

Information is critical, especially during the floods, because we have to work around the clock to ensure that our homes and business are secured. Each time we get flooded, there is a general announcement that low-lying areas should take precaution. Also, we receive text message warnings from NDMO during the flood instead of prior to the flood. How is that going to help us? Can’t NDMO use rainfall forecasts to predict how severe these floods would be? Someone is clearly not doing their job. (MS046)

Understanding of probabilistic information within weather forecasting systems was also found to be limited amongst MSE owners. For instance, in the understanding of MSE owners, a 1-in-100-year flood event in 2009 meant that they will not be affected by a similar flood for another 100 years; however, in the perspective of the meteorologist, 1-in-100-years implies that there is a one percent probability of similar floods occurring in any given year. Such misconceptions were also observed by Wedawatta and Ingirige (2012) amongst MSE construction businesses. Although such information may be deemed critical to managing risks posed by flooding, MSE participants relied extensively on their traditional knowledge and social networks to navigate through the risks posed prior to, during and after the floods, including their day-to-day operations.

²³ MSEs did not seem to understand that it is not uncommon for weather forecasts to be inaccurate as cyclones and rainfall estimates were not determined through mathematical equations but rather predictions of active movements that may change direction and speed at any time.

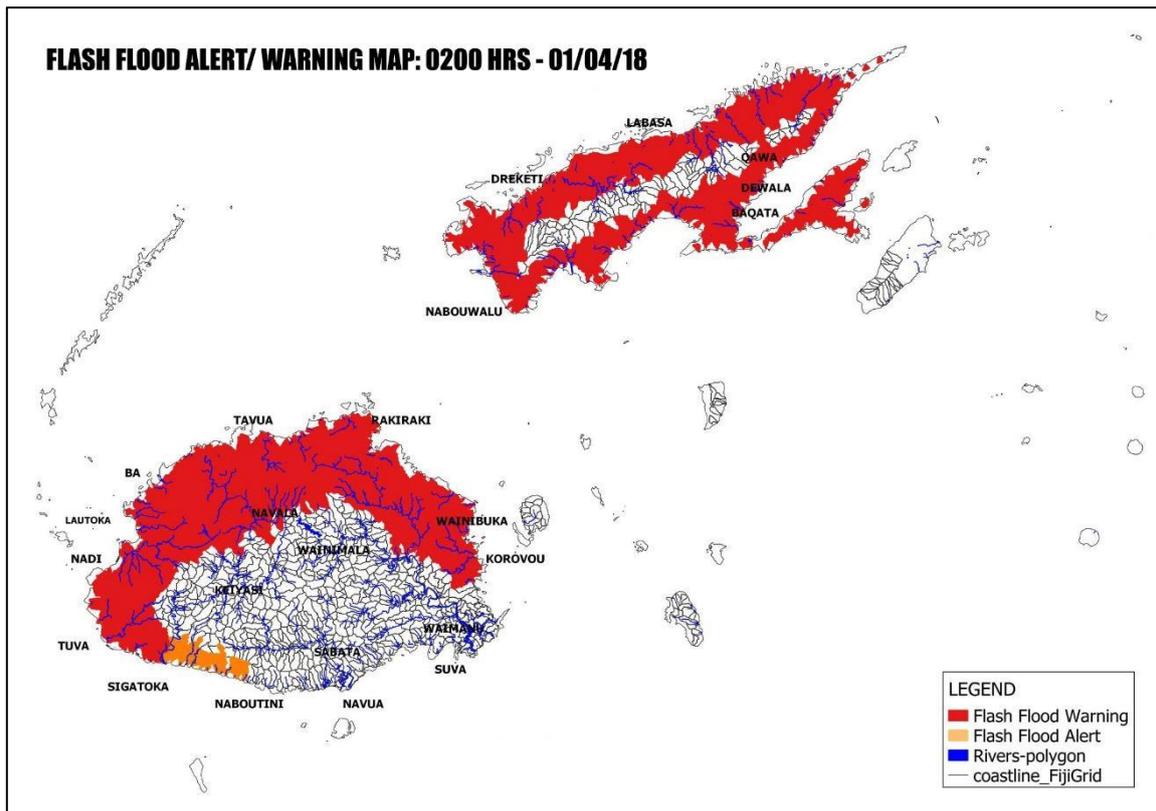


Figure 7.1 Flood warning maps issued through mainstream media and online (Source: Fiji Meteorological Office, 2018 – obtained during fieldwork)

7.2 Traditional knowledge systems as sources of information

Disaster scholarship underscores that traditional knowledge systems (TKS) have been an inherent component of building disaster resilience (Mavhura, Manyena, Collins, & Manatsa, 2013; Molina & Neef, 2016; Munsaka & Dube, 2018). For centuries, Pacific people have adjusted their livelihoods to adapt to hazard risks by relying on traditional values (Nalau et al., 2018; Singh et al., 2022). However, few studies have explored the connections between TKS and natural hazards amongst business owners. Although there are several terms used to distinguish traditional knowledge, such as ‘local knowledge’, ‘folk knowledge’, and ‘peasant knowledge’, I draw on the interpretation of Mavhura et al. (2013), which refers to traditional knowledge as “practices and beliefs that are locally bound and context specific, which is often related to adaptation and survival” (p.39).

The talanoa conversations revealed that traditional knowledge was an inherent resource (cultural capital) for MSEs to prepare effectively and recover from flood events. For instance, MSE owners in Ba discussed three traditional early warning systems to determine the likelihood of flood. First, they used physical water-level checks, whereby MSE owners relied on the natural environment like trees located within the river, or measured water depth using sticks to determine the likelihood of flooding. An owner of a bookshop located within 500 metres of the river had taken me to the Elevuka creek to demonstrate how the water level in the river determined the likelihood of flooding. He showed me a tree on the riverbank which for many years has been used to determine flooding. Pointing at the visible roots of the tree, he said, “if water levels go above the roots, Ba town will most likely flood” (MSE050). This participant also emphasised how the likelihood of flooding was dependent on the tide levels because the river was close to the sea.

TKS has also been used for decades by MSE owners to determine tides. Most MSE owners indicated that they relied on their astronomy knowledge, such as the position of the moon and sun, to determine whether the tides were coming in or going out. The tides, in the perspective of MSE owners, are used to determine how quickly water levels would rise, which in turn determines the amount of time left before they had to vacate the town. For MSEs in Ba, water level and tide information are critical, because responses such as securing the premises and putting stock up is usually bounded by time. A mechanical garage owner located in Yalalevu (a settlement within the Ba town boundary) had also discussed his reliance on the built environment, such as the drain beside his shop, to determine the likelihood of flooding. He said, “if that drain overflows, there is a 90 percent chance the town will get flooded”.

The local town council of Ba had used TKS to develop manual flood measures in Ba town. While conducting TC Yasa damage assessments for the Government of Fiji in early 2021, I observed that an iron rod with white markings had been installed beside a tree that a MSE

owner had taken me to. Upon asking MSE participants, I learnt that the rod was installed by the town council in late 2019 because the practice of using sticks to gauge river depth had become unsafe after a drowning incident. They had indicated that the markings on the rod were at the same levels as the tree and were primarily used by those individuals with limited knowledge of the natural environment to determine water level.



Figure 7.2 Tree and marking used to determine likelihood of floods (Source: Fieldwork, 2021)

Second, early warning signs of flooding were determined through traditional beliefs. MSE participants explained how they relied on animal and insect behaviours as an indicator for flooding. For instance, MSEs who had livestock at their homes mentioned that cows and horses would get restless and try to get out of fenced areas even before heavy rains (MSE004, MSE021, MSE043). They also discussed the nesting behaviour of insects such as ants and bees in the months ahead of a flood to be a common warning. For instance, a restaurant owner explained how bees and hornets would usually build their nests closer to the ground than usual if signs of floods are imminent. Although the insights above on traditional beliefs and practices

may not necessarily translate to more accurate methods of determining the likelihood of floods, MSE participants indicated they relied on such practices and beliefs to start preparing for floods because they could not rely on the early warning provided by NDMO. However, as indicated in the earlier section, such strategies are more difficult to use if floods occurred at night.

Beyond the early warning approaches, MSEs had commonly adopted traditional practices to prepare for flood events, such as (i) use of sandbags behind doors and windows to avoid flood waters from entering the shop, (ii) construction of flood decks built at heights above six feet, (iii) using of nylon for flooring, and (iv) tying light stock onto ceilings using hooks. To illustrate, the owner of the automotive shop said:

When I started my business in 2004, my main priority was to build flood decks and shelves because that is what we did for our homes. The shelves and flood decks are built at heights above six feet but sometimes space is an issue. We also installed a block and tackle machine that is used to hold heavy items, and plastic nylon for flooring, which makes cleaning easier. (MSE004)

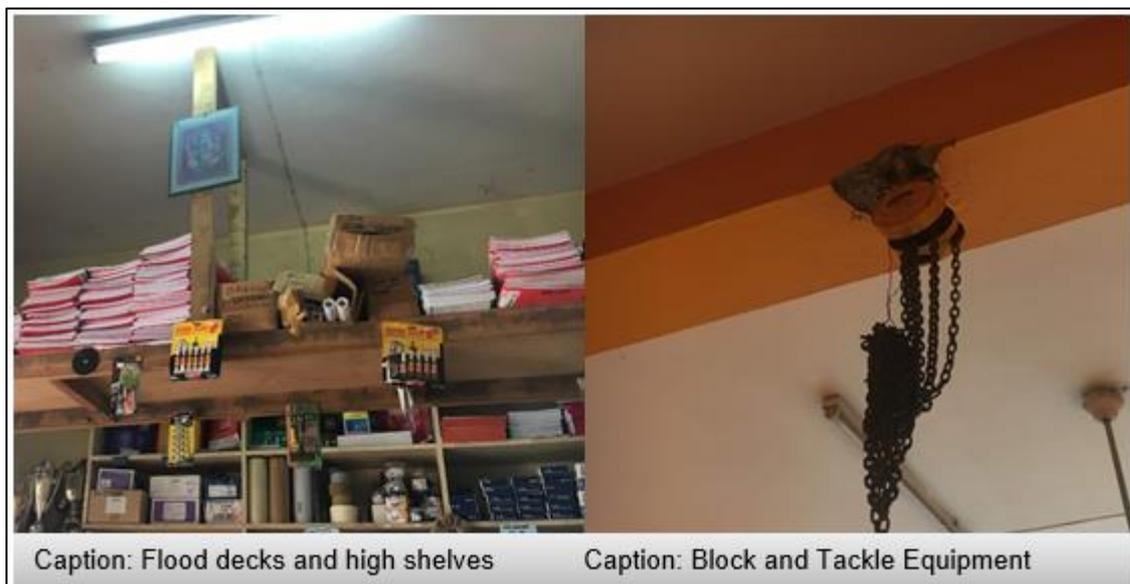


Figure 7.3: Flood preparatory measures implemented by MSE owners (Source: MSE participants, Fieldwork, 2018 – consent obtained to use pictures)

To expand the analysis of how MSEs have used TKS to cope with and recover from floods, I asked participants whether they relied on any traditional practices during or after disasters. Remarkably, MSE participants did not refer to any forms of TKS to cope with the effects of floods but made broad statements such as “I pray and hope that God will protect our businesses because we cannot do much during floods” (MSE009, MSE014, MSE029)²⁴. However, traditional practices were acknowledged as part of post-disaster recovery processes. These practices ranged from timing of flood waters for cleaning to relying on herbal plants to minimise the risks of getting sick in the aftermath of floods. For instance, most of the MSE owners explained that they would sweep out mud and debris as the flood waters receded, because water cuts were generally expected after flood events, and a delay in the removal of debris had contributed to the putrid smell (MSE004, MSE013, MSE022). When asked “how do you time flood waters going down?”, they told me that they monitored rainfall patterns and cloud colours or checked water levels in small streams and drains. The owner of a furniture and fittings shop operating for the last ten years explained:

At night it is difficult to monitor water levels in the drains or streams, so we monitor rain patterns. For example, if skies clear up, we know rain will ease off in a couple of hours. That is when we head into town and wait around the service station [located at the border of Ba town]. As the water leaves the town, we enter our shops to start cleaning. (MSE023)

Besides the cleaning approaches, participants reported a particular finding of using *coboi leaves*²⁵ to avoid getting sick from colds or the putrid smell after the floods. Recounting his experience of falling ill after the floods, a convenience store owner noted how he had relied on herbal remedies such as pawpaw leaves and *coboi leaves* to recover. In his words “the

²⁴ Religious values are not recognised as forms of traditional knowledge by literature (see arguments of Wiebe, 1994).

²⁵ Coboi leaves or “*cymbogon coloratus*” [Scientific name] is known as the smelling grass, which people in Fiji often use to cure colds, catarrh and neuralgia (Parham, 1941). Usually, the first brew of the leaves is thrown away and the second is drunk.

herbal medicines we used today are passed on from generation to generation and it came before modern medicine” (MSE023). Likewise, oral traditions containing practical advice for recovery from environmental risks was found to be a key factor in MSEs’ cultural identity. For instance, restaurant owners told of the time when they had to resort to planting vegetables in the roof guttering after floods, which was a practice they had known from their elders.

7.2.1 Shared relationship with river and creeks

MSEs were found to have a complicated relationship with the river and creeks in town. Although participants relied on the river and creeks to prepare for and recover from flood events, they also expressed frustration at its existence and as a contributor to floods. When talking about his personal connection with the river, an owner of a bookstore that had operated in Ba said:

The creeks and rivers of Ba town have a lot of history. In the 1940s, my father and grandfather used to work for the Colonial Sugar Refinery Corporation, and they used to commute and transport things using the river and creeks. However, with time, we became modern, and our infrastructure became modern too, so the rivers and creeks became a problem. (MSE021)

In contrast, an owner of a footwear company referred to the river as the “vengeful being” that had brought death and suffering to hundreds of people in Ba. He said the river triggers fear because of its proximity to his businesses, and his near-death experience back in 2009 (MSE003). Another café owner had mentioned how the river had brought back negative memories yet contributed to her cautious behaviour of doing business in such locations.

MSE owners also discussed people’s inability to fulfil their responsibility in keeping the river clean. For instances, references were made to human activities such as dumping, deforestation and dredging that attributed to the changing geological features. An owner of a convenience store mentioned that human activities such as waste dumping and dredging had

severe implications on communities in the lower Ba catchment areas that relied on the river as source of livelihood (MSE029; see also Neef et al., 2018). He emphasised how businesses rely on the river for cleaning their shops after the floods as alternative sources of water supply are limited. In disaster literature, people's attachment to place or 'place-based identities' are often recognised as important to the pursuit of building resilience (Shah et al, 2017; Zetter & Boano, 2010). Expanding on MSEs' reliance on traditional knowledge systems in Section 7.1.2, I provide this brief account of MSEs relationship with nature to underscore how the local environment is not simply an inert background.

7.3 Harnessing social capital in times of floods

Current discourses of building resilience have advanced social capital as an essential resource for enhancing people's adaptive capacity to current and future risks (Bankoff, 2019; Norris et al., 2008; Twigg, 2009). At its core, social capital describes the resources that individuals derive from relationships and networks, which are often formulated through norms of trust and reciprocity (Herbane, 2019; Mohaimin et al., 2018; S. Prasad, Su, Altay, & Tata, 2015). The analysis of the talanoa conversations and the observations from the field confirmed that MSEs in Ba relied extensively on various forms of social capital to build their resilience against floods. To a large extent, rationale behind MSEs relying extensively on social capital was associated with resource constraints and the lack of resilience building initiatives that had actual relevance to MSEs. As discussed in Section 3.3.1, many disaster studies have used Aldrich's categorisation of bonding, bridging, and linking social capital to highlight the processes of social capital. However, while analysing the talanoa, I struggled to categorise social capital into these broad groups because doing so disregards processes through which these MSEs had (re)produced social capital. Therefore, drawing inspiration from the study of Yila et al. (2013), I analysed forms of social capital into the strategies which the MSE participants had adopted to build resilience. These included (i) information dissemination, (ii) mutual support, (iii)

psychological strength, and (iv) socio-commercial cooperation, which are discussed below. Before proceeding to the analysis of these strategies, I describe the social relationships that MSEs had shared amongst themselves and others.

7.3.1 Understanding social relationships between MSEs in Ba

Local networks are described as key attributes of social capital. The talanoa conversations revealed that MSE owners in Ba had established strong social relationships because they had resonated with the struggles of “doing business” and inadequate institutional support. In most conversations, participants conveyed how institutional policies were designed to fail them, but their shared aspirations of supporting the livelihoods of their families had invoked a sense of solidarity amongst them. Beyond that, narratives of building trusted social networks were common. For instance, an owner of a footwear shop used a figurative reference to describe his relationship with other MSEs in Ba. He stated, “we all are in the same canoe, rowing against waves that are becoming stronger. So, we need to row smarter” (MSE021). When asked about what his statement implied, he responded “businesses will continue to experience challenges every day, it is normal. But at the end of the day, we need to be strategic if we want to survive” (MSE021).

The quotes above demonstrate how the MSE owner acknowledged his vulnerabilities but at the same time emphasised his reliance on strategies to keep afloat. Sharing a somewhat comparable relationship about the broader MSE community in Ba, an automotive car part shop owner said:

In the last 19 years of operating in Ba, the small business owners have become my family. I call some of them uncle and am now an uncle to others. We have been through a lot together and most of us are still operating here today because of the support we show to each other. (MSE004)

He went on to convey how he had sought support from his neighbour during the loss of his parent and more regularly when he had religious functions at home. Similar sentiments were also shared by other MSE participants who described how active participation in community affairs improved their social relationships. In fact, responses from the validation workshop held in Ba for 17 MSE owners alluded to ethics of care, whereby participants mentioned “we care about each other because apart from our family no one else cares about us”. Adding to that statement, another participant said “we do not want to be a story of failure for those that do not care. We want to be responsible for our own failure” (VDF1).

However, it is worth noting that a few MSEs owners did not recognize their relationships with other MSEs to be strong. They indicated that they preferred to rely on their family members for support or alternatively use their savings if circumstances required. As Bourdieu would argue, these MSE may have very particular habitus, which allows them to give up other forms of social capital. For instance, Klinenberg (2002) found self-sufficiency to be an important reason why people distance themselves in crisis situations. In some cases, since MSE owners have had to repeatedly adapt to more frequent and intense flooding events without reliable support from government or development organisations—and in understanding that the only constant MSE owners can depend on is themselves—they have developed a hardened resilience and self-reliance in which they push through crises, adapt, and recover without burdening fellow MSE owners.

7.3.2 Information dissemination

In disaster situations, timely information is vital for decision making (McKee, 2014), and the role of social networks in disseminating disaster information is equally critical in shaping the response behaviour of individuals (Działek, Biernacki, & Bokwa, 2013; Mohaimin et al., 2018). The talanoa-style research conversations and fieldwork observations revealed that MSEs relied on their pre-existing social networks to access and facilitate the flow of information.

Referring to the flood events of 2009, MSE owners mentioned that they would usually call friends located closer to the river or creek to access information about the flood water levels or gather any sort of update on the possibility of flooding. At times, participants described reaching out to customers or employees located near the upper side of Ba River to get information about water levels because those areas were expected to flood before the town. For instance, a market vendor in Ba town noted how he would constantly check with the people in his village and update other MSEs when flood warnings were issued by the NDMO.

Similarly, during the response and recovery phase, MSE participants described sending text messages or calling to gather regular updates and to “check in” on each other. With many MSE owners residing in flood-prone areas, the regular check-in calls were critical to establish whether support was required. Reflecting on his experience from the 2009 floods, a restaurant owner said:

My home items got destroyed during the 2009 floods and thankfully a few shop owners had pitched in some cash to help me. I was also little shy when they came over to my house to check on me. (MSE019)

However, over time, new communication technologies such as social media have transformed information dissemination strategies because of their greater access to real-time data (Finau et al., 2018). The study of Finau et al (2018) and Yila et al (2013) reported that people in Fiji used social media widely, not only for disseminating disaster information but also for organising fundraisers for affected communities. The NDMO and the Fiji Meteorological Office have also created official pages on social networking sites for information dissemination purposes (DMI004, DMI006).

The findings of my study indicated that MSEs used social media platforms widely, specifically Facebook Messenger and Viber for early warning, updates on flood levels and dissemination of post-disaster aid information. For instance, to keep updated on flood levels, photos and

videos were shared within their social media groups by MSE owners who stayed in town. Reportedly, on a few occasions, they used these platforms to organise food ration drives for affected communities (discussed in Section 7.3.3). A café owner, who also works as a freelance communications professional mentioned:

Social media informed others of the scale of emergency and offers a detail account of victim needs. In 2018, a group of us [MSE owners] used Facebook to gather donations for a community that was severely affected. It was not much but it was still something. Social media is a very powerful tool to raise issues on ongoing challenges we face as MSEs with the broader private sector. (MSE046)

As evidenced in Figure 7.4 below, an update post by the café owner on flooding in Ba town had been shared by 272 individuals within her circle of friends. MSE owners noted that such information is critical, especially because the town is inaccessible by those residing outside of the Ba town boundaries. However, issues of 'digital divide' need to be acknowledged because most elderly MSE owners were not present in such platforms. Thus, reliance on phone calls, TKS and mainstream media news cannot be disregarded despite the emergence of alternative platforms.

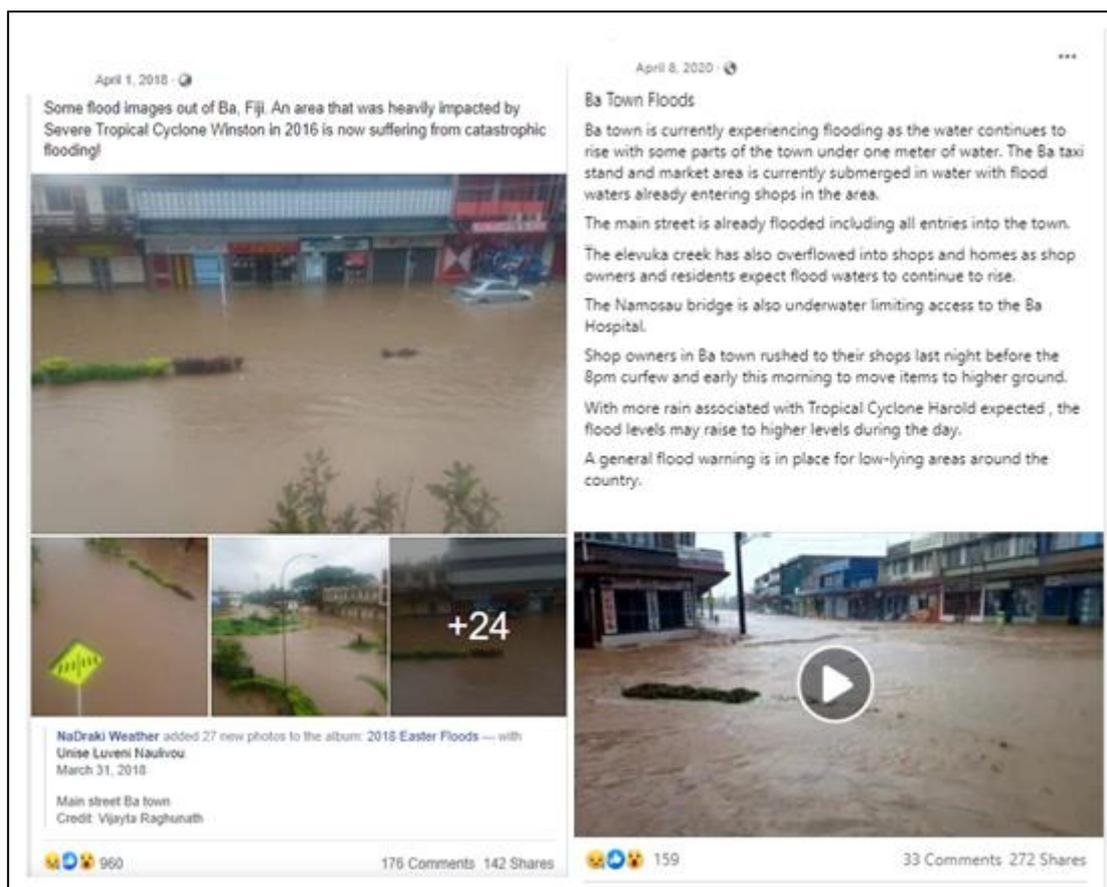


Figure 7.4: MSE participants sharing critical update on flood (Source: Facebook – consent obtained from MSE participants to share group post)

7.3.3 Mutual support

Mutual support was identified as the most prevalent aspect of social capital, which implied social relationships that facilitated collective action. In contrast to charitable support or aid from external agencies, which is a one-way form of help, mutual support was a strategy adopted by MSE owners to help one another with (i) food and shelter, (ii) short-term interest free loans, (iii) exchange of labour; and (iv) tools and equipment for cleaning. The discussions with MSEs in Ba revealed that mutual support was a form of bonding capital embedded with the values of trust and reciprocity. In most instances, MSEs used the phrase “acts of kindness” to describe how they helped each other, which in turn played a distinct role in the survival of their operations. For instance, while talking about provision of food and shelter, MSE owners explained how they opened their homes to other MSE owners who were unable to leave the

town area due to inaccessible roads and sharing of food and groceries for the families of MSE owners that were severely affected by floods. Narrating her experience of being stranded in town, a convenience store owner described:

During the 2012 floods, my husband and I had just managed to get out of the shop before flood waters started entering the town. Unfortunately, our residential area got flooded more quickly than expected so we were stranded in town. We reached out to our neighbour who lived in the town area, and she opened her home to us. We were stuck here for almost two days and every day her mum made warm meals for us. (MSE047)

Likewise, another MSE owner had tears rolling down her eyes when narrating her story of her MSE friend across the town who showed up with food and groceries after she had heard in the news that their area was severely affected. This MSE owner stated that it was not the first time that one of the MSE owners had given her family groceries and she would do the same for any other of the MSE families if she had the financial means. Participants also expressed emotions when sharing about the benefits of being part of the wider social network of the MSE community. Often, references were made to the affective and caring bonds shared amongst them, which were demonstrated through the regular calls and acts of support such as showing up with food. Indeed, it is common to observe such altruistic behaviours amongst MSE owners in Ba because cultural values such as ‘veilomani’²⁶ and ‘solesolevaki’ are grounded in the everyday ways of communal living for people in Fiji. As emphasised in Section 3.3.2, the terms ‘veilomani’ and ‘solesolevaki,’ are iTaukei terms that embody the essence of working together and caring for each other irrespective of the circumstance. The apparent importance of such values is valorised as conditions of mutual support.

²⁶ The Fijian expression of “veilomani” is translated as the “act of loving one another” (Toren, 1999, p.257).

Furthermore, the floods had a unifying effect as they affected MSEs in one way or another (i.e., directly, or indirectly). In the perspective of MSE owners, floods had invoked a sense of togetherness and ethos of care amongst one another. The discussions with MSE owners signalled how neighbours, customers and even members of the public significantly helped with the preparation and recovery process. For instance, MSEs with one or no employees had shared concerns about the physically challenging task of lifting their stocks onto the flooded decks. Sometimes the neighbouring shop would send their employees to help, or MSEs would ask customers walking around town for help in exchange for a small amount of cash (usually FJ\$20). At times, it was complemented by the members of the armed forces who moved around to empty the town. A similar narrative was shared for post-disaster recovery such as cleaning up shops, where MSEs owners would help one another with provision of labour and cleaning equipment. A telling example can be drawn from the narratives of automotive MSE owners, who adopted resource-pooling techniques as a means to reopen their businesses. Describing the process, the automotive shop owner said:

We [referring to the automotive car part owners] often arrange a time to meet in town and get together all the materials needed for cleaning such as water blaster, water pump and sometimes generator because of no power. Then we break up in groups, where one group focuses on washing up the shop, the other group is responsible for disposing the rubbish in the designated area, while the last focuses on helping with the rearrangement of items in the shop. The first group goes ahead from shop to shop on our block and the second and third follow. We are usually done within half a day to one day max.... We noticed that after we used this approach in the 2009 floods, the market vendors and those located on the other side of town had also employed a somewhat similar approach. (MSE009)

Apart from the physical support, MSEs also discussed how they had reached out to one another for short-term loans because they could not access credit from the bank or even their relatives for reconstruction or rehabilitation works. However, many MSE owners had indicated

that they could not give their colleagues loans because they were financially tight with managing their own reconstruction expenses. Thus, MSEs had usually resorted to asking suppliers for advanced stock on credit, which was often accommodated. A bread shop owner stated, “suppliers need to make sales too and they know our struggles, so we try to help each other” (MSE005). He went on to explain how it is a win-win situation for the survival of both.

As emphasised by Yila et al. (2013), “rebuilding the complex fabric of human relationship that has been disrupted during the time of flooding” can be challenging (p.97). MSE owners found confidence in restarting their business because of the reassurance provided by their employees, MSE friends, and in some instances, their landlords. For example, after the first flood in April 2018, an automotive car part owner had offered to support his employee’s family by offering temporary accommodation at his home for three months. In return, his employee had brought together some of his family members to help with the cleaning. In the same way, the landlords of a few business owners offered rent-waivers for periods of closure or up to two months to support recovery costs of MSEs. Both these cases illustrate how cooperative spirit and an ethos of helpfulness support recovery efforts. Capturing a statement to reflect the ethos of helpfulness and affective relationships shared between MSE owners, a hair salon owner during the talanoa stated:

People go through so much in times of floods but at the same time people go out of their way to provide support to one another. People in Ba have overcome floods together... Over the years, witnessing how businesses, communities and even individuals help each other after floods gives me greater faith in humanity. Especially for us MSE owners, you can see the staff putting in an extra effort and not asking for extra pay for the additional hours they have worked. They usually come and help in whatever way they can so that the business can normalise its operations. I think one of the reasons why they are so forthcoming is because they know if the business operations are not normalised, then they will lose out in their income as well and in the long run this might possibly result in them getting laid-off. So, I guess, they are all willing

to go the extra mile for the business because their employment is dependent on its operation which is their source of livelihood. (MSE043)

A manager of the shoe shop had also shared similar sentiments.

If staff need assistance with personal home expenses, then aja [business owner] would provide us with advance salary which is later deducted from our normal pay. He usually looks after his employees affected by floods, like buying them groceries and basic necessities which he has also done in the past. So, despite losing his business for a couple of days, the fact that he sets aside money to help his employees with their immediate needs is a testament of how much he cares for us. (MSE041)

Last, a key part of mutual support that goes unmentioned (MSE014, MSE033, MSE046) is MSEs support towards their customers. As evidenced in the talanoa, MSEs played a critical role in the recovery and rebuilding of their communities. Following the April 2018 floods, and in several other instances, MSEs organised themselves to collect food rations and items for donations to families that were affected. Although these businesses were already struggling to recover, yet in their perspective “giving to those that are in a far worse situation” meant a lot (MSE050). In most instances, MSE owners did acknowledge how the survival of their operations was through customers, who were part of these communities. Describing his usual way of supporting communities, a bookstore owner stated:

After every major flood, I go out to the schools and ask for details of how many children were affected. Usually, I also ask their parents details so that I could drop school items directly to their homes. (MSE50)

Thus, MSEs demonstrated the strong desire to help community members. Like the bookstore owner, there were several other examples where MSEs had taken time to visit communities and offer donation support (cf. Figure 7.5). This mutual support offered an efficient way of not only helping those in need, but more importantly enhancing societal trust and relations.

Unfortunately, MSEs' contributions in the wider recovery space may be overlooked by the state or development partners, who may see themselves to be the critical players in recovery and reconstruction. Several MSE participants mentioned that the roles and responsibilities of the private sector in disaster recovery appear continuously ignored because the agencies do not coordinate their responses through the humanitarian cluster groups.



Figure 7.5: MSE loading donations for flood-affected families (Source: FRIEND Fiji, 2018)

7.3.4 Psychological strength

In Ba, flood events are perceived to be chaotic and have posed significant risks to lives and the livelihoods of people, including MSE owners. As evidenced in Section 6.4.5, negative emotions originating from a hazard are likely to be a function of (i) individuals' appraisals of the event (i.e., people's perception of hazards as life-threatening), (ii) characteristics of the hazard itself (e.g., duration and intensity), and the degree of impact on daily lives (i.e., loss and damage, displacement). However, it was evident that MSE owners demonstrated great levels of psychological strength despite the trauma and distress from past events. An excerpt from my reflection journal entry on 24 October 2018 reads:

Floods have become a norm for MSEs operating in Ba. Many participants shared that they were mentally prepared to deal with disasters due to their past experiences. I learnt that participants had suppressed emotions of fear and anxiety through acceptance of risks such as material losses posed by hazards like floods. MSE owners were grateful for being alive and having strong social relationship to get through difficult times.

When MSEs were asked how they coped with consistent threats of floods, they used the term '*yalodei*', which is an iTaukei idiom used in everyday conversation to denote 'staying strong and finding ways to get ahead'. The usage of this idiom varies according to context, and sometimes refers to having the necessary attitude and skills to navigate through life challenges, being forward looking, or stepping up to opportunities. Hence, the notion of '*yalodei*' can be seen as a value that MSE owners have embodied to survive. For instance, an agricultural supplies shop owner shared.

Growing up, we are taught to never give up because trials like disaster are there to assess our strength. My grandmother used to tell me that if we accept failure, then what is the point of life. She always used the quote 'in life not everything will be given to you on a silver platter' but we can imagine what we do not have and work towards that. In our culture, we are continuously challenged to rise above our challenges and floods are just one of them. (MSE051)

The talanoa discussions with MSE owners also revealed how the upliftment of one another and mental preparedness for future situations and vulnerabilities were effective coping mechanisms. A few MSE owners who had negative experiences of floods spoke about preparing themselves for floods, by accepting the significant risks that these events can pose on their individual business and subsequently their livelihoods. Indeed, the broader backdrop of disaster experience blends into the everyday realities that these businesses face on a day-to-day basis to sustain their businesses, managing debt, dealing with suppliers, and planning for the next day. Thus, the term *yalodei* may even have resonance with the idea of 'making

ends meet.’ Michel de Certeau’s (2008) book titled *The Practice of Everyday Life* referred to the ways individuals employ various approaches as an exercise of their agency. From the viewpoint of MSEs, the idea of becoming resilient or building resilience to flood hazards can be marked by the routinised acts of sustaining their business (see also Wood, Boruff, & Smith, 2013). Commenting on the importance of values like *yalodei*, a café owner said:

Everyone business in Ba knows that floods will affect us, but we have no option but to deal with losses. Overtime, as businesses start operating in Ba, they develop a similar attitude. When floods come, we tell ourselves that it is not the end of the world. We find the courage amongst each other to start again. Perhaps this is why the business community in Ba has thrived for centuries. (MSE046)

While most studies have focused on the myriad negative psychological emotions experienced as a result of hazards, analysis of how individuals transform negative emotions into psychological strength, specifically in relation to MSE owners and flood disaster management, remains scant (see also Shing, Jayawickreme, & Waugh, 2016). My findings indicated psychological strength to be a defining feature of resilience as participants drew on their past experiences to overcome emotions such as stress, fear, and anxiety. To illustrate, a café owner noted how she believed that the floods were a test of endurance and if she continued to dwell on the losses incurred or her negative experience, the pursuit of investment aspirations would be compromised (MSE046). Likewise, a bookstore owner had commented about being optimistic towards eventual outcomes through shared relationships with a benevolent higher power. He mentioned seeking mental strength from a higher power through positive spiritual appraisals. For instance, the bookstore owner said, “God is testing me, and he will help me get through this” (MSE050). While religion as a coping mechanism was seldom mentioned by MSE owners, it nevertheless was reported to instil a sense of acceptance and hope amongst participants. However, MSE owners who had encountered near-death experiences appeared to have a weak sense of personal belief.

