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Post-disaster business recovery

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Post-disaster business recovery: An entrepreneurial marketing perspective

1. Introduction

The study of disaster and immediate post-disaster response is increasingly becoming an important area of study. There is evidence that situational entrepreneurial endeavours can positively influence regional development and country competitiveness (Miles et al., 2016; Zhang Lindell & Prater, 2009). Small business recovery requires entrepreneurs in the locality to deal with the immediate aftermath of disasters. In examining small business post-disaster recovery, the authors found that Entrepreneurial Marketing (EM) offers a helpful body of research in explaining the findings of this study. For example, Schindehutte, Morris & Kuratko (2000) found that crises often compel businesses to adopt an entrepreneurial approach to their marketing function while Morrish (2011) argue that EM strategies are useful in times of market turbulence and uncertainty.

The risk of disruptive occurrences is ubiquitous (Burnard & Bharma, 2011) and there is increased global research interest focusing on disaster recovery following catastrophic events. This is generally with the aim of future-proofing communities against destruction by creating resilient communities. Disaster studies have covered topics such as community recovery, resilience and social capital in relation to disasters (Aldrich, 2011; Aldrich & Meyer, 2015; Norris, Stevens, Pfefferbaum, Wyche & Pfefferbaum, 2008). A disaster study in this journal [JBR] investigated the retail environment (Liu, Black, Lawrence & Garrison, 2012).

Business recovery following disaster is also a growing area of interest (Aldrich, 2011; Dahlhamer & Tierney, 1998) which includes development of new resilience measures and factors for enterprise recovery (Stevenson, Brown, Seville & Vargo, 2018; Battisti & Deakins, 2017; Hall, Malinen, Vosslamber & Wordsworth, 2016; Brown, Stevenson, Giovinazzi, Seville & Vargo, 2015). These studies provide vital information on small business recovery, although they are generally strategic and broad-based in nature and usually assess business survival and failure against key factors such as government support. Whilst these studies are valuable, there is a significant gap in the literature relating to recovery strategies that smaller business entrepreneurs employ. How do they manage to overcome the challenges associated

with a post-disaster environment?

Community recovery studies report that survival at grass-roots level depends on close cooperation with the community in which they operate (Guion, Scammon & Borders, 2007). In an entrepreneurial context, what does the process of entrepreneurial post-disaster recovery entail? What role does marketing play in this context? There are limited studies that explain the process of recovery at this level, and even fewer in-depth studies that explain how successful entrepreneurial activity can make a significant difference between business survival and failure. With the exception of Miles et al. (2016), no other study has investigated EM in a disaster context.

Such basic firm survival may depend on an entrepreneur's adoption of a particular range of activities and processes. Currently little is known about this phenomenon therefore this study adopted a 'theories-in-use' approach (Eggers & McCabe, 2016) being useful for "developing new operational definitions, developing a propositional inventory and constructing a comprehensive framework for directing future research" (Kohli & Jaworski, 1990, p. 1).

The paper first presents the method and draws from post-disaster business recovery literature to position the study. This is followed by an explanation of the research strategy and data collection process. The findings are based on the field work which involved gathering information on the experiences of 12 entrepreneurs whose businesses have successfully recovered after a devastating earthquake.

This discovery-orientated approach (Deshpande 1983; Mahrer, 1988) follows the qualitative, practitioner-based approaches used by Parasuraman, Zeithmal and Berry (1985) and Kohli and Jaworski (1990). In this study, field interview data was collected then compared with extant EM theory. This provided a congruence of EM-related concepts in respect of the post-disaster business recovery process. A discussion then follows that highlights the key EM theory that (post data collection), informs the new theoretical concepts in relation to the post-disaster recovery process. In light of this study, the paper then offers a new EM definition, a set of research propositions and an EM post-disaster business recovery framework to aid future research. The paper concludes with recommendations for further post-disaster business recovery research.

2. Method

2.1 Literature review of post-disaster business recovery

While research has been conducted in relation to post-disaster recovery in communities (Aldrich, 2011) and (more broadly) across business regions (Guion, et al., 2007) there is still limited understanding about entrepreneurial and small business recovery. Academic and policy research is generally devoted to post-disaster resilience of households, infrastructure and entire communities based on aggregated data (such as regional economies) rather than on individual firms (Webb, Tierney & Dahlhamer, 2002). Marshall and Schrank (2014, p. 597) lament that "exogenous, non-normative shocks to small businesses such as natural disasters have been understudied", while Webb et al. (2000) suggest systematic documentation of effective recovery strategies rather than snapshots at one point in time, before advocating particular programs and approaches.

Entrepreneurship studies have so far focussed on uncertain environments (Haynie, Shepherd, Mosakowski & Earley, 2010; McGrath & MacMillan, 2000), the effect of self-efficacy (Mauer, Neergard & Linstad, 2017), and entrepreneurial opportunity (Ardichvili, Cardozo & Ray, 2003; Baron, 2006; Sarasvathy, Dew, Velamuri & Venkataraman, 2003). While Aldrich and Meyer (2015) and Chamlee-Wright and Storr (2008) advocate social capital (both bonding and bridging) as a critical resource and, the fostering of social infrastructures and social entrepreneurship to promote faster disaster recovery post-disaster.

Dahlhamer and Tierney (1998) argue that business recovery can be predicted firstly in the short term by identifying effects of direct physical impact, on business operations, ecological aspects and neighbourhood location of the business. Secondly, in the long-term by age and financial condition of the business. This includes; the economic sector in which a business operates, the scope of its primary market, direct and indirect disaster impacts (e.g. physical damage, forced closure, and disruption of operations) and owner perceptions of the broader economic climate all affect business recovery (Webb et al., 2002; Miles, et al., 2016).