Another element of psychological strength derived from the talanoa discussions was related to MSEs deriving positive emotions from daily interactions with each other. For instance, when participants were asked to describe approaches that helped them cope with their fear of future floods, the majority referred to “talking it out with others”, while a few mentioned “laughing about a particular incident” although the experience was not perceived to be humorous. One of the barber shop owners reported about his experience of being evacuated by police patrol boats, which eventually ran out of fuel, and they had to paddle to safety. Others in the room laughed along with him but more importantly acknowledged the reality of dealing with fear by focusing on the positive traits of life such as “being alive” (MSE043). In the same way, an automotive mechanic had commented about his restored faith in humanity after he witnessed how MSEs helped one another, including the members of the public. He stated that the feeling of neglect was deeply rooted in the lack of support from external agencies, but he felt “blessed” with the support from his MSE networks, particularly during the preparatory and recovery phases (MSE018). It was apparent that harnessing positive emotions such as empathy had garnered positivity amongst MSE owners. A few participants had also acknowledged how flood events had brought MSEs together (see also Rowney, Farvid, & Sibley, 2014; Somer, Ruvio, Sever, & Soref, 2007). Sharing her experience from the 2012 flood experience, a market vendor said “o keitou ga dau kila na bibi ni luvu, ‘o ya na gauna ni veilomani” [translation: only we the vendors know the impacts of flooding....it is a time of sharing and caring]. The expression of veilomani was used in her statement to describe how floods did not discern between victims and how sharing devastating experiences from past flood events had cultivated a culture of supporting each other (MSE047). Likewise, most of the MSE owners noted that their neighbours and friends provided emotional support by visiting each other’s shops and sharing words of encouragement. Some MSE owners mentioned that their regular customers would embrace them with hugs when they met and often shared stories of their own struggles, which made them realise that they were not struggling alone.

As mentioned previously, it is important to note that negative emotions such as fear and stress arising from dealing with everyday realities of running a business may potentially be linked to factors that are uncontrollable (e.g., built environment and the locality of operations). The discussions above show how MSE owners have developed a sense of mastery through acceptance of their own vulnerabilities and how engagement with social support networks has aided in dealing with traumatic experiences. However, it is apparent that levels of psychological strength differ between individuals; some participants in my study had still struggled to cope with the losses and trauma incurred from prior flood events. Studies on disaster resilience and psychopathology have shown that the degree of resource loss is an important disaster-related factor with potentially meaningful implications for coping efficacy (Bonanno, Brewin, Kaniasty, & Greca, 2010; Fletcher & Sarkar, 2013). Some MSEs may need more time to grieve over their loss as a process of creating psychological strength.

7.3.5 Socio-commercial cooperation

Market activity is often left out in the discussions of social capital. In my study, the role that socio-commercial cooperation was perceived as crucial to the recovery of business operations. At the individual level, MSE owners had mentioned how they reverted to alternative forms of income generation to sustain the day to day running of their business. A tailoring shop owner said:

Immediately after the flood, I sew clothes in bulk. For example, I will sew up uniforms for high school and primary school children without waiting for the orders because parents usually dash into town to buy things like uniforms when they receive government grants. So, to save time, I have clothes ready-made because alterations just take a couple of minutes. I also reach out to people in my community to ask if they need any clothes seamed so I can get money while the shop is still closed. (MSE058)

Likewise, restaurant MSE owners had discussed changing their menus to accommodate the lack of fresh produce. However, in the case of eateries and cafés, health officials need to provide a health check clearance certificate for resumption of operations. Thus, adaptation of operations to ensure continued income generation can be compromised due to compliance issues.

Beyond the individual level, commercial cooperation in many ways served a similar function as mutual assistance through provision of material support. The talanoa conversations outlined how MSE owners sourced customer orders from their friends if they could not provide them to other businesses. For instance, an automotive car part owner mentioned:

In our line of business, we have to keep each other's numbers because if we do not supply a particular part that our customers need, we refer our customers on to them or source them on behalf of our customer, depending on what the customer wants. For instance, if a customer requires 10 parts and I only have eight, I will call my neighbours and ask if they have the other two parts and source them for the customer instead of sending him around to look for it. Or, if the customers want a specific brand and we do not supply it then we will call and arrange and notify them that our customer is coming around and to give him a good price. We understand and help each other out. (MSE 018)

It is also worth noting that material support offered by MSEs to their customers contributed towards the recovery and rehabilitation efforts of the wider community. For instance, hardware, automotive, electrical and convenience MSE owners mentioned that they had offered discounts on essential materials to their customers despite their own struggles in keeping afloat. Owners of these businesses had mentioned that they understood the challenges for households, as some were part of their own communities, where they had witnessed first-hand the extent of damage. Appreciating that the livelihoods of their customers were intricately linked, some MSE owners had also extended credit to their customers, although they were aware that payment may be significantly delayed or, in extreme cases, become bad debt. In

the same vein, employees of MSEs were extended support through advance wage payments, as discussed in Section 7.3.3.

Findings also show that the commercial services of MSEs play a major role in reinforcing social capital amongst societies. Restaurants, cafés, and tea shops are common social spaces and hubs for reconnection of individuals after floods. Most MSE owners that operate such types of businesses mentioned stories of customers as well as other MSE owners getting away from the usual cleaning activities to reflect on their encounters with flood events. The research of Alder (2009) articulates that the process of sharing stories helps reconnect victims, who may feel alienated, which in turn forms a collective identity. In her article, Alder writes “sharing of narratives helps communities gather individual experiences together to construct a mosaic of shared meanings of the flood disaster” (p.23). As such, the process of socio-commercial cooperation contributes to the growth of social networks, as well as invoking a sense of togetherness amongst the wider community.

While it is beyond the scope of this chapter to provide a detailed analysis on the quality of social capital between MSEs involved in this research, I have endeavoured to demonstrate how values of care and togetherness have influenced ways in which MSE owners regarded their relationship to customers, suppliers and other MSEs. Table 7.1 provides a summary of the discussion in the entire section.

Table 7.1: Categories of social capital in each phase

Phase of disaster	Categorisation	Reported activity
Pre-disaster	Information dissemination	Interaction and communication between MSE owners on early warnings via social media and personal call
	Mutual support	Supporting preparation of the shops such as lifting stock, securing shop premises Sharing equipment or bulk space to secure each other's inventories
Response (during disaster)	Information dissemination	Regular updates on flooding (pictures) provided via social media or phone calls
	Mutual support	Search and rescue support— calling on authorities to support the evacuation of MSE friends. Maintaining a lookout against theft Sharing of water and food to those businesses that do not access to adequate supply
	Psychosocial support	Offering words of encouragement and reassurance
Disaster recovery	Information dissemination	Communication on flood-aid programmes for communities and identifying families
	Mutual support	Supporting each other with labour time for cleaning up Sharing of equipment, generator, and water pump to help with cleaning (also cleaning supplies) Unsecured loans between MSE owners Providing transport use for ration distribution to families of MSEs whose homes got affected, as well as nearby community members
	Psychological strength	Offering words of encouragement and reassurance
	Socio-commercial cooperation	Alternative forms of income generation that complement customer needs Offering of credit to customers and employees Creation of social spaces as means of reconnection for community members

7.4 Barriers to MSEs' resilience

While much of this chapter has provided insights into the factors that have enhanced the resilience of MSEs against flood hazards, it is equally important to understand the factors that

hindered the ability of these firms to respond in a timely and effective manner to such events. The constraining factors of building resilience can emanate from both the internal and external environment, which in turn explains MSEs' vulnerability to flood hazards. MSE participants identified several barriers to building resilience, which were analysed into three broad themes: (i) business characteristics; (ii) external built environment and locality; and (iii) disaster risk governance (discussed in Chapter 8).

Referring to business characteristics, the results indicate that MSEs have limited resource and adaptive capacity due to their small size and limited access to financial capital. The discussion with MSE owners usually reverted to the lack of manpower to prepare for and recover from floods because their businesses were small and had relatively few staff members. In the same way, MSE owners had indicated investment in offsite bulk was constrained by budget limitations, thereby inhibiting these businesses from preparing for future flood events. However, as indicated in Sections 7.1 and 7.3, learnings from past flood events coupled by access to various forms of social capital were proven to be crucial in overcoming such issues.

In addition to the issue of size and limited economic capital, MSE owners had also discussed the lack of control over rental agreements. In the initial stages of fieldwork, MSE participants reported that many landlords had no empathy towards the challenges that they had experienced during floods, particularly when requests were for alterations to the rental premises. While some examples of rental price hikes and tenure contract issues were discussed in Sections 6.4.1 and 6.4.6, the discussions related to tenure conditions revealed that MSEs owners lacked control over rental agreements because of restricted urban spaces, as well as inadequate financial means to opt for an alternative rental space. In most instances, MSEs renting properties adhered to the tenure conditions because they fear that a breach in contract would result in their contract being terminated, which ultimately may result in their business closure because they had no alternative place to go to, or if they did, the rent was

unaffordable. For instance, a restaurant owner while sharing her experience of a contract breach mentioned:

We had requested our landlord to renovate the roof that was leaking for over three months. Eventually, we ended up changing it ourselves and told him of the costs incurred. He responded in email that we should have waited as he was looking for cheaper contractors. We ended up only getting a one-month rental waiver to compensate for the repairs because he argued that he could have had the repairs done at a much lower cost. What came as a surprise was a letter of contract termination due to breach of contract because we did not have the authority to make such renovations. We asked him to reconsider as we had no other place to go and the places we found were beyond our means. I wish he experienced what his tenants go through for him to realise what struggle is. (MSE002)

MSEs believed that landlords in Ba were taking advantage of the flooding situation and the lack of safe locations for business premises by increasing their rental prices. Discussions related to business characteristics were extended to factors of market control. A footwear shop owner who has been operating in Ba for more than two decades referred to the term 'comparative disadvantage' to explain how his small business had little control over the market price, and consequently suppliers favoured bigger businesses that bought stock in bulk.

We are victims of bullying in the private sector market because in the aftermath of a disaster event, prices go up and we pretty much do not have the buying power to compete with the bigger retailers. In this way, we make less sales and end up operating in loss. We do not have what they refer to in economics as comparative advantage, which is why our recovery is prolonged. (MSE014)

From the excerpt above, one cannot ignore the possible internalisation of market exclusion practices due to MSEs' lack of influence or power over the market price. Additionally, MSEs were frustrated by suppliers who leveraged and negotiated deals in the market through non-inclusive and unfair practices, which ultimately can hinder MSEs' recovery. Many of the study participants deemed it unfair to assume that market challenges suddenly emerge during the

disasters — when disasters exacerbate and add to challenges that were already persistent. The unjust market dynamics of exclusive contracts between supplier and larger companies can be a barrier to resilience for MSEs and in the view of participants needed to be questioned by relevant authorities.

Besides the human and economic capital constraints, MSE owners had also extensively talked about built environment and locality being significant barriers to building resilience. A key factor that was widely cited by MSE participants was the lack of “safe” places within Ba District due to the ongoing infrastructure developments. I asked MSE owners if they would consider relocating to another area that was perceived to be safe, but most had indicated that relocation was not an option. Reasons were that their customers were aware of their current location, and the high flux of customers in the flood-prone areas as opposed to the non-flooded areas where rent was three times the price paid in their current location (refer to Section 6.4.6). For instance, a gift shop owner and automatic car part owner said:

If we relocate to non-flooding areas, we will lose most of our customers because those areas are not so busy. I am not sure people would come to look for us if we moved. My shop relies on this location as it attracts a lot of customers that are travelling by bus or visiting the market area opposite us. The only option for us to relocate is if the whole town is moved to a non-flooding zone. (MSE037)

It is a big challenge trying to find a new space for the business as we have already got an established customer base here and shifting will affect that. If we move to another town like Lautoka, there will be more customers but at the same time greater market competition. Already, a lot of money has already been spent to put in place measures, so I do not think relocation would do us any good. (MSE004)

To explore further the conversation around relocation, I conducted talanoa conversations with MSE owners that had relocated to upper Ba town area. Both owners (a restaurant and a clothing shop) had mentioned that they were on the verge of closing due to low sales turnover

despite them not having to experience flood anymore. Explaining her views on relocation, the restaurant owner stated:

We may no longer be at risk of floods, but we regret shifting. The customers will not walk all the way up here [referring to upper Ba town area] for a meal as there are several other restaurants on the main street. So, being located on the main street where we were before had its own advantages. Right now, my sales levels are a third of what I used to make in the main street, and the expenses are twice as much because of the high rent. I might have to give up my business in the next couple of months. (MSE039)

This business decision predicament was influenced by factors of external build environment and lack of perceived safe spaces. Other factors briefly acknowledged during talanoa conversation included financial risks associated with doing business, such as bad debts (delays in payments) and price volatility (due to supply shortage) (see also Chong, Wang, Tan, & Cheong, 2014). For small businesses, factors such as delays in payment and price volatility can influence cash flow, thus affecting their ability to cope with recovery losses (see also Ali, Nagalingam, & Gurd, 2017). Although previous studies have found risk perception of disasters, firm's age and business nature to be significant barriers to building resilience (see Danes et al., 2009; Halkos et al., 2018; Han & Nigg, 2011), discussions from the talanoa and validation workshop made no reference to these factors. In fact, my findings showed that MSEs perceived floods to pose significant risks, and irrespective of how long the business has been operating in Ba, they prepared to the best of their ability. The next chapter will unpack governance issues in the context of initiatives introduced by disaster management agencies to support MSEs' resilience against climate hazards.

7.5 Chapter Summary

The findings in this results chapter reveal that the approaches and tools employed by MSEs to prepare for, cope with and recover from flood hazards cannot be confined to the plain sailing

and singular vision of building resilience. MSEs' pursuit of survival shed lights on the multiple ways they navigate through struggles to sustain their businesses, livelihoods, re-appropriations (as responsible business owners, as well as community members) and social relations with other MSEs.

As evidenced in the discussions above, the role of social and cultural capital is critical in enhancing the resilience of MSEs. Flood hazards had invoked a sense of togetherness amongst MSE participants and reaffirmed social relationships, influenced through the cultural values of 'veilomani' and 'solesolevaki'. MSE owners acknowledged how their everyday experiences have contributed to their life competency to circumvent difficulties. As such, developing a 'make do' attitude is a fitting and expected form of cultural capital as it emerges from their experience of negotiating life. Indeed, the physical and psychological demands presented by flood events varied between businesses and were dependent on factors such as individuals' appraisals of the event (i.e., people's perception of hazards as life-threatening), characteristics of the hazard itself (e.g., duration and intensity), and the degree of impact on the daily lives (i.e., loss and damage, displacement).

Finally, the chapter highlighted the various barriers to building resilience. Most barriers are dependent on business characteristics, access to capital and the built environment. However, dynamics of power imbalances between landlords and MSEs, as well as market injustices, were acknowledged in the findings. The next chapter will extend the conversation to symbolic capital by drawing on governance systems that promote resilience-building initiatives by MSEs.

Chapter 8: Governing resilience-building initiatives through shifting responsibilities

Development agencies are actively involved in designing resilience initiatives for the MSE sector. On the one hand, these agencies govern and endeavour to enhance the resilience of the wider MSE sector; on the other, they govern through power to create conditions of support. It is with this premise that I examined organisational interventions towards building disaster-resilient futures for MSEs and the aspirations that influence such interventions. The chapter reveals how relationships are mediated by several factors that do not consider the experiences and needs of MSEs. These factors are tangible such as insurance, hazard loans and business continuity plans, as well as less tangible, which includes the processes and approaches towards cultivating risk-averse attitudes. In particular, I analyse how affective characteristics can be critical dimension of governing vulnerable social agents such as MSEs by drawing on the emotions embodied within the initiatives employed by disaster management agencies. The findings underscore that the hegemonic ideals of post-disaster futures for the private sector are largely influenced by regional and global development policies, which, in the view of Bourdieu (1986), are discursive imaginations of the privileged and powerful (i.e., symbolic capital).

A critical underlying theme in this chapter is around the shifting of responsibilities from development organisations to MSEs, who are under growing pressure to formulate themselves as self-managing and self-empowered agents. In social sciences, practices of government are understood as 'governmentality' – a concept first named by Michel Foucault (1980) to explain power dimensions linked to varying institutional arrangements and state practices, which becomes normalised through governmentality processes. Foucault's notion of governmentality has been used in development discourse quite extensively by scholars like Mitchell Dean (2010) and Tania Li (2007). For instance, Tania Li (2007) employs Foucault's

categories in her analytics of government to understand the workings of power and the rationale of development interventions in the context of improvement schemes in Central Sulawesi in Indonesia. Like the assumptions used in designing resilience-building interventions, Li's (2007) ethnographic analysis revealed that development agencies claimed to know how others should live. Thus, in her perspective governmentality is defined succinctly as the "conduct of the conduct" as it "shapes human conduct by calculated means" (Li, 2007, p.275). Rose and Lentzos (2017) draw further on Li's work to explain "conduct of the conducted" as "ways invented for governing the behaviour of individuals in the name of ethics—through the values that steer individuals in their day-to-day conduct and choice" (p.33). In the sections following the profile of DMI organisations that were part of this study, I describe how responsibility is cast within the resilience-building initiatives and the complexities of moral obligations inherent in the everyday realities of running a business.

8.1. MSEs' emotional experience with post-disaster practice

Climate-induced hazards produce emotionally-charged environments, which governments have used to their advantage to forge institutional processes for post-disaster recovery (Alburo-Cañete, 2021; Parida, Moses, & Rahaman, 2021) Disaster management practice in Fiji means that whenever the NDMO declares a state of 'disaster' or 'emergency', which is dependent on the severity of the hazard a post-disaster needs assessment is conducted within a six-week timeframe to derive types of recovery and reconstruction interventions required for affected sectors and communities (DMI006). For the wider MSE sector, the post-disaster needs assessment process entails assessment of damages incurred by individual businesses within an affected geographical location, including impacts to their production and consumer network. The MSE business owners explained that assessment of damages to individual businesses was subjective as they had to indicate, through a survey, the extent of damages and attach photographic evidence. Moreover, for many MSE owners, the information collated

through the disaster-needs assessment was perceived as useless because it did not eventuate in an outcome that supported the sustainability of their business. The experience reported by MSE owners is that government officials often forge false hopes of support in order to demand information. Based on previous experience therefore, post-disaster assessments were met with anger and anxiety. Sharing his reflection on the post-disaster assessment processes, an electronic shop owner mentioned, “[The] government officials ask us about the damage, but what for? We already know that there will be no aid for businesses considering the criterion” (MSE010). However, most MSE owners shared information irrespective because they hoped that the government would use the information to re-evaluate its support to the MSE sector, while some MSE participants anticipated that the information would get published so that the wider public can learn about the unjust practice of grant distribution. A small number of MSE owners referred to the needs assessment as a ‘tick-box exercise,’ where information derived is used as a lobbying tool for aid money. An automotive shop owner during the validation workshop said:

Floods are inherently political events, and assessment tools are fundamentally political because it determines the level of support that is required, which is mostly met through aid money. It is extremely frustrating to see how we [MSE owners] are manipulated for their own interest. There are always talks amongst members of parliament (MPs) around MSE recovery programmes. These MPs use disasters as vote-buying campaign, and that has been the sad reality. (MSE009)

MSEs based on their experience speculated that post-disaster assessment tools have been widely used to lobby for external resource support, but questions on how effectively accessed resources are mobilised remains unresolved. They also believed that post-disaster assessment tools exert power over the vulnerable, as it demands information that is otherwise difficult to access. The response above provides critical insights into the fact that aid or recovery mechanisms often have a political veneer. MSEs in this case were astute as they

looked past the assessment exercises and promises made. The quote also incorporates emotions of frustration towards the government leaders, which many MSEs perceive as manipulative.

Talanoa conversations with MSE owners also revealed frustration towards unjust design and delivery of rehabilitation grants programmes. During the talanoa conversations, MSE participants labelled recovery programmes for households as “unfair” and contested ways in which government neglected support for small businesses over bigger businesses. A telling example was the resentment exhibited by MSEs towards the government’s help for homes (HFH) initiative²⁷, where the government provided FJ\$7,000 to households whose homes were completely destroyed and FJ\$3,000 to those households whose homes were partially destroyed. The problem, however, was that the vouchers were only redeemable at 11 building material suppliers across the country, all of which were large businesses (for details on the criteria, see Miyaji, Fujieda, Veitata, & Kobayashi, 2021). Sharing his views towards this recovery initiative, an electrical supplies shop owner stated:

The government officials made it clear that we were not eligible for home reconstruction grants. But if they genuinely cared about our recovery, they would have at least put some thought about where these grants can be redeemed. Why are only multi-nationals benefiting from grant schemes, when they have sufficient capital to recover...It is the ugly politics of government to be honest. MSEs sell hardware materials for a third of their price, yet we are not listed as a preferred supplier (MSE 017)

The reactions regarding the design of the reconstruction initiative demonstrates how MSEs’ recovery can be impeded by the current system of post-disaster governance. The analysis

²⁷ Households were allowed to self-declare the amount in their applications based on their own assessment of the extent of damage. Households with an annual income ≤ 50 000 FJD and with homes in the affected area, which suffered housing damage and **did not** receive any housing reconstruction assistance from NGOs or other organizations, were eligible to apply (Miyaji et al., 2021; p. 1926). During TC Evan in 2012, households were provided with assistance amounting to FJ\$14,000.

encompasses an understanding of how process and practices of designing post-disaster interventions remain discriminatory and dismisses the needs of MSEs. The MSE owners in Ba constantly mentioned being 'alone,' 'not consulted' or 'siloed approaches' towards the design and delivery of governments interventions and humanitarian aid programmes. While having a talanoa-style research conversation with a participant from the Ministry of Economy, I asked why the HFH grants were only redeemable at larger business despite MSEs in construction sectors being able to provide similar supplies for a third of that price. The participant responded that MSEs lacked accountability systems and the government had negotiated a grant expenditure tracking system with larger businesses, which MSEs were not able to implement. He said "MSEs may sell these items at a lower price but they do not have proper financial reporting systems" (DMI005). He went on to justify that he understood the frustrations of MSEs of being excluded from the current list of suppliers for HFH initiative as well as small NGO grants, but the systems and processes of post-disaster response was unlikely to change unless MSEs demonstrated that they have the capacity to supply to local needs and transform their accountability systems. This touches on another point that emerged during the conversation with a Ministry of Economy participant, that MSEs lacked understanding of government processes due to their lack of interest in the overall design of initiatives such as HFH. He argued that MSEs' demand for a fair capital distribution system was biased due to their lack of knowledge on the contextual realities such as the poorer households, and the fact that MSE owners should start taking responsibility for their own survival. From this conversation, it becomes apparent how means for designing post-disaster interventions are intimately entangled with and propelled by assumptions regarding MSEs' capacity and economic capital. I therefore argue that MSEs are constructed as self-generating formations that take responsibility for their own survival. This argument was echoed by MSE participants who felt that their advancement and growth was not genuinely reflected in the government's efforts towards building resilience of the private sector. For instance, MSE owners expressed

frustration against DMIs, particularly the government officials who presumed to know what the MSEs needed and what they should be doing. Sharing his frustration, a shoe shop owner said:

At the end of the day, we are trying to make ends meet by ourselves and there is no support whatsoever by those who pretend to know our challenges. They should stop talking about us or tell our stories of failure when they are not doing anything about it. Unfortunately, this has been a trend by our leaders and the representatives of all these organisations that think they know what is best for us. Clearly, they need a reality check of their own systems and processes before reminding us to be responsible. (MSE041)

8.1.1. Governing through shifting responsibilities

Studies have also shown that disaster settings heighten affective engagements with governments and animate powerful encounters in determining ways forward (Laszczkowski & Reeves, 2015; Navaro, 2012). Therefore, organisations designing interventions for MSEs can be categorised as affective social subjects that can be reprimanded for being incompetent in managing situations or praised for their empathy towards those affected. Ultimately, individuals representing these agencies are also emotional beings and can act out feelings of anger or powerlessness while performing their roles, thus demonstrating their capacity to affect, as well as be affected (see also Anderson, 2013). Reflections from my interviews with DMIs underscore how intentions of representatives were often visionary or connected to making vulnerable populations more resilient to hazards. Yet, ways in which these organisations claimed to account for the needs of the vulnerable appeared to be influenced by donor funding and western approaches, which lacked contextual clarity (see also Li, 2007). In what follows, I engage with the government's yearnings of hegemonic aspirations directed towards building resilient futures for MSEs through shared responsibilities. I quote remarks made by Fiji's government leaders at global forums against the realities on the ground.

The Fijian Government has been globally recognised for their pioneering policies focused on building resilient communities in response to the ongoing threats posed by climate change. At the 23rd UNFCCC Conference of Parties, Fiji's Minister responsible for Climate Change, Honourable Aiyaz Khaiyum, boldly said "We have been witnesses to the serious impact that climate change has had on our bottom line. It is far more than a matter of social responsibility, it's a question of survival of the very economies in which you operate and indeed it also requires us to become a lot more in" (UNFCCC, 2017). He then went on to say:

As governments, it is our job to not only guide sustainable development, but to foster an environment that allows the private sector to do what it does best; innovate, improve efficiency, and create sustainable employment for our people. That potential in the private sector can be a powerful catalyst in boosting the resilience of our economies. (UNFCCC, 2017)

While delivering his lengthy remarks, he also acknowledged the need for multi-lateral development agencies to provide measures that "de-risk investments" while at the same time urged private sector players "to strive towards identifying solutions and approaches" to deal with the conditions of climate change. One of the most striking aspects of his speech was the way in which responsibility was shifted onto the vulnerable by encouraging them to identify solutions and approaches to enhance their own resilience, contrary to his earlier acknowledgement that "it is our job... to foster an environment".

A parallel concern would be the lack of capacity by government in designing adequate resilient-building initiatives, thereby compensating this shortcoming by shifting the responsibility to MSEs. There were several other occasions whereby government officials have publicly acknowledged their responsibility to foster resilient initiatives for MSEs (see Pacific Islands Forum, 2019; Pacific Resilience Partnership, 2021), but with the same discrepancies in the commitments and the realities on the ground. In line with this, the texts of my interviews with state officials regularly included the phrases "it is not our responsibility," "we do not have

the capacity” and “we have more urgent priorities.” The state officials that I interviewed believed that MSEs needed to be responsible in implementing risk reduction initiatives through their own means. In responding to my question “How has the government supported MSEs in Ba to prepare or cope with climate hazards like flood?”, a senior official from the Ministry of Economy’s Climate Change Division said:

MSE owners in Ba must adapt to the various types of hazards they are likely to face. They know that they are vulnerable to hazards like floods and cyclones, yet they expect the government to support them instead of proactively mitigating or adapting to the risks posed by such hazards. Why cannot they instead do something about the flood issue instead of complaining. The government of the day should be focused on rebuilding resilient infrastructure, not fund the assets of their businesses. (DMI005)

I then asked the question, “How can MSEs apply for loans if commercial banks are so reluctant to support and isn’t it true that insurance companies do not want to underwrite cover for floods?” to which he replied, “Well there are certain loan types which they can apply for, but they prefer the grant. Also, insurance cover is available, but it is costly, so MSEs have to weigh their cost and benefits.” The Ministry of Economy participant then explained that the issue of reliance on grants stem from the hand-out mentality cultivated by the ongoing external support provided by the government. However, he clearly articulated that MSEs cannot be compared to households, as there are obvious levels of disparity in capital ownership (referring to economic capital). A similar narrative was also shared by the local town council representative, who stated, “MSEs only want money despite knowing that there are people in a far worse state than them. The least they can do is be prepared for the worst and not start speculating against us” (DMI001). I argue that strategy for shifting responsibility is overlaid with feelings of neglect. According to Trnka & Trundle (2017), critics suggest that resilience strategies are fundamentally neoliberal because too often, “... public authorities relinquish their obligations for the provision of wellbeing and turn a blind eye to the disadvantaged groups by devolving

individuals to adapt on their own, or even abandoning them to their fate” (p.35). The interviews with DMIs revealed that it is extremely difficult for government to take responsibility on their own while redressing the risks posed by recurrent floods in Ba, let alone provide all the essentials for the recovery of all affected communities, because it is not economically feasible. However, the centrality of the idea of building resilience poses the question on who is held responsible by whom and for what, and in what ways.

8.1.2. Risk aversion tools – promoting preparedness

Drawing on the interviews with DMIs, it was apparent that affective strategies were institutionalised and normalised to alter the preparedness behaviour of individuals, as well as to govern their life in the aftermath of the flood. Foucault (1980) refers to affective discursive practices as “disciplinary techniques” to shape individuals “into amenable subjects of the newly re-constructed social order”²⁸ (cited in Grove, 2014, p.247). For instance, the discourse of building resilience drew on the imperative of relocating communities vulnerable to climate hazards. The participants from DMIs explained how past floods and cyclones serve as a benchmark for urban planning techniques, such as use of geo-spatial planning, and was a fundamental undertaking for building resilient towns and cities. Likewise, techniques such as coding of disaster vulnerabilities into spatial frameworks have been adopted to alter MSE owners’ relationship to their environment and ways of life. This section illustrates certain techniques embedded in the process of building resilience that qualify affective relations.

To demonstrate how specific governing tools shape affective life, I draw on three risk aversion tools that were notably mentioned during the interviews with DMI and MSE participants, which

²⁸ Foucault (1980) explained how governing individual relies on “circulation of new truths, which are legitimized” to regulate behaviour (cited in Grove, 2014; p.229).

reinforce negative emotive responses. These include (i) disaster warnings, (ii) disaster language, and (iii) hazard maps.

- i. ***Disaster warnings:*** The Fiji Meteorological Office (FMO) and the NDMO under the NDMA Act 1998 are tasked to disseminate ‘first-level information’ (i.e., essential information regarding developments of hazard and forecast intensity) on hazard events. Over the years, both these agencies have used several methods to promote disaster preparedness behaviour amongst local communities. First, a seasonal lookout is published, where tools like weather satellites are used to predict the number of cyclones and rainfall averages expected over monsoon season. “The seasonal lookout is primarily to raise awareness for people to prepare against possible hazards. However, despite individuals being victims and survivors to multiple hazards, the information issued via the seasonal lookouts is seldom taken seriously”, said NDMO participant (DMI007). Consistent with the view that people were complacent towards seasonal outlook information, the FMO participant said, “It is concerning that people only start accessing the website to read the seasonal lookout publication, when the hazard is actually approaching” (DMI006).

Another technique that the NDMO is using to raise awareness has been the creation of multi-media content. The participant from NDMO explained how the TV advertisements, posters, documentaries²⁹, and billboards using footage or pictures from past disaster experiences serve to remind people of the importance of preparing. He explained that sometimes people who have never experienced a cyclone or a flood need to see how devastating the impact can be in order to take the warnings issued through FMO seriously. I argue that these warnings do not actually serve their purpose. Rather than encouraging people to get prepared the warnings simply tap into anxiety and feelings of concern and

²⁹ Lessons learned from TC Winston Documentary - <https://youtu.be/YqwjzxRDd6I> (SPC, 2018).

so undermine people's willingness to act. For instance, while sharing about a recent TV advertisement on cyclone preparedness, a bread shop owner stated, "The snippets of footage³⁰ from the damage caused by TC Winston bring back those sleepless nights and I pray that my family and I never have to go through that experience again" (MSE005). Likewise, a convenience shop owner stated, "The posters and photos in the news articles and TV news is a constant visual reminder of risks posed by disasters. Do they really have to remind us?" (MSE029). Figure 8.1 shows a recent poster developed by NDMO, which was published in the local newspaper two months prior to the monsoon season.



Figure 8.1: Poster on disaster preparedness by NDMO (Source: Fiji Times, 19 September 2018)

The representative from NDMO restated that the government had gone out of its way to remind people to take precautions because of the stress such events have on the government's resources. He explained that, in an effort to promote more risk-averse

³⁰ Disaster warnings campaigns

- (i) <https://www.fbcnews.com.fj/news/ministry-ramps-up-disaster-preparedness/>;
- (ii) <https://www.fbcnews.com.fj/news/fijians-must-stand-ready-for-cyclone-season/>
- (iii) <https://www.youtube.com/watch?v=iHh2t1NwxOY>

behaviour amongst all Fijians, the Government had annually hosted the ‘National Disaster Awareness Week (NDAW)’ a month prior to the monsoon season. The NDMO representative mentioned that over the week, local government officers were tasked to run test evacuation drills³¹, hazard awareness sessions with communities, and conduct a national operational readiness check (ORC)³². The drills mimic potential hazard situations to gauge how people respond, but for MSE participants in Ba, it triggered emotions of anxiety and frustration as they explained that hazards such as floods do not always come announced.

- ii. ***Disaster language:*** In disaster situations, not only is timely information vital for decision making (McKee, 2014), but equally important is the power of language while disseminating information to vulnerable groups. As Duncan (2013) argues:

[Individuals] who do not understand or speak the technical language can be at a severe disadvantage during a disaster situation, and it can be readily predicted that they will become heavy consumers of information and advice from sources that use their own language. (p.10)

Although DMIs do not view use of technical language as means to trigger trauma, MSE participants had mentioned how terms like “category 5”, or “low pressure” had invoked anxiety. The representatives of NDMO and FMO mentioned that it is common for individuals to feel anxious, particularly if they have experienced devastation from prior hazards, but their intention was to promote preparedness rather than anxiety. The representative from FMO stated that sometimes there is no other way of communicating the risks of the hazard apart from using the regular meteorological terminologies such as ‘categories of cyclone’ to indicate potential intensity or ‘rainfall volume’ to indicate potential

³¹ Fiji Village (2018) – Tsunami drill in operation (<https://www.youtube.com/watch?v=1Pej4VQgZv4>)

³² Fiji Village (2021) – State of operational readiness (<https://www.fijivillage.com/news/We-are-at-60-in-our-disaster-readiness-check--Seruiratu-rx84f5/>)

of flooding. In his perspective, “such language has been used for decades and people need to self-educate themselves on the lingo” (DMI004). The participant went on to explain that perhaps the misinterpretation had stemmed from the exaggerated media reports, which has been an issue beyond their control. He explained that journalists during a hazard event tend to assume that they are experts and misinterpret information relayed to them, which in turn can invoke emotions amongst individuals. Sharing an example, the FMO representative stated that radio and TV news presenters are provided weather situational reports that refer to scientific language such as ‘category of cyclone’ or ‘possibility of severe flooding’, but journalist tend to create their own interpretation on what the likely effects can be. He said, “we do not tell talk about the impacts and expect their reporting to be complemented by the official situational reports issued every day or six hours (depending on the severity of the event), but that cannot be dictated” (DMI004).

I then went on to ask if there were ways in which scientific language can be simplified and the potential effects of hazard events relayed clearly. The FMO participant stated that there were efforts to address these issues by training journalists through disaster communication training and streamlining existing communication channels, which was part of a much bigger problem. He indicated that development partners such as UNDP and SPC had significantly invested in streamlining communication platforms so that relevant information can be accessed directly by people on the ground. However, findings from the field indicated that governance arrangements associated in releasing information to the public by the NDMO remains to be a major issue. Drawing on my secondment experience to the NDMO in the aftermath of TC Yasa, I witnessed how there were several steps involved in disseminating critical information, such as active evacuation centres, closed roads, and food ration distribution. I observed that there is a chain of governance processes followed by the National Emergency Operations Centre (NEOC), such as information verification

from sources on the ground (Town Councils) through to the Divisional Commissioners Office prior to information being released to the Disaster Controller. A briefing meeting is then held to finalise the announcement before a press conference is called. Undoubtedly, the prolonged processes may also invoke anger and frustration amongst MSEs in need of such information to make critical decisions, such as whether to leave their shops or stay back.

The study of Uekusa (2019a) uses the notion of disaster linguicism to shed light on how jargons (e.g., technical language) can be problematic for minority groups that have limited language competency. His study shared insights on how ethnic minorities in Canterbury, New Zealand and Tohoku, Japan had not evacuated in time because they did not understand the earthquake and tsunami warnings issued by public authorities. Uekusa (2019a) also asserts that linguistic minorities (immigrants and refugees) felt discouraged to seek support during emergency situations because they did not feel confident to speak nor were they able to narrate their own experience because of language barriers. As Uekusa (2019a) puts it, “disaster survivors may be reminded of their powerlessness” due to linguicism issues. The findings of my research reflect that disaster linguicism can trigger anxiety, depression, and trauma because people are confused by the messages communicated. A telling example can be drawn from the talanoa conversation with a clothing shop manager who shared the experience of her boss, who was Chinese and had limited understanding of local knowledge and English.

My boss struggles to understand English so whenever there is a flood warning issued, I will go and tell her and lead the preparation from my side. It is really hard for her to communicate to the staff as well, but she is a really nice lady. After TC Winston floods, she then did not want to stay in Fiji anymore and she barely spoke to anyone or ate. I was worried because I did not know how to help her.

Sometimes, I heard her crying on the phone to her family...I empathise with her because we can be in the same situation in another country. (MSE052)

The response suggests that communicators of disaster information tend to ignore issues of linguicism, which is a consistent form of social discrimination that exists in the everyday lives of not only the immigrants but also persons with disabilities, and those with limited literacy. The study of Winterford & Gero (2018) highlights that this has been a longstanding issue in the Pacific.

Sharing a slightly different perspective on disaster linguicism, a restaurant owner indicated that sometimes not knowing what the technical language means invokes greater fear and anxiety. For instance, sharing about her TC Winston experience she said,

When they said category 5 cyclone was approaching, no one knew what it meant because we have never experienced a category 5 cyclone in Fiji. I was so scared and worried because people kept speculating that it would wipe Fiji out. The NDMO needs to really make all of the technical language easier to understand (MSE019)

While one might expect countries like Fiji to have a more advanced disaster communication system due to its susceptibility to climate hazards, the analysis of project documents and talanoa conversations with NDMO participants indicated several longstanding issues, such as the reliability of existing forecasting systems. The Standard Operating Procedures (SOP) for the National Emergency Operations Centre indicates that the NDMO still uses the Radar Weather Models (RWM) to formulate warnings for floods and cyclones, but accuracy and timeliness of data capture tends to be an issue. In an effort to address this problem, the NDMO participant indicated plans to introduce satellite warning systems, particularly for communication blackspot areas. He also mentioned that there has been a paradigm shift in forecasting since the introduction of impact-based

forecasting (IBF), which Fiji only adopted in 2019. Explaining the benefits of IBF warning services, NDMO participant stated

With IBF, our citizens can expect information about what to do to ensure their safety. Many people still lose their lives and incur significant losses because they lack the understanding of impacts. This is why we shifted towards IBF systems because it uses vulnerability and exposure datasets along with meteorological information to make predictions. (DMI007)

Concerns around reliability of forecast information were also reflected by MSE owners in section 7.3.2. Another significant and longstanding issue has been the timeliness of information being dispersed during a disaster. The NDMO participant mentioned that communication is delayed significantly during a disaster because of the hierarchy of clearance required. Sharing about process of issuing situational reports to the public, he said

If the threat is imminent based on the warnings issued from FMO, the NDMO is required to activate the NEOC. However, to activate the NEOC, disaster liaison officers (DLO) from several respective government departments need to be deployed. The NEOC then through the DLO technical functions collates relevant information on roads, deaths, evacuations and so on, which are formulated into a situational report. The report then gets approved by the National Controller before getting released to the public. By then, members of the public have resorted to some other source of information, so the bureaucracy really does not help. What matters is how this information can be used by people who are in urgent need of support because the situation reports also provide information on ration distribution and people in evacuation centres, which other NGOs use to determine donations. (DMI007)

- iii. **Hazard maps:** To reinforce discourse on safety, the NDMO had produced hazard maps from spatial classifications and past disaster records. These maps are a graphic visualisation of a hazard (or set of hazards) that affects a geographical area (see Figure

4.5), whereby levels of risks are often represented through colours, with high-risk areas often highlighted in red. For MSE participants, like disaster warnings, hazard maps also serve as a reminder of danger, which in turn contributes to feelings of fear as their locality is deemed unsafe. To date, the spatial classifications used by NDMO categorises Ba Province as at “extremely high risk” to both floods and cyclones. After the 2009 floods, the NDMO had re-assessed hazard risks and updated existing hazard maps. The interviews with NDMO representatives revealed that technical experts had reaffirmed the need for certain parts of Ba town to be relocated. However, despite the idea of moving to safer locations sounding rational, processes associated with relocation are compromised by the difficulties in obtaining leases for non-state land, as well as the lack of urban spaces in non-flood prone areas.

The interviews with insurance companies confirmed that hazard maps serve as a critical source of information for underwriting insurance protection cover for different types of hazards. However, the insurance companies widely employed the term ‘red zone,’ referring to the high-level flood and tropical cyclone risks. In their perspective, Ba town was labelled as “red zone” following the 2009 floods, which subsequently resulted in insurance companies withdrawing protection cover for floods to businesses (DMI025; DMI026). “Since the 2009 floods, we cannot afford to provide underwrite flood protection cover for any of the businesses located in ‘red zone’ and those that already have cover have to apply certain level of precaution to receive insurance pay-outs, as well as agreeing to pay increased premiums,” said a CEO of an insurance company (DMI024). The NDMO have the authority to define categories and boundaries of spaces, and subsequently, the people and things allowed to inhabit these spaces.

8.2. Unpacking perspectives on resilience-building initiatives for MSEs

Over the last decade, several disaster management agencies in Fiji have designed and implemented a wide range of resilience-building initiatives for the private sector. These initiatives stretch across a spectrum of adaptation, where the focus is on enhancing individual capacities of business owners to deal with certain levels of risk, to mitigation, where the focus is on adoption of innovative approaches that would reduce risks posed to the wider private sector. The discussions with DMIs and MSEs revealed how the ethic of responsibility is reworked in managing individual and collective conduct in the face of uncertainties posed by climate change. The discussion to follow highlights four key strategies offered through various DMIs. Within the discussion, I also reflect on the perspectives of MSEs towards these strategies.

8.2.1. Business continuity planning (BCP)

The United Nations Entity for Gender Equality and the Empowerment of Women (UN Women) has been implementing initiatives that aim to enhance disaster preparedness of MSEs through the Markets for Change (M4C) programme funded by the Australian Department of Foreign Affairs and Trade (DFAT). In explaining the aspects of the project support, a representative of UN Women shared that the M4C programme had supported five municipal councils and more than 100 market vendors with the preparation of disaster management plans over three years (i.e., 2015-2018). However, she acknowledged that they were still in the process of recruiting a technical agency to assist in implementing the recommendations of the plan. The project documentation of the M4C programme justified municipal markets and vendors as beneficiaries because of their critical role to the nation's food security chain, but they gained minimal access to financial support in the aftermath of a disaster.

The participant from UN Women went on to share how technical and resource capacity challenges continued to exist, and the fact that neither market vendors nor municipal councils were proactive in implementing disaster preparedness measures. For instance, she explained that when attending the business continuity training with female market vendors in Ba district, she observed how product diversification had been an afterthought amongst vendors. Likewise, she indicated that municipal councils had reported challenges around managing the market operations in the pre-disaster phase due to market vendors being 'casual' in implementing learnings from disaster training. "The market master at this training shared that market vendors were complacent in preparing for disasters and the learnings from these training is partially applied" she said. She added that training should be contextualized to the vendors' need, as not many vendors can attend a five-day training to develop a plan when they know exactly what to do in different phases of a disaster.

With an opposed view, the representative from the United Nations Disaster Risk Reduction (UNDRR) argued that most MSEs have strong "real-life" risk management capacities despite the limited resource they have. He explained that MSEs are still able to deal with various contextual business challenges, and business continuity training was just a way of formalising their practices and arguably a way for MSEs to access financial resources in times of crisis.

As stated by him:

You don't necessarily have to make a case for disaster preparedness or building resilience to MSEs in Ba, they get it because they have been victims of floods. So, it is not a matter of whether the issue is important, it is around why they are not engaging or their reluctance to attend training. (DMI017)

Similar comments were also shared by the MDF participant and the USAID Climate Ready project representative, who had queried why BCP training was still prioritised for private sector players despite the low attendance. Responding to the issue of why BCP training was not taken

seriously by MSEs, the participant from the Ba District Advisory Council stated, “I do not think smaller businesses realise the value of planning their continuity, they take these things for granted. Unless we make it mandatory, we will continue to have low attendance rates” (DMI002). However, I argue that the low attendance rates of MSEs at BCP training could be an issue of relevance and effective use of time. As indicated in Chapter 7, MSEs are knowledgeable on how to prepare within their own means, thus they might find such training to be irrelevant. The participant from the Fiji Commerce and Employers Federation (FCEF) shared similar insights.

[Training] organised by the Chamber are a pure waste of resources. The town council consideration to make such training mandatory for business registration renewal will have implications such as movement of MSEs from the formal to informal sector, which is already an issue. (DMI032)

The BCP training is still being offered with the presumption that MSE owners are not adequately thinking about recovery initiatives to sustain operations in the aftermath of the hazard. During the interviews with DMIs, MSEs were often labelled as ‘incompetent’ and ‘reluctant’, without a consideration of factors such time constraints due to lacking capacity, as most owners would have to shut down their business to attend such training. The pressing questions here are why not offer training that builds on existing strategies and knowledge, acknowledging the experience of the SME and others? And why not design the training to accommodate people’s availability?

8.2.2. Financial capital and training

As evidenced in Section 2.2.4 and 2.2.5, MSEs with restricted access to economic capital struggled to adequately prepare for or recover from disaster events (Alesch et al., 2001; G. R. Webb et al., 2002; Yoshida & Deyle, 2005). My findings (refer Section 7.4) revealed that MSEs faced challenges in accessing credit for two key reasons: first, lack of collateral, as they did

not have assets to offer as mortgage; and second, their lack of formal financial knowledge such as preparing forecast cashflow statements. According to financial institutions that render credit services to the private sector, MSEs are viewed as 'high-risk creditors.' A representative from Westpac Bank said, "Often there is unprecedented surge in borrowing by businesses in the aftermath of a major hazard event, but the bank being a risk averse agent would only accommodate those clients that provided some form of assurance that they would not run into solvency" (DMI027).

As of February 2021, commercial banks offer MSE loans of up to FJ\$5,000 without collateral, and up to \$500,000 with a collateral of 35 percent, both with an annual interest rate ranging between 8.95 percent to 10 percent (DMI027). Yet, the discussions with the RBF participant revealed that the utilisation rate for these credit products has been quite low because of lender requirements such as provision of annual financial statements (DMI008). The RBF participant explained that the Central Bank has a supervisory function, therefore they cannot ask commercial banks to change their lender requirements. Echoing concerns on equity, the FDB participant explained that lending conditions are more favourable for MSEs through the Fiji Development Bank because the government subsidizes interest rates and offers collateral (guarantee schemes – See Chapter 4.2) to promote growth of MSEs. For instance, he mentioned:

Across all banks in Fiji MSEs are charged higher interest rates ranging between 8 to 12 percent per annum for any overdraft [loan] they take because they are perceived to be a risky investment compared to large businesses and companies that would incur around 5 to 7 percent for the same sum of loan and be required a higher collateral. This is one of the main reasons why MSEs do not take loans because they end up paying back more through interest. The banks disincentivise MSEs from borrowing and it is sad that this has been an ongoing issue. The only time MSEs benefit from borrowing is when their interest rates are subsidized

through Grantee Programmes, which is usually through the Government (DMI028)

The FDB participant went on to explain that most MSE owners prefer to get an overdraft with commercial banks that hold their deposits because the FDB does not have such a facility. He stated, “FDB is known as the ‘bank of last resort’ or the ‘incubator bank’ and most often business owners show up to ask for support when their own commercial banks turn them away” (DMI028). The participant described that FDB was mandated through the FDB Act 1967 to provide finance, financial and advisory services to priority sectors such as MSEs so that they are financially and economically stable. However, MSEs lacked knowledge about the lower levels of lending rates [interest] and subsidy programmes available to them because the onus is placed on the business owners to find out on their own accord. The FDB participant mentioned that there are added levels of bureaucracy to seek approval for subsidized interest rates or guarantee schemes through the RBF. He explained that this is why commercial banks are hesitant to provide similar services to MSE clients, because the banks see it is an added responsibility to act as a ‘intermediary’ between their clients and RBF to seek approval for schemes where they would not maximise revenue.

To address credit accessibility issues, the Reserve Bank conducted a ‘Demand Side Survey (DSS)’ in 2008 that included around 1,600 MSEs respondents. Discussing the results of this survey, the participant from the Reserve Bank stated, “It was shocking to learn that only seven percent of MSEs were able to access formal finance due to the strict lending policies of commercial banks, with almost two-thirds of MSEs indicating their reliance on informal forms of finance” (DMI008). The DSS results had prompted bank officials to lobby for the adoption of the National Financial Inclusion Strategic Plan 2009- 2014 (NFISP) and the issuance of microfinance under Banking Supervision Policy Statement (BSPS) in 2009, which had set forward the requirement for credit providers to develop MSE specific micro-finance products

and have dedicated micro-finance divisions (see also Hunt, Rokoua, Miller, Werekoro, & Sharma, 2015; RBF, 2018). However, despite a ten-year lapse since the issuance of the BSPS, there has been minimal progress in development of micro-credit products for MSEs. Instead, financial literacy training was offered as a substitute. When the Westpac Bank participant was asked about what the bank had been doing to help ‘high-risk creditors’ like MSEs in times of disasters, she responded:

We offer a *free* [emphasis added] financial literacy training called Business Basics Program (BBP) that has modules on budgeting, and contingency planning for unpredictable events like cyclones. If MSEs expect to get a loan from us, we expect them to be financially competent and get their books [financial documentation] sorted. (DMI027)

However, the participant mentioned that MSE owners seldom attended this training despite it being free. A similar comment was made by the Fiji Development Bank participant, who said,

[We] provide small businesses training on sustainable finance, which is critical to recovery from hazard event. But the onus is on the client to attend, and the banks cannot take the responsibility for their [clients’] complacent behaviour (DMI028).

Over the course of the fieldwork, I came to learn that the design of financial literacy training implemented by Fiji’s commercial banks were influenced through the funding support of UNDP’s Pacific Financial Inclusion Programme (PFIP). This information was revealed during an interview with the project lead of PFIP, who had also expressed concerns on the how commercial banks in Fiji do not have the MSE sector interest at heart. Providing a brief historical account of activities, the participant explained that the design of financial literacy programmes originated from the discussions during the Pacific Financial Inclusion Taskforce (PFIT) Meeting in 2009 in response to the issuance of the BSPS. He explained how commercial banks were reluctant to design micro-credit packages or facilitate any training, so the project

had stepped up to support giving the teams expertise, including the funding for marketing the programme.

Reflecting on the quotes above, it is apparent that the banks have deployed the approach of 'shifting responsibility' onto MSEs. The discussions revealed that the banks do not make an active effort to support MSEs, despite knowing of their ongoing struggles of accessing formal credit irrespective of a hazard situation. It appears that the SME experiences the training as tokenistic in nature, shadowed by narratives of corporate social responsibility, and thus irrelevant to their actual needs. As evidenced, the issuance of BSPS and the donor funding influenced the design of such programmes, and perhaps such initiatives would not be existent without regulator pressure or financial support.

8.2.3. One-off rehabilitation grants

As briefly mentioned in Table 4.2, the MSGB facility was established in 2015 to support potential business owners with start-ups with registration costs, as well as existing micro businesses with expansion activities. In the aftermath of TC Winston in 2016, the facility expanded its services to include rehabilitation support for MSEs. However, to qualify for rehabilitation support, MSEs had to be either located in the declared path of Tropical Cyclone Winston, or owners needed to provide evidence of sustained damaged directly from the cyclone.

According to the statistics provided by the MSGB facility manager, a total of 1,039 MSE owners from Ba had applied for rehabilitation grants but only 85 benefited (DMI034). He explained that most MSEs in Ba were ineligible for support because damage sustained was directly from floods, which were triggered by the heavy rainfall from the cyclone and not the cyclone itself. Furthermore, the facility manager shared that most of the MSEs located in Ba did not meet the requirement of submitting a letter from a village headman or district office to verify that their

business had sustained damage during the cyclone, or alternatively did not meet the funding conditions, which were not stipulated in the grant application.

Market vendors selling at the municipal market were entitled to FJ\$600 (US\$300) in grant if they had not resumed selling at the market after TC Winston. This fund was to cover for 1 week's stock. On the other hand, market vendors that had resumed selling after TC Winston were ineligible for the rehabilitation grant. The same applied to farmers, restaurant owners, and fisherman that could get either full or partial funding up to 3,000 FJD depending on the extent of damage. (DMI034)

Sharing concerns associated with the funding conditions, the MSGB participant expressed how it was difficult for him to turn away businesses that were in dire need of support because of the restrictive criteria. He explained, the rehabilitation grant was short-lived as it was not supposed to be included as part of the facility, but due to the grants being distributed just a month before TC Winston, they were concerned that those supported would close off, as they would have insufficient means to cope.

Commenting on the roll-out of the rehabilitation grant, the participant from the Climate Change Division expressed concerns towards grants cultivating a hand-out mentality amongst MSEs. He also expressed concerns towards the accountability of the rehabilitation grant by saying:

The criterion was subjective because no government officer conducted physical assessments of the damage. In the village, any shop owner can get a letter from the village headman [implying strong social relations], so there is a possibility of fraud, compared to those in Ba town that need a letter from district officer. Therefore, such levels of inequality arise at the expense of taxpayer's contributions. (DMI005)

Similarly, the participant from the International Labour Organisation (ILO) mentioned that rehabilitation grants were a short-term solution of supporting MSEs recovery and suggested

that the government would have made better use of the grants if they were directed towards implementation of innovative risk management measures such as preparatory equipment.

The discussions above reveal communication challenges, as the criteria were not clearly stipulated within the call for applications, thus resulting in most MSEs being ineligible. In fact, the large variation between the number that applied and those that benefited (1,039 applied vs 85 benefited) underscores the need for the MSGB facility to rethink their strategies of supporting MSEs, particularly those struggling to recover from the looming threats posed by climate hazards. Similar assertions were made by the Ba District Council administrator who during the validation workshop commented:

We understand that governments have to take care of households first, but they must realise that MSEs feel left behind, and the reality of the matter is that these business owners are part of a community and are also households. If they do not survive, we have bigger issues to deal with such as unemployment. More people will also be relying on unemployment benefits So, I think it is unfair to create programmes which have conditions attached to it and business owner... It is either the government is fair across the board or designs equal initiatives for various stakeholders.

Unfortunately, other DMI's that were present at the validation workshop did not wish to respond to the participant, but the representative from SPC did emphasise on fair capital distribution system.

8.2.4. Hazard insurance

Insurance against climate perils has been regarded as a crucial risk mitigation measure across global and regional DRR policies. Not only do hazard insurance products offer compensation for economic and social losses to policyholders in the aftermath of a hazard, they also reduce financial burden on the government (Broberg, 2020; Chatterjee et al., 2016). However, insurance uptake across Fiji has historically been rather low due to the affordability of such

products, which is dependent on the probabilistic nature of risk prediction³³, as well as the general lack of awareness on the value of insurance.

Over the duration of my fieldwork, I interviewed three insurance companies and an insurance brokering firm to understand the various types of hazard insurance products available for MSEs, the conditions for eligibility and the extent of coverage. It was apparent that all three insurance companies had a standard business insurance plan, which provided protection for damage to business assets by fire and burglary, loss of income and public liability. However, the inclusion of coverage against natural perils was categorised as a “add-on” to the existing policy, for which premiums were determined according to the value of assets to be insured, and the exposure levels to hazard risks (DMI024, DMI025, DMI026).

The participant from QBE insurance company explained that standard business insurance plans did not discriminate by business type; however, MSEs were not their preferred clients. He further explained that the Government of Fiji had placed a lot of pressure on the Fiji Insurance Council (FIC) to introduce a microinsurance product to cater for the MSE market but, QBE as an entity had withdrawn their interest from the onset of these discussions. In his words, “Microinsurance is a funny little policy with very low limits, and it is not cost-effective as the same amount of effort in administration and compliance would be required for a million-dollar insurance cover” (DMI024). He went on to describe how one standard insurance cover with a large company would be equivalent to two hundred covers with MSEs, which in his view was not worth the time and money of his company. For example, the participant stated, “If we consider microinsurance that sells for \$120 per annum and apply that to 200 MSEs in Ba, the

³³ Offering an insurance industry perspective, risk comprises a combination of hazard, vulnerability, and exposure. In the use of the terminology, hazard is the probable frequency and severity of the peril, which to a greater or lesser extent can be predicted (Clark, 2008).

total sum will come to \$24,000, which is comparatively the sum we can get from insuring one large-sized business in Suva, so why waste time” (DMI024).

Expanding his argument on administration and compliance costs, the participant also shared that around 20 to 25 per cent of premiums account for government taxes such as stamp duty, VAT, VAT reverse and service levy, and the insurance companies could incur fines if they are not compliant. Another participant formerly employed by Sun Insurance explained that MSEs have never been a market for Fiji despite these businesses accounting for a large percentage of businesses in the private sector.

Furthermore, in examining the requirements of insurance schemes against climate hazards, I learnt that businesses had to adhere to certain conditions. For instance, to qualify for coverage against cyclones, businesses were required to produce a valid engineer’s certificate, which confirmed that the premises was built to standard stipulated by the building code. The participant from QBE insurance explained that Fiji’s building code has a cyclone certification requirement whereby buildings are built to withstand a Category 3 cyclone. He stated, “The problem however is that the building codes were introduced in 1986, after TC Eric and Nigel had decimated the Fiji insurance pool and have never been revised” (DMI024). Discussions with MSE owners in Ba revealed that most did not have a valid engineer’s certificate. Only four out of the 59 MSE owners had an engineer’s certificate but all four of them had inherited the property in which they were operating, which therefore suggests that ownership of building served as an incentive to insure property as opposed to those renting that did not have any incentive to obtain engineer’s certificates. The participant from Tower Insurance had indicated that there have been instances of fraudulent reporting by engineers, who have provided a certificate to help businesses qualify for the additional protection cover. He stated, “the insurance companies in Fiji know that the majority of buildings across Fiji are not compliant with the current building standards, and to avoid ‘insurance fraud’, the FIC had established

their own list of certified engineers to conduct evaluations for insurance policy cover” (DMI026). Interestingly, I learnt that the engineer’s certificate is only valid for a period of seven years, after which a reassessment is required for insurance cover to be extended. For MSE owners, the process of acquiring an engineer’s certificate was also reported to be quite difficult as the majority were renting, thus the responsibility was placed upon the owner to conduct an evaluation of the premises. For instance, a café owner noted “The owners of the premises told me to bear the associated cost of getting engineer’s certificate if I wanted to insure their business assets against cyclones”.

In terms of flood cover, all insurance companies declined the idea of underwriting flood cover for MSEs in flood prone areas like Ba, with one participant stating quite bluntly, “[It] would be the dumbest idea for any insurance agent to underwrite flood cover for businesses in flood prone areas” (DMI025). In a somewhat diplomatic manner, the participant from Tower insurance mentioned that they would like to assist MSEs but is not possible without the government or MSE owners implementing measures to control for floods. He explained that Ba has been a “red zone” for decades and attempts were made by Japan International Cooperation Agency (JICA) to develop an aerial mapping system to indicate specific areas prone to flooding, however this did not eventuate as planned. In his view, it would be extremely unlikely for insurance companies to underwrite cover for MSEs in Ba because the cost of premiums would be unaffordable. Offering an alternative understanding of why insurance companies were reluctant to provide flood cover, the participant from QBE stated:

Flood is not an insurance risk because insurance is about protecting businesses from unforeseen circumstances, and in the case of Ba, flood is not an unforeseen event. For businesses there, it is not a matter of floods occurring but rather a matter of when it will occur. (DMI024)

Participants from the three insurance companies expressed a shared view that the government had a critical role in implementing measures to mitigate flood risk, specifically in relation to the external built environment. The QBE participant explained that town plans must be revisited as most have a poorly built environment, and in the long term, it would become more difficult to address the issue due to the effects of climate change. In his words, “Insurance companies are not a social organisation or a charity, and we have certain level of risk tolerance, therefore if town planning does not improve, then perhaps the government should not bring up the topic of insurance at all” (DMI024). The comments of the insurance companies indicate that the expectation to step up is two-fold. On one hand, MSEs are expected to take care of themselves as they cannot individually nor collectively persuade town councils, disaster agencies or insurance companies to make better decisions. And on the other hand, government is expected to take responsibility for their poor decision-making by MSEs and insurance companies, considering the evidence on new buildings being approved despite the ongoing flood issues. The participant from Tower Insurance said:

We have brought this issue [poor development practices] to the table but the government does not appreciate being told because their thinking is that any development is a measure of economic growth, without realising that not all developments exhibit growth if they do not improve the existing condition. (DMI026)

Insurance companies also expressed how it had become more difficult to get business clients, because of their perception that insurance is an additional cost rather than a safeguard against future losses. The participant from QBE stated, “The biggest challenge has been educating businesses in the Pacific on the value of insurance as they still believe that their prayers would protect their business assets” (DMI024). Likewise, brokers argued that MSEs were short-

sighted about investing in insurance and the prevailing risk perceptions needed to change³⁴. The participant from Marsh said, “There is a misconception that insurance is just a rip-off and most businesses do not understand that they pay a small amount of money for a guarantee that they will get a larger amount of money if something happens” (DMI025). However, MSE owners in Ba had raised questions on the affordability and the value of money for the extent of coverage, rather than the importance of insurance. In the perspective of MSE owners, the insurance companies in Fiji tend to draw assumptions about MSEs’ risk perceptions or risk attitudes towards insurance products without even realising their own negligence. For instance, a bookshop owner that has been operating in Ba for over seven decades shared

We know we are in operating in a flood prone area but in reality, we can only do so much to prepare. The insurance companies should step-up and do something about their unaffordable and discriminatory insurance products. For instance, I asked Sun Insurance and New India Insurance on how much was the standard policy cover, they quoted me FJ\$1,800 (US\$900) per annum for assets worth up to FJ\$30,000 (US\$15,000). However, that did not include coverage against floods. Don’t you think it is too much for just coverage against fire and burglary. (MSE021)

Sharing similar sentiments towards the insurance market, a convenience store owner stated

Insurance companies have lots of attached conditions to their covers, which they never explain in fully and it is always in fine prints. If goods damaged by flood water-levels of 6ft and higher, then only we might get a pay-out. I recall that previously the condition was damages of stock by water-levels of 3ft water-level and above would be covered but due to the frequent flooding events, even that has been changed...I have worked in big companies before and have witnessed the difficulties with insurance claims and assessment procedures. Often, these

³⁴ The unpublished TC Winston Lessons Learnt report indicates that almost 50 percent of the 300 million reported damages to private sector buildings were uninsured against cyclones and government buildings were expected to be of a higher value.

companies have to wait for insurance company representatives to conduct a physical check post-disaster period as a method of verifying the claims. This requires waiting on insurance representatives and for small businesses, we do not have the luxury of waiting around as we need to restart as soon as possible. (MSE005)

The argument here is that insurance companies may perceive MSEs being 'ignorant' while MSE owners understand investing in insurance is not cost effective. The finding supports the central argument that DMIs make decisions based on their assumptions about the MSE sector without them.

To address issues of affordability and the reluctance of insurance companies providing insurance cover for MSEs, the Government of Fiji through partnership with the Pacific Insurance and Climate Adaptation Programme (PICAP)³⁵ had commenced design of a parametric microinsurance product in 2018, which was launched in August 2021 (UNDP, 2021). PICAP defines parametric microinsurance product as a type of insurance contract that insures a policyholder against occurrence of a specific event by paying a fixed amount based on the magnitude of the event, as opposed to the magnitude of the losses, which is common in a traditional indemnity policy (ibid). For example, a policy may make a 100 percent pay-out of insurance sum if there is a category 5 cyclone (categories are determined by windspeed), and 75 percent if it is category 4 cyclone and so forth. The value to be paid will be determined by the parameters such as category of cyclone and whether the locality was within specific radius of the pathway, which is supposedly verified by a third part government agency. In other words, insurance pay-outs are guaranteed and do not require a claims adjustment process. Payments to policymakers are almost instantaneous or within weeks following third party confirmation on parameter as opposed to month or years for standard disaster insurance

³⁵ The Pacific Insurance and Climate Adaptation Programme, jointly implemented by the United Nations Capital Development Fund (UNCDF), the United Nations Institute for Environment and Human Security (UNU-EHS) and the United Nations Development Programme (UNDP).

(ibid). Other notable examples of parametric microinsurance programmes in the Caribbean and Europe were designed through Munich Climate Initiative. However, the most obvious downside to a parameter policy is the basic risk, which essentially implies that the policy holder could incur all losses if the parameter is not triggered.

The participant from PICAP indicated that the delays in design of the product were attributable to a few reasons, in particular, the lack of understanding of the concept of a parametric insurance. The participant indicated that a total of 235 awareness workshops attended by more than 7,400 individuals were conducted, along with more than 37 financial competency training with local partners, as part of the design and inception phase of the project. Second, there was a failure of insurance companies to reach a consensus around the legal formalities of taking on the parametric insurance and its implications on their solvency margins. For instance, the participant mentioned that the insurance market in Fiji was very sensitive because of the country's vulnerability to hazards, which in turn made it difficult to obtain security (reinsurance policies) externally. He explained that insurance companies relied extensively on reinsurance policies, thus the PICAP project had agreed to secure reinsurance companies such as Munich Re as a means to demonstrate the benefits of such microinsurance package. However, despite the provision of capital to cover for reinsurance costs, insurance companies in Fiji were reluctant to trial the product. Third, the difficulties around accurately structuring and pricing the product for MSEs, which requires a foundational understanding of the exact exposures of the policy holder, and a selection of appropriate parameters to fit those exposures. Sharing his experience of negotiating with insurance companies, the participant said:

We brought in experts from all over the region to design the parametric insurance cover. However, none of the insurance companies in Fiji wanted to trial the product. After almost two years of lobbying with various insurance companies, Fiji Care (a private insurance company) that had previously trialled our micro-bundled insurance product agreed to take on board the parametric product.

The discussions with PICAP participant also revealed that Fiji Care had agreed to trial the product on the condition that the cost of insurance packages for the first two years were subsidized through the PFIP project. The close reading of the project documents of PICAP revealed that the parametric insurance product offered cover for cyclones and floods, with both carrying a maximum coverage of FJ\$1,000 per annum. The premium charged for the coverage was set at FJ\$100 per annum (FJ\$1.92 per week). The initial coverage of the product was for 500 small holding farmers, fishers, and market vendors, with plans to scale to MSEs (PICAP, 2021). In a follow-up discussion with the PICAP participant, I was told that since the launch, the parametric microinsurance cover had been extended to 1,388 small holding farmers, fishers, and market vendors in Fiji, of which a total of 133 beneficiaries were from Ba district. However, research leading to the design of policy for MSEs in general was expected to commence in the second half of 2022 (personal communication, 17 December 2021). Another interesting piece of information revealed during the follow-up discussion was on the “performance-based grant agreements” with the underwriters of the microinsurance parametric policy. The participant explained that each of their partners was expected to sign up a certain number of individuals in order for their next tranche of funds to be released, this points back to the practice of DRIs shifting responsibility to other stakeholders or to beneficiaries themselves.

There is no doubt that the launch of Fiji’s first parametric microinsurance product is a significant first step towards supporting recovery efforts of MSEs. However, two key challenges remain: first, the absence of an insurance infrastructure, and the second, the lack of genuinely accessible insurance and risk transfer schemes to MSEs that are currently ‘uninsurable’, for instance, stereotyping of MSEs as second-tier or low priority clients. In addition, regulations specific to parametric insurance are also required to formalise processes in which policy holders can contest a decision.

8.3. Moving towards risk informing development

The relationship between development and disaster risks is not a new discovery. In the last decade, many scholars and practitioners have drawn attention to how disaster risks accumulated through inappropriate development interventions have set back economic and social gains (Bosher et al., 2007; Gajendran & Oloruntoba, 2017). However, risk informing development demands transforming the approach to development “rather than simply adding on risk” (UNDP, 2016; p.1).

The interviews with DMIs, as well as the analysis of respective project documents (see Appendix C), revealed that considerable resources have been directed towards supporting the Fiji government’s endeavours to integrate risk measures (i.e., disaster, climate, gender, and social risks) into development planning as an approach to building resilience in vulnerable populations against increasing threats posed by climate change (see also UNDP, 2021). However, despite financial resources being made available, progress was reported to be limited, for several reasons associated with issues in the public sector governance.