With respect to specific sectors, non-governmental organisations (NGOs) that provide post-disaster assistance often overlook sectors like tourism (despite its economic importance), and focus on traditional livelihoods such as agriculture and fishing as in the case in Sri Lanka (Robinson & Jarvie, 2008). Another sector often hard-hit by sudden natural disasters is the

retail sector. Liu et al. (2012) found that despite negative perceptions of customers following damage to stores from Hurricane Katrina and suffering financial hardship, retailers survived with individual coping self-efficacy. These factors also influenced individuals' satisfaction with living conditions alluding to the importance of ensuring positive outcomes for individuals and communities when disaster strikes (Guion et al., 2007).

Location and space are important considerations as business operations come to a halt when premises are damaged and inaccessible. As a response, authorities will often designate a new business zone where displaced businesses can relocate. There are varying degrees of success reported. A longitudinal study tracked businesses relocating to a new designated business district after the Wenchuan earthquake in 2008. The new business spaces attracted less than half those invited and declined over the next four years (Huang, Wang, & Song, 2018). In Turkey, Orhan (2016) evidenced that post-disaster government planning actually hampered the recovery process. This led to calls for a more coherent spatial strategy for both households and businesses. Although in their study Webb et al. (2002) report that previous disaster experience and level of disaster preparedness do not necessarily positively affect the long-term viability of a business.

Access to resources, especially capital, helps businesses recover following a disaster. For some sectors, capital may not be sufficient. This includes sectors relying on supply chains that get disrupted post-disaster. De Mel, McKenzie and Woodruff (2011) identified that randomly allocated financial grants helped to recover profit levels in Sri Lankan microenterprises following the 2004 tsunami. However, Webb et al. (2002) suggest that the use of external aid does not significantly affect the long-term economic viability of businesses. This is often the case in the United States, where targeted business aid did not appear to help, seemingly creating further problems, including higher debt (Dahlhamer & Tierney, 1998). Despite common assumptions that disasters result in business failures and bankruptcies on a large scale, Webb et al. (2000) argue most businesses do in fact recover following disasters. Thus, it is important to investigate the factors that mitigate risk and facilitate preparedness to enable businesses to respond to the challenges that disasters create on the road to recovery.

2.2 Research strategy

The aim of the study was to investigate how entrepreneurs responded to severe business

disruption and new post-disaster environments. The complex nature of the research phenomenon requires inductive enquiry to allow investigation into the thoughts, feelings, actions and behaviours of the selected entrepreneurs. Pre-existing theory on disaster recovery in small businesses and, the disaster recovery process as it relates to the individual entrepreneur is very limited. Therefore, adopting a qualitative research using a 'theories-in-use' approach (Eggers & McCabe, 2016; Zaltman, LeMasters, & Heffring, 1982) was deemed appropriate.

This approach combines data collection, analysis and research evaluation of in-depth interviews and other field data together with existing theories to identify conceptual themes (Eggers & McCabe, 2016; Kohli & Jaworski, 1990; Parasuraman et al., 1985; Zaltman et al., 1982). Strauss and Corbin (1998) advocate this method as useful for inductive, context-specific research. Interviews took place at the entrepreneur's business premises using openended questions from a semi-structured interview protocol (Carson, Gilmore, Perry, & Gronhaug, 2001). The questions were intended as prompts and to elicit personal reflections and post-quake experiences related to their business.

Two researchers coded and recoded the data which included interview transcripts and other artefacts (company websites, press articles etc.). This created triangulation of findings, ensuring content validity. This interpretive method was used in each individual case to inform and contribute to the key findings related to the entire sample (Eisenhardt, 1989; Yin, 1994).

2.3 Research sample

The sample comprised of hospitality businesses with the focus of the study being the entrepreneur, noting that entrepreneurship and strategy is of great relevance to the hospitality sector (Seilov, 2015). The chosen context is earthquake-hit Canterbury in New Zealand that has a prevalence of small privately-owned hospitality businesses within the main impact zone in the Christchurch Central Business District (CBD). The earthquakes and aftershocks the region endured throughout 2010 and 2011 led to the loss of many buildings and basic infrastructure and consequently affected many hospitality businesses immensely. Despite this, the local economy responded well and (with the exception of the tourism sector that lost major attractions, visitors, and accommodation) businesses recovered quickly (Parker & Steenkamp, 2012). New Zealand relies on a small business economy and therefore provides

an appropriate sector and context of a disaster-hit region.

A purposive sample of entrepreneurs (N=12) allowed for the sample size to be determined by the data 'saturation point', which when sufficient, generates no more new concepts (Shaw, 1999; Goulding, 2017). Participant selection criteria were: a) participants were founders or cofounders that independently owned and managed their business; b) their business was well-established prior to the earthquake; and c) operated in the hospitality sector and affected by the earthquake and then, restarted.

A case summary of the participants is presented in Table 1 with details of the entrepreneur, their role in the business and the nature of their hospitality business. Here we also present their current location and show the extent of their growth together with further information on the founder's other businesses. The study employed semi-structured interviews, conducted four years following the disaster giving enough time for the recovery strategies to emerge and be apparent. The firms were re-visited in 2018 to ascertain recent business status thus avoiding a 'single snapshot' of the recovery process.

PLACE TABLE 1 HERE

3. Post-disaster-business recovery processes

Four key aspects relating to post-disaster business recovery were identified and the data presented based on their order of occurrence. We discuss each of these in turn using field interviews and then incorporating theory as appropriate. Research propositions are developed for each aspect. These are: post-disaster environment, the entrepreneur's decision-making process; entrepreneurial actions; and finally, post-disaster behaviours.

3.1 The post-disaster environment

The Canterbury region took the brunt of the major seismic events from September 2010 to December 2011. The first quake (7.1 on the Richter scale) triggered thousands of aftershocks (over 13,000 by mid-2014) and a number of major earthquakes. The quake on 22 February

2011 with the epicentre directly beneath the Christchurch CBD struck at a very shallow depth of five kilometres. Although only 6.3 in magnitude, the peak ground acceleration of 2.2g was a world record (quadruple that of the Haiti earthquake). This impact had catastrophic results and still felt today. It caused severe damage to 50% of CBD offices, housing and heritage sites and sadly 185 lives were lost from the collapse of buildings. The CBD was immediately cordoned-off and inner city businesses had to relocate. There was significant damage to key infrastructure interrupting water and sewerage, power supply, roads, public transport, and educational systems. Overall, about 3,000 businesses and 50,000 employees were displaced but able to relocate. It took over six months for a third of the CBD businesses to re-start operations.

Over 100,000 residential houses required repairs, rebuilding or demolition, resulting in a large-scale urban relocation. The Earthquake Commission (EQC) received about 400,000 insurance claims. The majority of claims were settled to timescale however rebuilding and repairs of homes and infrastructure are still on-going today. Statistics New Zealand estimated that Christchurch's population decreased by approximately 3.5% from June 2010 to June 2012 (Canterbury Earthquake Recovery Authority (CERA), 2014). Now, the population has largely recovered with new employment opportunities created by a \$NZ40 billion post-disaster rebuild (Reserve Bank of New Zealand, 2016), attracting thousands of new workers into the region. With the changing population and landscape, entrepreneurs who remained in the city had to navigate many opportunities and challenges as they embarked on the road to recovery.

The study reveals a number of critical impacts on businesses in the immediate aftermath ranging from moderate to severe. The overarching challenge for those in the CBD was that all businesses within the zone closed down; the perimeter was designated a 'red-zone' and cordoned off. Businesses that relocated to the suburbs reported major negative impact on their trade, which threatened their survival. Immediate effects included loss of employees, customers and suppliers, resulting in drastically reduced revenues and escalating costs.

Business owners faced additional barriers due to new post-quake regulation with associated compliance. During the business recovery process, entrepreneurs faced a radically altered external environment in a constant state of flux.

"The initial one was keeping control actually, which I think we failed, for the first couple of months, just food costs, and staffing costs, and things went crazy because we went from there, to there, overnight basically."

Business location post-quake was one of the most significant challenges faced by all participants. Initially, there was a limited choice of location. One participant who operated a gastro-pub had to relocate their business to the suburbs. It took eight days to retrieve essential brewing equipment from their damaged premises.

"Well it's dramatic, it's like having your house demolished, and being told, "go somewhere else", it's exactly the same."

Another challenge experienced by several participants was attraction and retention of staff as many hospitality employees left the city. Recruiting a capable workforce became extremely difficult and training new employees in a time of chaos and uncertainty is costly and time intensive. Fortunately, national and local government subsidies were available to small businesses and this helped struggling businesses pay staff wages while they were trying to get their business back on track.

"It was really difficult, but we... let our staff know. I was the only guy working full-time. So we had part-time students working, helping me out so that wasn't too bad for them I think for the first one, the September earthquake, the Government had actually given some funding for your staff. We applied for that, at least my students still got paid."

The personal and mental health of the entrepreneurs affected their own well-being and resilience in the aftermath of the disaster. This was challenging for entrepreneurs as they went through a process of acceptance and had to move forward. Others took time to re-evaluate their personal and career direction. In some cases, the despair over the collapse of a business was exacerbated by loss of family and/or friends. Debt levels and damage to homes impacted negatively on the well-being of these entrepreneurs. Increased stress caused relationship breakdowns and further financial pressure but despite the adversity, these entrepreneurs showed personal and emotional resilience.

"I found there was a lot of stress and pressure on our marriage and also saw a lot of friends split up."

In order to navigate or circumvent the impact of the disaster, business owners were required to be resilient in adversity but essentially had to have detailed knowledge of how to overcome challenges brought about by the new business environment, hence:

Proposition 1: Post-disaster recovery requires a comprehensive understanding of the micro and macro business environment.

3.2. The entrepreneurial decision-making process

Entrepreneurs in this study decided to continue operating their business from another location. This is not a decision taken lightly considering the associated hazards and risks. The participants exhibited higher levels of entrepreneurial self-efficacy and belief in their ability to succeed and accomplish the task of restarting their business (Bandura, 1994). An entrepreneur's sense of self-efficacy can play a major role in how they approach goals, tasks, and challenges brought about by events like natural disasters. These entrepreneurs demonstrated resilience and determination to re-open and get back to work. At the outset, they 'ran on adrenalin,' often disregarding their own personal and emotional distress. They described going to extraordinary lengths to please customers. In some cases they passionately pursued speciality products for their customers. To summarise; they resumed because they were passionate about their business, had expertise in their industry, and most importantly, managed to relocate to a safer location.

"I like people when they're enjoying my food, I enjoy it too, you know, they give me something back, so that means - because they 're eating my product and because they like my product, I think I'm doing something good here."

These entrepreneurs also displayed opportunity-seeking behaviours using what appeared to be effectual reasoning (what they know) and were highly motivated to continue with the business while adapting to the new business environment. They quickly accepted what was generally referred to by the local Canterbury community as the 'new normal'. For example, unable to find new premises, a popular cafe decided to re-open their business from a mobile caravan.

"I'm an optimist in all my life, I'm a big believer of this spiritual law of attraction, you put out positive, positive's going to come back. I don't have time to think negative about anything, it's just a waste of time."

"I faced them a while later, because then I was just hands on. That's kind of my personality type, like when there's a crisis, just get stuck in and do whatever and support everybody else, and then I kind of crash later."

Bandura (1994, p. 71) defines perceived self-efficacy "as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives." Entrepreneurs high in self-efficacy (see Sadri & Robertson, 1993, for an extensive review) have a positive mind-set (Kasouf, Morrish & Miles, 2015) and are motivated enough to find solutions whether in traditional or turbulent settings, including natural disasters. Zhao, Seibert & Hills (2005) found that an individual's entrepreneurial self-efficacy fully mediates previous entrepreneurial experience, and risk propensity on entrepreneurial intentions. Therefore, self-efficacy is an appropriate concept to assist understanding of what is likely to influence entrepreneurial decisions.