First, there is a lack of legal and policy framework that defines responsibilities and processes of mainstreaming risks into development planning. Most of the DMI participants explained that risk considerations are inadequately factored into development planning processes, public investment projects and land-use plans due to stakeholders’ lack of understanding of their own roles and responsibilities. For instance, a senior official from the Ministry of Economy stated:

We [the government] advocate for a multi-stakeholder approach, but we do not have a legislation and policy defining the respective roles of local government and stakeholders that are responsible in overseeing the incorporation of risk measures in development projects. Take for example the Ba Town Council, who are expected to incorporate risks into development planning processes within their district plans. But there is no guiding legislation that mandates them to do so. (DMI006)

The later part of the quote highlights how responsibilities are imposed on local authorities without recognition of the existence of a legal mandate for an autonomous local government set up and the level of capacities. This leads us to the second finding on institutional policies being non-contextual because of the lack of knowledge and experiences of the vulnerable. The NDMO participant explained that often risk assessments at the municipal level are conducted by industry experts because they have the technical knowledge, but equally important were the perspectives of risks from the beneficiary's point of view. He reiterated that DRM methodologies are dependent on the specific sector and type of hazard, thus responsibilities imposed must be pragmatic. Referring to efforts in prioritising approaches to risk to inform all development projects, the NDMO participant explained that they have been working with specialised DRR agencies to identify and assess disaster risks that play out against a whole range of societal and economic risks. The participant from NDMO, that advocates for inclusive practice of policy-making, summed it up as follows:

The government cannot address resilience in isolation when doing development work. It has to be embedded at the core of our strategic planning, project budgeting and systems and processes... Understanding of risks and the mechanisms to mitigate those risks requires specific skills sets as well as a reform of the current governance systems. (DMI007)

Expanding on the complexities associated with governance reform, a participant from the Ministry of Economy reiterated legislation related to risk management is essential; however, the effectiveness of its implementation is dependent on the capacity of the implementing agencies. For instance, he referred to development planning processes needing to integrate the realities of prolonged shocks considering the effects of climate change and the limited resources. The participant mentioned:

We are still talking about hazards like it's a surprise. I mean, we are located on the Pacific Rim of Fire, and it is going to happen until Jesus comes right. The sea

level will continue to rise because we are low lying. So, maybe we should think about risk-informing development as a catalyst to transform the way that we are thinking about some of the current because we are in an environment where there' is just not enough money to solve the crisis. As part of development planning, we should think about scenario planning at budgeting level and ministry level. We need to rethink development through this lens (DMI005)

The second issue raised by DMIs was the plethora of emerging DRM practices developed as a parallel practice by the development partners that are seldom operationalised in governance practices. The DMI participants from regional organisations indicated that development partners tend to create new DRM tools and guidelines for governments and the private sector without realising that governments and businesses may not have the capacity or the resources to use these tools. Adding to the issue discussed above, the policy advisor from the Secretariat of the Pacific Community (SPC) mentioned that adoption of consistent approaches to mitigate disaster risks remains to be "... an unresolved problem of development because practitioners fail to recognise that implementation of any risk reduction measures is dominantly a political, economic, and social challenge rather than just a scientific and technical one" (DMI012). For instance, while explaining how development practices are fraught with a variety of differing views, the participant mentioned:

Endeavours to adopt suitable risk management approaches requires the understanding, sustained involvement, and mobilisation of resources from government, international organisation, researchers, and many other actors – but most importantly the involvement of local communities for whom these development initiatives are designed for. The process of participation itself is highly challenging and complex, but it is meant to empower and mobilise the community collectively. We [development partners] need to acknowledge that we are not the experts when it comes to learning about risks, the ones affected are. (DMI012)

Referring to lack of inputs from MSE owners into development planning, the disaster risk specialist from PIFS stated that, “The journey to becoming resilient is a shared one, and thus all vulnerable groups must contribute (DMI011). He emphasised that domestically, the government needed to ensure that their development priorities integrate climate and disaster risks, and national policies need to reflect the same. He explained that, despite the government being the lead agency for planning, policy development and resource mobilization, there was a need to strengthen inter-sectoral collaborations by building capacities of social agents like MSE owners. In addition, he also reiterated the need for development partners to break away from siloed ways of designing DRM approaches as it has become largely problematic for practitioners when there is little evidence of what approaches work most effectively, and under what conditions.

Development agents like the UN and regional organisations like mine need to work together instead of producing multiple DRM outputs. Too many times, these are tensions we create for ourselves. We claim that we employ participatory strategies in designing DRM approaches but are we really? If we look back, there are so many tools out there that promote best practice for risks and vulnerability assessments or ways to mainstream risk, but the question we should ask, how often are they used? And if yes, for how long? (DMI011)

The PIFS participant mentioned that he had been in the DRM space for over three decades and often his concerns about the duplication of efforts were not well received. Nonetheless, he stated that development partners are a problem by their own conduct, and they needed a “reality check” about why they are investing their time and resources into something that is not practical or does not add value to supporting national priorities. In his perspective “we will remain to be the talk of the decade if we do not revisit our strategies of working together. Mainstreaming risks into development planning at different levels requires us to be working from within existing governance structures” (DMI011).

We need to identify what kinds of support our partners need...Achieving systematic change can be challenging and requires a lot of internal lobbying, that is why the working from within approach is recommended. (DMI011)

Supporting the working from within argument, the Disaster Risk Advisor of the UNDP Governance for Resilience (Gov4Res) project referred to the need to treat risk as a fundamental development issue. In her perspective, “Approaches to managing climate change and disaster risks have been standalone activities outside development policy and practice” (DMI014). She claimed that development partners must adopt a “working from within” approach that focuses on supporting government to create interventions best suited for their need. She also expressed the importance of identifying which agencies have the responsibility to act upon risk management processes and map what resource they have and how their efforts are monitored.

Moreover, when government officials were asked about their views on approaches used to integrate risks into development planning processes, most indicated that they were building consensus on the tools that may be of relevance to them, or the need to re-design tools. Interestingly, a participant from the NDMO used the concept of “risk informing development”, which he explained as “an approach that pushes development decision-makers to understand and acknowledge that all development choices involve the creation of uncertain risks, as well as opportunities” (DMI007). He reiterated that Fiji’s vulnerability to climate change is largely rooted in ‘unchecked’ development, and risk management interventions often do not emerge as a priority, particularly for the MSE sector.

The NDMO participant also emphasised that the government continues to be trapped in a vicious cycle of disasters and recovery due the inadequate consideration of risks in the onset. Relating his argument to the context of my research, he indicated the establishment of the Fiji Business Disaster Resilience Council (FBDRC) in 2017 to support the government’s efforts in

conducting multi-hazard assessments. In his perspective, the FBDRRC represented the private sector and were an effective vehicle for providing feedback on local risk reduction priorities into national development planning processes. However, the FBDRRC's role was questioned by MSEs in Ba because of its positioning within the Fiji Commerce and Employers Federation (FCEF), a body that no owners were part of. A café owner, for example, stated "The interests of FBDRRC are aligned to needs of multinational companies because the owners of these companies are the ones that sit in the meetings and make decisions for the private sector. So, they cannot claim that MSEs' concerns are represented" (MSE046). Likewise, several other MSEs interviewed had expressed concerns around the entities that represented their concerns.

8.3.1. Resilience-building (dis)incentives

Funding for DRR is a critical element of building resilience. However, the scale of investment allocated to DRR when compared to the growing impacts and occurrences of hazards remains uneven. The findings of my study revealed that donors, governments, and international development agencies have gradually scaled-up funding towards resilience-building initiatives³⁶. However, the question herein is what are the factors that influence shifts in resource allocations. According to critical disaster scholars, resource allocation for hazard events is largely influenced through political pressures, both internal and external (Kelman & Gaillard, 2007; Warner & de Man, 2020). Based on the talanoa conversations with DMI participants, it was clear that internal pressure of political systems and agenda-setting significantly shaped resource allocation. The DMI participants referred to the Fijian

³⁶ The TC Winston Lessons Learnt report indicates that the Government of Fiji projected cost for reconstruction of infrastructure at around FJ\$730 million, of which FJ\$136million was covered through national budget, and FJ\$21.93 million was covered through external funding by development partners (Mansur, Doyle, & Ivaschenko, 2017). However, the Ministry of Economy participant indicated that a large portion of the development partner grants were allocated through existing agreements that they had, where funds were re-categorised for support initiatives. In his view, this was common practice but given that it is 'off-budget' finance, they tag it as donor grants.

Government's national DRR priorities being funded through development partners as the government did not have the means to fund these measures themselves. Consistent with this view, another dominant view amongst participants was that external pressures on policy led to commitments toward international and regional DRR laws and policies, which the Fijian Government is then mandated to report against. For example, the Paris Agreement (2015), the Sendai Framework, and the SIDS Accelerated Modalities of Action (SAMOA) Pathway, are all cited in Fiji's NDP and NAP.

Another widely cited example of an external factor was the experience during a disaster response (see Cook & Gong, 2021; McDougall, 2021). Participants from regional organisations were critical of Fiji being crowded with humanitarian agencies from Australia and New Zealand after TC Winston, wanting to help national capacities to respond. Their support however was seen as a hindrance to local priorities. The participant from SPC stated:

These organisation step in to determine how local responses get framed and what gets prioritized. What bothers me is their lack of consideration for strategies already under way in the country prior to the emergency, as well as the actors already engaged. The 'western-led' approach perpetuates a foreign understanding of what constitutes a response. (DMI012)

She went on to explain that agencies from these countries come in quickly because they know that developing countries do not have the necessary resources and that will never change. However, she argued that the government must ask themselves how it affects the local response because depending on Australia and New Zealand for support suggests that Fiji is not resilient. Adding to this argument, the PIFS representative highlighted how access to economic capital creates power imbalances between local development actors, the state, and outsiders. In his words "when governments are confronted with the limits of financial, technical and human resource capacities, they turn away from local actors" (DMI011).

Participants from development agencies also identified several reasons why pre-disaster risk reduction activities were not prioritised, which can be categorised into: (i) complex channels to obtain resources; (ii) lack of visibility on risk measures; and (iii) lack of consensus on risk reduction measures (discussed in Section 8.4).

First, cumbersome administrative procedures hinder obtaining financial resources for DRR. Most of the participants from international development agencies explained that when funds are disbursed to the government for DRM activities, they are pooled together with other development funding. The Ministry of Economy's (MOE) planning and budgeting department then allocate the funds to respective line ministries on a request basis. However, the internal administrative processes for requesting funds to be released is met with lengthy approval processes by decision-makers, with the added burden on ministries to provide evidence of the specific activities. The UNISDR participant expressed concerns at significant delays in implementing DRR activities for vulnerable communities, including MSEs.

We have been working with NDMO and other technical agencies such as FMO for many years and often funding gets reimbursed because they are not expensed within the project timeframes. It is indeed sad that the government's internal bureaucracy can result in so many lives being lost, and families being homeless because their own teams are trying to convince decision-makers that do not feel the wrath of hazards but are first on the ground to give donation packs.
(DMI017)

The UNISDR participant went on to share examples of how DRR measures compete with normal development priorities, therefore the NDMO and FMO had opted for activities to be financed directly by their office. The NDMO participant described instances where the government had diverted funding to other development priorities, leading to delays in finding supplementary funding for planned activities. However, a senior official from the Ministry of Economy argued that the issue of funding being diverted towards other development priorities

was not a major concern, as most governments around the world operated with a similar expenditure model. He rebutted comments on the expense justification procedures by explaining that the government had previously encountered issues of donor funds being misappropriated by line ministries, which had significantly hampered relationships. It is therefore unclear whether DRR funds through government systems effectively benefit MSE groups.

Another contrasting insight offered by the development partners and NDMO was that financing for DRM followed a completely different process during an emergency response. Participants mentioned that the government had multi-layered post-disaster financing and accountability mechanisms in place to implement DRM activities. For instance, as part of post-disaster recovery, the Fijian government has established some contingency finance measures. These include: (i) the establishment of the Prime Minister's National Disaster Relief Fund (NDRF) for which funding is allocated through the national budget³⁷ and direct donations during recovery; (ii) national budgets specifically allocated towards NDMO for emergency response, averaging FJ\$5 million per annum over the last 3 years (2017-2020); and (iii) a contingency disaster financing facility, where the government can execute an immediate loan from the Japanese Government. The loans are also parametric based (activated only for tropical cyclones above Category 4) and are usually drawn upon request.

Moreover, DMI participants identified the issue of the lack of understanding of the value of DRM measures. Participants indicated that when DRM risk measures are not visible, such as enhancing preparedness through training, it is difficult for the public to appreciate the investment as opposed to financing changes for built environment. Indeed, the findings in Section 8.3 partially highlight how MSEs often found training and awareness workshops

³⁷ The analysis of Fiji's National Budget estimates reveals that a cumulative sum of FJ\$5.73 million has been invested between 2016 and 2021.

irrelevant and suggested implementation of more concrete and visible measures (see Section 6.4.8).

Offering a novel perspective, the participant from the Ba Advisory Council stated that, “Decision-makers are more willing to allocate spending for the present needs of vulnerable populations as opposed to supporting implementation of DRM measures in non-disaster times so that they can leverage on the visibility” (DMI002). Likewise, the Private Sector Trust Board (PSTB) shared that it is rather disappointing yet true that “the benefits for reducing risks are disbursed over the society, including MSEs, but they are seldom appreciated unless it is directed at the individual level or if everyone can see the outcomes” (DMI033).

Last, as discussed in Section 8.4, it has been extremely difficult for DMIs to achieve consensus on DRR measures because outcomes are not guaranteed due to the uncertain nature of hazards. Therefore, disagreement may exist about what DRR measure would be most effective as opposed to what would be more practical and contextually relevant. Such misalignments can compromise both development and DRR. Recent studies have also highlighted similar issues and calls for DRR recommendations to be linked to practice (Aitsi-Selmi et al., 2016; Anderson & Renaud, 2021; Collins, 2018). Section 9.6 in the next chapter will offer some discussion around approaches to address these issues.

8.3.2. MSEs being the ‘missing middle’ in policy

Despite the growing number of national and regional policies lobbying for the participatory and locally led approaches to DRM (IPCC, 2021; Kergomard, 2015; UNFCCC, 2017), the extent to which such approaches are used can be questioned. For instance, the FRDP advocates for DMIs to systematically adopt:

... inclusive and participatory processes, which gather contributions across different stakeholder groups, in particular the most vulnerable members of society, which are all recognised as unique and powerful agents of change, to

ensure that measures are not only effective but also equitable in meeting the needs of all members of the community. (FRPD, 2016, p.2)

However, evidence from the field was that DMI agencies tend to be restrictive towards who gets included in DRM practices, and the involvement of MSEs is directed towards activities which are less relevant to their needs. For instance, the participant from MDF had explained how MSEs are generally conflated with highly technical constructions of vulnerability, such as having a lack of education about hazards or operating in hazard-prone buildings. The stigmatisation rhetoric towards MSEs anchored on 'development' has given rise to initiatives such as training on development of business continuity planning, which MSE participants have considered irrelevant (see Section 8.3). During the fieldwork, I often questioned DMIs who argued for the use of participatory approaches to DRM for the private sector by asking what the application of such approaches looked like. Most participants immediately referred to the consultations with business owners on proposed DRM measures such as developing a business preparedness toolkit or as part of the Environmental Impact Assessment for construction of public infrastructure, which is mandatory by law. When asked about the type of business owners involved in these consultations, most had responded that support was open to all businesses but often was attended by owners of larger businesses – a revealing response behind the rhetoric of inclusion. For instance, the participant from PIPSO revealed how local private sector organisations (i.e., FCEF and the Fiji Chamber of Commerce) endeavoured to advocate for MSEs' during the design phase of the 'Disaster Ready Toolkit' launched by her organisation in 2018. However, she argued that the lack of MSE engagements within DRM policy has been a persistent issue. She stated:

Surveys conducted through my organisation have shown that MSEs' knowledge of BCP is still rather low, therefore more than anyone else, these businesses have to started making a conscious effort in attending consultations and championing the importance of these toolkits. (DMI013)

Similar ideas were shared by the FCEF participant, who stated, “I understand that MSEs are not well represented by industry groups and associations because it is the big corporates that have the resource capacity to drive such things and get things done on the ground” (DMI030). This participant argued that although training and policy dialogues on disaster-related issues were open to all businesses, there were limited spaces available, thus needs are accommodated on a first-come-first-served basis. Equally, at national and global consultations on Public-Private Partnerships (PPP), voices of MSEs tend to be absent or represented by self-governed associations like FCEF. I recently attended the 2021 Pacific Resilience Meeting (PRM)³⁸, a forum co-sponsored by PIFS, SPC and the Secretariat of the Pacific Regional Environment Programme (SPREP), where FCEF was praised for championing disaster preparedness activities across Fiji, without any substantive evidence on the extent to which MSEs benefited from any of their activities.

My findings also reveal that MSE concerns are not adequately addressed by local governing agencies, nor were needs to become resilient sufficiently accommodated. Evidently, participatory approaches to development of DRM measures are met with many challenges. For instance, yearnings for equal treatment during post-disaster recovery remains the plight of MSEs.

8.4. Summary

This chapter extends the analysis to the role of disaster risk institutions in supporting the resilience-building initiatives of MSEs and the effectiveness of these initiatives. The discussion in this chapter revisits the neoliberal construct of resilience by drawing on modes of governing,

³⁸ The Pacific Resilience Partnership (PRP) was established in 2017 by Pacific Island leaders as part of governance arrangements to support the Framework for Resilient Development in the Pacific (FRDP). The 2021 PRM held from 5 to 8 July 2021 brought together all stakeholders within the resilience sector to elevate and demonstrate relevant Pacific-led resilience actions that inspire genuine learning and connection through diverse and inclusive approaches from our home to the global stage.

including the use of risk aversion tools to promote resilient behaviour. Furthermore, a thorough analysis of existing initiatives of resilience-building for MSEs such as BCP and financial inclusion training prompted concerns around interventions being restrictive in nature or superficially created due to influence from authorities or donor partners. Findings also reveal that DMIs have invested significant economic capital to design resilience-building initiatives for MSEs, but the relevance of such initiatives was questioned by MSE participants.

Another critical discussion reflected in this chapter was on shifts towards risk informing development, which prompted aspects of shared responsibilities. The analysis within this section points to critical issues of incentives on resilience-building, and how pre-disaster risk reduction activities are restricted by the complex channels to obtain resources in non-disaster periods. To sum up this chapter, I offer insights on the issue of MSEs being a 'missing middle', as their narratives of inclusion appear to be represented by entities that may not genuinely have their interests at heart.

Chapter 9: Reconceptualising resilience through situated accounts of the vulnerable

In the previous three chapters, I discussed how climate-induced disasters affected MSEs (Chapter 6), the various tools and approaches adopted by MSEs to cope and recover from disasters (Chapter 7), and how DMIs supported the processes of building resilience (Chapter 8). In this chapter, I advance arguments on building resilience against climate hazards that were expressed by my study participants, juxtaposed to broader literature. This process elucidates the overall contributions of my thesis to the broader field and practice of disaster management.

This chapter contains three main sections. The first section discusses how histories of climate hazards and prior experiences are being overlooked in the pursuit of building resilience. Here I briefly bring back the discussions of disaster effects and MSEs responses, which arose out of complex interactions of histories, cultural orientations, and social relations. I offer an extension to Bourdieu's theory of practice by highlighting the importance of cultural practice such as 'solesolevaki' (people working together for a common good without expectation of individual payment) and cultural values, such as 'veilomani' (loving one another), 'veikauwaitaki' (caring for one another), and 'veivakaliuci' (putting others first), which are embedded within the Fijian ways of life. The second section expands on MSE's emotional responses to climate hazards. Findings in Chapter 7 reflect on the notion of 'yalodei' or psychological strength, which I argue is cultivated through lived experiences and embodied cultural capital. Lastly, I offer a discussion on shifting responsibilities being a neoliberal strategy. Here, I contend that disaster management policies and practices are centred around Western-led approaches that do not favour MSEs. Therefore, there is a need to re-think or unlearn how DMIs engage MSEs. I further argue the rationale for MSEs to have formulated

their associations as avenues to promote transformative practices of building resilience. I end this chapter with a summary.

9.1. Re-thinking resilience – imagining worlds not-yet

The notion of resilience entails building sustainable futures, which must first be imagined. As Albuero-Cañete (2021) explains, it is about “imaging worlds not-yet or what-could-be” through re-evaluating existing development pathways” (p.224). Throughout my research, I refer to the concept of resilience as a process anchored in the way in which individuals navigate through difficult situations and their everyday, embodied, and emotional experiences. The narratives of my MSE participants reflect that climate hazards are part of their everyday lives, which requires them to adapt to the changes imposed by such events continuously. However, of concern to MSEs was the inadequate access to capital, particularly economic capital. This argument is partly linked to the modes of governing by DMIs, which I argue is neoliberal, as responsibility is assigned away from the government to individuals (MSE owners) – a phenomenon often referred to as ‘responsibilisation’ (Bracke, 2016a; J. Reid, 2013; N. S. Rose & Lentzos, 2017; Trnka & Trundle, 2017). Findings also show how practices of designing resilience-building interventions overlook the social differentials and realities of everyday life (see Fainstein, 2015). To address the identified gaps in theory and practice, I draw inspiration from the narratives of MSEs to reframe resilience as ‘lived’, which entirely focuses on how individuals have adapted and navigated with the contingencies of life in the face of uncertainty and the unknown (see also Albuero-Cañete, 2021).

In an attempt to totalise explanations of what resilience means to MSEs, I expand understanding on multiple and shifting relationships that owners share with themselves and others and the care, responsibility, and affect embedded within these relationships. Supporting the arguments made by Albuero-Cañete (2021), I argue that resilience is context-specific and

should be conceptualised from the epistemologies of the vulnerable, which in turn can decolonise knowledge rooted in neoliberal thinking. To offer empirical as well as theoretical discussion on *lived resilience*, I navigate between Bourdieu's sociology of field, habitus and capital (cf. Uekusa, 2018).

9.2. Conversion of cultural capital into social capital

Critical disaster scholarship establishes that the ability of MSEs to build resilience against hazards is largely dependent on their access to material and non-material resources (Ali et al., 2017; Herbane, 2019; Runyan, 2006; Sullivan-Taylor & Branicki, 2011). In most cases, MSEs tend to rely extensively on their social networks to navigate their day-to-day hardships, and the 'social connectedness' of these networks is enhanced in times of crisis (Doerfel, Chewing, & Lai, 2013; Herbane, 2019; Torres et al., 2019). Disaster scholars who have explored the role of social capital further support this point by stressing that the socially disadvantaged form and rely on multifaceted, segmented, dynamic and temporal social networks in the wake of disasters (Norris et al., 2008; S. Prasad et al., 2015; Uekusa & Matthewman, 2017). Most of these scholars establish that levels of social capital in both disaster and non-disaster situations depend on individuals' interests and networking capacities. For example, Uekusa and Matthewman (2017) cite Rivera and Nickels (2014) to explain how the socially disadvantaged have stronger localised social connections to "get by" (i.e., to survive), while the wealthier have broader social connections to "get ahead" (e.g., to get jobs from their interactions with affluent people). The findings of my study reveal that MSEs harnessed social networks in non-disaster situations as they were part of a community of practice (geographic concentration) that received little external support. In times of disasters, MSEs drew upon these networks to collectively prepare for, cope with, and recover from climate hazards because of the restricted levels of access to economic forms of capital, specifically financial capital. As argued by Bourdieu (2000), the emergence of social networks should be examined through the field of

practice (Bourdieu, 2000). Therefore, the question explored in the discussion below is: what are the factors that influence the emergence of capitals within the context of Ba?

In the disaster management field, there has been consistent criticism of resilience paradigms which tend to overlook the contextual realities of vulnerable groups (Mu, 2020; Straub, Gray, Ritchie, & Gill, 2020; Uekusa, 2020; Uekusa & Matthewman, 2017; Uekusa et al., 2022). For instance, drawing on Bourdieu's conceptual schema, the study of Uekusa & Matthewman (2017) reported that refugees were resilient to disaster events partly because of their prior experiences of living in a war zone, as well as the everyday structural social inequalities (language barriers and lack of linguistic capital etc.) they were confronted by as immigrants. More importantly, these scholars explain that cultural knowledge, values, and attitudes influence the emergence of social networks, particularly in the context of their study, whereas immigrants were faced with social isolation issues.

However, my findings establish that the histories of disaster events experienced by people of Ba, their lived experiences, and indigenous values systems are specific forms of embodied cultural capital (see Chapter 3), which has been converted into social capital over time. For instance, I refer to the concept of 'solesolevaki' as a local practice, and the values of 'veilomani', 'veikauwaitaki' and 'veivakaliuci', which are embedded within the Fijian ways of life and eventually translated into practice through acts of mutual support. This is indeed a novel finding within Pacific disaster scholarship, as prior studies that have adopted the local concept of 'solesolevaki' confined it to indigenous settings (Movono & Becken, 2018; Steven & Vunibola, 2021). For instance, Movono and Becken (2018) draw on the concept of 'solesolevaki' to mirror social networks and the collective efforts of Vatuolailai villagers (situated in Nadroga, Fiji) to navigate through tourism-related development challenges. In a somewhat different context yet relevant to my research, Steven and Vunibola (2021) use the notion of 'solesolevaki' to examine the indigenous entrepreneurial settings in Fiji. Participants

within their study reported solidarity among businesses established on customary land, which in turn contributed to business resilience and improved community wellbeing.

In disaster scholarship, different wordings have been used to construe communal behaviour that is formed in the wake of disasters, such as “communitas” (Matthewman & Uekusa, 2021; Uekusa, 2017), “post-disaster solidarity” (Oliver-Smith, 1999), “social utopia or “pro-social behaviour” (Dynes & Rodríguez, 2007), to name a few. However, most studies, except Uekusa and Matthewman (2017), expanded on how other forms of capital are convertible to social capital (or vice-versa) to make the vulnerable more resourceful or enhance their resilience. These authors conceptualised “communitas” as forms of appropriate support shared among communities affected by hazard events and from outsiders. Although the findings of my study referred to society-wide actions such as customers and community members who assisted MSE owners through the provision of manpower to lift stocks and clean shops, these practices tend to fall within the realm of ‘solesolevaki’.

Expanding on the debate of how cultural capital can shape social capital within disaster scholarship, Krüger, Bankoff, Cannon, Orłowski, & Schipper (2015), in their book *Culture and disasters: Understanding cultural framings in disaster risk reduction* explain that historical trajectories of disasters can be societal since they are largely culturally determined. Their work presented two main arguments. First, understanding around culture is long-neglected in the plethora of discussions on DRR, and second, individuals’ cultural identities are increasingly recognised as embodied characteristics that influence how they process potential risks. Without forcing a definition, these scholars draw attention to the need for examining practice, which grounds the argument of this research on how values systems can shape collective behaviour. As shown in the empirical studies of Tierney (2014) and Sasse-Zeltner (2021), acts of social solidarity are embedded within an individual's values systems yet are seldom recognised or discussed within disaster literature.

Another key finding on how cultural capital shaped social networks can be drawn from traditional knowledge to prepare and recover from floods. Findings in my study indicate that MSEs knew how to deal with floods and cyclones because of their memories of past disasters which were also propagated across generations through myths and oral histories. In most cases, those MSEs that did not have access to such forms of knowledge were often made aware through their social networks. MSEs in my study perceived floods and cyclones to be a part of their life, which were reflected through statements such as “we have grown with floods and our ancestors have taught us how to prepare” or “it is an act of God, and we just have to live with it”. Therefore, the argument here is that histories of disasters shape practice. Indeed, similar results were reported by the study of Akyelken (2020), where residents living in Metro Manila had expressed floods as a ‘normal’ part of everyday risks to deal with, and how traditional ecological knowledge was embedded in disaster response planning (see also Baron & Petersen, 2015; Hellman, 2015; Meriläinen et al., 2021).

To sum up, I reiterate that considering histories of disaster events should be seen as an embodied cultural capital. One may misinterpret or assume all social agents are resilient, in the way that such assumptions are commonly reflected about Pacific people through media reports. In the same way, governments tend to label MSEs as resilient (Naikaso, 2021), which downplays the structural inequalities that they face, as described in Chapter 8. As shown by Pulvirenti and Mason (2011), “descriptions of refugee women as ‘resilient’ can function as a rationale for assuming these women fend for themselves and do not need support, particularly for government” (p.44).

The discussions above reflect on how cultural and social capital are significant components of resilience but, more importantly, reveal that the effectiveness of these capitals is dependent on each other. As Bourdieu would argue, to understand resilience it may be critical to not only investigate one form of capital but rather the relationship between types of capital and its

convertibility. Indeed, levels of resilience can differ amongst individuals for several reasons. For instance, access to capital is proven to be field-specific. As reflected in my findings, a few MSEs, despite having similar access to both forms of capital, could not cope with these events because of limited economic capital for recovery. In addition, variations in practice are inscribed through internalising conditions of existence. For instance, Bourdieu (1977) explains that habitus can unconsciously generate practices because the durability and transposability of habitus can project the past to the present and the present to the future.

9.3. Centring emotions in resilience-building

In Bourdieu's book *Pascalian Meditations*, there is an explicit reference to uniting the strengths of psychology and sociology to "analyse the genesis of investment in a field of social relations" (Bourdieu, 2000; p.199). This argument makes sense when we refer to his earlier work on *The Logic of Practice*, where he talks about habitus, in certain instances, being built on contradictions and tensions (Bourdieu, 1990; p.116). The findings in my study suggest that the habitus of MSEs is negotiated. For example, the emotional capital of resilience is full of ambivalence, uncertainty, and fluidity. This argument of ambivalence brings light to the development of emotional capital of resilience as partly due to MSEs' owners needs and motivations, as well as due to social and political challenges. In other words, developing a relational understanding of resilience allows for the focus to be shifted from MSE owners to the practices with which resilience is socially, historically, culturally, and politically constituted. This is indeed reflected in Bourdieu's (2000) works, as his ambivalence of being in an unfamiliar field brought out powerful emotions and unresolved tensions within habitus. Bourdieu argues that individuals develop dispositions in response to being exposed. In his words:

We are disposed because we are exposed. The body is exposed and endangered in the world faced with the risk of emotion, lesion, suffering, sometimes death, and therefore obliged to take the world seriously (Bourdieu, 2000; p.140).

Literature establishes that natural hazards create emotionally-laden environments (Alburo-Cañete, 2021; Whittle, Walker, Medd, & Mort, 2012), and I argue that emotions and affect are embedded within the dimensions of lived resilience. As evidenced in the findings, the impact of affective engagements in times of disasters is grounded within habitus. MSE owners, in the context of my research, are not only trying to survive the recurrent nature of flood and cyclone events but at the same time are trying to manage their day-to-day challenges of running a business. Therefore, these individuals find themselves dealing with affective engagements in two social fields and their habitus being divided between two different but equally competing fields. Arguably, the “sociogenesis of the dispositions that constitute the habitus should be concerned with understanding how the social order collects, channels and reinforces or counteracts psychological processes” (Bourdieu, 2000, p.512). In Bourdieu’s perspective, the accounts of “the most personal difficulties and subjective tensions and contradictions reflect the deepest structures of the social world” (Bourdieu, 2000, p.716).

Even though discussions on affect and emotions are rare within disaster scholarship, there are sufficient examples cited in media reports of the trauma and grief that people experience from hazards. My findings reveal that MSEs encounter emotional experiences during floods, but over time, owners of these businesses transformed these emotions into forms of psychological strength, which supports their ability to cope with the recurrent nature of such hazards. In other words, they turned their experiences from floods into emotional capital. In turn, because of the interconnectedness of various forms of capital, emotional capital can be leveraged to obtain other types of capital. For instance, an MSE owner may be rich in emotional capital because they have become emotionally resilient against disasters, the MSE owner may then use this emotional capital (resilience) to help other community members during times of

disasters. This strengthening of relationships within the community will add to the MSE owner's social capital which can be deployed when needed.

Within disaster scholarship, the term 'emotional resilience' is often used to describe emotional competencies such as managing trauma, stress and anxiety triggered by a disaster event (Dominey-Howes, 2015; Siegrist & Gutscher, 2008; Whittle et al., 2012). However, as discussed in Chapter 7, dimensions of affect and emotion are largely rooted in the practice of reflexivity. For instance, MSEs in my study used the concept of 'yalodei' to denote empathy towards those in a far worse situation and believed in practices of "making do with what we have" (improvising). However, it is also critical to note that some MSEs shared how it was still challenging to cope mentally due to the emerging emotions in times of disasters that are triggered by past near-death experiences. As such, these MSEs relied on their social networks more extensively.

The other key finding about affective engagements concerned modes of governing (Alburo-Cañete, 2021; Laszczkowski & Reeves, 2015; Navaro, 2012). For instance, findings in my research revealed that affective tools intended to promote preparedness amongst MSE and cultivate a culture of being responsible had, in turn, invoked emotions of fear and anxiety. Indeed, capitalizing on an individual's negative experiences have become a common strategy for DMIs. For instance, the study of Barrios (2017) evaluated how architects and planners in the aftermath of Hurricane Katrina had persuaded residents of New Orleans to accept their plans for the reconstruction of a specific area of the city as a new space for capital investment. His study revealed that planners visited affected communities immediately after the hurricane to elicit approval for the new recovery plan.

Similarly, Klein (2007) explained how hazards such as Hurricane Katrina were used as a chance for elites to extract wealth (economic capital) and power (symbolic capital) from the vulnerable. Her argument specifically referred to neoliberal capitalist ideas, and political

agendas pushed through oppressive regimes following ‘shock events’ like natural hazards – a time when affected individuals are in a state of being helpless or disempowered to resist plans or policies. The argument herein is that organisations draw on emotionally-charged environments like disasters to push forward hegemonic aspirations directed towards building resilient futures, which can, in turn, exacerbate vulnerabilities.

More importantly, what was less noticed in Klein’s study was the term “people’s renewal”, which explained the community-based response to Katrina (p.587). Her observations pointed out that “the best way to recover from helplessness turns out to be helping...individual’s reconstruction efforts represent the antithesis of the disaster capitalism complex’s ethos” (p.589). In the next section, I bring to attention the practice of improvisation as a building block for resilience. ’

9.4. Improvisation as a source of organisational resilience

As mentioned in Section 9.2, to cope with and recover from flood events, MSE participants modified various forms of social capital by improvising, which they refer to as “making do with what we have”. In disaster scholarship, narratives around “improvising” commonly note how victims rely on their instincts (intuition guiding action) of survival or emergent knowledge and behaviours to cope with crises (Glantz & Ramírez, 2018; Kuhlicke, 2013; Webb, 2004). Some studies have also problematised the notion of improvisation as “a failure to plan for a particular contingency” (Kendra & Wachtendorf, 2007; p.324). However, we must acknowledge that it is impossible to anticipate or prepare for all risks posed by events like climate hazards; therefore, the alternative is to improvise (Glantz & Ramírez, 2018). I, therefore, theorise ‘improvisation’ as a set of skills that MSEs draw upon to create solutions to events that are neither controlled nor completely understood. As Beliner (1994) puts it, improvisation is an adaptive capacity that involves “reworking precomposed material and designs in relation to unanticipated ideas

conceived, shaped, and transformed under special conditions of performance, thereby adding unique features of creation” (p.241). Arguably, such sets of skills are embedded within the dimensions of ‘lived resilience’. MSEs in my study enacted new routines and continuously adjusted to the unpredictable nature of floods and cyclones such as the practice of constantly checking on water levels so that they could lift stocks or relying on traditional knowledge to recover.