The investigation found that effectual reasoning also influenced entrepreneurial decision-making in the post-disaster context. Effectuation is described as a decision-making approach to achieve goals used by expert entrepreneurs through identifying the next best step, by assessing the resources available, while continuously balancing these goals with their resources and actions (Sarasvathy, 2001). Contrary to causal logic, with a predetermined goal and process to achieve it, effectuation is more suited to entrepreneurship processes that are inherently characterised by uncertainties and risks (such as those brought about by natural disasters).

Effectual thinking uses what available resources the entrepreneur has and combines them in ways to create opportunities with minimal planning, if at all. Guided by a world-view and four fundamental principles, entrepreneurs execute the next best step and adjust direction according to the outcome of their actions (Sarasvathy, 2001). Effectuation re-evaluates the traditional model of business planning and is characterised by means-driven versus goal-driven action; affordable loss versus expected return; partnerships versus competitive analysis; and leveraging as opposed to avoiding contingencies (Dew, Read, Sarasvathy & Wiltbank, 2009).

Essentially causal reasoning is consistent with theories of planned strategies, whereas effectual reasoning is more in line with ideas of emergent or non-predictive strategy

(Mintzberg, 1979). Thus, it is inherently less resource intensive and highlights significance for the present. For these reasons effectual thinking is a good fit for smaller enterprises and entrepreneurs encumbered with a lack of abundant resources (Chandler, DeTienne, McKelvie & Mumford, 2011) especially when facing post- disaster situations.

It takes an entrepreneurial mind-set to overcome the hurdles presented by disasters. Entrepreneurs should be allowed to take action as soon as it is safe to do so, while governments and local agencies should work to reduce barriers to entrepreneurial decision-making to facilitate entrepreneurial action that will accelerate business recovery and survival. Disasters often disrupt business decisions because they directly influence staff, customers, and suppliers and have wider implications that affect the community and economy as a whole. In disaster settings, the well-being of stakeholders may depend on their ability to carry on with life as normal including the ability to work and earn an income. With the prevalence of small businesses dependent on entrepreneurs, it is important that programmes and strategies for smaller and vulnerable firms especially in less well-prepared sectors (Webb et al., 2000) are designed to support them.

The post-disaster situation described above led many business owners to evaluate their options. For example, in the year following the event only 8% of CBD restaurants (Dally, 2012) and cafes managed to relocate and reopen, while a significant number of inner-city restaurants had "simply disappeared" (Dally, 2012). By July 2013, the CBD was 80% closer to pre-quake figures of hospitality businesses. However, more than 350 outlets remained closed (Stylianou & Stewart, 2013). These numbers reflect the dynamic nature of entrepreneurial decision making where some businesses exited the industry (e.g. fail), a significant number delayed reopening for various reasons (wait) and a small number opted to immediately resume business operations. We therefore propose that:

Proposition 2: An entrepreneur's decision to resume business operations is strongly influenced by their level of self-efficacy and ability to engage in effectual reasoning.

3.3. Entrepreneur action

The ability of the entrepreneur to make swift decisions is vital in the early recovery of a business in crisis. The decision to resume business trading and operations requires decisive action that involves *relocation*, *financial injection* and *new business model creation* and

adaptation.

"So, [X] came about on the back of the earthquakes really. We had [Y] before the earthquakes and that fell over in the quakes, and [X] came about as me trying to stay in business and having some insurance money, and being unable to find a lease on a proper building and so it was a temporary thing. The intention was it could move once we actually find out where we're going properly."

3.3.1 Relocation

The ability of an entrepreneur to secure or acquire the right premises was among the most significant indicator that business could recover. Building damage ranged from minor to severe with wooden buildings faring better than concrete-based. Cosmetic damage was repaired within weeks, whereas structural damage meant buildings had to be condemned and new premises found.

"[X] being one of the oldest buildings in Christchurch... it's all weatherboard; it only had to close for about two days."

The disaster meant instant loss of any opportunity to re-establish operations in the red-zoned CBD. Determined entrepreneurs with businesses in the zone displayed a natural ability to recover, swiftly relocating to the arterial routes outside of the red zone where a majority of the CBD occupants had also relocated. All businesses in this study were able to re-start within a few days to six months after the event, either finding new premises or getting repairs done quickly. Containers converted to cafes became very popular. A container mall in the city centre (with a variety of retail businesses) became the symbol of the business recovery. A number of entrepreneurs took the opportunity to expand to the suburbs thus developing a portfolio of hospitality businesses that complemented their core business.

"Obviously we lost [X] Street but [Y] and [Z] traded very well because they were able to open and they're on the peripheries and not as badly affected."

Relocation can be a double-edged sword and it can be a hit or miss strategy. Some relocation decisions were borne out of necessity given limited choice of new locations, thus making the most of what was available. Relocation meant some businesses lost much-needed staff and

customers. However, the trade-off was that they also gained new customers and found new employees in their new location, while some businesses managed to retain old customers.

"Well we lost a lot of customers, either because we're on the wrong side of town and they're not going to drive - 10 kilometres - and we attracted new customers because now we're on the east side of town, maybe there are more people around [X, Y, Z], who weren't previously going to stay in town to go out for food and drink."

"It's not as busy as our old place... there's no passing trade through the day... So is it as good as? No, as a form of location it's not!"

In the long-term, relocation decisions need to be well thought-out and be informed by evidence as highlighted by other existing disaster studies. For example, the 2008 Wenchuan earthquake (Huang et al., 2018) and the Adapazari, Turkish study which resulted in calls for a more coherent spatial strategy (Orhan, 2016). Given the mixed results from these two disaster studies and the evidence presented here, there is a need to further investigate how business sectors and local authorities need to work together to ensure business sector recovery. It is also interesting to note that in Canterbury temporary locations can take on a life of their own. The container mall became a retail and tourist destination with the community resisting moves to close it down when the rebuild took place.

3.3.2 Financial injection

Cash flow is the lifeline of any business and even more so in post-disaster settings. It is therefore crucial that trading commences and revenue streams are quickly restored. New Zealand is a highly insured economy and the global insurance industry faced massive claims from residential and commercial customers. Those that took business continuation insurance could access credit lines to resume trading after complying with new government regulations. The earthquake authority also gave wage assistance to affected businesses while they were unable to trade. Opportunities for entrepreneurs who moved quickly and actively established new premises included increased patronage where competitors had closed, and their restaurant or cafes became the new destination for new customers and tourists. Some businesses managed to retain existing customers despite relocating as customers followed them. Most of the participants report strong trading as soon as they opened their premises, which helped business cash flow.

"After the earthquake we had quite a large spike in custom, a huge spike, the neighbourhood had got very busy; we were the new centre of town."

With fewer competitors, incumbents generally experienced increased customer demand. While having larger number of consumers presented an attractive opportunity, businesses also needed to be careful with managing volume given constraints on resources. For example, one bar wanted to attract as many customers as possible and with no restrictions. This resulted in threat of closure, as fights following alcohol consumption became a serious problem.

Access to resources, especially capital, helps businesses recover following a disaster. For some sectors capital may not be enough, this includes sectors relying on supply chains that can be disrupted post-disaster. Moreover, there are conflicting reports as to the effect of financial assistance post disasters. De Mel et al. (2011) found that randomly allocated financial grants were beneficial to Sri Lankan microenterprise survival post-tsunami in 2004. While Webb et al. (2002) argues that external aid is not necessarily required to sustain the long-term economic viability of businesses; a viewpoint echoed by Dahlhamer & Tierney (1998) in their US based post-disaster study. Despite common assumptions that disasters result in business failures and bankruptcies on a large scale, Webb et al. (2000) suggest that most businesses do in fact recover following disasters. There are studies that propose business recovery and resilience frameworks (Stevenson et al., 2018), but without access to some form of financial injection, businesses are less likely to survive or at best will take much longer to do so.

3.3.3 Business model creation and adaption

Many competitors were unable to access insurance cover and government assistance immediately, causing delays in resuming operations. This offered alert entrepreneurs a first mover advantage. An example from this study included the opportunity to develop a portfolio of hospitality businesses through expanding into the suburbs. Those that were able to repair their premises in situ tried to capture new markets by expanding their capability to cater to a larger customer segment. For example, while strengthening the building from minor structural damage, one business expanded the kitchen to facilitate larger food operations. They moved from serving snacks to catering for hundreds of meals per day and dramatically increasing revenue.

The massive clean-up and rebuild operations brought thousands of construction workers to the CBD and they became a steady source of custom for hospitality operators. As cordons were lifted, people ventured into the CBD once again and new opportunities were available to extend trading after normal hours. Some responded by reshaping their product-service offering and expanding into new customer markets. To capitalise on all-hours custom, some operated as a cafe during the day, and in the evening as a restaurant until 9:00pm after which, the business switched to a bar with live entertainment. This model sometimes involved multiple operators in the shared space where the cafe operator relinquished the space after day trade was over to the restaurant operator, and then, to the bar management after dinner service was finished.

Creating new business models and adapting them to changed circumstances and a new environment involved finding new business partners and other stakeholders. As the hospitality sector competed as hubs or precincts, businesses collaborated and formed clusters. Research has recognised the numerous benefits of inter-organisational cooperation such as allowing linkages between actors to foster sharing of knowledge, resources, risks and profits (Morrish, 2011). Additionally, partnerships and alliances with competition can result in new value-creation for firms demonstrating the benefits of competitive collaboration.

Two entrepreneurs in the study expressed the need to work together within their locations, to create a precinct and encourage more bars in the area so more people would visit the precinct. This was largely effective as bars continue to compete in the form of location precincts since consumers desire the convenience of similar bars near each other. Promoting the precinct location encouraged customers to the area and was beneficial for all bars involved.

Another entrepreneur took the opportunity to expand their offering by developing a wholesale chocolate trade to supply different food outlets in the city. Some decided to continue as usual and developed a 'settled established trade' while others re-focused the business, learnt new skills and expanded into wholesale and other new markets. Studies in Canterbury highlight severe destruction to physical assets, infrastructure, and the commercial system, crippling their ability to effectively operate and face long-term business closures (Parker & Steenkamp, 2012; Hall et al., 2016).

Earthquakes radically disrupt industries and markets, resulting in demographic changes and

incongruities (Drucker, 1985), and shifts in demand and supply markets (Zhang, et al., 2009), compelling some businesses to develop new business models. Entrepreneurs in this study swiftly took action to find new locations, access resources and adopt new business models, thus:

Proposition 3: Entrepreneur action post-disaster requires immediate attention to relocating and securing premises, financial injection to trading operations and being flexible with new business configurations and, with competition.

3.4 Post-disaster business recovery and EM

EM literature related to this study include that contained in firm orientation studies and the small firm literature (Jones, Morrish, Deacon, & Miles, 2017; Miles, Gilmore, Harrigan, Lewis, & Sethna, 2015; Sethna, Jones, & Harrigan, 2013; Hills, Hultman, & Miles, 2008). This study draws from two established EM definitions. Morris, Schindehutte and LaForge (2002, p. 5) defines EM as "the proactive identification and exploitation of opportunities for acquiring and retaining profitable customers through innovative approaches to risk management, resource leveraging and value creation". They propose seven underlying EM dimensions that comprise of; proactive orientation, opportunity-driven, customer-intensity, innovation-focused, risk management, resource leveraging and value creation (Morris et al., 2002). Hills et al. (2008, p. 7) define EM as a complex process as well as an orientation for how entrepreneurs behave at the marketplace describing it as "a spirit, an orientation as well as a process of passionately pursuing opportunities and launching and growing ventures that create perceived customer value through relationships by employing innovativeness, creativity, selling, market immersion, networking and flexibility".