The inquiry into improvisation can also be linked to being ‘innovative’ or ‘creative’. For instance, in the psychological literature, improvisation is centred around cognitive responses to unforeseen circumstances (Crossan, White, Lane, & Klus, 1996; Glăveanu, 2012). Glăveanu (2012) conceptualises the notion of ‘improvisational creativity’ through Bourdieu’s broad sociology of habitus. He argues that “improvisation must be anchored in habitual patterns of behaviour” because “it is generative, relational, temporal and expresses the way we work” (Glăveanu, 2012; p.86). He establishes that improvisation draws on habit and successes in shaping it, compelled by the fact that “no systems of codes, rules and norms can anticipate every possible circumstance” (ibid). However, Glăveanu (2012) explains that the distinction between habitus and improvisational creativity can become blurred because habitual action presupposes a micro genetic and situated approach. He argues, “to understand that nature of habit and improvisation, one has to see them in the broader social and material context of their emergence, as well as moment-to-moment dynamics” because these are the most important aspects for habitual expression. However, my research does not intend to solve these definitional deficiencies or refute Glăveanu’s arguments but rather to link habitus to the practice of improvisation. Indeed, Bourdieu argues that habitus may be durable, but it is endlessly transformed (Bourdieu, 1990). What habitus produces are “all reasonable, common-sense behaviours, which are possible within the “limits set by historical and socially situated conditions of its production” (Bourdieu, 1990; p.55). Simply stated, habitus can be acquired

through individual activity or socialisation. This line of thought is supported by Uekusa & Matthewman (2017), demonstrating how victims and non-victims engaged in pro-social behaviour as they all shared the common goal of getting by. They argued that a shared goal was a temporal bonding factor. As adversity fades out, most people return to their main social networks or develop further these main networks necessary to adapt and live in the new normal. One way of looking at this is that those limited networking capacities may not have had access to main networks outside times of disasters, such as elderly MSE owners; therefore, they rely on improvising through self-organisation. However, in the wake of disasters, improvisation practices may be informed through social networks.

Following the line of reasoning above, my findings in Chapter 7 reveal that MSEs' practice of improvisation is critical to the practice of building resilience as it forms an intrinsic part of habitus (see also Manyena, Machingura, & O'Keefe, 2019). For instance, I argue that MSE owners capitalise on existing habits by harnessing a pool of skills and tacit knowledge, which allows these business owners to constantly adapt to the unpredictable nature of floods and allows them to transition between different phases of a disaster. Bringing together knowledge of what to do at each phase of the disaster does not happen by chance but through historically contextualised experiences. For instance, MSE participants talked about how risk-taking was part of a culture they inherited growing up when there was no scientific technology to inform them about floods or cyclones. Such risk attitude has been translated into the decision of operating a business in a flood-prone area. In addition, what is often less spoken about is how MSEs have to improvise to cope with the challenges posed on a day-to-day basis of running a business, such as dealing with tax laws, customers, suppliers, etc. The owners have no specific procedures to deal with such tasks but are expected to do something when encountering problems. In Bourdieu's perspective, such actions are linked to habitus as they predispose individuals towards particular processes and outcomes. What remains theorised here is

precisely the relationship between improvisation and resilience. Building resilience is quite often limited to developing anticipatory skills through formal structures that prescribe the necessary behaviour. Indeed, various at-risk people in a disaster zone are labelled as ‘survivors’ for responding on their initiative or based on their perceptions of immediate dangers to life. Given the realities of risks posed by climate hazards and the unpredictable nature of some risks, we are often faced with situations at specific points in time where we have to improvise, which enhances our adaptive capacity (refer to Chapter 2 for linkages between resilience and adaptation).

The discussion in the next section envisages further support towards practices of improvisation as I bring to light the issues around formal structures that prescribe resilience-building practice for MSEs; these I refer to as ‘neoliberal’.

9.5. Making MSEs responsible subjects

The idea of building resilience reworks responsibility in the face of a particular perception that the future will not resemble the present because those ‘known unknowns’ and ‘unknown unknowns’ may no longer be predictable (N. S. Rose & Lentzos, 2017; Trnka & Trundle, 2017). This new way of speaking about resilience has given rise to the concept of responsabilisation, which refers to the “divestiture of obligations from the state onto individuals to formulate themselves as independent, self-managing and self-empowered subjects” (Trnka & Trundle, 2017; p.2). In the perspective of social theorists such as Barrios (2017) and Joseph (2013), resilience-building is best understood as a neoliberal form of governmentality that emphasizes individual adaptability. As Joseph (2013) puts it:

Resilience fits with a social ontology that urges us to turn from a concern with the outside world to a concern with our subjectivity, adaptability, reflexive understanding, risk assessments, knowledge acquisition, and, above all else, our responsible decision making. (p.40)

Evidence drawn from Chapter 8 alludes to issues of symbolic capital (power imbalance), as the current practice for designing resilient-building interventions for the private sector is restricted to the parameters of DMIs. A telling example can be drawn from the interviews with financial institutions and insurance companies that fail to provide adequate support to MSEs despite the enactment of regulations and policies by government entities. Both financial institutions and insurance companies resist providing tailored services for MSEs because accommodating the needs of such entities is deemed unprofitable. The argument herein is that shifting responsibility from DMIs onto MSEs to build their resilience depoliticises institutional accountability (see also Joseph, 2013). Simply stated, MSEs are made the scapegoat of a wider system because they are blamed for their inability to manage and navigate adverse conditions. Trnka & Trundle (2017) poignantly described practices of responsabilisation as “demands without the collective and infrastructural powers and resources to realise resilience are disingenuous at best, toxic at worst” (p.45).

A recurring issue in my study was that MSEs were stereotypically categorised as ‘at-risk’ or ‘non-insurable’, which in my view imposes a form of ‘symbolic violence’ – an invisible force that “operates in a much more subtle manner through language, through the body, through attitudes towards things which are below the level of consciousness” (Bourdieu & Wacquant, 1992; p.115). Findings reveal that DMIs often turn away from talking about the underlying structures (institutional systems and processes) that contribute towards these businesses being ‘at-risk’ or ‘non-insurable’ in the first place. In an earlier work of Bourdieu & Passeron (1977), the term ‘doxa’ is used to explain how individuals act according to social conventions that are tacitly internalised as habitus. For instance, DMIs impose attendance of BCP training and policies and interventions that prescribe how to make MSEs more resilient. Clearly, DMIs, with very good intention, assume their legitimacy in making choices for the powerless; thus, the process of building resilience of MSEs is driven by external forces. In other words, DMIs

have positional privilege to influence resilience building interventions for MSEs, which can reproduce or reforge structures that can either liberate or limit MSEs' levels of resilience.

Another construal of symbolic violence relates to the use of resilience to justify forms of governance concealing the continuing reproduction of hierarchical power relations (Joseph, 2013; O'Malley, 2010). As mentioned earlier, MSEs do not choose to get involved in matters of the state but are forced to do so by the government as part of their mandate for 'inclusive' decision making. For example, when governments commit to international agreements for DRR such as the Sendai Framework and endorse regional policies such as the Framework for Resilient Development in the Pacific (FRDP), they are pressured by agencies that govern these treaties (power relations from outside entities) co-produce interventions for targeted groups of beneficiaries. A telling example can be drawn from the interview excerpt with the Pacific Islands Forum Secretariat (PIFS) participants involved in the implementation of the FRDP. In his words:

The success of FRDP depends on coordination and cooperation amongst the multiplicity of public and private sector stakeholders... We must use more bottom-up approaches as opposed to top-down controlled approaches. (DMI011)

The excerpt above promotes active agency, bottom-up approaches, and public-private partnership as forms of governance. However, the analysis of policy documents in Chapter 8 reveals that efforts to prioritise beneficiaries' needs tend to be superficial because the direction of resilient-building interventions is already pre-agreed through these international treaties and regional policies.

To sum up, as a starting point, I argue that there is a need to move past the narratives where the vulnerable are responsible for their survival as it provides a narrowed ontological orientation of resilience. My research produces no checklist to determine whether a business is resilient but rather concedes that the strategies to achieve resilience are not always

straightforward and often require improvisation. That is to say, it recognises that building resilience is not an individual responsibility to bear but is dependent on a range of enabling and constraining factors. I agree with Trnka & Trundle (2017) that the territory of responsibilities must be revisited, such as the power and resources required to make resilience a reality and who should be responsible for what. She argues:

To foster resilience is not to create disciplined subjects whose conduct is fixed by norms and judged in terms of good and bad. It does not require some all-seeing governing agency to know and regulate everything within a territory. But nor does it seek to devolve all responsibilities to isolated, autonomous, responsabilised subjects seeking to live their lives as self-promoting enterprises, seeking only to maximize their utilities, and responding to market incentives to do so. (p.45)

9.6. The “triple dividend of resilience”: incentivising DRR approaches

Globally, calls for increased levels of investment towards resilient built environment and human capacity have been articulated through several concepts such as ‘Build Back Better’ (BBB) and linking relief, rehabilitation, and development (LRRD) (Hilhorst, 2018; Kutty, 2020; Thomalla et al., 2018). These calls to action can be linked to several reasons. First are the increasing levels of losses associated with natural hazards in the current decade instead of prior decades (Dollet & Guéguen, 2022; Mechler et al., 2019). Second is the prevailing low levels of disaster preparedness among individuals and communities in developed and developing countries (Bowonder & Kasperson, 2022; Kasperson & Kasperson, 2022). Third, the plethora of scientific evidence highlighting the projected increase in frequency and intensity of hazards due to climate change (IPCC, 2021; Kergomard, 2015). Last is the idea that building resilience suffers from a lack of salience amongst locals because the cost of such investments is immediate. In contrast, such investments' benefits remain unclear and distant

(Mechler et al., 2019). This issue can be linked to existing methods of appraising investment decisions that fail to incentivise DRM.

As alluded to in Section 8.4, the importance of ex-ante DRM measures is yet to be reflected in the policy and practice of both DMIs and MSEs, particularly due to the lack of resources and limited understanding of the value of investments. One way to address this public choice dilemma is to identify and evaluate the broader set of dividends from investing in dividends (Tanner et al., 2016). I have reiterated the need for DRM investments towards the external built environment and contextualised human capacity support programmes throughout my findings. However, studies such as those of Tanner et al. (2016) have extended the case for investing in ex-ante resilience-building interventions through the use of the ‘triple-dividend’ concept, where the rationale and narrative of DRM investment are based on three key priorities: (i) reducing disaster losses and damages, (ii) unlocking economic potential, and (iii) deriving development co-benefits (p.13-14). To bring together the characteristics of each dividend type used to build the case for investing in DRM, I consolidate the discussions of Tanner et al. (2016) within Figure 9.1 below.



Figure 9.1: The triple dividend of resilience (Source: adapted from Tanner et al., 2016, p.15)

The 'triple dividend' of resilience concept is laudable and reinforced within the Fiji Government's NDP. Yet, it still reinforces expert-driven and top-down decision making. There are reasons to be sceptical whether implementing actions within the three priority areas can still translate to an abnegation of political responsibility and resource allocation conflicts, as discussed in Chapters 4 and 8. Undoubtedly, investments towards the built environment yield benefits in the form of positive externalities that can benefit MSEs significantly, but equally important is the need for DMIs to conduct a situational analysis to better understand their beneficiary's needs, so that tools and training offered are 'fit for purpose'. The point here is that the MSEs are focused on keeping their businesses afloat, and there is little effort from them to ask questions about who benefits from the broader initiatives. Arguably, initiatives targeted towards enhancing their capacities to adapt, cope or recover from hazard events need to be co-designed. This argument has been adequately reflected in several other disaster studies (Bowonder & Kaspersen, 2022; Leitner, Sheppard, Webber, & Colven, 2018; Zebrowski, 2020).

9.7. Summary

This chapter brought together discussions on viewing resilience as 'lived' by focusing on the embodied and emotional experiences of MSEs in Ba. In this regard, three key thematic areas were discussed with linkages to Bourdieu's theoretical perspectives on field, habitus, and capital. First, I introduced the notion of solesolevaki, with reference to conversion of cultural capital into social capital within the context of MSEs in Ba, emphasizing how cultural values play a key role. Then, I theorise the role of emotions in resilience-building and how affective engagements emerge out of habitus. Evidently, the need for a more complex analysis of and response to psychological processes following a disaster is further underscored in the discussion within this section. I then concluded the discussion by framing improvisation as a

factor of 'lived resilience' whereby I focused on the practices of navigating through challenges in both disaster and non-disaster times.

In the last section of this chapter, I return to the discussion on the neoliberal approach of 'responsibilisation' and the need to move past the narratives where the vulnerable are responsible for their survival as it provides a narrowed ontological orientation of resilience. To end, I briefly looked at the concept of the 'triple dividend of resilience' as an incentive of resilience-building practice. I argued that the approach still reinforces non-participatory and non-inclusive approaches, with concerns that, in practice, there can still be issues of shifting responsibilities onto the vulnerable because of resource constraints.

Chapter 10: Conclusion

A recent article by Leach, MacGregor, Scoones and Wilkinson (2021) has brought to light the importance of re-thinking development amidst the COVID-19 pandemic and the ongoing climate crisis. Drawing on evidence on the effect of the global pandemic, these authors explain how people all over the world had to make significant adjustments to aspects of their lives in order to survive during a pandemic. In describing the pandemic as a gateway to another reality, the authors mentioned:

When it comes to how we respond and rebuild societies and economies, there is a clear need and opportunity for us to re-think development more broadly and address structural political-economic conditions alongside the far less ordered, 'unruly' processes that reflect our complex and uncertain world.

Like the pandemic, natural hazards provide an opportunity to re-think development practices and explore new ideas. For decades, disaster management institutions have appropriated the idea of building resilience through models such as 'Build Back Better'. However, as evidenced through critical disaster studies, the hegemonic logic that defines the dimensions of resilience often devalues knowledge of the vulnerable in favour of technical expertise and western (androcentric) knowledge (Barrios, 2017; Kelman & Gaillard, 2007; R. J. T. Klein, Nicholls, & Thomalla, 2003; Kathleen Tierney, 2015). As such, this thesis attended to understanding how building resilience is negotiated in the everyday lives of business owners, in order to explore possibilities that would allow us to move beyond the prevailing logics that define resilience. The narratives of MSEs in Ba might seem no different from the other stories of disaster victims that we have heard before. However, what goes unnoticed in the discourse is how the term resilience remains abstract and meaningless without considering questions such as 'resilience for who?' or 'resilience of what?' (Cutter, 2016; Djalante, 2014; Manyena, 2006; Sullivan-Taylor & Branicki, 2011).

Drawing on the hope conveyed by Leach et al. (2021), this concluding chapter reflects on the value of MSE's lived experiences from climate hazards for re-thinking ways we view and enact resilience. As evidence, the inclusion of voices of the vulnerable, particularly within public discourses around resilient-building interventions, remains absent. Drawing on the talanoa conversations conducted with MSEs in Ba and DMIs, I argue that resilience-building frameworks still tend to be vague and theoretically weak when it comes to epistemologies of the vulnerable, and research such as mine serves as a constant reminder on why the notion of resilience continues to be contested.

Theoretically, I use Bourdieu's sociology of field, habitus, and capital to examine factors that enable and constrain the resilience of MSEs in Ba. These factors included access to capital, including the interplay of capitals, recognition of the role of emotions and affect, and the institutional processes that direct resilience-building interventions. In my view, this research is critical because we are living in an Anthropocene era, where human-induced climate hazards are projected to increase in frequency and severity. Yet, there are significant gaps in understanding DRR policy and practice. To make policies and practices of resilience-building more effective, the micro-level issues cannot be seen in silo to the macro-structural issues.

Furthermore, it is worth noting that this research is positioned within the social constructivist paradigm, thus acknowledging that there is no single truth out there, but multiple interpretations of the truth exist. In what follows, I reflect on the lines of enquiry that have guided my research. First, I highlight my key findings and contributions to the wider disaster field. Next, I discuss limitations and how future research can build further on the findings. The last section offers a few policy recommendations and my concluding thoughts.

10.1. Reflections on key findings

I undertook this research to understand the factors that shape or influence MSEs resilience against climate hazards. I did this by drawing on the case study of Ba Province, Fiji, a locality frequented by climate hazards. To this end, I examined MSEs experiences of being affected by climate hazards and the ways in which they prepared for, coped with, and recovered from climate hazards. Additionally, I explored the roles of DMIs in enhancing the resilience of MSEs and their perspectives of resilience-building practice.

This thesis offers several unique insights. In Chapter 4, the document analysis revealed how a specific set of policies and programmes which shape DRM practice in Fiji, including developments in legislation and policies failed to account for the needs of MSEs. The failures in policy discourses were inherently linked with poor development practices highlighted in Chapter 8. Additionally, I provide an historical account of climate hazards in Fiji to facilitate an in depth understanding of my research context in Ba. The historical context provides solid ground upon which to situate the theoretical insights from the critical disaster studies literature, as well as the various disaster management stakeholders and their contemporary institutional arrangements. As argued by Bankoff (2006), disaster studies often display a preoccupation with the immediate policy implications and less with placing the disaster and recovery perspective over the course of human development – the kinds of view necessary for producing coherent theoretical frameworks. For instance, my findings refer to varying perspectives on disaster causes, the underlying factors, and links them to why MSEs are successful (or unsuccessful) in preventing disasters.

Following the contextualisation of the case study, I moved on to an analysis of the talanoa-styled conversations and validation workshop discussions. I first looked at disaster impacts by analysing the narratives of MSE owners. Without segregating the types of impacts, the findings revealed that due to climate hazards, MSEs sustained significant damages to property and

stocks, as well as disruptions to supply, that related to the external built environment, customers, and suppliers. Findings on reduced profitability and employee absenteeism reflect the cascading impacts of climate hazards related to transportation. The discussion on impacts also underscored that the vulnerabilities of MSEs exacerbated by the external built environment, which disrupts business operations and complicates recovery of MSEs.

In addition to the practical insights on disaster impacts, this thesis developed an analysis on the ways in which MSEs built resilience to climate hazards. They drew upon various forms of capital across different fields and developed a specific habitus to deal with such events. In Chapter 7, I offered the concept of 'lived resilience', which unpacks hidden forms of vulnerability that MSEs manage daily, including the significant risks posed by climate hazards. MSE's past experiences in dealing with hazards and navigating challenges posed by operating in an extremely tough business environment have led them to invest in various forms of capital, which enhances their adaptive capacity. The findings revealed the interplay of capital, where cultural value systems of MSEs had significantly influenced the emergence of other capitals, particularly social capital. I argue that the social networks that were formed through past disaster experiences were not specifically developed to respond to disasters but rather to overcome daily resource scarcity. MSEs have maintained these social networks even after disasters and continue to draw upon them to cope with everyday realities.

Furthermore, my study expands on the importance of affect and emotions in understanding processes of resilience. The findings recognise how emotions are evoked in post-disaster context, as well as mobilised as means of governing. For instance, I drew attention to DMIs inculcating desires for a 'safer' future through employing a range of affective technologies. I also provide examples of how post-disaster development efforts are also an affectively charged moral endeavour.

This thesis also examined the role of DMI in promoting resilient-building initiatives, plans, strategies, and policies targeted towards MSEs as a basis for comparison of perspectives. Evidence presented in Chapter 8 revealed that DMIs shape the discursive conditions of resilience-building programmes, as well as broader development policy and practice in Fiji. For instance, findings reveal how neoliberal systems devolve responsibilities for coping with risks from the state to the vulnerable, which arguably oppress levels of social relations, generate certain stereotypes, and contribute to the uneven distribution of capitals. A parallel concern related to this argument was the increasing dissatisfaction amongst MSEs towards resilience-building interventions implemented by the plurality of actors involved in the disaster management field. Post-development critiques have argued that failings in resilience-building practice are embedded in subtle power relations masked by Western development practices (Joseph, 2013; O'Malley, 2010; Trnka & Trundle, 2017). The inquiry into modes of governing elucidated systems of power, which were exclusionary and discriminatory towards the needs of MSEs. Insights on risk-averse technologies used to reinforce negative emotive responses were also framed as a mode of governing vulnerable groups.

Overall, the findings of my thesis introduce new ways of thinking about resilience and the reality of policy and institutional arrangements. In Chapter 2, I critically analyse why scholars must move past definitional parameters to truly understand processes in building resilience. My research findings reveal that vulnerability and resilience are inseparable concepts as some characteristics of vulnerability coexist with factors that contribute to resilience. The framework of “resiliency vulnerability” introduced by Reghezza-Zitt et al. (2015) reiterates that resilience and vulnerability can be contingent on each other because resilience consists of both positive and negative effects dependent on the nature of the risk and its severity. Throughout my thesis, I inferred that systematic, deterministic, and deductive approaches employed by disaster scholars tend to treat vulnerable groups as passive or powerless victims without adequate

examination of their agency or resilience. Indeed, the reality is that disasters will continue to exacerbate people's existing vulnerabilities and disrupt access to existing capital; thus, social agency and resilience may not be enough to deal with disasters.

10.2. Key contributions of this thesis

In many different settings including in Fiji, MSEs contribute significantly to the recovery efforts of their communities, yet their role remains devalued with the DRM field. In this section, I discuss the four key contributions of this thesis. First, this thesis addresses significant knowledge gaps within the broader disaster management field. As alluded to in Chapter 2, MSEs remain under-studied, particularly within the context of PICs. My thesis offers an in-depth understanding of the embodied and emotional experiences of MSEs in Ba in dealing with climate hazard events, which are now a recurrent issue. While a few studies have examined disaster impacts in the context of Fiji, none have explored the processes of building the resilience of MSEs within the study area of Ba.

Furthermore, this thesis makes a valuable contribution to knowledge by bringing in the perspectives of DMIs. They govern resilience-building interventions for the private sector and drive policy in the regional and international space. Often, there is a significant disconnect between policy and practice, which I demonstrate is partly due to the top-down, systematic, 'one size fits all,' and deterministic approaches that DMIs employ in policy development.

Aside from its empirical significance, this thesis also makes a significant theoretical contribution by expanding on Bourdieu's sociology of field, habitus and capital and its application within the broader field of disaster management. Although Bourdieu's theory has been criticised for conceptual ambiguity, his approach to practice aided in unpacking the process of building resilience. My research conceptualises the notion of resilience as 'lived' and draws on Bourdieu's ideas on the plurality of capitals, and the interplay of factors within a

particular field. I also agree with the arguments of Albuero-Cañete (2021) that scholars should stop viewing resilience as an attribute that can be technically engineered, which appears to be the tendency of many resilience programmes, but rather as a process that is shaped by several internal and external factors. Extending the theory discussion, I offered unique insights on the cultural constructions of social capital in Fiji using local concepts such as ‘solesolevaki’ and ‘veilomani’, which have never been framed outside an indigenous setting nor applied within resilience research. In addition, this research attempted to bridge knowledge gaps on the role of affect and emotions by briefly introducing dimensions of affective engagements within the broader discussions of building resilience. Here, I offered an understanding of the values of ‘yalodei’, which leans towards the practice of improvisation, yet centres on emotional competencies.

Finally, this thesis significantly contributes to Pacific literature. My research focuses on a Pacific Island nation that has been braving the impacts of climate-induced hazards for decades. Unfortunately, there is still very little research evidence to complement the narratives of the vulnerable. In this regard, the findings of my thesis reiterate that the plethora of disaster management tools currently governing DRM practice across PICs need to be revisited and analysed for their relevance and effectiveness.

10.3. Limitations

As briefly mentioned in Chapter 5, there were several limitations in conducting this research. First, during my fieldwork, there were some difficulties in recruiting MSE participants. Many MSEs in Fiji operate informally and could not be part of my study because I had restricted the recruitment criteria to only those that were formally registered. The decision to restrict MSEs to those formally operating was also because of they were easier to access as opposed to informal MSEs. For instance, most MSEs that did not have a business licence and were

operating from home were not willing to be part of the study because they feared that I would inform the authorities. Nevertheless, irrespective of whether MSEs were formal or informal, the argument remains that MSEs in general remain understudied.

Third, the timing was a crucial factor in this research. Several disaster scholars have discussed timing issues, arguing that researchers rush into the field in search of access to better information (Alburo-Cañete, 2021; Uekusa & Matthewman, 2017). However, the inquiry of processes such as factors of building resilience requires an understanding of changed practices over time (longitudinal analysis), which is a shift away from evaluation of impact only. This research argues that it is not an inclusive practice for researchers to be interviewing survivors as not everyone is comfortable re-living their trauma through conversations. I learned that some participants were still not ready to talk about their experiences during the interviews. Therefore, I carefully navigated through the field after the April 2018 floods and approached participants informally to assess whether they were comfortable to share.

A further limitation was not being able to give voice to all the participants. Although I had interviewed 59 MSE participants and 34 DMIs, I have not been able to fully reflect the extent of all participants' experiences and opinions. Often, I struggled to prioritise which participants' voices should be reflected within the analysis. Related to this limitation, this thesis examined processes of building resilience with MSEs in Ba only, thus it can only offer a partial perspective as it does not encompass experiences of other MSEs in other disaster-affected regions of Fiji. Nevertheless, the findings on disaster impacts, and the role of DMIs in supporting MSEs can be partially generalised beyond Ba. A more confident assessment of all MSEs in disaster-affected regions of Fiji would require a systematic longitudinal study, is outside the time-frame and budget of a PhD study.

10.4. Future research

As alluded to in Chapter 2, the concept of resilience has become a 'buzzword' not only across disaster research and practice but also in fields of urban planning, climate sciences and development studies, to name a few (Cutter, 2016; De Bruijn, Green, Johnson, & McFadden, 2007; Jones, 2019; Tierney, 2015). Although the term has multiple interpretations within disaster scholarship, it appears to focus on enhancing the adaptive capacities of individuals and systems in the face of risks posed by natural hazards and other uncertainties. However, building adaptive capacities is a process that requires transformative change. Therefore, future researchers analysing the disaster resilience of MSEs in Ba can draw on the findings of my thesis as a case for comparative analysis (longitudinal analysis). A telling example can be drawn from the study of Sydnor et al. (2017), who revealed that many businesses that were able to reopen after Hurricane Katrina had eventually shut down years later because of the challenges in coping with and responding to other extreme events.

Furthermore, observations throughout my thesis provide a range of insights into the role of emotions and affect embedded within the framing of lived resilience. However, a more thorough analysis of affective engagements requires an in-depth understanding, which was outside the scope of this study. In addition, the lack of policy initiatives on building disaster resilience of MSEs and their reduced involvement warrants further investigation into the reasons behind this.

To sum up, complementary studies are required to analyse the discursive learning beyond the existing social networks. It was clear that MSEs, when prompted to consult with disaster risk experts, were unwilling to engage. Remarks made during the talanoa conversations indicated very little trust and reliance placed on external experts or networks outside their own. Such behaviour is partly influenced by factors such as the discriminatory and exclusionary approaches in which resilient-building interventions are designed for MSEs. Perhaps it would

be worth comparing the findings to countries where MSEs are actively working with development partners to design resilient-building interventions, or cases where bottom-up approaches materialise into action. To promote inclusive research practice, researchers can also advocate for creation of space for MSEs to contribute to policy and practice.

10.5. Theoretically informed policy implications

The key findings from this study draw attention to several policy issues. First, the findings highlight that policy practitioners should recognise the lived experiences of social agents when designing initiatives that support these agents in preparing for, coping with, and recovering from disasters. To do this, they need to understand perspectives on what is needed and when support is needed instead of pre-designing policies and strategies out of practices that do not recognise the needs. As mentioned earlier, a one-size-fits-all approach has proved ineffective for vulnerable groups. Reflecting on MSEs' everyday experiences of dealing with disasters provides a clear picture of how different capitals are developed at different phases of a disaster. For instance, in terms of assistance, development partners focus mostly on economic capital or financial aid. While financial aid is necessary and important, the challenge is on structuring and distributing this aid to maximize its effectiveness in assisting MSEs to recover following a disaster. The findings of my research show that social networks of MSEs are an important source of post disaster recovery and resilience. Development partners should consider how to build on the social capital of communities in disaster affected areas as an alternative strategy that can complement their financial assistance packages. Finally, cultural capital or an innate understanding of the culture and traditional practices of Pacific Island communities following disasters is also important in engaging with communities and MSEs and developing solutions that are grounded in the lived experiences of Pacific Islanders. Therefore, if DMIs turn a blind eye towards the realities on the ground, their approaches, strategies, or policies may be just another document or activity without substance. There is a need for in-

depth engagement with MSEs to understand the underlying factors that enhance or constrain their resilience.

Second, my thesis reiterates that unchecked development creates risk by putting people and infrastructure in harm's way. In other words, poor development choices are drivers of disaster risks; thus, ethics of safety must be applied. In the context of Ba, policymakers need to seriously reconsider town planning issues such as the design of built environment like drainage systems as part of their long-term adaptation strategies. My findings are a stark reminder that effective adaptive infrastructure should not stop at investing in the built environment, such as flood drainage systems, but needs to include informational infrastructure, such as channels for disaster risk communication. The local government should capitalize on local knowledge to devise tailor-made mechanisms for MSEs in respective provinces. Mechanisms that incorporate unique characteristics and conditions of MSEs will effectively shift from short-term, reactive responses to long-term, proactive ones by both businesses and local government. Although infrastructure may simply be seen as an assemblage of objects, it is important to note that these objects are also embedded in socio-ecological relations. This further builds on the need to appreciate the value of social and cultural capital within Pacific Island communities, which is reiterated and explained in detailed under section 3.1.2.

Third, policymakers need to recognise that the interpretation of risk information does not necessarily require technical knowledge nor is it as simple as an acknowledgement of increasing frequency and intensity of hazards. Rather, what is needed is an understanding of risks (exposure, hazards, and capacities) and their underlying causes. Information can be derived from a range of sources, including research, technology, and traditional knowledge, all of which are critical, yet not sufficiently integrated into disaster risk management strategies. Bourdieu suggests that many of the practices of people are tacit knowledge and developed through years of being inculcated within a particular system of knowing and doing. People

themselves often cannot explain these practices because it has become so ingrained in their habitus. Thus, development partners must be cognizant of this and must engage deeply with communities affected by disasters to better understand their practices and strategies to dealing with the effects of disasters.

Fourth, policymakers need to explore how to incentivise financial institutions and insurance companies to provide the necessary support required by MSEs. Current insurance policies do not cover floods, and current approaches to a parametric micro-insurance product are still restrictive in nature. Therefore, the government should explore ways of enhancing reinsurance and investing in parametric insurance. Likewise, the government needs to regulate financial institutions to extend support to MSEs in times of disasters through programmes such as the MSE Guarantee Scheme and, more importantly, aid with the implementation of preventive measures. However, regulations alone will not be effective unless properly enforced.

Last, the idea of building resilience needs to be normalized as the onus is on every individual to act with responsibility considering the unpredictable nature of hazards that Fiji has been experiencing. This requires extensive advocacy and awareness raising, which in turn can shape the risk attitudes and behaviours of individuals. As reflected in the findings, the blame game or shifting responsibilities idea has continued for decades. Development partners can collaboratively explore opportunities that are realistic and relevant to the local context.

10.6. Final thoughts

Based on a quick search on the Scopus abstract and citation database of peer-reviewed literature in the last five years, over 30,000 research papers have been published globally on specific natural hazards across several disciplines. However, despite the voluminous body of disaster scholarship, seldom do we find writings specifically on MSEs or the private sector. I opened this concluding chapter with a reference to hope in terms of rethinking development

practice. Indeed, my PhD research may not entirely represent the voices of all MSEs in Ba, but it reveals untold stories of social relationships, care, and interconnected vulnerabilities. I intentionally asked questions around “resilience for who” or “what constitutes becoming resilient” because so often narratives of the vulnerable are framed by others, and as researchers, we need to break away from such framings.

For a small island nation like Fiji, climate hazards will continue to be an unfortunate reality. Thus, as indicated in my findings, national and sub-national development processes and products integrating risks inevitably need to be consistent in approach and design. There is also an urgent need for development partners to develop a unified position and break away from the siloed culture of designing resilient interventions that are not contextually appropriate. The development divide can be addressed through inclusive practices, where all stakeholders are consulted and informed. I conclude this thesis with the hope that one day MSEs will be empowered to collectively lobby for changes in both disaster recovery and resilient practices.

References

- Adams, V., Van Hattum, T., & English, D. (2009). Chronic disaster syndrome: Displacement, disaster capitalism, and the eviction of the poor from New Orleans. *American Ethnologist*, 36(4), 615–636.
- Aiemwongnukul, R. (2014). Natural disasters: Opportunity utilization and crisis alleviation within a development of strategic management model. *Journal of Sustainable Design and Manufacturing*, 84(14), 536–550.
- Aitsi-Selmi, A., Murray, V., Wannous, C., Dickinson, C., Johnston, D., Kawasaki, A., ... Yeung, T. (2016). Reflections on a science and technology agenda for 21st century disaster risk reduction. *International Journal of Disaster Risk Science*, 7(1), 1–29.
- Akyelken, N. (2020). Living with urban floods in Metro Manila: a gender approach to mobilities, work and climatic events. *Gender, Place & Culture*, 27(11), 1580–1601.
- Albattat, A. R., & Matsom, A. P. (2014). Emergency planning and disaster recovery in Malaysian hospitality industry. *Journal of Social and Behavioral Sciences*, 144(1), 45–53. <https://doi.org/10.1016/j.sbspro.2014.07.272>
- Albrecht, F. (2018). Natural hazard events and social capital: the social impact of natural disasters. *Disasters*, 42(2), 336–360. <https://doi.org/10.1111/disa.12246>
- Alburo-Cañete, K. Z. (2021). Benevolent discipline: governing affect in post-Yolanda disaster reconstruction in the Philippines. *Third World Quarterly*, 1–22.
- Alburo-Cañete, K. Z. (2021). PhotoKwento: co-constructing women's narratives of disaster recovery. *Disasters*, 45(4), 887–912.
- Aldrich, D. P. (2011). The power of people: Social capital's role in recovery from the 1995 Kobe earthquake. *Natural Hazards*, 56(3), 595–611. <https://doi.org/10.1007/s11069-010-9577-7>
- Aldrich, D. P. (2012). Social capital in post-disaster recovery: Towards a resilient and compassionate East Asian community. In *Economic and Welfare Impacts of Disasters in East Asia and Policy Responses: ERIA Research Project Report 2011-8* (pp. 157–178).