Morris et al. (2002) differentiate EM from traditional marketing describing the entrepreneur as carrying out marketing in an instinctive, unplanned way as evidenced by the body of research that focus on marketing carried out by entrepreneurs in small firms (Carson, Cromie, McGowan, & Hill, 1995; Stokes, 2000; Sethna et al., 2013). Hills and Hultman (2011) also highlight differences between managerial and entrepreneurial decision-making describing decision-making as fundamental for understanding the basic premise of entrepreneurial marketing and drawing from studies by Bjerke & Hultman (2002) and Schultz & Hofer (1999). Such differences include marketing decisions that are often unplanned, and haphazard

with a non-linear vision of marketing actions (Carson et al., 1995; Jones et al., 2017).

The coded data when compared with EM theory showed that entrepreneurs in this study exhibited high levels of *self-efficacy* and *effectual reasoning* that enabled entrepreneurs to make effective business *resumption decisions*, which in turn facilitated their direct engagement in a number of *entrepreneurial actions* to salvage their business. These actions were both *remedial* and *opportunistic* in nature. The four main areas of activity and behaviour identified as having congruence with EM theory are *opportunity-seeking behaviours*, *resource organising* (*controlling rather than leveraging of a firms resources*), *creating customer value* and *accepting risk*. These findings are first discussed in conjunction with relevant post-disaster business recovery studies where available and with congruent EM theory.

3.4.1 Opportunity-seeking

Entrepreneurs exhibited opportunity-focussed behaviour and swiftly engaged in opportunity enactment. Based on their expertise, entrepreneurs quickly developed targeted offerings (as opposed to incremental innovation) to new customers as new segments emerged. With the pressure to restart, businesses raced to find new premises or where the damage was not too severe, get repairs done fast and resourcefully to re-open as soon as possible. The seizing of new opportunities is closely linked to creating and adopting new business models. In order to enable, enact and realize new opportunities, entrepreneurs had to invest in new approaches to operating businesses.

"We didn't have the money for that. So we built our benchtops ourselves. We polished plywood ... We found tiles to be our splashbacks from junkyards... because we were building it ourselves it was like "okay, what do we want this to look like? Let's have a go, let's do it like this" ... then from there; we'd build the next thing."

Challenges such as new licensing regulations and conditions on insurance claims were a constant source of frustration but determined entrepreneurs found creative ways to fast track outcomes by taking on new partners and using personal networks to advocate for them.

Entrepreneurial opportunity and the recognition of opportunities is described by Eckhardt and Shane (2003) as formulating a profitable conjecture that requires forming expectations,

which is not simple. Dimov (2007) describes opportunity as a product in entrepreneurship, emanating from idea plus action, while Sarasvathy, Dew, Velamuri and Venkataraman (2010) identify opportunity as three concepts: *new idea/s* or invention/s, *beliefs* and *actions*. Here they propose that new ideas or inventions may not necessarily lead to the achievement of economic ends; beliefs are things that favour achievement of possible valuable ends; and, actions generate and implement those ends. Finally, McMullen (2015, p. 657) poignantly observes: "individuals can only believe (not know) that they have recognized entrepreneurial opportunities under uncertainty".

Battisti and Deakins (2017) also noted that the firm survival in Christchurch relies on its appreciation of how the firm is connected with customers, suppliers and other businesses in the community. Entrepreneurs therefore are required to understand how they can mobilise and access critical resources, and develop proactive posture and capability to integrate these resources in recognising new opportunities.

3.4.2 Resource organising

Business recovery in the post- disaster environment was significantly enhanced by the entrepreneurs' ability to *retain* pre-existing firm resources and take *remedial* action to secure additional essential assets including human resources. Hospitality businesses require the operator to have premises, food and beverage preparation and serving equipment, access to suppliers and the services of experienced hospitality staff. The entrepreneur must be adept at securing and organising these essential resources. Once a lease to new, or temporary premises are secured, they then need fitting out to comply with new licensing regulations.

Builders and tradespeople need to be organised and equipment have to be retrieved, repurposed or repaired. With local authorities prioritising repairs and installation of the city's basic infrastructure, construction workers were not easy to come by and if so, their services were at a premium. Consequently, building and remediation projects were delayed or put on hold. Where immediate rebuilding or remedial work was required, entrepreneurs did the work themselves with the help of a network of family, friends and other business owners who willingly traded time and resources to help each other.

"We've got people who support us. People who come in, I reckon I've got customers who come in on my quiet days because they know it's our quiet days. And our regular

clientele is huge. And so many people are involved in our development as well, whatever they did. Whether they did some tiling, or whether they helped doing some landscaping or whatever it was but they felt a part of creating something."

"And we came back and this place, the restaurant was just not ready, no way at all and then I say, "Okay, I have no money to hire a builder, I will become a builder myself". And I start building the place ...painting and fixing the windows, stuff like that, and I become a builder for two months."

Entrepreneurs financed these activities from personal savings while waiting for insurance claims. Additional external resources were acquired, including government and local council subsidies and emergency business assistance. This went some way to resolving the attraction and retention of employees that had become a significant issue post-quake. In addition to help from their personal and business networks, entrepreneurs also accepted free labour from the wider community.

Collective effort led by socially conscious and entrepreneurial individuals naturally occurs when disasters strike. Chamlee-Wright and Storr (2010) found that social entrepreneurs performed several key functions post-Katrina. These entrepreneurs collectively helped resolve problems associated with deciding to return and rebuild by organising and engaging in outreach, taking responsibility for activism and advocacy on behalf of their communities and, directly assisting in rebuilding efforts and providing essential services. Interestingly, policy makers and officials can often frustrate this entrepreneurial effort (Chamlee-Wright & Storr, 2010). But, despite the challenges of bureaucracy, entrepreneurs have a mind-set that allows them to rise up in the face of adversity and negate these issues.