- Aldrich, D. P., & Meyer, M. A. (2015). Social Capital and community resilience. *American Behavioral Scientist*, 59(2), 254–269. <https://doi.org/10.1177/0002764214550299>
- Aldunce, P., Beilin, R., Handmer, J., & Howden, M. (2014). Framing disaster resilience. *Disaster Prevention and Management: An International Journal*, 23(3), 252–270. <https://doi.org/10.1108/dpm-07-2013-0130>
- Alesch, D. J., Holly, J. N., Mittler, E., & Nagy, R. (2001). Organizations at risk: What happens when small businesses and not-for-profits encounter natural disasters. In *Public Entity Risk Institute*.
- Ali, I., Nagalingam, S., & Gurd, B. (2017). Building resilience in SMEs of perishable product supply chains: enablers, barriers, and risks. *Production Planning and Control*, 28(15), 1236–1250. <https://doi.org/10.1080/09537287.2017.1362487>
- Anderson, C. C., & Renaud, F. G. (2021). A review of public acceptance of nature-based solutions: The ‘why’, ‘when’, and ‘how’ of success for disaster risk reduction measures. *Ambio*, 50(8), 1552–1573.
- Anger, W. N. (2003). Social capital, collective action, and adaptation to climate change. *Economic Geography*, 79(4), 387–404. <https://doi.org/10.1126/science.11.277.620>
- Arnold, M., Mearns, R., Oshima, K., & Prasad, V. (2016). Climate and disaster resilience. In *World Bank Special Issue on Possible Pacific*.
- Arunrat, N., Wang, C., Pumijumnong, N., Sreenonchai, S., & Cai, W. (2017). Farmers’ intention and decision to adapt to climate change: A case study in the Yom and Nan basins, Phichit province of Thailand. *Journal of Cleaner Production*, 143(1), 672–685. <https://doi.org/10.1016/j.jclepro.2016.12.058>
- Asgary, A., Anjum, M. I., & Azimi, N. (2012). Disaster recovery and business continuity after the 2010 flood in Pakistan: Case of small businesses. *International Journal of Disaster Risk Reduction*, 2(1), 46–56. <https://doi.org/10.1016/j.ijdr.2012.08.001>
- Asgary, A., & Ozdemir, A. I. (2020). Small and Medium Enterprises and Global Risks: Evidence from Manufacturing SMEs in Turkey. *International Journal of Disaster Risk Science*, 11,

- Asian Development Bank. (2019). *The enabling environment for disaster risk financing in Fiji*. Retrieved from www.adb.org.
- Ates, A., & Bititci, U. (2011). Change process: a key enabler for building resilient SMEs. *International Journal of Production Research*, 49(18), 5601–5618. <https://doi.org/10.1080/00207543.2011.563825>
- Atkinson, W. (2019). *Bourdieu and after: A guide to relational phenomenology*. Routledge.
- Auzzir, Z., Haigh, R., & Amaratunga, D. (2018). Impacts of Disaster to SMEs in Malaysia Impacts of Disaster to SMEs in Malaysia. *Procedia Engineering*, 212(1), 1131–1138. <https://doi.org/10.1016/j.proeng.2018.01.146>
- Ayyagari, M., Beck, T., & Demircuc-Kunt, A. (2003). Small and medium enterprises across the globe. In *Policy Research Working Paper* (No. 3127). <https://doi.org/10.1007/s11187-006-9002-5>
- Bankoff, G. (2001). Rendering the world unsafe: 'vulnerability' as western discourse. *Disasters*, 25(1), 19–35.
- Bankoff, G. (2019). Remaking the world in our own image: Vulnerability, resilience, and adaptation as historical discourses. *Disasters*, 43(2), 221–239.
- Bannock, G. (2005). *The economics and management of small business: an international perspective* (1st ed.). <https://doi.org/https://doi.org/10.4324/9780203338346>
- Baron, N., & Petersen, L. K. (2015). Climate change or variable weather: rethinking Danish homeowners' perceptions of floods and climate. *Regional Environmental Change*, 15(6), 1145–1155.
- Barrios, R. (2017). *Governing affect: Neoliberalism and disaster reconstruction*. University of Nebraska Press.
- Battisti, M., & Deakins, D. (2017). The relationship between dynamic capabilities, the firm's resource base and performance in a post-disaster environment. *International Small Business Journal*, 35(1), 78–98. <https://doi.org/10.1177/0266242615611471>

- Berger, P. L., & Luckmann, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge*. Anchor.
- Berman, R., Quinn, C., & Paavola, J. (2012). The role of institutions in the transformation of coping capacity to sustainable adaptive capacity. *Environmental Development*, 2(1), 86–100. <https://doi.org/10.1016/j.envdev.2012.03.017>
- Birkmann, Jörn, Cutter, S. L., Rothman, D. S., & Welle, T. (2015). Scenarios for vulnerability: opportunities and constraints in the context of climate change and disaster risk. *Climatic Change*, 133(1), 53–68.
- Birkmann, Jörn. (2006a). Indicators and criteria for measuring vulnerability: Theoretical bases and requirements. In *Measuring vulnerability to natural hazards: towards disaster resilient societies* (pp. 55–57). United Nations University Press.
- Birkmann, Jörn. (2006b). Measuring vulnerability to promote disaster-resilient societies: conceptual frameworks and definitions. In *Measuring vulnerability to natural hazards: Towards disaster resilient societies* (pp. 9–54). Springer US.
- Bonanno, G. A., Brewin, C. R., Kaniasty, K., & Greca, A. M. La. (2010). Weighing the costs of disaster: Consequences, risks, and resilience in individuals, families, and communities. *Psychological Science in the Public Interest*, 11(1), 1–49.
- Bosher, L., Carrillo, P., Dainty, A., Glass, J., & Price, A. (2007). Realising a resilient and sustainable built environment: Towards a strategic agenda for the United Kingdom. *Disasters*, 31(3), 236–255. <https://doi.org/10.1111/j.1467-7717.2007.01007.x>
- Bourdieu, P. (1993). *Sociology in Question*. London: Sage Publications.
- Bourdieu, Pierre. (1977). *Outline of a Theory of Practice* (R. Nice, Ed.). New York: Cambridge University Press.
- Bourdieu, Pierre. (1979). Symbolic power. *Critique of Anthropology*, 4(13–14), 77–85.
- Bourdieu, Pierre. (1986). Forms of capital. In J. Richardson (Ed.), *Handbook of theory for the sociology of education* (pp. 241–258). New York: Greenwood Press.

- Bourdieu, Pierre. (1989). Social space and symbolic power. *Sociological Theory*, 7(1), 14–25.
- Bourdieu, Pierre. (1990). *The logic of practice*. Stanford University Press.
- Bourdieu, Pierre. (2000). *Pascalian meditations* (1st ed.). California, USA: Stanford University Press.
- Bourdieu, Pierre, Accardo, A., Balazs, G., Beaud, S., Bonvin, F., & Bourdieu, E. (1999). *The weight of the world: Social suffering in contemporary society*. California: Stanford University Press.
- Bourdieu, Pierre, & Wacquant, L. J. D. (1992). *An invitation to reflexive sociology*. University of Chicago Press.
- Bowonder, B., & Kaspersen, J. X. (2022). Hazards in developing countries: Cause for global concern. In *The Social Contours of Risk* (pp. 167–171). Routledge.
- Bracke, S. (2016a). Bouncing Back. In *Vulnerability in resistance*. Duke University Press.
- Bracke, S. (2016b). Is the subaltern resilient? Notes on agency and neoliberal subjects. *Cultural Studies*, 30(5), 839–855.
- Broberg, M. (2020). Parametric loss and damage insurance schemes as a means to enhance climate change resilience in developing countries. *Climate Policy*, 20(6), 693–703.
- Brown, K. (2016). *Resilience, Development and Global Change (Paperback)* - Routledge. Retrieved from <https://www.routledge.com/products/9780415663472>
- Brown, N., Rovins, J. E., Feldmann-Jensen, S., Orchiston, C., & Johnston, D. (2017). Exploring disaster resilience within the hotel sector: A systematic review of literature. *International Journal of Disaster Risk Reduction*, 22(1), 362–370. <https://doi.org/10.1016/j.ijdrr.2017.02.005>
- Brown, P., Daigneault, A., & Gawith, D. (2017). Climate change and the economic impacts of flooding on Fiji. *Climate and Development*, 9(6), 493–504. <https://doi.org/10.1080/17565529.2016.1174656>

- Bruce, L. De. (2007). Histories of Diversity: Kailoma Testimonies and 'Part- European' Tales from Colonial Fiji (1920–1970). *Journal of Intercultural Studies*, 28(1), 113–127. <https://doi.org/10.1080/07256860601082970>
- Burley, D. V. (2013). Fijian polygenesis and the Melanesian/Polynesian divide. *Current Anthropology*, 54(4), 436–462. <https://doi.org/10.1086/671195>
- Campbell, J. R. (1984). Dealing with Disaster: Hurricane Response in Fiji. In *Pacific Islands Development Program*. Honolulu.
- Campos, M., Velázquez, A., & McCall, M. (2014). Adaptation strategies to climatic variability: a case study of small-scale farmers in rural Mexico. *Land Use Policy*, 38, 533–540. <https://doi.org/10.1016/j.landusepol.2013.12.017>
- Cannon, T., & Müller-Mahn, D. (2010). Vulnerability, resilience, and development discourses in context of climate change. *Natural Hazards*, 53(3), 621–635. <https://doi.org/10.1007/s11069-010-9499-4>
- Carstensen-Egwuom, I. (2014). Connecting intersectionality and reflexivity: Methodological approaches to social positionalities. *Erdkunde*, 68(4), 265–276. <https://doi.org/10.3112/erdkunde.2014.04.03>
- Chamlee-Wright, E., & Storr, V. H. (2011). Social capital as collective narratives and post-disaster community recovery. *Sociological Review*, 59(2), 266–282. <https://doi.org/10.1111/j.1467-954X.2011.02008.x>
- Chandler, D. (2013a). Resilience and the autotelic subject: Toward a critique of the societalization of security. *International Political Sociology*, 7(2), 210–226.
- Chandler, D. (2013b). Resilience ethics: responsibility and the globally embedded subject. *Ethics & Global Politics*, 6(3), 175–194.
- Chang-Richards, A. Y., Seville, E., Wilkinson, S., & Walker, B. (2013). *Building natural disaster response capacity: Sound workforce strategies for recovery and reconstruction in APEC economies*.
- Chang, S. E., & Falit-Baiamonte, A. (2002). Disaster vulnerability of businesses in the 2001

- Nisqually earthquake. *Environmental Hazards*, 4(2), 59–71. [https://doi.org/10.1016/S1464-2867\(03\)00007-X](https://doi.org/10.1016/S1464-2867(03)00007-X)
- Chang, S. E., & Shinozuka, M. (2004). Measuring improvements in the disaster resilience of communities. *Earthquake Spectra*, 20(3), 139–755. <https://doi.org/10.1193/1.1775796>
- Chatterjee, R., Ismail, N., & Shaw, R. (2016). Identifying priorities of Asian small- and medium-scale enterprises for building disaster resilience. In *Urban Disasters and Resilience in Asia* (pp. 179–194). <https://doi.org/10.1016/B978-0-12-802169-9.00012-4>
- Cheshire, L. (2015). ‘Know your neighbours’: disaster resilience and the normative practices of neighbouring in an urban context. *Environment and Planning A*, 47(5), 1081–1099.
- Cheshire, L., Pérez, J. E., & Shucksmith, M. (2015). Community resilience, social capital, and territorial governance. *Ager: Revista de Estudios Sobre Despoblación y Desarrollo Rural= Journal of Depopulation and Rural Development Studies*, 1(18), 7–38.
- Chinh, D. T., Bubeck, P., Dung, N. V., & Kreibich, H. (2016). The 2011 flood event in the Mekong Delta: preparedness, response, damage and recovery of private households and small businesses. *Disasters*, 40(4), 753–778. <https://doi.org/10.1111/disa.12171>
- Chipangura, P., Van Niekerk, D., & Van Der Waldt, G. (2016). An exploration of objectivism and social constructivism within the context of disaster risk. *Disaster Prevention and Management*, 25(2), 261–274. <https://doi.org/10.1108/DPM-09-2015-0210>
- Chong, Y. Q., Wang, B., Tan, G. L. Y., & Cheong, S. A. (2014). Diversified firms on dynamical supply chain cope with financial crisis better. *International Journal of Production Economics*, 150, 239–245.
- Chung, J., Kaloumaira, A., Planitz, A., & Rynn, J. (2000). *Natural Disaster Reduction in Pacific Island Countries*. Suva, Fiji.
- Cioccio, L., & Michael, E. J. (2007). Hazard or disaster: Tourism management for the inevitable in Northeast Victoria. *Tourism Management*, 28(1), 1–11. <https://doi.org/10.1016/j.tourman.2005.07.015>

- Clark, M. J. (2008). Flood insurance as a management strategy for UK coastal resilience. *Geographical Journal*, 27(1), 333–343.
- Collins, A. E. (2009). Disaster and development. In *Routledge* (1st Edition). <https://doi.org/10.4324/9780203879238>
- Collins, A. E. (2013). Linking disaster and development: further challenges and opportunities. *Environmental Hazards*, 12(1), 1–4. <https://doi.org/10.1080/17477891.2013.779137>
- Collins, A. E. (2018). Advancing the disaster and development paradigm. *International Journal of Disaster Risk Science*, 9(4), 486–495. <https://doi.org/10.1007/s13753-018-0206-5>
- Cook, A. D. B., & Gong, L. (2021). Humanitarian Diplomacy in the Asia-Pacific: Part II. *Asian Journal of Comparative Politics*, 6(4), 313–314.
- Cooperative for Assistance and Relief Everywhere. (2018, April 30). Republic of Fiji: Tropical Cyclone Josie and Tropical Cyclone Keni Rapid Gender, Protection, and Inclusion Analysis (April 2018). *Save the Children Fiji*. Retrieved from <https://reliefweb.int/report/fiji/republic-fiji-tropical-cyclone-josie-and-tropical-cyclone-keni-rapid-gender-protection>.
- Cote, M., & Nightingale, A. J. (2012). Resilience thinking meets social theory: situating social change in socio-ecological systems (SES) research. *Progress in Human Geography*, 36(4), 475–489.
- Cottingham, M. D. (2016). Theorizing emotional capital. *Theory and Society*, 45(5), 451–470.
- Crabtree, S. M. (2019). Reflecting on reflexivity in development studies research. *Development in Practice*, 29(7), 927–935. <https://doi.org/10.1080/09614524.2019.1593319>
- Creswell, J. W., & Creswell, J. D. (2017). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. In *SAGE Publications*. <https://doi.org/10.1453/jsas.v4i2.1313>
- Cretney, R., & Bond, S. (2014). 'Bouncing back to capitalism? Grass-roots autonomous activism in shaping discourses of resilience and transformation following disaster. *Resilience*, 2(1), 18–31.

- Crichton, D. (2008). Role of insurance in reducing flood risk. *The Geneva Papers on Risk and Insurance-Issues and Practice*, 33(1), 117–132.
- Crick, F., Eskander, S. M. S. U., Fankhauser, S., & Diop, M. (2018). How do African SMEs respond to climate risks? Evidence from Kenya and Senegal. *World Development*, 108, 157–168. <https://doi.org/10.1016/j.worlddev.2018.03.015>
- Crick, F., Gannon, K. E., Diop, M., & Sow, M. (2018). Enabling private sector adaptation to climate change in sub-Saharan Africa. *Wiley Interdisciplinary Reviews: Climate Change*, 9(2), 1–17. <https://doi.org/10.1002/wcc.505>
- Crossan, M. M., White, R. E., Lane, H. W., & Klus, L. (1996). The improvising organization: Where planning meets opportunity. *Organizational Dynamics*, 24(4), 20–36.
- Cutter, S. L. (2016). 'Resilience to what? Resilience for whom?' *Geographical Journal*, 182(2), 110–113. <https://doi.org/10.1111/geoj.12174>
- Cutter, S. L., Ahearn, J. A., Amadei, B., Crawford, P., Eide, E., & Galloway, Michael, F. (2013). Disaster resilience: A national imperative. *Environment: Science and Policy for Sustainable Development*, 55(2), 25–29. https://doi.org/10.1007/978-94-024-1283-3_4
- Cutter, S. L., Barnes, L., Berry, M., Burton, C., Evans, E., Tate, E., & Webb, J. (2008). A place-based model for understanding community resilience to natural disasters. *Global Environmental Change*, 18(4), 598–606. <https://doi.org/10.1016/j.gloenvcha.2008.07.013>
- Dahlhamer, J., & D'Souza, J. (1997). Determinants of Business-Disaster Preparedness in Two U.S. Metropolitan Areas. *International Journal of Mass Emergencies and Disasters*, 15(2), 265–281.
- Danes, S. M., Lee, J., Amarapurkar, S., Stafford, K., Haynes, G., & Brewton, K. E. (2009). Determinants of family business resilience after a natural disaster by gender of business owner. *Journal of Developmental Entrepreneurship*, 14(4), 333–354. <https://doi.org/10.1142/s1084946709001351>
- Davies, T. (2015). Developing resilience to naturally triggered disasters. *Environment Systems and Decisions*, 35(2), 237–251. <https://doi.org/10.1007/s10669-015-9545-6>

- Davlasheridze, M., & Geylani, P. C. (2017). Small Business vulnerability to floods and the effects of disaster loans. *Small Business Economics*, 49(4), 865–888. <https://doi.org/10.1007/s11187-017-9859-5>
- De Bruijn, K., Buurman, J., Mens, M., Dahm, R., & Klijn, F. (2017). Resilience in practice: five principles to enable societies to cope with extreme weather events. *Environmental Science and Policy*, 70(1), 21–30. <https://doi.org/10.1016/j.envsci.2017.02.001>
- De Bruijn, K. M., Green, C., Johnson, C., & McFadden, L. (2007). Evolving concepts in flood risk management: searching for a common language. In *Flood risk management in Europe* (pp. 61–75). https://doi.org/10.1007/978-1-4020-4200-3_4
- De Bruijn, M., & van Dijk, J. (2005). Moving people: Pathways of Fulbe pastoralists in the Hayre-Seenno area, Central Mali. In *Sahelian pathways: Climate and society in central and south Mali* (pp. 247–279). African Studies Centre.
- Dean, M. (2010). *Governmentality: Power and rule in modern society*. Sage publications.
- Desan, M. H. (2013). Bourdieu, Marx, and capital: A critique of the extension model. *Sociological Theory*, 31(4), 318–342.
- Dietch, E. A., & Corey, C. M. (2011). Predicting long-term business recovery four years after Hurricane Katrina. *Management Research Review*, 34(3), 311–324. <https://doi.org/10.1108/01409171111116321>
- Distinguin, I., Rugemintwari, C., & Tacneng, R. (2016). Can informal firms hurt registered SMEs' access to credit? *World Development*, 84, 18–40.
- Dixon, J. L., Stringer, L. C., & Challinor, A. J. (2014). Farming system evolution and adaptive capacity: Insights for adaptation support. *Resources*, 3(1), 182–214.
- Djalante, R. (2014). Building resilience to disasters and climate change: pathways for adaptive and integrated disaster resilience in Indonesia. <https://doi.org/10.1108/ijdrbe-04-2014-0029>

- Doerfel, M. L., Chewning, L. V., & Lai, C. H. (2013). The evolution of networks and the resilience of interorganizational relationships after disaster. *Communication Monographs*, 80(4), 533–559. <https://doi.org/10.1080/03637751.2013.828157>
- Dollet, C., & Guéguen, P. (2022). Global occurrence models for human and economic losses due to earthquakes (1967–2018) considering exposed GDP and population. *Natural Hazards*, 110(1), 349–372.
- Dominey-Howes, D. (2015). Seeing ‘the dark passenger’ - Reflections on the emotional trauma of conducting post-disaster research. *Emotion, Space and Society*, 17, 55–62. <https://doi.org/10.1016/j.emospa.2015.06.008>
- Douglas, H., Eti-Tofinga, B., & Singh, G. (2018). Contextualising social enterprise in Fiji. *Social Enterprise Journal*, 14(2), 208–224. <https://doi.org/10.1108/SEJ-05-2017-0032>
- Dowling, P., & Brown, A. (2012). *Doing research/reading research: Re-interrogating education*. Routledge.
- Dube, E., Wedawatta, G., & Ginige, K. (2021). Building-Back-Better in Post-Disaster Recovery: Lessons Learnt from Cyclone Idai-Induced Floods in Zimbabwe. *International Journal of Disaster Risk Science*, 12(5), 700–712.
- Dubin, R. (1978). *Theory building* (1st ed.). New York: The Free Press.
- Dynes, R. R., & Rodríguez, H. (2007). Finding and framing Katrina: The social construction of disaster. *The Sociology of Katrina: Perspectives on a Modern Catastrophe*, 23–33.
- Działek, J., Biernacki, W., & Bokwa, A. (2013). Impact of social capital on local communities’ response to floods in Southern Poland. *Community, Environment and Disaster Risk Management*, 14(2013), 185–205. [https://doi.org/10.1108/S2040-7262\(2013\)0000014014](https://doi.org/10.1108/S2040-7262(2013)0000014014)
- EM-DAT. (2021). International Database of Disasters. *Centre for Research on the Epidemiology of Disasters*. Retrieved from <https://www.emdat.be/database>.
- Enarson, E., Fothergill, A., & Peek, L. (2007). Gender and disaster: Foundations and directions. In *Handbook of disaster research* (pp. 130–146). https://doi.org/10.1007/978-0-387-32353-4_8

- Endress, M. (2015). The social constructedness of resilience. *Social Sciences*, 4(3), 533–545. <https://doi.org/10.3390/socsci4030533>
- Engle, N. L. (2011). Adaptive capacity and its assessment. *Global Environmental Change*, 21(2), 647–656. <https://doi.org/10.1016/j.gloenvcha.2011.01.019>
- Esler, S. (2016). *Post Disaster Needs Assessment - Cyclone Winston*. Retrieved from <http://documents.worldbank.org/curated/en/143591490296944528/pdf/113710-NWP-PUBLIC-P159592-1701.pdf>
- Ewins, R., & Akram-Lodhi, H. (2013). Confronting Fiji Futures. In *ANU Press*. <https://doi.org/10.2307/2672114>
- Fainstein, S. (2015). Resilience and justice. *International Journal of Urban and Regional Research*, 39(1), 157–167.
- Fairbairn, T. (1988). *Island entrepreneurs: problems and performances in the Pacific*. Honolulu, Hawaii.
- Farrelly, T. A., & Baba, U. N. (2019). *Talanoa as empathic apprenticeship 'Talanoa as Empathic Research'*. (June). <https://doi.org/10.1111/apv.12060>
- Fekete, A., Hufschmidt, G., & Kruse, S. (2014). Benefits and challenges of resilience and vulnerability for disaster risk management. *International Journal of Disaster Risk Science*, 5(1), 3–20. <https://doi.org/10.1007/s13753-014-0008-3>
- Fiji Broadcasting Cooperation. (2018, May 9). Initial damage for TC Josie and Keni stands at \$91m. *FBC News*, p. 1. Retrieved from <https://www.fbcnews.com.fj/news/initial-damage-for-tc-josie-and-keni-stands-at-91m/>.
- Fiji Meteorological Service. (2011). *Current and future climate of Fiji Islands*. Retrieved from https://www.pacificclimatechangescience.org/wpcontent/uploads/2013/06/1_PCCSP_Fiji_8pp.pdf
- Fiji National Disaster Management Office. (2009). *Tropical Cyclone Mick Report*. Suva, Fiji.

- Fiji Times. (2018, May 20). *Disaster laws under review*. Retrieved from <https://www.fijitimes.com/disaster-laws-under-review/>
- Fiji Times. (2020, April 17). *COVID-19: Fiji declares pandemic as a natural disaster*. p. 24. Retrieved from <https://www.fijitimes.com/covid-19-fiji-declares-pandemic-as-a-natural-disaster/>
- Fiji Village. (2020, April 20). \$100 million damage after TC Harold. *Online News*. Retrieved from <https://www.fijivillage.com/news/-100-million-damages-after-TC-Harold-rxf854/>
- Finau, G., Cox, J., Tarai, J., Kant, R., Varea, R., & Titifanue, J. (2018). Social media and disaster communication: A case study of Cyclone Winston. *Pacific Journalism Review*, 24(1), 123–137. <https://doi.org/10.24135/pjr.v24i1.400>
- Fischer, M. (2009). *Anthropological futures*. Duke University Press.
- Fletcher, D., & Sarkar, M. (2013). Psychological resilience. *European Psychologist*.
- Folke, C. (2016). Resilience (republished). *Ecology and Society*, 21(4). <https://doi.org/10.5751/ES-09088-210444>
- Folke, C., Carpenter, S., Elmqvist, T., Gunderson, L., Holling, C. S., & Walker, B. (2002). Resilience and sustainable development: building adaptive capacity in a world of transformations. *Journal of the Human Environment*, 31(5), 437–441. <https://doi.org/10.1579/0044-7447-31.5.437>
- Fordham, M. (1999). Balancing resilience and vulnerability. *International Journal of Mass Emergencies and Disasters*, 17(1), 15–36.
- Fordham, M. (2007). Disaster and development research and practice: A necessary eclecticism? In *Handbook of disaster research* (pp. 335–346). https://doi.org/10.1007/978-0-387-32353-4_19
- Foucault, M. (1980). *Power/knowledge: Selected interviews and other writings, 1972-1977*. Pantheon Books.
- Gaillard, J.-C. (2019). Disaster studies inside out. *Disasters*, 43(1), 7–17.

- Gajendran, T., & Oloruntoba, R. (2017). Governance and resilience: A case of re-development after a bushfire disaster. *Technological Forecasting and Social Change*, 121, 50–64. <https://doi.org/10.1016/j.techfore.2017.03.016>
- Galbraith, C., & Stiles, C. (2006). Disasters and entrepreneurship: a short review. *Development and Entrepreneurship*, 5(1), 147–166.
- Gamble, A. (2001). Neo-liberalism. *Capital & Class*, 25(3), 127–134.
- Games, D., & Sari, D. K. (2020). Earthquakes, fear of failure, and wellbeing: an insight from Minangkabau entrepreneurship. *International Journal of Disaster Risk Reduction*, 51, 101815.
- Ghaderi, Z., Mat Som, A. P., & Henderson, J. C. (2015). When disaster strikes: the Thai floods of 2011 and tourism industry response and resilience. *Asia Pacific Journal of Tourism Research*, 20(4), 399–415. <https://doi.org/10.1080/10941665.2014.889726>
- Gibson-Graham, J. K., Hill, A., & Law, L. (2016). Re-embedding economies in ecologies: resilience building in more than human communities. *Building Research & Information*, 44(7), 703–716.
- Glantz, M. H., & Ramírez, I. J. (2018). Improvisation in the time of disaster. *Environment: Science and Policy for Sustainable Development*, 60(5), 4–17.
- Glăveanu, V. P. (2012). Habitual creativity: Revising habit, reconceptualizing creativity. *Review of General Psychology*, 16(1), 78–92.
- Government of Fiji (1998). *National Disaster Management Act*. Fiji
- Government of Fiji. (2009). *Report on January 2009 flash floods*. Suva.
- Government of Fiji. (2011). *National Cluster System for Disaster Management*. Retrieved from http://www.ndmo.gov.fj/images/NDMOOLD/Fiji_National_Cluster_System_for_Disaster_Management.pdf
- Government of Fiji. (2013). *Post disaster needs assessment: Tropical Cyclone Evan*.
- Graham. (2005). Philosophies underlying human geography research. In R. Flowerdew & D. M.

- Martin (Eds.), *Methods in Human Geography: A Guide for Students Doing a Research Project* (2nd ed., pp. 8–29). London: Pearson Education Limited.
- Halapua, S. (2013). Talanoa in building democracy and governance. *Future Leaders of the Pacific*, 1–6.
- Halkos, G., & Skouloudis, A. (2020). Investigating resilience barriers of small and medium-sized enterprises to flash floods: a quantile regression of determining factors. *Climate and Development*, 12(1), 57–66. <https://doi.org/10.1080/17565529.2019.1596782>
- Halkos, G., Skouloudis, A., Malesios, C., & Evangelinos, K. (2018). Bouncing back from extreme weather events: some preliminary findings on resilience barriers facing small and medium-sized enterprises. *Business Strategy and the Environment*, 27(4), 547–559. <https://doi.org/10.1002/bse.2019>
- Hallegatte, S., & Dumas, P. (2009). Can natural disasters have positive consequences? Investigating the role of embodied technical change. *Ecological Economics*, 68(3), 777–786.
- Han, Z., & Nigg, J. (2011). The influences of business and decision makers' characteristics on disaster preparedness—A study on the 1989 Loma Prieta earthquake. *International Journal of Disaster Risk Science*, 2(4), 22–31.
- Hanna, E. (2013). *Climate vulnerability: understanding and addressing threats to essential resources* (Vol. 1). <https://doi.org/10.1016/B978-0-12-384703-4.00126-X>
- Harker, R., Mahar, C., & Wilkes, C. (2016). *An introduction to the work of Pierre Bourdieu: The practice of theory*. Springer.
- Harries, T., McEwen, L., & Wragg, A. (2018). Why it takes an 'ontological shock' to prompt increases in small firm resilience: Sensemaking, emotions and flood risk. *International Small Business Journal: Researching Entrepreneurship*, 36(6), 712–733. <https://doi.org/10.1177/0266242618765231>
- Hatton, T., Seville, E., & Vargo, J. (2012). Improving the resilience of SMEs: policy and practice in Christchurch, New Zealand. In *Asia Pacific Economic Co-operation (APEC)*.

- Hellman, J. (2015). Living with floods and coping with vulnerability. *Disaster Prevention and Management*.
- Herbane, B. (2015). Threat orientation in small and medium-sized enterprises. *Disaster Prevention and Management: An International Journal*, 24(5), 583–595. <https://doi.org/10.1108/dpm-12-2014-0272>
- Herbane, B. (2019). Rethinking organizational resilience and strategic renewal in SMEs. *Entrepreneurship and Regional Development*, 31(5), 476–495. <https://doi.org/10.1080/08985626.2018.1541594>
- Heron, J., & Reason, P. (1997). Inquiry Paradigm. *Qualitative Inquiry*, 3(3), 274–294. Retrieved from <http://journals.sagepub.com/doi/pdf/10.1177/107780049700300302>
- Hesse-Biber, S., & Piatelli, D. (2007). *From theory to method and back again: The synergistic praxis of theory and method*. New York: Springer.
- Hilhorst, D. (2018). Classical humanitarianism and resilience humanitarianism: making sense of two brands of humanitarian action. *Journal of International Humanitarian Action*, 3(1), 1–12.
- Hishida, N., & Shaw, R. (2014). Social capital in disaster recovery in Japan: An overview. *Community Practices for Disaster Risk Reduction in Japan*, 24(1), 51–62.
- Hizam-Hanafiah, M., Yousaf, S. U., & Usman, B. (2017). The influence of psychological capital on the growth intentions of entrepreneurs: A study on Malaysian SME entrepreneurs. *Business and Economic Horizons*, 13(5), 556–569. <https://doi.org/10.15208/beh.2017.38>
- Howe, P. D. (2011). Hurricane preparedness as anticipatory adaptation: A case study of community businesses. *Global Environmental Change*, 21(2), 711–720. <https://doi.org/10.1016/j.gloenvcha.2011.02.001>

- Hunt, K., Rokoua, C., Miller, C., Werekoro, P., & Sharma, P. (2015). *Developing Fiji's Microfinance sector: some policy implications* (No. 3). Retrieved from [https://www.rbf.gov.fj/getattachment/Publications-\(1\)/Working-Papers/Reserve-Bank-of-Fiji-and-Griffith-University-Worki/Microfinance-Regulatory-Framework_RBFWPS3.pdf.aspx](https://www.rbf.gov.fj/getattachment/Publications-(1)/Working-Papers/Reserve-Bank-of-Fiji-and-Griffith-University-Worki/Microfinance-Regulatory-Framework_RBFWPS3.pdf.aspx)
- Huppatz, K. (2009). Reworking Bourdieu's Capital: Feminine and female capitals in the field of paid caring work. *Sociology*, 43(1), 45–66.
- IPCC. (2021). *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Retrieved from https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf
- Iyer-Raniga, U., & Marshall, L. (2020). Local Disaster Risk Reduction Strategies Focusing on Small Island Developing States. In *No Poverty. Encyclopaedia of the UN Sustainable Development Goals*. (1st ed., pp. 17–29). https://doi.org/https://doi.org/10.1007/978-3-319-69625-6_17-1
- Izumi, T., & Shaw, R. (2014). A new approach of disaster management in Bangladesh: private sector involvement. *Risk, Hazards & Crisis in Public Policy*, 5(4), 425–445. <https://doi.org/10.1002/rhc3.12069>
- Izumi, T., & Shaw, R. (2015). Disaster Management and Private Sectors: Challenges and Potentials. In *Springer, Japan*. <https://doi.org/10.1007/978-4-431-55414-1>
- James, H., & Paton, D. (2015). Social capital and the cultural contexts of disaster recovery outcomes in Myanmar and Taiwan. *Global Change, Peace, and Security*, 27(2), 207–228. <https://doi.org/10.1080/14781158.2015.1030380>
- Jayaraman, T., Choong, C., Ng, C., & Bhatt, M. (2018). Natural Disasters and Tourism-led Economic Growth: A Case Study of Fiji 1980–2014. In *Handbook of Small States: Economic, Social and Environmental Issues*. (pp. 1–23).
- Joakim, E. (2013). *Resilient Disaster Recovery: Earthquake using a Vulnerability, Resilience and Sustainable*. University of Waterloo.