Resource-leveraging is an established EM dimension (Jones & Rowley, 2011; Morris et al., 2002) relating to entrepreneurs ability to carry out value-creation activities and create additional firm resources by leveraging informal networks (Vasilchenko & Morrish, 2011). These scholars identify networking as being the most effective method of leveraging additional resources especially in times of scarcity and uncertainty. In the context of post-disaster entrepreneurs are required to focus on retaining and re-organising their resources rather than leverage resources but the skill to enact this remains much the same.

3.4.3. Creating customer value

With a changing landscape, entrepreneurs needed to co-create new value for existing customers (retention strategies), new customers, and new markets (market adaption/expansion strategies) with the post-disaster community. This also included close to market decisions based on market immersion and understanding of the geographic area and composition of the transformed community. This new population included disaster responders, construction, volunteer and triage workers who lived alongside the already established community.

Crucially, by taking these actions, entrepreneurs created additional societal value through providing vital community spaces in their cafes and restaurants for the community (thus displaying altruistic behaviours). Post-quake businesses adopted flexible business models, whereby the focus was on survival and recovery via cooperative means, creating value for customers and the community. Entrepreneurs collaborated with local charities while others supported customers going through personal trauma where their business provided a sense of normality and became a place for emotional healing. Customers and businesses also volunteered to help other businesses with repair work. This apparent coming together of the community also extended to other stakeholders, for example, developers who provided additional services such as interior decoration and other services. In an effort to build reputation and brand, others adopted targeted operations tagged onto specific post-quake activity such as serving personnel involved in the post-quake clean up.

"... make hot chocolate and take it around all of the city... I can't remember how many thousands of litres of hot chocolate we made then. And just like recently a lady came to us ... thank us for the unexpected - she was actually in the city centre, part of the rescue team - the unexpected moment of being gifted a hot chocolate. You know, and it wasn't just an ordinary hot chocolate."

Creation of customer value is one of 23 EM characteristics (Hills & Hultman, 2006) adopted by scholars in various frameworks (Jones, Suoranta, & Rowley, 2011; 2013a) and is an established EM concept (Bjerke & Hultman, 2002). Customer value occurs through close two-way communications with customers (Hills & Hultman, 2006), described in more detail by Morrish, Miles and Deacon (2010) as being entrepreneur-customer centric, with entrepreneurs being very adept at developing relationships with customers to create value (Stokes, 2000).

Here, creation of new and additional value created essential new adaptive business models and new markets for firm and community survival.

3.4.4. Accepting risk

Disasters bring about heightened levels of risk. Entrepreneurs in this sample chose to continue their business through adversity and were accepting of higher than normal risk exposure. Risk in this context is associated with physical, emotional (personal threats to safety), environmental (further unexpected repercussions post-quake which may affect the external business environment and impact the business) and financial circumstances (threat of declining or ceasing of income streams/unexpected repercussions).

Entrepreneurs in this study faced a race to re-establish their position in the marketplace. Opportunities were ripe for the taking given a huge spike in demand for cafes, bars and restaurants in the newly formed business districts. With the rebuild expected to take a number of years, businesses used temporary building structures such as large steel containers, converted buses and caravans, and repurposed carts pending availability of more permanent locations. However, in seizing opportunities, entrepreneurs needed to manage additional risk that they had to mitigate. Risk after a disaster was reduced by immediate remedial action and adept retention of firm resources. It was also prudent for these entrepreneurs to engage and enact business resources and outside agency support.

"This restaurant has proved to me everything is possible but with time, with patience and probably with a lot of risk that you could lose, you could win but, yeah, at the end you always win, you always win."

Risk-taking, often used as a measure for entrepreneurial proclivity, includes three aspects: innovativeness, risk taking and pro-activeness (Deshpande, Farley, & Webster, 1993; Matsuno, Mentzer & Ozsomer, 2002). Risk is an EM dimension (Morris et al., 2002; Jones & Rowley, 2011) that is often linked to organizational renewal; can influence changes in the marketplace; and offers the possibility of great customer value (Deshpande et al., 1993; Slater & Narver, 1998). Although there is congruence with some of the concepts as they relate to current EM theory, seeking opportunity is essential in post-disaster environments. Rather than leveraging resources, entrepreneurs use experience and skill to control rapidly diminishing resources effectively. Entrepreneurs in post-disaster recovery looked for new ways to create

value in a changed new world. They were required to be exceptionally resourceful and accepting of higher levels of risk than normal.

Coded data identified concepts that upon comparison showed congruence with EM theory. This is especially true with the behaviours exhibited by the entrepreneurs. The study of this post-disaster business recovery process enabled identification of four key EM behaviours therefore:

Proposition 4: Post-disaster Entrepreneurial Marketing behaviour requires the entrepreneur to engage in speedy opportunity-seeking, resource organising, creating new customer value and accepting higher levels of risk.

4. Discussion and conclusion

As discussed in section 1 EM researchers acknowledge that crises can compel businesses to adopt entrepreneurial approaches to marketing (Schindehutte et al., 2000) while EM strategies can enable firms to overcome market turbulence and uncertainty (Morrish, 2011). This was evident in the actions, decisions and behaviours exhibited by entrepreneurs in this post-disaster study. Entrepreneurs engaged in EM activities shaped by their advantage-seeking approach. They proactively leveraged limited resources to capitalise on the value-creation opportunities despite heightened levels of risk (Morrish et al., 2010).

4.1 A new definition of Entrepreneurial Marketing

This study provides new knowledge and understanding as to how EM can facilitate postdisaster business recovery. Based on this investigation, we offer a concise definition of EM that embraces the reality of business environments that can rapidly decline in turbulent conditions.

"Entrepreneurial Marketing is a configuration of activities that emerge from entrepreneur decisions and actions for pursuing business objectives in stable and turbulent environments that incorporate opportunity-seeking, resource-organising and risk-accepting behaviours to create multiple stakeholder value."

4.2 A Post-disaster business recovery model

Based on the reported findings, an Entrepreneurial Marketing Post-Disaster Business Recovery (EMPDBR) framework (See Figure 1) was developed to encourage other scholars to investigate post-disaster recovery and EM.

PLACE FIGURE 1 HERE

The framework is intended to elucidate and inform future research in the EM domain for business recovery following disasters where the external environment rapidly disintegrates. Existing recovery models fail to take into account the role of the entrepreneur when they choose to resume their business (e.g., where others might decide to delay or exit the business) under insurmountable and challenging conditions (Stevenson, et al., 2018). The framework highlights the effect of entrepreneurial self-efficacy and effectual reasoning on the entrepreneur's decision-making process. The study's particular focus is on investigating how EM enables post-quake business recovery, based on a purposive sample of successful entrepreneurs. The authors argue that a detailed understanding of entrepreneurial decisionmaking is essential as a starting point in understanding the business recovery process. At this point entrepreneurs may choose to resume, delay or cease the enterprise, as highlighted on the EMPDBR framework. Entrepreneurs in this study resumed their business and made decisions about business location, financial injection and new business model creation and adoption. Emerging EM activities influenced by the entrepreneur's post-disaster decision-making comprise of opportunity-seeking, resource- organising, creating new value, and accepting risk, which we have labelled ORCAR behaviours.

These findings suggest that business risks associated with disasters are higher than those associated with other unstable markets. Evidence from this investigation highlights differences in EM behaviours resulting from immediate negative impact on the participants' business while simultaneously dealing with physical, emotional and psychological trauma. The study highlights the potential role of *entrepreneurial self-efficacy* in the entrepreneur's ability to *accept higher than usual levels of risk* as they simultaneously engage in

opportunity-seeking behaviours. The entrepreneur first perceives the opportunity in the immediate aftermath of a disaster. For these opportunities to be realised, a process of rapid exploitation is required in addition to acknowledging the realities of the post-quake situation and quickly adjusting strategies to a 'new normal.' Whereas EM concepts advocate creation of customer value, in the post-quake setting, entrepreneurs were required to create new stakeholder value within the context of the new business landscape.

Entrepreneurs provided vital community space for new and current customers. Spaces were creative, innovative and novel and allowed for the healing of customers and the general community. These situational endeavours were possible because of pro-active behaviours and the entrepreneur's use of existing social and organisational networks and relationships with related stakeholders. The entrepreneur's ability to claim insurance cover and access national and local government assistance is a significant factor in resolving initial financial challenges.

Moreover, these entrepreneurs also demonstrated an innate ability not only to leverage existing resources but also to organise additional essential resources as a remedial measure to hasten operationalisation of the business. We assert that this is a unique approach to EM associated with immediate business continuity post-disaster and an essential aspect of long-term survival.

5. Implications and future research

This study makes a significant contribution in three research domains. Principally, for the study of EM where there is a substantial gap in literature with respect to entrepreneurial decision-making, entrepreneurial action and adoption of EM in post-disaster environments. Second, very few post-disaster studies adopt the entrepreneur as the focus of study, or, have the microelements of small firm survival been a subject of investigation. Finally, while business recovery has focussed on enterprise survival, much of this body of research fails to investigate the role and importance of entrepreneurs in business recovery in specific sectors and regions.

In presenting this study the authors acknowledge the study's limitations. These include the fact that findings are based on a small study in one industry sector and in one city. That said, the intention was to investigate deeper more meaningful insights into entrepreneurial recovery post-disaster by getting close to the research phenomenon and foci of study. The study has

allowed for elucidation of new insights concerning the entrepreneur's post-disaster business recovery decisions, actions and processes as they relate to EM. It has enabled provision of a new framework useful for adoption in further qualitative studies and a useful set of propositions which can support future quantitative research for wider generalizable studies.

The authors anticipate that the EMPDBR framework will encourage researchers to continue investigating post-disaster business recovery from an EM perspective. Future studies can compare entrepreneurial decision-making and EM between westernised countries and in developing regions where entrepreneurs are likely to face greater business survival challenges such as lack of government support, insurance cover, coherent disaster recovery plan, and adequate infrastructure to support these elements. Additionally, the configuration of EM behaviours identified here warrant further examination and testing in different settings and sectors. For example, the tourism and hospitality industry suffer immediate impact with the loss of basic infrastructure, inability to access tourist destinations, foreign government travel advisories, and booking cancellations. Rescue activities also prevent tourism businesses from re-starting operations. In addition, negative and inaccurate media reports and repeated exposure of disaster images create challenges for the industry. It is particularly disastrous for small and developing economies heavily reliant on tourism revenue to survive. For these reasons, and for economic and social recovery to successfully take place post-disaster, further investigations are urgently required to shed more light on post-disaster business recovery.

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Table 1: Case summaries of participating entrepreneurs

Case Identifier	Restart Location 2011/12		Business status in 2018
BBW1	Relocated back to CBD	Cartels and Coffee Houses	Additional 8 cafes within and in proximity to the CBD
CHS2	Close proximity to CBD	Brunch and Daytime Degustation Dining	Opened 2 other cafes
DD3	Close proximity to CBD	Vintners and Epicures	Cafe - no change
DLM4	Close proximity to CBD	Coffee Shop	Opened another cafe in CBD
DG5	Close proximity to CBD	Specialty Greek Food	Opened a branch in CBD
GR6	Suburb	Degustation Restaurant	Restaurant - no change
JTT7	Close proximity to CBD	Full Service Restaurant	Restaurant - no change
JSP8	Relocated back to the CBD	Bar and Burger Joint	Restaurant - no change
KMW9	Relocated back to the CBD	European Restaurant	Restaurant - no change
LS10	CBD	Food and Wine	Same premises
STH11	Suburb	Gastro Pub	Gastro Pub near CBD Brewery in the suburb
SU12	Suburb	Cafe	Chocolate wholesalers and distributors
			Chocolate Bar

Figure 1. EM Post Disaster Business Recovery Framework (EMPDBR)