- Jones, L. (2019). Whose resilience matters? Like-for-like comparison of objective and subjective evaluations of resilience. *World Development*, 124(1), 1–15. <https://doi.org/10.1016/j.worlddev.2019.104632>
- Jones, L., Samman, E., & Vinck, P. (2018). Subjective measures of household resilience to climate variability and change: insights from a nationally representative survey of Tanzania. *Ecology and Society*, 23(1), 241–247.
- Jones, L., & Tanner, T. (2015). *Measuring 'subjective resilience': using peoples' perceptions to quantify household resilience* (No. 423). <https://doi.org/10.2139/ssrn.2643420>
- Joseph, J. (2013). Resilience as embedded neoliberalism: a governmentality approach. *Resilience*, 1(1), 38–52.
- Julien, C. (2015). Bourdieu, social capital, and online interaction. *Sociology*, 49(2), 356–373. <https://doi.org/10.1177/0038038514535862>
- Kajitani, Y., & Tatano, H. (2009). Estimation of lifeline resilience factors based on surveys of Japanese industries. *Earthquake Spectra*, 25(4), 755–776.
- Kanji, R., & Agrawal, R. (2020). Exploring the use of corporate social responsibility in building disaster resilience through sustainable development in India: An interpretive structural modelling approach. *Progress in Disaster Science*, 6(1), 100089.
- Kasperson, J. X., & Kasperson, R. E. (2022). Priorities in profile: managing risks in developing countries. In *The Social Contours of Risk* (pp. 172–179). Routledge.
- Kativhu, S., Mwale, M., & Francis, J. (2018). Approaches to measuring resilience and their applicability to small retail business resilience. *Problems and Perspectives in Management*, 16(4), 275–284. [https://doi.org/10.21511/ppm.16\(4\).2018.23](https://doi.org/10.21511/ppm.16(4).2018.23)
- Kelman, I. (2006). Acting on disaster diplomacy. *Journal of International Affairs*, 6(1), 215–240.
- Kelman, I., & Gaillard, J.-C. (2007). Disaster diplomacy in the Asia-Pacific region. *ISDR Informs Asia & Pacific*, 3, 54–57.
- Kemp, H. A. (2017). The Survival of Small Businesses in North-eastern Florida After a Natural

- Disaster. *ProQuest Dissertations and Theses*, 167. Retrieved from <https://search.proquest.com/docview/1859075577?accountid=41305>
- Kendra, J., & Wachtendorf, T. (2007). Improvisation, creativity, and the art of emergency management. *Understanding and Responding to Terrorism*, 19, 324–335.
- Kergomard, C. (2015). Resilience and Global Climate Change. In *Resilience Imperative: Uncertainty, Risks and Disasters* (pp. 126–143). <https://doi.org/10.1016/B978-1-78548-051-5.50007-3>
- Klein, N. (2007). *The shock doctrine: The rise of disaster capitalism*. Macmillan.
- Klein, R. J. T., Nicholls, R. J., & Thomalla, F. (2003). Resilience to natural hazards: How useful is this concept? *Environmental Hazards*, 5(1), 35–45. <https://doi.org/10.1016/j.hazards.2004.02.001>
- Klinenberg, E. (2002). Heat wave: death comes to the city of extremes. *The Baffler*, (15), 65–70.
- Knopf, K. (2015). The Turn Toward the Indigenous: Knowledge Systems and Practices in the Academy. *American Studies*, 60(2/3), 179–200. Retrieved from <http://www.jstor.org/stable/44071904>
- Krüger, F., Bankoff, G., Cannon, T., Orłowski, B., & Schipper, E. L. F. (2015). *Cultures and disasters: understanding cultural framings in disaster risk reduction*. Routledge.
- Kuhlicke, C. (2013). Resilience: a capacity and a myth: findings from an in-depth case study in disaster management research. *Natural Hazards*, 67(1), 61–76.
- Kumar, P., Debele, S. E., Sahani, J., Rawat, N., Marti-Cardona, B., Alfieri, S. M., ... & Zieher, T. (2021). An overview of monitoring methods for assessing the performance of nature-based solutions against natural hazards. *Earth-Science Reviews*, 217, 103603.
- Kumar, S., & Prasad, B. C. (2007). Fiji's economic woes: A nation in search of development progress. *Pacific Economic Bulletin*, 17(1), 1–23.

- Kutty, N. F. M. (2020). Integration of Local Knowledge in Need Assessment in Post Disaster: NGOs role in Post Tsunami Aceh, Indonesia. *Solid State Technology*, 63(6), 7546–7557.
- Larner, W. (2000). Neo-liberalism: Policy, ideology, governmentality. *Studies in Political Economy*, 63(1), 5–25.
- Laszczkowski, M., & Reeves, M. (2015). Introduction: affective states—entanglements, suspensions, suspicions. *Social Analysis*, 59(4), 1–14.
- Lavell, A. (2002). The lower Lempa River Valley, El Salvador: From risk to sustainability: experience with a risk reduction and development project. In *Mapping Vulnerability: Disasters, Development and People* (pp. 67–82). London: Routledge.
- Lavell, Allan. (2020). The Social Construction of the COVID-19 pandemic: disaster, risk accumulation and public policy. In *Social Studies Network on Disaster Prevention in Latin America*.
- Lavell, Allan, & Maskrey, A. (2014). The future of disaster risk management. *Environmental Hazards*, 13(4), 267–280.
- Leach, M., MacGregor, H., Scoones, I., & Wilkinson, A. (2021). Post-pandemic transformations: How and why COVID-19 requires us to rethink development. *World Development*, 138(1), 105233. <https://doi.org/https://doi.org/10.1016/j.worlddev.2020.105233>
- Lee, J. Y. A. (2014). *Framing disaster research as “wicked” design problems* (University of Auckland). Retrieved from <https://researchspace.auckland.ac.nz/handle/2292/21984>
- Leitner, H., Sheppard, E., Webber, S., & Colven, E. (2018). Globalizing urban resilience. *Urban Geography*, 39(8), 1276–1284.
- Leong, K. J., Airriess, C. A., Li, W., Chen, A. C.-C., & Keith, V. M. (2007). Resilient history and the rebuilding of a community: The Vietnamese American community in New Orleans East. *The Journal of American History*, 94(3), 770–779.
- Li, T. M. (2007). Governmentality. *Anthropologica*, 49(2), 275–281.
- Lindell, M. K. (2013). Disaster studies. *Current Sociology*, 61(5–6), 797–825.

- Lo, A., Cheung, C., & Law, R. (2006). The survival of hotels during disaster: A case study of Hong Kong in 2003. *Asia Pacific Journal of Tourism Research*, 11(1), 65–80. <https://doi.org/10.1080/10941660500500733>
- MacKinnon, D., & Derickson, K. D. (2013). From resilience to resourcefulness: A critique of resilience policy and activism. *Progress in Human Geography*, 37(2), 253–270.
- Maguire, B., & Hagan, P. (2007). Disasters and communities: understanding social resilience. *Australian Journal of Emergency Management, The*, 22(2), 16–20.
- Mahon, R. (2014). Behavioural links and limits of disaster risk management and climate change adaptation: demand and supply-side evidence from Caribbean coastal tourism (Doctoral dissertation, Lincoln University).
- Mäkilä, M. (2014). *Resilience as a way to improve business continuity: a multiple case study with large Nordic companies*. Aalto University.
- Malsch, B., Gendron, Y., & Grazzini, F. (2011). Investigating interdisciplinary translations: The influence of Pierre Bourdieu on accounting literature. *Accounting, Auditing & Accountability Journal*, 12(1), 223–233.
- Manandhar, R., & McEntire, D. A. (2014). Disasters, development, and resilience: exploring the need for comprehensive vulnerability management. In J. Ayers, S. Huq, & S. Boulter (Eds.), *Disaster and Development* (pp. 19–37). <https://doi.org/10.1017/CB09780511845710.027>
- Mannakkara, S., & Wilkinson, S. (2015). Supporting post-disaster social recovery to build back better. *International Journal of Disaster Resilience in the Built Environment*, 6(2), 126–139.
- Mannakkara, Saneeka. (2014). *A framework for building back better during post-disaster reconstruction and recovery*. University of Auckland.
- Mansur, A., Doyle, J., & Ivaschenko, O. (2017). *Social Protection and Humanitarian Assistance Nexus for Disaster Response*. Retrieved from <https://documents1.worldbank.org/curated/en/143591490296944528/pdf/113710-NWP-PUBLIC-P159592-1701.pdf>

- Manyena, B. (2006). The concept of resilience revisited. *Disasters*, 30(4), 434–450. <https://doi.org/10.3109/00048679509064968>
- Manyena, B., Machingura, F., & O’Keefe, P. (2019). Disaster Resilience Integrated Framework for Transformation (DRIFT): A new approach to theorising and operationalising resilience. *World Development*, 123(1), 104587.
- Manyena, B., O’Brien, G., O’Keefe, P., & Rose, J. (2011). Disaster resilience: a bounce back or bounce forward ability? *Local Environment: The International Journal of Justice and Sustainability*, 16(5), 417–424.
- Marín, A., Bodin, Ö., Gelcich, S., & Crona, B. (2015). Social capital in post-disaster recovery trajectories: Insights from a longitudinal study of tsunami-impacted small-scale fisher organizations in Chile. *Global Environmental Change*, 35, 450–462. <https://doi.org/10.1016/j.gloenvcha.2015.09.020>
- Market Development Facility. (2018). *In-depth Assessment of MSME Landscape in Fiji*.
- Marks, D., & Thomalla, F. (2017). Responses to the 2011 floods in Central Thailand: perpetuating the vulnerability of small and medium enterprises? *Natural Hazards*, 87(2), 1147–1165. <https://doi.org/10.1007/s11069-017-2813-7>
- Marshall, M. I., Niehm, L. S., Sydnor, S. B., & Schrank, H. L. (2015). Predicting small business demise after a natural disaster: an analysis of pre-existing conditions. *Natural Hazards*, 79(1), 331–354. <https://doi.org/10.1007/s11069-015-1845-0>
- Mason, C. M., Carter, S., & Tagg, S. (2011). Invisible businesses: The characteristics of home-based businesses in the United Kingdom. *Regional Studies*, 45(5), 625–639.
- Masten, A. S. (2011). Resilience in children threatened by extreme adversity: Frameworks for research, practice, and translational synergy. *Development and Psychopathology*, 23(2), 493–506. <https://doi.org/10.1017/S0954579411000198>
- Masten, A. S. (2015). Pathways to integrated resilience science. *Psychological Inquiry*, 26(2), 187–196.

- Matthewman, S., & Uekusa, S. (2021). Theorizing disaster communitas. *Theory and Society*, 50(6), 965–984.
- Matyas, D., & Pelling, M. (2015). Positioning resilience for 2015: the role of resistance, incremental adjustment and transformation in disaster risk management policy. *Disasters*, 39(1), 1–18. <https://doi.org/10.1111/disa.12107>
- Mavhura, E., Manyena, S. B., Collins, A. E., & Manatsa, D. (2013). Indigenous knowledge, coping strategies and resilience to floods in Muzarabani, Zimbabwe. *International Journal of Disaster Risk Reduction*, 5(2), 38–48.
- Mayunga, J. S. (2007). *Understanding and applying the concept of community disaster resilience* (Vol. 1).
- McAneney, J., van den Honert, R., & Yeo, S. (2017). Stationarity of major flood frequencies and heights on the Ba River, Fiji, over a 122-year record. *International Journal of Climatology*, 37(1), 171–178. <https://doi.org/10.1002/joc.4989>
- McArthur, N. (1959). Fijians and Indians in Fiji. *Population Studies*, 12(3), 202–213.
- McCarthy, S. (2011). Soldiers, chiefs, and church: unstable democracy in Fiji. *International Political Science Review*, 32(5), 563–578. <https://doi.org/10.1177/0192512111418775>
- McDougall, D. (2021). Australia's humanitarian response to disasters in the South Pacific. *Asian Journal of Comparative Politics*, 6(3), 202–220.
- McManus, D., & Carr, H. (2001). Risk and the need for business continuity planning. In *Business Continuity Planning: Protecting Your Organization's Life* (1st ed., pp. 12–23). Florida, US: Auerbach Publication.
- McNamara, K. E. (2013). A state of emergency: How local businesses experienced the 2012 flood in Fiji. *Australian Journal of Emergency Management*, 28(3), 5–17.
- Mechler, R., McQuistan, C., McCallum, I., Liu, W., Keating, A., Magnuszewski, P., ... Hochrainer-Stigler, S. (2019). Supporting Climate Risk Management at Scale: Insights from the Zurich Flood Resilience Alliance Partnership Model Applied in Peru & Nepal. In R. Mechler, L. M. Bouwer, T. Schinko, S. Surminski, & J. Linnerooth-Bayer (Eds.), *Loss and Damage from*

- Climate Change: Concepts, Methods and Policy Options* (pp. 393–424).
https://doi.org/10.1007/978-3-319-72026-5_17
- Meo-Sewabu, L. D. (2015). *The cultural constructs of health and wellbeing amongst Marama iTaukei in a Fijian village in Lau and in a transnational Fijian community in Whanganui, Aotearoa.*
- Mercer, J., Kelman, I., Suchet-Pearson, S., & Lloyd, K. (2009). Integrating Indigenous and Scientific Knowledge Bases for Disaster Risk Reduction in Papua New Guinea. *Geografiska Annaler. Series B, Human Geography*, 91(2), 157–183. Retrieved from <http://www.jstor.org/stable/40205074>
- Meriläinen, E., Joseph, J., Jauhola, M., Yadav, P., Romo-Murphy, E., Marin, J., & Gadhavi, S. (2021). Examining relational social ontologies of disaster resilience: lived experiences from India, Indonesia, Nepal, Chile and Andean territories. *Disaster Prevention and Management: An International Journal*, 57(1), 20–57.
- Michelle Annette Meyer. (2013). *Social Capital and Collective Efficacy for Disaster Resilience.* 311.
- Mitchell, D. P. (2014). The importance of land use control and documenting property rights in disaster risk reduction in Pacific Island countries. *Journal of Spatial Science*, 59(1), 107–119. <https://doi.org/10.1080/14498596.2014.859638>
- Miyaji, M., Fujieda, A., Veitata, S., & Kobayashi, H. (2021). Field research on cyclone damage and housing reconstruction in Fijian Village—Case study of Navala Village after tropical cyclone Winston. *Japan Architectural Review*, 4(3), 504–514.
- Mohaimin, A., Satish, S., Seungyoon, V. U., Clawson, R., Aldrich, D., Sapp, M., ... Kelly, D. (2018). The role of social capital, personal networks, and emergency responders in post-disaster recovery and resilience: a study of rural communities in Indiana. *Natural Hazards*, 90(3), 1377–1406. <https://doi.org/10.1007/s11069-017-3103-0>

- Molina, J. G. J., & Neef, A. (2016). Integration of indigenous knowledge into disaster risk reduction and management (DRRM) policies for sustainable development: The case of the Agta in Casiguran, Philippines. In *Sustainable development and disaster risk reduction* (pp. 247–264). Springer.
- Moncrieffe, J. (2006). The power of stigma: Encounters with ‘street children’ and ‘restavecs’. *IDS Bulletin*, 37(6), 34–46.
- Mondal, T. K. (2013). People’s perception on natural disasters and local survival strategies in Sundarban region: A study of Gosaba Block in south twenty-four parganas district in West Bengal, India. *Community, Environment and Disaster Risk Management*, 14(2013), 165–184. [https://doi.org/10.1108/S2040-7262\(2013\)0000014013](https://doi.org/10.1108/S2040-7262(2013)0000014013)
- Montgomery, R. (2014). Filling the gaps from the Christchurch earthquakes 2010–2013: Greening the Rubble and the Mt Pleasant Community Response Plan as two local initiatives. In A. Neef & R. Shaw (Eds.), *Risks and Conflicts: Local Responses to Natural Disasters* (pp. 43–78). London: Emerald Group Publishing Limited.
- Moreno, J., Lara, A., & Torres, M. (2019). Community resilience in response to the 2010 tsunami in Chile: The survival of a small-scale fishing community. *International Journal of Disaster Risk Reduction*, 33(July 2018), 376–384. <https://doi.org/10.1016/j.ijdrr.2018.10.024>
- Morrow, S. L., & Smith, M. L. (1995). Constructions of survival and coping by women who have survived childhood sexual abuse. *Journal of Counselling Psychology*, 42(1), 24–33.
- Movono, A., & Becken, S. (2018). Solesolevaki as social capital: a tale of a village, two tribes, and a resort in Fiji. *Asia Pacific Journal of Tourism Research*, 23(2), 146–157. <https://doi.org/10.1080/10941665.2017.1410194>
- Mu, G. M. (2020). Sociologising resilience through Bourdieu’s field analysis: Misconceptualisation, conceptualisation, and reconceptualisation. *British Journal of Sociology of Education*, 42(1), 15–31.

- Munsaka, E., & Dube, E. (2018). The contribution of indigenous knowledge to disaster risk reduction activities in Zimbabwe: A big call to practitioners. *Jambá: Journal of Disaster Risk Studies*, 10(1), 1–8.
- Murray, M., & Watson, P. K. (2019). Adoption of natural disaster preparedness and risk reduction measures by business organisations in Small Island Developing States - A Caribbean case study. *International Journal of Disaster Risk Reduction*, 39(March), 101115. <https://doi.org/10.1016/j.ijdr.2019.101115>
- Nabobo-Baba, U. (2008). Decolonising framings in Pacific research: Indigenous Fijian Vanua research framework as an organic response. *AlterNative: An International Journal of Indigenous Peoples*, 4(2), 141–154.
- Nagamatsu, S., Fukasawa, Y., & Kobayashi, I. (2021). Why Does Disaster Storytelling Matter for a Resilient Society? *Journal of Disaster Research*, 16(2), 127–134.
- Naidu, S., & Chand, A. (2012). A comparative study of the financial problems faced by micro, small and medium enterprises in the manufacturing sector of Fiji and Tonga. *International Journal of Emerging Markets*, 7(3), 245–262. <https://doi.org/10.1108/17468801211236974>
- Naikaso, F. (2021, November 12). Businesses have always been resilient. *Fiji Broadcasting Corporation*, p. 1. Retrieved from <https://www.fbcnews.com.fj/business/businesses-have-always-been-resilient/>.
- Nair, R., & Chelliah, J. (2012). Understanding key impediments to small businesses in South Pacific Island nations: a case of Fiji. *Journal of Global Business Management*, 8(1), 175–182.
- Nakamura, N., & Kanemasu, Y. (2020). Traditional knowledge, social capital, and community response to a disaster: resilience of remote communities in Fiji after a severe climatic event. *Regional Environmental Change*, 20(1), 1–14. <https://doi.org/https://doi.org/10.1007/s10113-020-01613-w>

- Nalau, J., Becken, S., Schliephack, J., Parsons, M., Brown, C., & Mackey, B. (2018). The role of indigenous and traditional knowledge in ecosystem-based adaptation: A review of the literature and case studies from the Pacific Islands. *Weather, Climate, and Society*, 10(4), 851–865.
- Nand, S. S. (2014). A study of small and micro enterprise regulatory impediments in Fiji. In *Urbanization in Asia: Governance, Infrastructure and The Environment* (pp. 199–211). https://doi.org/10.1007/978-81-322-1638-4_12
- Narayan, V. (2020, July 14). NFP Leader says economy contracted in 2019 and COVID-19 is not an excuse while RBF Governor says they have not blamed 2019 contraction on COVID-19. *Fiji Village*. Retrieved from <https://www.fijivillage.com/news/NFP-Leader-says-economy-contracted-in-2019-and-COVID-19-is-not-an-excuse-while-RBF-Governor-says-they-have-not-blamed-2019-contraction-on-COVID-19-8xrf54/>
- Nathan, F. (2008). Risk perception, risk management and vulnerability to landslides in the hill slopes in the city of La Paz, Bolivia. A preliminary statement. *Disasters*, 32(3), 337–357.
- National Disaster Management Office. (2010). *Tropical Cyclone Tomas Report: Damages Assessments, Response & Relief Actions and Rehabilitation & Reconstruction Recommendations*. Suva, Fiji.
- National Disaster Management Office. (2012). *2012 January Flood Report*. Retrieved from http://www.ndmo.gov.fj/images/AllDisasterReports/2012_JANUARY_FLOOD_REPORT_-_Final.pdf
- Navaro, Y. (2012). *The make-believe space: affective geography in a post-war polity* (1st ed.). New York: Duke University Press.
- Navarro, Z. (2006). In search of a cultural interpretation of power: The contribution of Pierre Bourdieu. *IDS Bulletin*, 37(6), 11–22.
- Nawai, J., Gusyev, M. A., Hasegawa, A., & Takeuchi, K. (2015). *Flood and drought assessment with dam infrastructure: A case study of the Ba River basin, Fiji*.

- Neef, A., Bengue, L., Boruff, B., Pauli, N., Weber, E., & Varea, R. (2018). Climate adaptation strategies in Fiji: The role of social norms and cultural values. *World Development*, 107(1), 125–137. <https://doi.org/10.1016/j.worlddev.2018.02.029>
- Neef, A., Elstner, P., & Schad, I. (2013). The interplay between collective action, individual strategies, and state intervention in mitigating flood disasters in the uplands of North Thailand and Northwest Vietnam. *Community, Environment and Disaster Risk Management*. [https://doi.org/10.1108/S2040-7262\(2013\)0000014011](https://doi.org/10.1108/S2040-7262(2013)0000014011)
- Neise, T., & Diez, J. (2019). Adapt, move, or surrender? Manufacturing firms' routines and dynamic capabilities on flood risk reduction in coastal cities of Indonesia. *International Journal of Disaster Risk Reduction*, 33(1), 332–342. <https://doi.org/10.1016/j.ijdrr.2018.10.018>
- Ngin, C., Chhom, C., & Neef, A. (2020). Climate change impacts and disaster resilience among micro businesses in the tourism and hospitality sector: The case of Kratie, Cambodia. *Environmental Research*, 186(November 2019), 109557. <https://doi.org/10.1016/j.envres.2020.109557>
- Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F., & Pfefferbaum, R. L. (2008). Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology*, 41(1), 127–150. <https://doi.org/10.1007/s10464-007-9156-6>
- Noy, I., & Yonson, R. (2016). A survey of the theory and measurement of economic vulnerability and resilience to natural hazards. *Natural Hazards*, 25(1), 31.
- Nyamwanza, T., Mavhiki, S., Mapetere, D., & Nyamwanza, L. (2014). An analysis of SMEs' attitudes and practices toward tax compliance in Zimbabwe. *SAGE Open*, 4(3), 2158244014542776.
- O'Malley, P. (2010). Resilient subjects: Uncertainty, warfare, and liberalism. *Economy and Society*, 39(4), 488–509.

- Obrist, B., Pfeiffer, C., & Henley, R. (2010). Multi-layered social resilience: A new approach in mitigation research. *Progress in Development Studies*, 10(4), 283–293.
- Olick, J. K., & Robbins, J. (1998). Social memory studies: From “collective memory” to the historical sociology of mnemonic practices. *Annual Review of Sociology*, 24(1), 105–140.
- Orchiston, C. (2013). Tourism business preparedness, resilience, and disaster planning in a region of high seismic risk: The case of the Southern Alps, New Zealand. *Current Issues in Tourism*, 16(5), 477–494. <https://doi.org/10.1080/13683500.2012.741115>
- Orhan, E. (2016). Building community resilience: lessons from business preparedness in case of Adapazari, Turkey. *Disasters*, 1(40), 45–64. <https://doi.org/10.1111/disa.12132>
- Orhan, E. (2017). Factors affecting post-disaster location choices of businesses: an analysis of the 1999 earthquake. *Environmental Hazards*, 16(4), 363–382. <https://doi.org/10.1080/17477891.2017.1328350>
- Pacific Humanitarian Team. (2016). *After action review report: Tropical Cyclone Winston*. Retrieved from https://www.unicef.org/appeals/files/UNICEF_Pacific_Partner_Update_TC_Winston_News_from_the_Pacific_July_August_2016.pdf
- Pacific Islands Forum. (2019, October 11). Enhancing Private Sector Contribution to Resilience Building. *Press Release*. Retrieved from <https://www.forumsec.org/2019/10/11/enhancing-private-sector-contribution-to-resilience-building/>
- Pacific Resilience Partnership. (2021). *Paving Resilient Futures*. Retrieved from https://www.resilientpacific.org/sites/default/files/2021-11/2021_PRM_report.pdf
- Parham, H. B. R. (1941). Memoir No.16: Fiji Plants and their uses. *The Journal of the Polynesian Society*, 50(4(200)), 129–143. Retrieved from <http://www.jstor.org/stable/20702887>
- Parida, D., Moses, S., & Rahaman, K. R. (2021). Analysing media framing of cyclone Amphan: Implications for risk communication and disaster preparedness. *International Journal of Disaster Risk Reduction*, 59, 102272.

- Pathak, S., & Ahmad, M. M. (2016). Flood recovery capacities of the manufacturing SMEs from floods: a case study in Pathumthani province, Thailand. *International Journal of Disaster Risk Reduction*, 18, 197–205. <https://doi.org/10.1016/j.ijdrr.2016.07.001>
- Paton, D., & Hill, R. (2006). Managing company risk and resilience through business continuity management. In Douglas Paton & J. David (Eds.), *Disaster resilience: an integrated approach* (pp. 249–266). Illinois.: Charles C Thomas Publisher Ltd.
- Paton, Douglas., & McClure, J. (2018). Business continuity in disaster contexts. In *Disaster resilience: an integrated approach* (2nd Ed., pp. 79–93). Charles C Thomas Publisher.
- Paton, Douglas, & Johnston, D. (2001). Disasters and communities: Vulnerability, resilience, and preparedness. *Disaster Prevention and Management: An International Journal*, 10(4), 270–277. <https://doi.org/10.1108/EUM0000000005930>
- Patterson, O., Weil, F., & Patel, K. (2010). The role of community in disaster response: Conceptual models. *Population Research and Policy Review*, 29(2), 127–144.
- Paul, C. J., Weinthal, E. S., Bellemare, M. F., & Jeuland, M. A. (2016). Social capital, trust, and adaptation to climate change: Evidence from rural Ethiopia. *Global Environmental Change*, 36(1), 124–138. <https://doi.org/10.1016/j.gloenvcha.2015.12.003>
- Peck, J., & Tickell, A. (2007). Conceptualizing neoliberalism, thinking Thatcherism. *Contesting Neoliberalism: Urban Frontiers*, 26, 50.
- Phillips, B. D., & Phi. (2014). Qualitative Disaster Research. In *Understanding Qualitative Research*. <https://doi.org/10.1093/acprof>
- Piggott-mckellar, A. E., Mcnamara, K. E., Nunn, P. D., & Sekinini, S. T. (2019). *Moving People in a Changing Climate: Lessons from Two Case Studies in Fiji*.
- Prasad, A., & Singh, G. (2013). Problems and development issues of SMEs in Fiji. *International Journal of Entrepreneurship and Small Business*, 19(1), 21–34. <https://doi.org/10.1504/ijesb.2013.054309>
- Prasad, S., Su, H. C., Altay, N., & Tata, J. (2015). Building disaster-resilient micro enterprises in the developing world. *Disasters*, 39(3), 447–466. <https://doi.org/10.1111/disa.12117>

- Prayag, G., & Orchiston, C. (2015). *Earthquake Impacts, Organizational Resilience and Recovery of the Accommodation/Food Services Sector in Canterbury, New Zealand: A Comparative Assessment*. 1–11. Retrieved from <https://ir.canterbury.ac.nz/handle/10092/11070>
- Pribadi, H., & Kanai, K. (2011). Examining and exploring Indonesia small and medium enterprise performance: An empirical study. *Asian Journal of Business Management*, 3(2), 98–107.
- Probyn, E. (2004). Shame in the habitus. *The Sociological Review*, 52(2_suppl), 224–248.
- Pulvirenti, M., & Mason, G. (2011). Resilience and survival: Refugee women and violence. *Current Issues in Criminal Justice*, 23(1), 37–52.
- Putnam, R. (2000). *Bowling alone: The collapse and revival of American community* (1st ed.). New York: Simon and Schuster.
- Quarantelli. (1998). *What is a disaster? perspectives on the question*. London: Psychology Press.
- Quarantelli, E. L. (1985). What is disaster? The need for clarification in definition and conceptualization in research. *Disasters and Mental Health: Selected Contemporary Perspectives*, 41–73.
- Radcliffe, S. A. (2015). Development alternatives. *Development and Change*, 46(4), 855–874. <https://doi.org/10.1111/dech.12179>
- RBF. (2018). *Financial Inclusion Report 2018*. Retrieved from <https://www.rbf.gov.fj/getattachment/b8ddf0f9-3a4d-4c09-8513-fe527b68517b/Financial-Inclusion-Report-2018>
- Reay, D. (2000). A useful extension of Bourdieu's conceptual framework? Emotional capital as a way of understanding mothers' involvement in their children's education? *The Sociological Review*, 48(4), 568–585.
- Reghezza-Zitt, M., Lhomme, S., & Provitolo, D. (2015). Defining resilience: when the concept resists. In *Resilience Imperative: Uncertainty, Risks and Disasters* (pp. 1–27). <https://doi.org/10.1016/B978-1-78548-051-5.50001-2>

- Reid, G. H. (2009). Building resilience to climate change in rain-fed agricultural enterprises: An integrated property planning tool. *Agriculture and Human Values*, 26(4), 391–397. <https://doi.org/10.1007/s10460-008-9168-3>
- Reid, J. (2013). Interrogating the Neoliberal Biopolitics of the Sustainable Development-Resilience Nexus. In S. Mezzadra, J. Reid, & R. Samaddar (Eds.), *The Biopolitics of Development* (1st ed., pp. 107–122). <https://doi.org/https://doi.org/10.1007/978-81-322-1596-7>
- Rela, I. Z., Awang, A. H., Ramli, Z., Md Sum, S., & Meisanti, M. (2020). Effects of environmental corporate social responsibility on environmental well-being perception and the mediation role of community resilience. *Corporate Social Responsibility and Environmental Management*, 27(5), 2176–2187.
- Renschler, C. S., Frazier, A. E., Arendt, L. A., Cimellaro, G. P., Reinhorn, A. M., & Bruneau, M. (2010). Developing the 'PEOPLES' resilience framework for defining and measuring disaster resilience at the community scale. *Proceedings of the 9th US National and 10th Canadian Conference on Earthquake Engineering*, 25–29. Canada Toronto.
- Resosudarmo, B. P., Sugiyanto, C., & Kuncoro, A. (2012). Livelihood Recovery after Natural Disasters and the Role of Aid: The Case of the 2006 Yogyakarta Earthquake. *Asian Economic Journal*, 26(3), 233–259.
- Revet, S. (2013). Conceptualizing and confronting disasters: a panorama of social science research and international policies. In *The Politics and Policies of Relief, Aid and Reconstruction* (pp. 42–56). <https://doi.org/10.1057/9781137026736.0009>
- Rose, A., & Krausmann, E. (2013). An economic framework for the development of a resilience index for business recovery. *International Journal of Disaster Risk Reduction*, 5(1), 73–83. <https://doi.org/10.1016/j.ijdr.2013.08.003>
- Rose, N. S., & Lentzos, F. (2017). Making us resilient: Responsible citizens for uncertain times. In S. Trnka & C. Trundle (Eds.), *Competing Responsibilities: The Ethics and Politics of Contemporary Life* (pp. 27–48). Duke University Press.

- Rowney, C., Farvid, P., & Sibley, C. G. (2014). "I laugh and say I have 'Earthquake Brain!': Resident responses to the September 2010 Christchurch Earthquake. *New Zealand Journal of Psychology*, 43(2), 4–13.
- Rufat, S. (2015). Critique of Pure Resilience. In *Resilience Imperative: Uncertainty, Risks and Disasters* (pp. 201–228). <https://doi.org/10.1016/B978-1-78548-051-5.50011-5>
- Runyan, R. C. (2006). Small business in the face of crisis: Identifying barriers to recovery from a natural disaster. *Journal of Contingencies and Crisis Management*, 14(1), 12–26. <https://doi.org/10.1111/j.1468-5973.2006.00477.x>
- Rushton, A., Phibbs, S., Kenney, C., & Anderson, C. (2021). 'She'll be right': the place of gendered emotions in disasters. *Gender, Place & Culture*, 28(1), 1–23. <https://doi.org/10.1080/0966369X.2021.1892595>
- Ryle, J. (2007). Roots of Land and Church: The Christian State Debate in Fiji. *International Journal for the Study of the Christian Church*, 5(1), 58–78.
- Sakai, M., Jurriëns, E., Zhang, J., & Thornton, A. (2014). *Disaster relief in the Asia Pacific: Agency and resilience*. London, United Kingdom: Routledge.
- Samantha, G. (2018). The impact of natural disasters on micro, small and medium sized enterprises: A case study of 2016 flood event in Western Sri Lanka. *Procedia Engineering*, 212(1), 744–751. <https://doi.org/10.1016/j.proeng.2018.01.096>
- Sapat, A., & Esnard, A. (2012). Displacement and disaster recovery: Transnational governance and socio-legal issues following the 2010 Haiti earthquake. *Risk, Hazards & Crisis in Public Policy*, 3(1), 1–24.
- Sarkar, A., & Wingreen, S. (2013). Is Resilience in SMEs in Post-Earthquake Christchurch. *European Conference on Innovation and Entrepreneurship*, 573–577.
- Sarmiento, J. P., Hoberman, G., Jerath, M., & Jordao, G. F. (2016). Disaster risk management and business education: The case of small and medium enterprises. *AD-Minister*, 28(1), 73–90.

- Sasse-Zeltner, U. (2021). The revival of solidarity in disasters—a theoretical approach. *Culture*, 6(1), 158–178.
- Schrank, H. L., Marshall, M. I., Hall-Phillips, A., Wiatt, R. F., & Jones, N. E. (2013). Small-business demise and recovery after Katrina: rate of survival and demise. *Natural Hazards*, 65(3), 2353–2374. <https://doi.org/10.1007/s11069-012-0480-2>
- Seidel, M., Seidel, R., Tedford, D., Cross, R., & Wait, L. (2008). A system modelling approach to support environmentally sustainable business development in manufacturing SMEs. *World Academy of Science, Engineering and Technology*, 2, 866–874.
- Sharifi, A. (2016). A critical review of selected tools for assessing community resilience. *Ecological Indicators*, 69(1), 629–647.
- Shaw, R. (2018). Role of private sectors in disaster risk reduction: Potential and challenges. *Journal of Disaster Research*, 13(7), 1207–1212. <https://doi.org/10.20965/jdr.2018.p1207>
- Sherman-Morris, K., Houston, J. B., & Subedi, J. (2018). Theoretical Matters: On the Need for Hazard and Disaster Theory Developed Through Interdisciplinary Research and Collaboration. *Risk Analysis*. <https://doi.org/10.1111/risa.13223>
- Shim, J. H., & Kim, C. II. (2015). Measuring resilience to natural hazards: Towards sustainable hazard mitigation. *Sustainability*, 7(10), 14153–14185. <https://doi.org/10.3390/su71014153>
- Shing, E. Z., Jayawickreme, E., & Waugh, C. E. (2016). Contextual positive coping as a factor contributing to resilience after disasters. *Journal of Clinical Psychology*, 72(12), 1287–1306.
- Siegrist, M., & Gutscher, H. (2008). *Natural Hazards and Motivation for Mitigation Behavior: People Cannot Predict the Affect Evoked by a Severe Flood*. 28(3). <https://doi.org/10.1111/j.1539-6924.2008.01049.x>
- Singh, G., Pathak, R. D., & Naz, R. (2010). Issues faced by SMEs in the internationalization process: results from Fiji and Samoa. *International Journal of Emerging Markets*, 5(2), 153–182. <https://doi.org/10.1108/17468801011031801>

- Singh, P., Tabe, T., & Martin, T. (2022). The role of women in community resilience to climate change: A case study of an Indigenous Fijian community. *Women's Studies International Forum*, 90(1), 102550. <https://doi.org/https://doi.org/10.1016/j.wsif.2021.102550>
- Skouloudis, A., Tsalis, T., Nikolaou, I., Evangelinos, K., & Leal Filho, W. (2020). Small & Medium-Sized Enterprises, Organizational Resilience Capacity and Flash Floods: Insights from a Literature Review. *Sustainability*, 12(18), 7437. <https://doi.org/10.3390/su12187437>
- Slovic, P., Finucane, M., Peters, E., & MacGregor, D. (2002). The affect heuristic. In *Heuristics and Biases: The Psychology of Intuitive Judgement* (1st ed., pp. 397–420). Cambridge: Cambridge University Press.
- Sobel, R. S., & Leeson, P. T. (2006). Government's response to Hurricane Katrina: A public choice analysis. *Public Choice*, 127(1), 55–73.
- Somer, E., Ruvio, A., Sever, I., & Soref, E. (2007). Reactions to Repeated Unpredictable Terror Attacks: Relationships Among Exposure, Posttraumatic Distress, Mood, and Intensity of Coping 1. *Journal of Applied Social Psychology*, 37(4), 862–886.
- Stafford, K., Danes, S. M., & Haynes, G. W. (2013). Long-term family firm survival and growth considering owning family adaptive capacity and federal disaster assistance receipt. *Journal of Family Business Strategy*, 4(3), 188–200. <https://doi.org/10.1016/j.jfbs.2013.06.002>
- Stavrakakis, Y. (2002). Lacan and the Political. In *Lacan and the Political*. <https://doi.org/10.4324/9780203006160>
- Steven, H., & Vunibola, S. (2021). The resiliency of Indigenous entrepreneurial settings in the South Pacific: Notions of solesolevaki and wanbel in the case of Fiji and Papua New Guinea. In *The Routledge International Handbook of Indigenous Resilience* (pp. 362–378). Routledge.
- Straub, A. M., Gray, B. J., Ritchie, L. A., & Gill, D. A. (2020). Cultivating disaster resilience in rural Oklahoma: Community disenfranchisement and relational aspects of social capital. *Journal of Rural Studies*, 73(3), 105–113.

- Su, Y., & Le Dé, L. (2020). Whose views matter in post-disaster recovery? A case study of “build back better” in Tacloban City after Typhoon Haiyan. *International Journal of Disaster Risk Reduction*, 51(1), 101786.
- Sullivan-Taylor, B., & Branicki, L. (2011). Creating resilient SMEs: Why one size might not fit all. *International Journal of Production Research*, 49(18), 5565–5579. <https://doi.org/10.1080/00207543.2011.563837>
- Susen, S., & Turner, B. S. (2011). *The legacy of Pierre Bourdieu: critical essays*. Anthem Press.
- Swartz, D. (1996). Bridging the study of culture and religion: Pierre Bourdieu’s political economy of symbolic power. *Sociology of Religion*, 57(1), 71–85.
- Swartz, D. (2012). *Culture and power: The sociology of Pierre Bourdieu*. Chicago: The University of Chicago Press.
- Sydnor, S., Niehm, L., Lee, Y., Marshall, M., & Schrank, H. (2017). Analysis of post-disaster damage and disruptive impacts on the operating status of small businesses after Hurricane Katrina. *Natural Hazards*, 85(3), 1637–1663. <https://doi.org/10.1007/s11069-016-2652-y>
- Szreter, S., & Woolcock, M. (2004). Health by association? Social capital, social theory, and the political economy of public health. *International Journal of Epidemiology*, 33(4), 650–667.
- Tang, C. (2006). Positive and negative post disaster psychological adjustment among adult survivors of the Southeast Asian earthquake-tsunami. *Journal of Psychosomatic Research*, 61(5), 699–705.
- Tanner, T., Surminski, S., Wilkinson, E., Reid, R., Rentschler, J., Rajput, S., & Lovell, E. (2016). The triple dividend of resilience—A new narrative for disaster risk management and development. In *Realising the ‘Triple Dividend of Resilience’* (pp. 1–29). Springer.
- Tarte, S. (2010). Fiji Islands’ security challenges and defense policy issues. *Asia Pacific Countries’ Security Outlook and Its Implications for the Defense Sector*, 67(84).
- Taupo, T. (2019). Sustainable financing for climate and disaster resilience in Atoll Islands: Evidence from Tuvalu and Kiribati. *Pacific Economic Review*, 24(5), 705–717.

- Thomalla, F., Lebel, L., Boyland, M., Marks, D., Kimkong, H., Tan, S. B., & Nugroho, A. (2018). Long-term recovery narratives following major disasters in Southeast Asia. *Regional Environmental Change*, 18(4), 1211–1222.
- Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation*, 27(2), 237–246.
- Thomas, D. S. K., Phillips, B. D., Fothergill, A., & Blinn-Pike, L. (2009). *Social vulnerability to disasters*. Boca Raton: CRC Press.
- Thorgren, S., & Williams, T. A. (2020). Staying alive during an unfolding crisis: How SMEs ward off impending disaster. *Journal of Business Venturing Insights*, 14, e00187.
- Thornton, S. (1995). Club Cultures: Music. In *Club cultures: Music, media, and subcultural capital*. Cambridge: Polity Press.
- Tierney, K. J. (1997). Business impacts of the Northridge earthquake. *Journal of Contingencies and Crisis Management*, 5(2), 87–97. <https://doi.org/10.1111/1468-5973.00040>
- Tierney, K. J., & Dahlhamer, J. M. (1998). Rebounding from disruptive events: Business recovery following the Northridge earthquake. *Sociological Spectrum*, 18(2), 121–141. <https://doi.org/10.1080/02732173.1998.9982189>
- Tierney, K. (2007). Businesses and disasters: vulnerability, impacts, and recovery. In *Handbook of disaster research* (pp. 275–296). https://doi.org/10.1007/978-0-387-32353-4_16
- Tierney, Kathleen. (2015). Resilience and the neoliberal project: Discourses, critiques, practices—and Katrina. *American Behavioral Scientist*, 59(10), 1327–1342. <https://doi.org/10.1177/0002764215591187>
- Tittenbrun, J. (2016). Concepts of capital in Pierre Bourdieu's theory. *Miscellanea Anthropologica et Sociologica*, 17(1), 81–103.
- Torres, A. P., Marshall, M. I., & Sydnor, S. (2019). Does social capital pay off? The case of small business resilience after Hurricane Katrina. *Journal of Contingencies and Crisis Management*, 27(2), 168–181. <https://doi.org/10.1111/1468-5973.12248>

- Toya, H., & Skidmore, M. (2007). Economic development and the impacts of natural disasters. *Economics Letters*, 94(1), 20–25.
- Trnka, S., & Trundle, C. (2017). Introduction. Competing Responsibilities: reckoning personal responsibility, care for the other, and the social contract in contemporary life. In *Competing responsibilities* (pp. 1–24). Duke University Press.
- Twigg, J. (2009). *Characteristics of a disaster-resilient community*.
- Uekusa, S. (2017). Social vulnerability in disasters: immigrant and refugee experiences in Canterbury and Tohoku. In J. William L. Waugh & H. Ziqiang (Eds.), *Recovering from Catastrophic Disaster in Asia* (pp. 127–144). <https://doi.org/10.1108/S2040-726220160000018006>
- Uekusa, S. (2018a). Rethinking resilience: Bourdieu's contribution to disaster research. *Resilience*, 6(3), 1–15. <https://doi.org/10.1080/21693293.2017.1308635>
- Uekusa, S. (2018b). *Social vulnerability, resilience, and capital in disasters: Immigrants, refugees and linguistic minorities in the 2010- 2011 Canterbury and Tohoku disasters*. University of Auckland.
- Uekusa, S. (2019a). Disaster linguicism: Linguistic minorities in disasters. *Language in Society*, 48(3), 353–375. <https://doi.org/10.1017/S0047404519000150>
- Uekusa, S. (2019b). Methodological Challenges in Social Vulnerability and Resilience Research: Reflections on Studies in the Canterbury and Tohoku Disasters*. *Social Science Quarterly*, 12(1), 1–16. <https://doi.org/10.1111/ssqu.12617>
- Uekusa, S. (2020). The paradox of social capital: A case of immigrants, refugees and linguistic minorities in the Canterbury and Tohoku disasters. *International Journal of Disaster Risk Reduction*, 48(1), 101625.
- Uekusa, S., & Matthewman, S. (2017). Vulnerable and resilient? immigrants and refugees in the 2010–2011 Canterbury and Tohoku disasters. *International Journal of Disaster Risk Reduction*, 22(1), 355–361. <https://doi.org/10.1016/j.ijdr.2017.02.006>

- Uekusa, S., Matthewman, S., & Lorenz, D. F. (2022). Conceptualising disaster social capital: what it is, why it matters, and how it can be enhanced. *Disasters*, 46(1), 56–79.
- UNDP. (2013). *Small businesses - impact of disasters and building resilience*. New York, USA.
- UNDP. (2016, June 21). Survey reveals gaps in SME insurance in the Pacific. *Press Release*. Retrieved from <http://www.pfip.org/newsroom/programme-update/2016-2/survey-reveals-gap-sme-insurance-pacific/>
- UNDP. (2021). New insurance product to aid fight against climate change in the Pacific. *Press Release*. Retrieved from <https://www.pacific.undp.org/content/pacific/en/home/presscenter/articles/2021/an-impressive-example-of-pacific-led-innovation.html>
- UNFCCC. (2017, July 25). Private sector can be a powerful catalyst in boosting the resilience of our economies. *Press Release*, p. 1. Retrieved from <https://cop23.com.fj/private-sector-can-powerful-catalyst-boosting-resilience-economies-minister-responsible-climate/>
- UNISDR. (2019). *Disaster Risk Reduction in the Republic of Fiji - Status Report*.
- Uson, M. (2017). Natural disasters and land grabs: The politics of their intersection in the Philippines following super typhoon Haiyan. *Canadian Journal of Development Studies/Revue Canadienne d'études Du Développement*, 38(3), 414–430.
- Vaioleti, T. M. (2017). Talanoa research methodology: a developing position on Pacific research. *Waikato Journal of Education*, 12(1). <https://doi.org/10.15663/wje.v12i1.296>
- Vale, L. J., & Campanella, T. J. (2005). Conclusion: Axioms of resilience. In *The resilient city* (pp. 10–31). Oxford University Press.
- Van Wassenhove, L. N. (2006). Humanitarian aid logistics: supply chain management in high gear. *Journal of the Operational Research Society*, 57(5), 475–489.
- Västfjäll, D., Peters, E., & Slovic, P. (2008). Affect, risk perception and future optimism after the tsunami disaster. *Judgement and Decision Making*, 3(1), 64–72.

- Vazquez, C., Cervellon, P., Perez-Sales, P., Vidales, D., & Gaborit, M. (2001). Positive emotions in earthquake survivors in El Salvador. *Journal of Anxiety Disorders, 19*(3), 313–328.
- Verrest, H., Groennebaek, L., Ghiselli, A., & Berganton, M. (2020). Keeping the business going: SMEs and urban floods in Asian megacities. *International Development Planning Review, 42*(2), 241–261.
- Wacquant, L., & Deyanov, I. (2002). Taking Bourdieu into the field. *Berkeley Journal of Sociology, 46*(1), 180–186.
- Walker, C., Gleaves, A., & Grey, J. (2006). Can students within higher education learn to be resilient and, educationally speaking, does it matter? *Educational Studies, 32*(3), 251–264.
- Warner, J., & de Man, R. (2020). Powering hydro diplomacy: How a broader power palette can deepen our understanding of water conflict dynamics. *Environmental Science & Policy, 114*, 283–294.
- Webb, G. (2004). Role improvising during crisis situations. *International Journal of Emergency Management, 2*(1–2), 47–61.
- Webb, G. R., Tierney, K. J., & Dahlhamer, J. M. (2002). Predicting long-term business recovery from disaster: A comparison of the Loma Prieta earthquake and Hurricane Andrew. *Global Environmental Change, 4*(2), 45–58. [https://doi.org/10.1016/S1464-2867\(03\)00005-6](https://doi.org/10.1016/S1464-2867(03)00005-6)
- Webb, G. R., Tierney, K. J., & Dahlhamer, J. M. (2000). Businesses and disasters: Empirical patterns and unanswered questions. *Natural Hazards Review, 1*(2), 83–90.
- Wedawatta, G., & Ingirige, B. (2012). Resilience and adaptation of small and medium-sized enterprises to flood risk. *Disaster Prevention and Management: An International Journal, 21*(4), 474–488. <https://doi.org/10.1108/09653561211256170>
- Wedawatta, G., Ingirige, B., & Amaratunga, D. (2010). Building up resilience of construction sector SMEs and their supply chains to extreme weather events. *International Journal of Strategic Property Management, 14*(4), 362–375. <https://doi.org/10.3846/ijspm.2010.27>

- Wedawatta, G., Ingirige, B., Jones, K., & Proverbs, D. (2011). Extreme weather events and construction SMEs: vulnerability, impacts, and responses. *Structural Survey*, 29(2), 106–119. <https://doi.org/10.1108/026308011111132795>
- Wedawatta, G., Ingirige, B., & Proverbs, D. (2014). Small businesses and flood impacts: the case of the 2009 flood event in Cockermouth. *Journal of Flood Risk Management*, 7(1), 42–53. <https://doi.org/10.1111/jfr3.12031>
- Whittle, R., Walker, M., Medd, W., & Mort, M. (2012). Flood of emotions: Emotional work and long-term disaster recovery. *Emotion, Space and Society*, 5(1), 60–69. <https://doi.org/10.1016/j.emospa.2011.08.002>
- Winterford, K., & Gero, A. (2018). *Humanitarian response for development in Fiji: lessons from Tropical Cyclone Winston*. Retrieved from <http://pubs.iied.org/10853IIED>
- Wise, R. M., Fazey, I., Stafford Smith, M., Park, S. E., Eakin, H. C., Archer Van Garderen, E. R. M., & Campbell, B. (2014). Reconceptualising adaptation to climate change as part of pathways of change and response. *Global Environmental Change*, 28(1), 325–336. <https://doi.org/10.1016/j.gloenvcha.2013.12.002>
- Wishart, M. (2018). *Business resilience in an SME context: a literature review*. Retrieved from <https://www.enterpriseresearch.ac.uk/wp-content/uploads/2018/07/Resilience-review-Final.pdf>
- Wood, L. J., Boruff, B. J., & Smith, H. M. (2013). When disaster strikes... how communities cope and adapt: a social capital perspective. *Disaster and Development*, 11(1), 12–21.
- World Bank. (2018). *Climate Vulnerability Assessment: Making Fiji Climate Resilient*. Suva, Fiji.
- World Health Organisation. (2012). Fijian flood emergency: WHO advice public to prevent diseases. *Press Release*, p. 1.
- Wu Suen, L. J., Huang, H. M., & Lee, H. H. (2014). A comparison of convenience sampling and purposive sampling. *Journal of Nursing*, 61(3), 105–119. <https://doi.org/10.6224/JN.61.3.105>

- Xiao, Y. (2011). Local economic impacts of natural disasters. *Journal of Regional Science*, 51(4), 804–820.
- Xiao, Y., Wu, K., & Finn, D. (2018). Community Businesses as Social Units in Post-Disaster Recovery. *Journal of Planning Education and Research*, 28(2), 1–14. <https://doi.org/10.1177/0739456X18804328>
- Yeo, S, Blong, R., & McAneney, K. (2007). Flooding in Fiji: findings from a 100-year historical series. *Hydrological Sciences Journal*, 52(5), 1004–1015. <https://doi.org/10.1623/hysj.52.5.1004>
- Yeo, Stephen. (2013). A Review of Flood Resilience in Fiji. *International Conference on Flood Resilience, Experiences in Asia, and Europe*, (September).
- Yeo, Stephen. (2015). *Refining the historical flood series for Ba, Fiji*. (October).
- Yila, O., Weber, E., & Neef, A. (2013). The role of social capital in post-flood response and recovery among downstream communities of the Ba River, Western Viti Levu, Fiji Islands. In *Risks and conflicts: Local responses to natural disasters* (pp. 79–107). [https://doi.org/10.1108/S2040-7262\(2013\)0000014010](https://doi.org/10.1108/S2040-7262(2013)0000014010)
- Yin, R. K. (2013). Applications of case study research. In *SAGE Publications*. <https://doi.org/10.1097/FCH.0b013e31822dda9e>
- Yoshida, K., & Deyle, R. E. (2005). Determinants of small business hazard mitigation. *Natural Hazards Review*, 6(1), 1–12. [https://doi.org/10.1061/\(asce\)1527-6988\(2005\)6:1\(1\)](https://doi.org/10.1061/(asce)1527-6988(2005)6:1(1))
- Zebrowski, C. (2020). Acting local, thinking global: Globalizing resilience through 100 Resilient Cities. *New Perspectives*, 28(1), 71–88. <https://doi.org/10.1177/2336825X20906315>
- Zembylas, M. (2002). ‘Structures of feeling’ in curriculum and teaching: Theorizing the emotional rules. *Educational Theory*, 52(2), 187–208.
- Zembylas, M. (2007). Emotional capital and education: Theoretical insights from Bourdieu. *British Journal of Educational Studies*, 55(4), 443–463.

- Zhang, Y., Lindell, M. K., & Prater, C. S. (2009). Vulnerability of community businesses to environmental disasters. *Disasters*, 33(1), 38–57. <https://doi.org/10.1111/j.1467-7717.2008.01061.x>
- Zhou, F., & Botzen, W. J. W. (2018). The impact of natural disasters on firm growth in Vietnam: interaction with financial constraints. *SSRN Electronic Journal*, 17–20. <https://doi.org/10.2139/ssrn.3095539>
- Zhou, H., Wang, J., Wan, J., & Jia, H. (2010). Resilience to natural hazards: a geographic perspective. *Natural Hazards*, 53(1), 21–41. <https://doi.org/10.1007/s11069-009-9407-y>
- Ziervogel, G., Pelling, M., Cartwright, A., Chu, E., Deshpande, T., Harris, L., ... Michael, K. (2017). Inserting rights and justice into urban resilience: A focus on everyday risk. *Environment and Urbanization*, 29(1), 123–138.

Appendices

Appendix A: Interview information

Table A: Interview Details of Disaster Risk Institutions

Identifier	Institution	Interview Date
Government Organisations		
DMI 1	Ba Town Council	November 1, 2018
DMI 2	Ba District Advisory Council	November 20, 2018
DMI 3	National Center for Micro and Small Enterprise Development	November 22, 2018
DMI 4	Fiji Meteorological Office	December 5, 2018
DMI 5	Ministry of Economy	January 10, 2019
DMI 6	National Disaster Management Office	January 17, 2019
DMI 7	National Disaster Management Council	January 18, 2019
DMI 8	Reserve Bank of Fiji	February 7, 2019
DMI 9	Reserve Bank of Fiji	February 7, 2019
DMI 10	Ministry of Industry, Trade and Tourism	February 13, 2019
Regional Organisations		
DMI 11	Pacific Islands Forum Secretariat	October 26, 2018
DMI 12	Secretariat of the Pacific Community	December 21, 2018
DMI 13	Pacific Islands Private Sector Organisation	January 22, 2019
International Organisations		
DMI 14	UNDP – Pacific Risk Resilience Programme	October 25, 2018
DMI 15	United States Climate Ready Project	October 25, 2018
DMI 16	UNDP – Pacific Financial Inclusion Programme	October 26, 2018
DMI 17	United Nations Office for Disaster Risk Reduction	January 16, 2019
DMI 18	UNDP – Disaster Resilience for Pacific Small Island Developing States	January 17, 2019
DMI 19	UNDP – Pacific Early Recovery Programme	February 5, 2019
DMI 20	Talanoa Treks	February 5, 2019
DMI 21	Market Development Facility	February 15, 2019
DMI 22	International Labour Organisation	February 18, 2019
DMI 23	UN Women	February 26, 2019
Insurance Companies		
DMI 24	QBE	January 16, 2019
DMI 25	Marsh Insurance	February 8, 2019
DMI 26	Tower Insurance	March 11, 2019
Financial Institutions		
DMI 27	Westpac	February 14, 2019
DMI 28	Fiji Development Bank	March 14, 2019
Private Sector Representatives		
DMI 30	Fiji Commerce and Employers Federation	October 25, 2018
DMI 31	Ba Chamber of Commerce	November 5, 2018
DMI 32	Fiji Commerce and Employers Federation	February 5, 2019
DMI 33	Private Sector Trust Board	February 11, 2019

Table B: Interview Details of MSEs

Identifier	Business Type	Location	Years of Operation	Interview Date
MSE001	Restaurant	Ba Main Town	2	October 9, 2018
MSE002	Gift Shop	Ba Main Town	6	October 9, 2018
MSE003	Footwear	Ba Market Area	30	October 10, 2018
MSE004	Automotive Spare parts	Ba Main Town	18	October 10, 2018
MSE005	Bread Shop	Ba Market Subdivision	14	October 10, 2018
MSE006	Restaurant	Ba Market Subdivision	2	October 11, 2018
MSE007	Restaurant	Ba Main Town	21	October 11, 2018
MSE008	Restaurant	Ba Main Town	2	October 11, 2018
MSE009	Automotive Spare parts	Ba Main Town	16	October 16, 2018
MSE010	Electronics	Gaga Singh St	20	October 17, 2018
MSE011	Textile	Ba Main Town	28	October 17, 2018
MSE012	Textile	Ba Main Town	4	October 18, 2018
MSE013	Restaurant	Ba Main Town	40	October 18, 2018
MSE014	Footwear	Ba Main Town	35	October 18, 2018
MSE015	Restaurant	Gaga Singh St	23	October 19, 2018
MSE016	Textile	Ba Main Town	3	October 30, 2018
MSE017	Electrical supplies	Ba Main Town	7	October 31, 2018
MSE018	Automotive Spare parts	Ba Main Town	6	October 31, 2018
MSE019	Restaurant	Ba Main Town	4	November 1, 2018
MSE020	Gift Shop	Ba Main Town	1	November 1, 2018
MSE021	Bookstore	Ba Market Subdivision	72	November 4, 2018
MSE022	Textile	Ba Market Subdivision	6	November 12, 2018
MSE023	Furniture and Fittings	Ba Main Town	10	November 12, 2018
MSE024	Mechanical	Yalalevu, Ba	4	November 12, 2018
MSE025	Textile	Yalalevu, Ba	4	November 12, 2018
MSE026	Textile	Ba Market Subdivision	19	November 13, 2018
MSE027	Automotive Spare parts	Ba Main Town	7	November 16, 2018
MSE028	Automotive Spare parts	Ba Main Town	3	November 16, 2018
MSE029	Convenience Store	Ba Market Subdivision	6	November 19, 2018
MSE030	Automotive Spare parts	Ba Main Town	4	November 20, 2018
MSE031	Convenience Store	Yalalevu, Ba	9	November 20, 2018
MSE032	Restaurant	Yalalevu, Ba	2	November 20, 2018
MSE033	Restaurant	Ba Main Town	2	November 21, 2018
MSE034	Textile	Ba Main Town	5	November 21, 2018
MSE035	Seafood Retail	Ba Market Subdivision	4	November 21, 2018
MSE036	Convenience Store	Ba Market Subdivision	10	November 22, 2018
MSE037	Gift Shop	Gaga Singh St	2	November 22, 2018
MSE038	Convenience Store	Ba Main Town	19	November 22, 2019
MSE039	Restaurant	Ba Town, Upper Subdivision	2	November 23, 2019
MSE040	Industrial Supplies	Ba Market Subdivision	3	November 23, 2019

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MSE041	Footwear	Ba Main Town	50	November 23, 2019
MSE042	Automotive Spare parts	Varavu, Ba	29	January 28, 2019
MSE043	Hairdressing	Ba Main Town	4	January 29, 2019
MSE044	Textile	Ba Main Town	4	January 28, 2019
MSE045	Accounting service	Varavu, Ba	5	January 28, 2019
MSE046	Café	Ba Main Town	7	January 28, 2019
MSE047	Convenience Store	Gaga Singh St	18	January 29, 2018
MSE048	Hairdressing	Ba Main Town	5	January 29, 2019
MSE049	Restaurant	Ba Main Town	4	January 29, 2019
MSE050	Bookstore	Ba Main Town	10	January 30, 2019
MSE051	Agriculture Supplies	Ba Market Subdivision	27	January 30, 2019
MSE052	Textile	Ba Market Subdivision	4	January 31, 2019
MSE053	Gift Shop	Ba Market Subdivision	5	January 31, 2019
MSE054	Agriculture Supplies	Ba Market Subdivision	3	February 8, 2019
MSE055	Restaurant	Ba Main Town	12	February 12, 2019
MSE056	Hairdressing	Ba Main Town	10	February 12, 2019
MSE057	Restaurant	Ba Market Subdivision	7	February 12, 2019
MSE058	Textile	Varavu, Ba	8	February 13, 2019
MSE059	Construction	Yalalevu, Ba	8	February 15, 2019

Appendix B: Supporting documentation. University ethics approval

Research Office
Post-Award Support Services



The University of Auckland
Private Bag 92019
Auckland, New Zealand

Level 10, 49 Symonds Street
Telephone: 64 9 373 7599
Extension: 83711
Facsimile: 64 9 373 7432
ro-ethics@auckland.ac.nz

UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE (UAHPEC)

07-Sep-2018

MEMORANDUM TO:

Prof Andreas Neef
Development Studies

Re: Application for Ethics Approval (Our Ref. 021960): Approved

The Committee considered your application for ethics approval for your study entitled **Exploring Factors of Building Disaster Resilience: A Case Study of SMEs in Ba Province, Fiji**.

We are pleased to inform you that ethics approval has been granted for a period of three years.

The expiry date for this approval is 07-Sep-2021.

If the project changes significantly, you are required to submit a new application to UAHPEC for further consideration.

If you have obtained funding other than from UniServices, send a copy of this approval letter to the Activations team in the Research Office at ro-awards@auckland.ac.nz. For UniServices contracts, send a copy of the approval letter to the Contract Manager, UniServices.

The Chair and the members of UAHPEC would be happy to discuss general matters relating to ethics approvals. If you wish to do so, please contact the UAHPEC Ethics Administrators at ro-ethics@auckland.ac.nz in the first instance.

Please quote Protocol number **021960** on all communication with the UAHPEC regarding this application.

(This is a computer generated letter. No signature required.)

UAHPEC Administrators
University of Auckland Human Participants Ethics Committee

c.c. Head of Department / School, Development Studies

Letter of support from Fijian Government and Ba Provincial Council



MINISTRY OF ECONOMY

P.O. Box 2212, Government Buildings, Suva, Fiji; Tele: (679) 330 7011, Fax: (679) 330 8654
Website: www.economy.gov.fj, Email: EconomyInformation@economy.gov.fj
Ro Lalabalavu House, 370 Victoria Parade, Suva

14 June 2018

By E-Mail: smic013@aucklanduni.ac.nz

Mr. Sivendra Michael
Doctoral Candidate
Department of Development Studies
University of Auckland
New Zealand

Dear Sivendra

Institutional Support for Data Collection for Doctoral Research

It was a pleasure meeting you in Bonn at COP23.

I am delighted to note your Doctoral research on building disaster resilience of tourism and small and medium sized enterprises in Fiji. This would be a critical piece of research with a lot of value add for Fiji given the frequency and increased intensity of natural disasters.

The Climate Change & International Cooperation Division of the Ministry of Economy is happy to support your research through provision of published data and information including the availability of Division staff for interviews. Upon request and depending on availability of colleagues in other Government agencies, we may direct you for further interviews.

For further enquiries, please contact me on email nprakash001@economy.gov.fj

Thank you.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Nilesch Prakash', written over a vertical line.

Nilesch Prakash
Head of Climate Change & International Cooperation



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87 Queen Elizabeth Drive
Draibe.

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July 16, 2018

Professor Andreas Neef
Development Studies
School of Social Sciences
Faculty of Arts
The University of Auckland
Private Bag 92019
Auckland
New Zealand

Dear Mr. Andreas Neef,

Re.: Institutional Support for PhD student Sivendra Michael during fieldwork in Fiji

In response to your letter and email of June 7th, I am pleased to provide institutional support for Mr. Michael Sivendra to assist him engage with communities in his area of research titled 'Building Disaster Resilience of Tourism and Retail Small and Medium Sized Enterprises: A Case of Ba Province, Fiji'.

We understand that Mr. Michael's research interests and plans would necessitate the performing of Fijian traditions and protocol when requesting something from the vanua and also in expressing appreciation. Mr. Michael is no stranger to our organization nor to Ba however we are prepared to offer him advice and directions for undertaking research in a traditional setting. This will include referring him to the iTaukei Affairs Board office in Suva and to the provincial office in Ba.

We understand therefore that Mr. Michael's research would be within the scope of the research topic.

We congratulate Mr. Michael in his studies so far and wish him well into the next phase!

Sincerely,

I. Kaloumaira
Chief Executive Officer

Appendix C: Document analysis

Data for this study was also collected from the analysis of documents. Documents included government laws, government policies and plans, UN reports, meeting minutes, internal reports, news articles, social media posts. Below is a table that provides a summary of documents used.

Unique Identifier	Document Type	Source Name	URL
DC001	Standard Operating Procedure (SOP)	National Emergency Operations Centre (NEOC) SOP	Not available online
DC002	Training manual	Community-based disaster risk management manual	Not available online
DC003	Social media site	Pre-disaster social media	https://www.facebook.com/FijiNDMO/
DC004	Government legislation	National Disaster Management Act 1985	https://www.laws.gov.fj/Acts/DisplayAct/733
DC005	Government policy	National Disaster Management Plan	http://www.ndmo.gov.fj/images/Fiji_National_Disaster_Management_Plan.pdf
DC005	Government legislation	Climate Change Act [Bill 31 of 2021]	http://www.parliament.gov.fj/wp-content/uploads/2021/08/Bill-31-Climate-Change-Bill-2021.pdf
DC006	Government policy	National Disaster Risk Reduction Policy 2018 – 2030	http://www.rcrc-resilience-southeastasia.org/wp-content/uploads/2020/04/Natural-Disaster-Risk-Reduction-Policy-2018%E2%80%932030.pdf
DC007	Government guideline	Rehabilitation Funding Guideline	Not available online
DC008	Government report	Micro and Small Business Grant Report	Not available online
DC009	Government Report	Tropical Cyclone Lessons Learned Report (Draft)	Not available online

DC010	Meeting Note	Pacific Resilience Meeting Information Note	https://www.spc.int/sites/default/files/documents/Pacific_Resilience_Meeting_1-3%20May_2019_Information_Note.pdf
DC011	Status Report	UNISDR DRR in the Republic of Fiji	https://www.unisdr.org/files/68251_682302fijirevised16oct2019.pdf
DC012	Project Document	UNDP RESPAC Project Document	Not available online
DC013	Project Progress Report	UNDP RESPEC Project Annual Report	https://info.undp.org/docs/pdc/Documents/FJI/2019%20Annual%20Report%20RESPAC.pdf
DC014	Project Document	UNDP Governance for Resilient Development in the Pacific Project Document	Not available online
DC015	Project Document	UNDP Pacific Risk Resilience Programme Project Document	Not available online
DC016	Project Document	PICAP Project - Building disaster risk resilience through finance, adaptation, and insurance	Not available online
DC017	Fact sheets	USAID Climate Ready Project Document	Not available online
DC018	Assessment Report	UNDP Socio-economic affect Assessment in Ba and Nadi, Fiji (January 2009 Floods)	Not available online (was issued to Government but not published)
DC019	Assessment Report	SOPAC Technical Report – Economic Cost of Ba Floods (January 2009 Floods)	Not available online (was issued to Government but not published)
DC020	Outcomes Statement	Fiji Business Disaster Resilience Council Recommendations from	Not available online (was issued to Government but not published)
DC021	Terms of Reference	MSME Fiji – Central Coordination Agency	Not available online
DC022	Survey Report	SPC Disaster Awareness Toolkit Survey Report	Not available online

DC023	Press Release	Pacific Insurance see SME and Group business as a way forward for growth	http://www.pfip.org/newsroom/programme-update/2019-2/pacific-insurers-see-sme-and-group-business-as-a-way-forward-for-growth/
DC024	Assessment Report	ADB - The environment for disaster risk financing in Fiji	https://www.adb.org/publications/fiji-environment-disaster-risk-financing
DC025	Assessment Report	MDF – Fiji MSME Landscape Report	Not available online
DC026	Situational Report	NDMO Situational Analysis Report	http://www.ndmo.gov.fj/index.php/history-of-disasters
DC027	Flood management tool	World Meteorological Risk Management Tool	https://library.wmo.int/doc_num.php?explnum_id=7344

Appendix D: Participant consent form



ARTS

Development Studies
Address: Human Sciences Building, 10 Symonds Street
Phone: +64 9 923 3486

School of Social Sciences
Faculty of Arts
Human Sciences Building
Auckland, New Zealand
The University of
Auckland
Private Bag 92019
Auckland 1142
New Zealand

CONSENT FORM (SME OWNERS/MANAGERS)

THIS FORM WILL BE HELD FOR A PERIOD OF SIX YEARS

EXPLORING FACTORS OF BUILDING DISASTER RESILIENCE: A CASE STUDY OF SMES IN BA PROVINCE, FIJI

Researcher: Sivendra Michael

Contact email address: smic013@aucklanduni.ac.nz

If you agree to participate in the research project as described in the Participant Information Sheet, please complete this form.

I have read the Participant Information Sheet, have understood the nature of the research and why I have been invited to participate. I have had an opportunity to ask questions and have them answered to my satisfaction.

I also acknowledge the following:

- I understand that my participation is entirely voluntary and that I am not under any obligation to take part in this research.
- I understand that taking part in this research will not result in any known disadvantages or risks.

- I know who to speak to if I am concerned or would like to ask questions about this study.
- I have had enough time to think about whether I want to take part in this study Yes No
- I agree to take part in this research Yes No
- I consent for the interview to be audio-recorded Yes No
- I wish to receive my interview transcript Yes No
- I understand that at any time, I am allowed to do any of the following without explaining why, and without having to fear any repercussion in the future:
 - Ask any question.
 - Withdraw the information provided in the interview within thirty days from the date of the interview.
- I understand that the information provided in the interview will be used for the researcher's doctoral thesis at the University of Auckland. They may also be used for conference or seminar presentations, or for publications.
- I understand that I will not be identified by name and that any other identifying information will be changed in any presentations or publications.
- I understand that the audio recording of my interview will not be made public.
- I understand that all data will be kept for a period of six years. After the given period, it will be securely destroyed.
- I understand that I will receive a gift/a gift voucher worth NZ\$20 (FJD 30 equivalent) as a token of appreciation for my time and contribution to this research even after I decide to withdraw from the interview. I also understand that I have the right to decline the gift given to me

Name: _____

Signature: _____

Date: _____

If you have opted for receiving the transcript from this interview and/or a summary of the research findings, please provide your email address hereafter:
