

**DISRUPTION-DRIVEN INVESTMENT
DECISION-MAKING OF LISTED
PROPERTY TRUSTS IN NEW ZEALAND**

By

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Declaration

I declare that this thesis is a result of my efforts and was carried out by me, except where due acknowledgement has been made within the text. The work has not been submitted either partially or in full for any other award than the degree of Doctor of Philosophy of the University of Auckland. The information derived from other sources has been duly acknowledged and referenced according to ethical standards.

Signed: Muhammed Temitayo Bolomope

Signature Date

Abstract

It is widely acknowledged that property investors operate in environments characterized by a series of market disruptions that could significantly impact their investment decisions. These disruptions could emerge from sudden or gradual changes to the market's regulatory, social, economic, technological or environmental conditions. Being a fraught phenomenon, the reality of property market disruptions necessitates the need for investors to adapt to the changing environment as they make investment decisions in order to remain competitive and profitable. Whereas several conceptual models have been proposed to explain property investment decision-making, little is known about how property investors make investment decisions amidst property market disruptions. By exploring evidence from the emerging field of behavioural finance, this research investigates the disruption-driven investment decision-making strategies of Listed Property Trusts (LPTs) in New Zealand.

Following the tenets of relativist philosophy and qualitative research methodology, this study adopts a phenomenological approach within case studies of LPTs in New Zealand and was investigated in two stages. The first stage of the research involved an extensive documentary analysis of LPTs' annual reports for contents that describe how they have responded to disruptive events in the property markets over an extended period (from 2009 to 2019). The outcome of the documentary analysis provided the basis for in-depth semi-structured interviews with LPTs' experienced, senior-level decision-makers to shed light on the decision-making strategies through which disruptive events were adapted to in their LPTs.

Also, the study utilises the concept of institutionalism to theoretically frame the empirical analysis of LPTs' responses to property market disruptions. This facilitates the identification of both the formal rules that guide the conduct of LPTs amidst market disruptions and the informal interactions that exist amongst various organisations and players in the market, which often lead to new behavioural norms and more practical approaches to market adaptation. The research outcome reveals that the adaptive responses (i.e., investment flexibility, effective communication, proactiveness, innovation and divestment) of LPTs to property market disruptions involve a combination of rational and intuitive components, with the decision-makers switching between rational and intuitive reasoning.

Drawing on the overall analysis, the study proposes a framework that describes the adaptive response of LPTs to property market disruptions. Specifically, the framework highlights the stages that LPTs' decision-makers follow as they seek to adapt to property market disruptions. The study also identifies relevant factors characterising the adaptive decision-making of LPTs. The study findings suggest that, in addition to the common behavioural factors documented in property investment literature, LPTs' adaptive decision-making may also be influenced by the personality of the decision-maker. Thus, this study makes original empirical contributions to property investment literature by not only providing insights that can enable and empower property investors to optimise their decision-making amidst disruption but by also raising psychological issues that may occur in the process. Further, the study outcome offers novel insights on the use of phenomenology within case studies as a robust methodological approach for understanding the unique perspectives of investors based on their lived experiences.

Dedication

This work is dedicated to my wife and children.

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List of Abbreviations and Acronyms

ASAP	As soon as possible
CEO	Chief Executive Officer
EPB	Earthquake-prone Buildings
EUT	Expected Utility Theory
FRM	Financial Risk Management
GFC	Global Financial Crisis
GDP	Gross Domestic Product
IRR	Internal Rate of Return
LTV	Loan-to-Value
LPTs	Listed Property Trusts
MPT	Modern Portfolio Theory
MBIE	Ministry of Business, Innovation and Employment
NAS	National Academy of Sciences
NBS	New Building Standard
NZ	New Zealand
NZSEE	New Zealand Society for Earthquake Engineering
PCBU	Person in Control of Business or Undertaking
PCNZ	Property Council New Zealand
PINZ	Property Institute of New Zealand
REIT	Real Estate Investment Trusts
RICS	Royal Institution of Chartered Surveyors
ROI	Return on Investment
WHO	World Health Organization

List of Publications from this Thesis

- Bolomope, M., Amidu, A.-R., Filippova, O. and Levy, D. (2020), Property investment decision-making behaviour amidst market disruptions: An institutional perspective, *Property Management*, Vol. 39, No. 1, pp.1-21
- Bolomope, M., Amidu, A. R., Levy, D., and Filippova, O. (2022). Organizational isomorphism and property investment decision-making amidst disruptions: Evidence from Listed Property Trusts in New Zealand. *International Journal of Strategic Property Management*, *In press*.

CHAPTER ONE

Introduction

1.1 Background

Over recent decades, several academics and practitioners have focused on the understanding of property investment decision-making process (Hargitay et al., 2003; Roberts and Henneberry, 2007; Farragher and Savage, 2008) and related behavioural issues (Gallimore et al., 2000; French, 2001; Gallimore and Gray, 2002; Parker, 2014; 2016). Despite such notable research focus, a gap in the literature remains regarding the impact of disruptions on property investment decision-making, especially on how investors adapt to disruptions in their decision-making. This study bridges this gap by investigating the disruption-driven investment decision-making of Listed Property Trusts (LPTs) in New Zealand.

Traditionally, property investment decision-making has been viewed as a structured, rational process (Hargitay and Yu, 1993; Gallimore and Gray, 2002), with the decision-maker operating quantitatively in an informed, perfect market where factual data is used to make optimal decisions (Roberts and Henneberry, 2007). However, scholars have argued that investment information is not static (Imazeki and Gallimore, 2009; Seiler et al., 2013 Nsibande and Boshoff 2017), thus; it is unrealistic to assume perfect market information. The assumption of humans as rational beings is now continually challenged by the emerging field of behavioural finance, which posits that investor behaviour is driven by many factors, including both rational and irrational thinking (Waweru et al., 2014; Lowies et al., 2016; Mushinada, 2020). Consequently, many studies conducted from a behavioural perspective (such as Roberts and Henneberry 2007; Gallimore et al., 2000, Imazeki and Gallimore, 2009; Beracha and Skiba, 2014; Seiler et al., 2014; Lowies et al., 2016) have shown that property investment decision-making involves many complex factors, which are not all quantifiable but emotional and psychological.

One such emotional and psychological factor that is linked to the field of behavioural finance is ‘adaptive behaviour’. Lo (2004) described the adaptive market hypothesis as a situation where intelligent but fallible investors constantly adjust to changing market conditions in their investment decisions. This involves the instinctive actions emanating from market participants’ subjective attributes as they respond to market uncertainties (Mushinada, 2020). Adaptation is

now recognized as a requirement for successful investment outcomes within financial markets (Lo, 2004), which may resolve some of the constraints implicit in traditional approaches such as modern portfolio theory and efficient market hypothesis. Indeed, the traditional conceptualization of property investment decision-making has been criticized for insufficiently reflecting real-world problems in a dynamic environment (Adair et al., 1994; Gallimore et al., 2000; Roberts and Henneberry, 2007) where investment fundamentals are subject to disruptions.

“Since Christensen first introduced his conceptualization of disruption in 1992, the world has changed and so did the pace of disruption” (Nyu and Nilssen, 2020, p.388). Real-estate studies have described disruptions as a sudden or gradual phenomenon, resulting from significant events that alter the normative flow of activities in the market (Cook, 2015; Veuger, 2018). Often linked with market fluctuations, disruptions emanate from social, economic, technological and environmental changes (Gron and Winton, 2001; Mills, 2003), which cause investment markets to operate abnormally (Cook, 2015), resulting in business anxiety (Veuger, 2018), and, in extreme circumstances, market collapse (Vishwakarma, 2013). Demographic changes, financial crises, regulatory adjustments and increased automation are typical examples of property market disruptions (Kreimer et al., 2003; Cook, 2015). Other hazards including flooding, tsunamis, hurricanes, earthquakes and the coronavirus (Covid-19) pandemic have also caused disruptions to the real estate market in recent times (Burgess and Rapoport, 2019; Tanrıvermiş, 2020). Although disruptions are often associated with challenges culminating in falling property values, low liquidity, high operational costs and increase in insurance premiums (Kreimer et al., 2003; Egbelakin et al., 2014), there are also opportunities for property values to grow amidst disruptions (Nyu and Nilssen, 2020). The aftermath of disruptions commonly results in uncertainty and changes to investors’ well-established practices, necessitating the need for adaptation.

According to Ashworth (1996) and Wilkinson et al. (2014), for properties to remain competitive in today’s market, they need to be adaptable to changes throughout their lifecycle. These changes could be in the form of property use (for example, conversion from residential to commercial) (Fraser, 1993), regulatory requirements (for example, retrofitting of buildings), adaptation to environmental changes (Rotimi and Wilkinson, 2014; Filippova et al., 2018) or technological advancement in terms of adapting to current trends in facilities and fittings (Hoesli and MacGregor, 2014; Linneman, 2018). The reality of the contemporary property

market environment has, therefore, challenged property investors to embrace change and to be dynamic in their investment decision-making, especially amidst the complexity of disruptions (Kreimer et al., 2003, Kapucu and Garayev, 2011). Indeed, Wilkinson et al. (2014) argue that stakeholders, including property investors, should be adequately prepared for extreme disruptions by way of mitigation and adaptation, as Burgess and Rapoport (2019, p.4) also maintain that *“the real estate investment industry as a whole is still early in its development of strategies to recognize, understand, and manage disruptions.”*

Although governments enforce formal regulations to mitigate the impact of market disruptions (Hoesli and MacGregor, 2014), property investors also demonstrate ingenuity as they develop strategies towards minimizing the impact of possible disruption on their investment portfolio (Lizieri, 2013). According to Nyu and Nilssen (2020), some investors have embraced market uncertainties, and are able to deduce the information they require to speculate in such circumstances based on their experience, knowledge and cultural attachments. In fact, Veuger (2018) emphasized that some property investors capitalize on market volatilities and the few interests from competitors to exploit the market. The action of such investors is usually subjective, and it varies with the nature of the market and the extent of uncertainty (Dilley et al., 2005). Although scholars acknowledge the need for adaptation amidst property-market disruptions, the understanding of how property investors make disruption-driven investment decisions is limited in the literature. This present study, therefore, seeks to bridge the gap by investigating how property investors make disruption-driven investment decisions from an institutionalist perspective; a theoretical approach that acknowledges and incorporate the influence of the institutional environment on property investor's decision-making behaviour (Ball, 1998; Keogh and D’Arcy, 1999, Agboola, 2015).

The institutional theory establishes investors in an event scenario rather than assuming their existence based on available information (North, 1990; DiMaggio and Powell, 1991). The approach is useful in investigating the nature of interactions within an investment environment (Lang, 2011; Agboola, 2015), how behaviour emerges from various social, cultural and economic settings (Ball, 1998; Immergut, 1998) and how they influence investment decisions in a complex environment (Lecours, 2005). Institutionalism, therefore, expands and integrates our understanding of the traditional property-investment decision-making process by recognizing both rational and cognitive attributes of property investors within an operating environment that is governed by formal and informal rules (North, 1990; DiMaggio and

Powell, 1991). The theory analyses the behaviour of decision-makers based on existing norms, culture and environmental influence (Immergut, 1998). Thus, suitable for understanding both inductive and deductive behaviours that evolve within an environment (Ball, 1998). It also probes how factors such as principles, laws, tradition and routines can lead to an established and legitimate standard for reasoning (Lecours, 2005). According to Lang (2011), it is relevant in property investment decision-making because of its applicability to social and economic concepts. In addressing the focus of this study, institutionalism provides the lens for understanding how investors adapt to market disruptions through their investment decisions in a complex decision-making environment.

1.2 Problem Statement

As noted above, several studies, have examined property investment decision-making (Adair et al., 1994; Bruin and Flint-Hartle, 2003; French, 2001; Sah et al., 2010; Parker, 2014; 2016; Lowies et al., 2016). While some of the studies presume that decision-making is logical in an ideal environment, where decision-makers have access to complete information, others recognize the dynamism of the investment environment and the intuitive nature of decision-makers in managing limited market information. The significance of human interactions and norms in property-investment decision-making has, therefore, continued to emerge and challenge the mainstream economic assumption that is based on the doctrine of utility maximization, which ignores the behavioural component of investment decision-making. Indeed, neither the decision-maker, market information nor the investment environment is perfect, which clarifies why there is no consensus on an ideal decision-making process (Sah, 2010). As scholars continue to explore ways of simplifying the decision-making process as a way of maximizing investment outcomes, the explicit consideration of property market disruptions and the additional level of uncertainty it portends to the established decision-making pattern of property investors is not clear.

In view of the above, and to inform a deeper understanding of the disruption-driven investment decisions of property investors, this study explores the institutional theory as a lens for investigating how property investors (specifically, Listed Property Trusts in New Zealand) make adaptive decisions amidst market disruptions. Unlike the traditional approach, institutionalism is premised on analyzing the discrepancy between the assumed and real behaviour within an environment, and its influence on decision outcomes (Immergut, 1998).

Based on the understanding that institutions¹ “*attempt to maximise behaviour over stable and consistent preference orderings, but they do so in the face of cognitive limits, incomplete information and difficulties in monitoring and enforcing agreements*” (DiMaggio and Powell, 1983 p.3) and are useful in clarifying misconceptions in multi-complex environments, the study leverages institutional theory in an attempt to answer the research question below:

How do property investors make investment decisions amidst market disruptions?

Thus, this study seeks to build on existing knowledge by exploring the strategies and behavioural patterns of property investors as they respond to disruptions in a dynamic investment environment, and subsequently proposes a holistic decision-making framework that could enhance professional practice and inform policy formulation and implementation.

1.3 Aim and Objectives

The main aim of this study is to understand the disruption-driven investment decision-making of property investors in New Zealand, and in particular, explore how different factors in the investment environment influence the decision-making strategies of property investors amidst disruptions. In order to accomplish this aim and consequently provide answers to the overall research question highlighted in Section 1.2, a number of objectives were set. The objectives are to:

- i. Understand how property investment decision-making is influenced by social interactions (with particular emphasis on formal and informal rules), beliefs and rational evaluations.
- ii. Identify the principal strategies through which property investors respond to disruptions in their investment decision-making
- iii. Examine factors influencing the disruption-driven investment strategies of property investors.
- iv. Develop a descriptive framework of disruption-driven investment decision-making that can inform how property investors respond to market disruptions.

¹ Institutions are defined as the rules of the game in society or, more formally, are the humanly devised constraints that shape human interaction (North, 1990)

1.4 Overview of Methodology

To achieve the objectives set out above, this study was conducted in two phases. The first phase involved the documentary analysis of annual reports of Listed Property Trusts (LPTs) in New Zealand. This was carried out to provide a nuanced understanding of how LPTs in New Zealand respond to disruptions as well as the factors that influence their response strategies. Further, a qualitative strategy involving phenomenological investigation within case studies of LPTs in New Zealand was adopted. Whereas seven out of the eight LPTs in New Zealand were involved in the first phase of the research, five LPTs were evaluated as case studies in the second phase of the research. The views of purposively identified, experienced senior-level decision-makers across the case studies were sought regarding the research problem through in-depth semi-structured interviews, as informed by their lived experiences. The data collated from the interviews were analyzed within and across cases. Further details and justification for the adopted research philosophy, research strategy, data collection and analytical methods, sampling strategy, and ethical considerations are clarified in Chapter Five of this thesis.

1.5 Significance of the Study

This research contributes to the property investment decision-making literature while also proffering solutions that could enhance the disruption-driven investment decisions of property investors. The research outcome is of practical, theoretical, policy and methodological significance.

This research is of practical significance because it provides decision-makers and practitioners with a framework that informs a deeper understanding of the adaptive measures that are relevant in making disruption-driven investment decisions. Aside from highlighting the need for property investors to comply with rational regulatory guidelines, it also emphasizes how individual beliefs, culture and norms could impact investment decisions amidst disruptions. This provides a means through which decision-makers can innovate and maximize available information as they make investment decisions amidst disruptions. Also, the theoretical lens adopted in this research extends the frontier of available theoretical models on property-investment decision making, as it offers a holistic framework through which rational and intuitive behaviours of LPT can be understood and explored in making legitimate investment decisions in a disruptive property-market environment.

Further, the empirical findings from this study are of significance to policymakers as they clarify the role of legislation in property investment decision-making and how it can be enhanced in achieving optimum investment outcomes. By highlighting the informal roles of various market actors in the successful realization of policy objectives, this study suggests that the success of policy guidelines in achieving projected outcomes amidst market disruptions is dependent on the perception of market participants. Hence, the need to integrate behavioural tendencies of property investors within the rational policy framework. Finally, this study illustrates the significance of phenomenology within case studies in conducting in-depth qualitative research in the real-estate discipline. By exploring the experiences of research participants within and across different case scenarios, this study has been able to provide clarity on the appropriateness of this methodological strategy in understanding and interpreting diverse perceptions in complex situations.

1.6 Research Scope

While the overall goal of this study is to understand and enhance the disruption-driven investment decision-making strategies of property investors amidst market disruptions, exploring all the various forms of market disruptions with respect to the different types of investors is not feasible in this single study. Therefore, there is a need to define a study scope within the context of this research, such that it reflects the fundamental themes of this study in a concise way without compromising the wider applicability of the research outcome. As such, this study involves LPTs in New Zealand with respect to significant market disruptions that occurred since the start of the millennium.

Amongst other events, the New Zealand property market was disrupted by the Global Financial Crisis (GFC) of 2008 (Thornley, 2016), which resulted in a sharp decline in property values, credit restrictions, and low cash-flow within the market (Grimes and Hyland 2013), leaving the Reserve Bank to provide liquidity support to commercial banks to avoid market collapse (Murphy, 2011). While property investors seem to have recovered from the economic disruption (Thornley, 2016), Murphy (2011) noted that investors remain uncertain about the capability of existing precautionary mechanisms to withstand the impact of another financial crisis. New Zealand is also under the constant threat of environmental disruptions and its resultant losses (Kwasinski, 2011). Catastrophes like earthquakes, fire, floods and landslides have hit the country at different times in history (Rotimi and Wilkinson, 2014). However,

earthquakes are considered the most significant environmental hazard that has a devastating impact on the country's socio-economic activities in the built environment (Wilkinson et al., 2014). The country's exposure to earthquakes is influenced by its geographical location, rapid urbanization, population growth and previous settlement choices (Bothara et al., 2010). Whereas there are regulatory measures aimed at reducing the seismic vulnerability of the built environment (for example, the *Building (Earthquake-prone Buildings) Amendment Act 2016*), more can still be achieved in the area of risk awareness and investment preferences (Kwasinski, 2011).

Like other countries, the Covid-19 pandemic also altered business activities in New Zealand, which triggered uncertainty and panic amongst investors and other market participants (Hall et al., 2021). Despite the obvious possibilities of market disruptions, New Zealand also needs to keep up with the infrastructure demand of its population (Rotimi and Wilkinson, 2014), the global technological trends (Myers et al., 2008) and the country's sustainability projections (Bond, and Perrett, 2012). The New Zealand Government is, therefore, constantly engaging relevant stakeholders, including property investors, towards reviewing its adaptation strategies (Filippova et al., 2018). According to Davenport (2004), government and businesses cannot afford to shut down when a major disruption strikes. Indeed, the New Zealand phenomenon is not unique, since socio-economic, technological, health, and environmental disruptions constitute significant challenges across major global property investment markets. However, with its robust property market that operates amidst multiple disruptions and still attracts international and local investment interests, evidence from New Zealand could be useful in addressing similar challenges in other locations.

1.7 Overview of Chapters

This thesis consists of nine chapters as illustrated in Figure 1.1. Chapter One provides a background to the study and identifies the research aim and objectives. The literature review, theoretical position and methodological strategies adopted in this study are presented in Chapters Two, Three and Four, respectively. Chapter Five presents the outcome of the document analysis involving the review of annual reports of LPTs in New Zealand. Chapters Six and Seven describe the research findings from the within-case and across-case analysis. The research findings are discussed in Chapter Eight, and finally, Chapter Nine provides the conclusions of the study, and recommendations for future research.

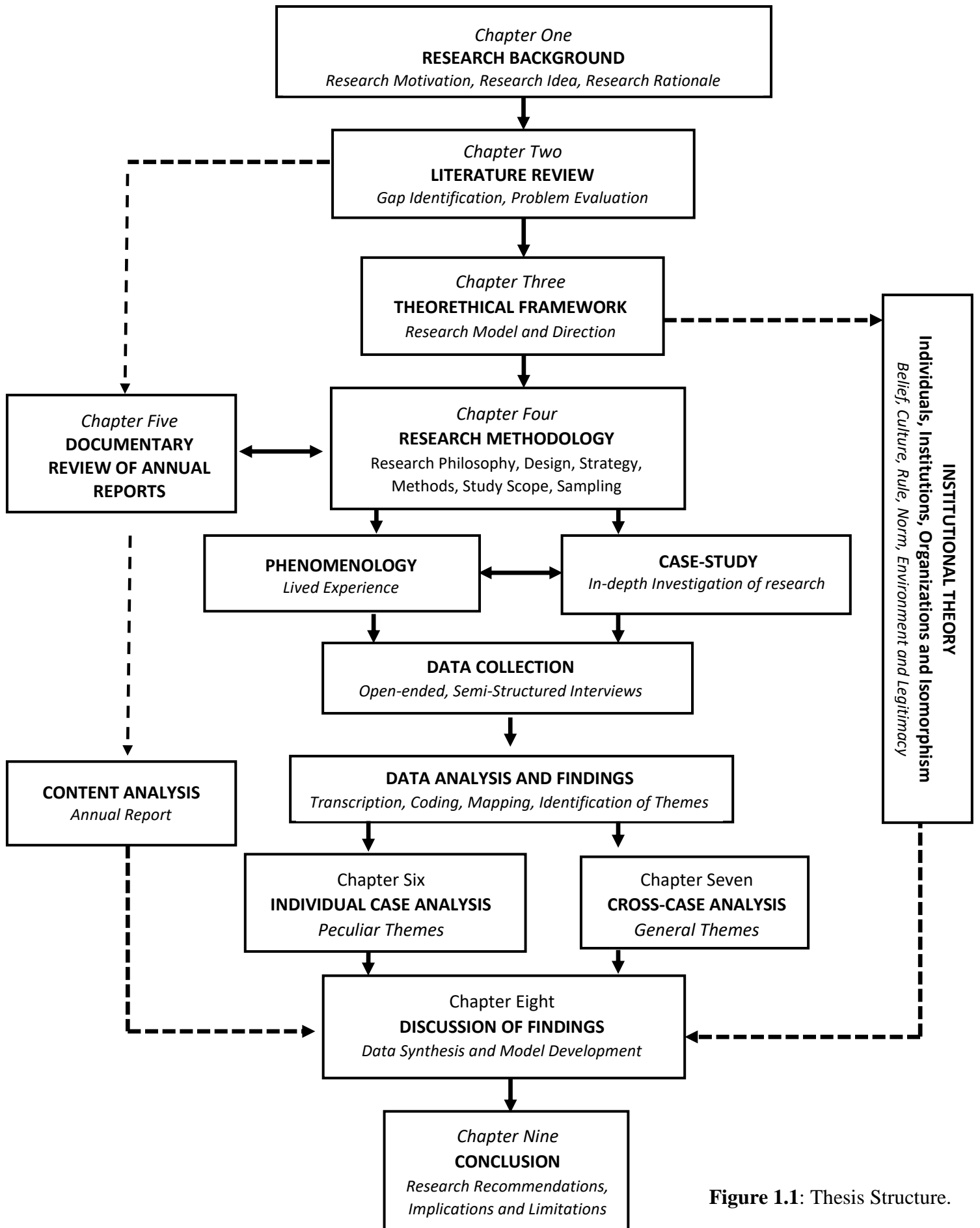


Figure 1.1: Thesis Structure.

CHAPTER TWO

Empirical Understanding of Property-Investment Decision-Making

2.1 Overview of the Chapter

This chapter sets the premise for the empirical investigation in this study. First, the key issues relating to the current understanding of property investment decision-making are explored. Then the chapter examines property-investment decision-making from a process-based perspective where different decision-making models are reviewed. The behavioural component of property-investment decision-making was also explored with emphasis on heuristics and bias-driven behavioural tendencies as they influence investment decisions. The peculiarity of the property-investment environment and the roles of different market participants regarding property-investment decision-making are also examined. Finally, this chapter explores the various forms of market disruptions before culminating with a summary.

2.2 Property-Investment Decision-Making

Property-investment decision-making has been extensively reviewed as a multicomplex process (Ratchatakulpat et al., 2009; Anastasia and Suwitro, 2015), which requires a thorough consideration of economic principles such as the forces of demand, supply, risk and return (Adair et al., 1994; Isaac and O’Leary, 2011; Hoesli and MacGregor, 2014), non-economic factors that concern regulatory and political influence (Sayce et al., 2007; Filippova et al, 2018) and the social environment that deals with inter-organizational interactions and public acceptance of the investment goal (Gallimore et al., 2000; Tazan-kok, 2007; Lowies et al., 2016). Yet there is no universally accepted conceptualization of the task (Sah, 2011). With the heterogeneous nature of property investment, which requires the constant evaluation of market information as a way of appraising investment objectives towards optimum investment choices (Idzorek et al., 2007), effective decision-making remains the core of successful property investment (Isaac and O’Leary, 2011).

The property literature is inundated with ideas and concepts that attempt to simplify the decision-making task as a way of maximizing investment outcomes (Adair et al., 1994; Sah et al., 2010; Lowies et al., 2016). Based on the doctrine of utility maximization, the traditional view of property investment posits investors as rational and self-centred, with clearly defined

goals (Bruin and Flint-Hartle, 2003), operating within a perfect market that guarantees access to complete information (Wang, 2000; Diaz, 1999; Ohman et al., 2013). While this view is dominated by the positivist stance that depicts a logically coherent, stage-based process (Farragher and Kleiman, 1996; Wang, 2000), scholars have also justified the significance of social interactions and norms within the investment environment and their influence on decision-making (Robert and Henneberry, 2007; Gallimore and Gray, 2002; Parker, 2014). Furthermore, the neoclassical and mainstream economic assumptions that property investors operate within an ideal market (i.e., with numerous participants, transparent information and homogeneous products – Ohman et al., 2013), has been argued by scholars, to ignore the underlying importance of property investors' behaviour and their impact in a complex market environment (French and Gabrielli 2005; Seiler et al., 2013; Nsibande and Boshoff 2017).

In advancing the traditional view that posits the actions of property-investment decision-making as predominantly based on the paradigm of rationality, the behavioural approach to decision-making has continued to emerge within the property literature (Seiler et al., 2008; Imazeki and Gallimore, 2009; Waweru et al., 2014; Lowies et al., 2016). The basic assumption underpinning the emerging paradigm is that the property market exists as a function of market actors and will adjust spontaneously to the influence of these actors (Keogh and D'Arcy, 1999). Property investment decision-makers, therefore, operate within a self-automating market system, where several factors influence their choices and continue to be the focus of their investment analysis (Tasan-kok, 2007), with the market adjusting to the changes induced by these factors by constantly maintaining equilibrium (Keivani and Werna, 2001). Thereby highlighting the need for a more in-depth, interpretivist approach to understanding property-investment decision-making (Gallimore et al., 2000; French, 2001).

Indeed, recent studies on property-investment decision-making reflect a drift towards a more-expressive approach that recognizes the significance of human reasoning in dealing with the complexity that exists within a dynamic investment environment (Sah et al., 2010; Seiler et al., 2012; 2014; Waweru et al., 2014; Parker 2014; 2016; Grover 2015; Chukwudumogu et al., 2019). According to Agboola (2015), although, human actions are driven by their self-interest, their investment preference should not be solely evaluated based on a set of predefined stage-based mechanisms for actualizing optimality. Chukwudumogu et al., (2019) also report that property-investment decisions are influenced by moral justifications and personal convictions. Rationality in the context of property investment is, therefore, considered a relative term that

correlates the values and beliefs of the decision-maker with their investment goal and objectives (Sah et al., 2010, French, 2001). Based on the dynamism of the investment environment, the conventional view of the property market as a predictable domain is dwindling (Parker, 2014). According to Ratcliffe (2000), the influence of human intelligence, strategic thinking, and acumen will continue to redefine property-investment decision-making.

As scholars continue to investigate decision-making in property investment (Roberts and Henneberry, 2007; Jackson and Watkins, 2011; Sah, 2011; Nsibande and Boshoff, 2017) they are all unanimous that no two property investments are the same. Even though properties may portray certain similarities, they also reveal distinct differences (Idzorek et al., 2007). Having stressed that there is no universally accepted decision-making process in property investment (Sah, 2011), the current understanding and interpretation of property-investment decision-making necessitate a detailed and multi-dimensional conceptualization of the task. In this regard, this study reviews property-investment decision-making from a process-based perspective (Farragher and Kleiman, 1996; Roberts and Henneberry, 2007), and a behavioural perspective (Gallimore et al., 2000; Gallimore and Gray, 2002; Sah et al., 2010; Seiler et al., 2012; 2014), as discussed in the next section, with both perspectives pertinent and dependent on the investment environment, investment objectives and nature of decision-makers.

2.3 Process-Based Decision-Making

Process-based decision-making models have been developed as a way of seeking insight into the activities that guide people's ability to make choices through deliberate stage-based techniques (Kahneman et al., 2011). These models ensure that the available choices are well defined in a rational, logical sequence for effective decisions to be made (Roulac, 1994). For example, the process-based approach exemplified by Hargitay and Yu (1993) and, Jaffe and Sirmans (1994), acknowledges the significance of rational thinking in exploring multiple alternatives before arriving at a decision that is appropriate for an intended outcome.

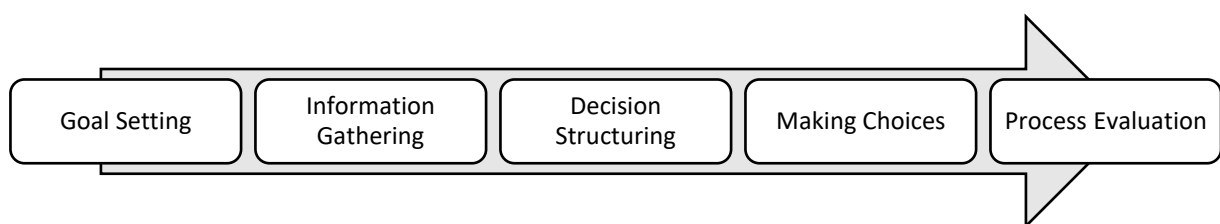


Figure 2.1: Process-based decision-making.

Figure 2.1 illustrates a typical decision-making process. However, there are criticisms of the applicability of this approach in complex circumstances. According to Sah (2011), property investment decision-makers go through a more thorough and engaging procedure before arriving at their investment preferences. French (2001) argued further that predefined decision-making processes do not often result in optimal investment choices because, as Parker (2014) emphasized, there is a need for process-based decision-making techniques to acknowledge the circumstances under which decisions are made along with the capacity of the decision-makers before an efficient decision outcome can be reached. Consequently, French (2001) and Parker (2014) attempted to simplify the decision-making process amidst the varying roles of decision-makers, through the aid of models. These models are mainly classified as normative (what decision-makers should do), descriptive (what decision-makers can do) and prescriptive (what decision-makers should and can do) decision-making models as discussed in Sections 2.3.1, 2.3.2, and 2.3.3 respectively.

2.3.1 Normative decision-making model

Normative process is the focus of investigations into the structured form of decision-making (Hargitay and Yu, 1993; French and French, 1997). According to Gallimore et al. (2000), the normative approach to decision making assumes objectivity in the way that people make choices and it refers to a situation where decisions are made solely on some established set of norms. The normative approach conceptualizes the decision-making task as a strategy that involves a logical and deliberate commitment of resources towards a predefined investment outcome (Roberts and Henneberry, 2007). French and French (1997) stressed further that the normative technique is premised on the notion that the decision-maker (investor) is an expert that is familiar with the investment procedure and market environment. It also serves as a basis upon which people's reactions to events are compared (Ratcliffe, 2000). Normative processes assume that everyone is a rational thinker and anyone who does not base his judgement on a set of defined norms is behaving irrationally (Farragher and Savage, 2008). This approach to decision-making pre-supposes that factual decisions could be reached through a sequential procedure (Gigerenzer and Selten, 2001; Parker, 2012) and it is popular among classical economists (Sah, 2011).

Ranging from a three-stage to ten-stage sequential model, scholars have viewed normative decision making as a phase-based task (Pyhrr et al., 1989; Jaffe and Sirmans, 1994; Hargitay

and Yu, 1993; Farragher and Kleiman, 1996; Farragher and Savage, 2008). Excerpts from the various normative models have however been consolidated by Roberts and Henneberry (2007), to include:

- Investment goal setting
- Formulation of decision-making criteria, based on portfolio structure
- Search for suitable property assets
- Analysis of the market structure
- Prediction of outcomes (return/risk/demand/supply)
- Implementation of decision benchmark
- Trade-off between properties
- Detailed property screening
- Selection of investment preference
- Post-investment appraisal.

French (2001) argued that the normative decision-making process is idealized as being straightforward, such that objective decisions would yield optimum results. The reality, however, deviates from the assumed norm (Sah, 2011). Often times the normative model does not adequately consider the diverse contexts within which the investment preference will eventually manifest (Parker, 2014). In the real-world scenario, the focus of the normative model is altered by decision-maker's perception (Diaz, 1999) and access to information (Adair et al., 1994; Sah et al., 2000). Market imperfections due to the heterogeneous nature of property investments, therefore, threaten the validity of normative models (Gallimore et al., 2000). Whereas the normative procedure provides direction for understanding the decision-making process (Parker, 2016), there are variations across property investors' needs and preferences (Ratcliffe, 2000; Roberts and Henneberry, 2007). Thus, the normative models only provide guidance that will lead the decision-maker towards achieving their predefined investment goal rather than explaining how actual investment decisions are made (Gallimore et al., 2000).

The normative decision-making model can be further described through a mathematical model of transitivity action. According to French and French (1997), transitivity action serves as a basis for comparing attributes of similar events by establishing a mathematical relationship between them. For instance, if an investor prefers a property A to a property B and also prefers the property B to a property C then he should automatically prefer property A to property C. If

the investor does not adhere to the highlighted sequence of action, then it is assumed that they are behaving irrationally. Studies have, however, demonstrated that investors do display intransitivity of preference. French and Gabrielli (2005) argued that people's actions regarding decision-making may contradict the strategies of normative models of methodical and organized reasoning. In their view, there are certain externalities that could distort the normative decision-making model due to the imperfect nature of the decision-maker and the investment environment. Sah (2011) also faulted the relevance of normative techniques in investment decision-making because the decision-makers may not be able to compare the possible outcome of various alternatives at the inception of the decision-making process.

Nsibande and Boshoff (2017), posit further that normative decision-making models are mainly focused on evaluating financial benefits in anticipation of the investment return at the expense of non-financial benefits. The normative technique of forecasting investment outcomes has therefore been criticized as not suitable for a holistic appraisal of property-investment alternatives (Farragher and Savage, 2008). According to Sah (2011), decisions based solely on normative models are not adaptable and thus require updates as new trends emerge in the investment environment. The rigid nature of the normative model also limits human cognitive influence and raises concerns about the validity of decision outcomes (French, 1996). The next section describes the actual process that decision-makers go through when making investment decisions and its influence on investment outcomes.

2.3.2 Descriptive decision-making model

Diverging from the normative models, the descriptive decision-making models illustrate how decision-makers literally make choices based on their own assessment of the investment situation and the available alternatives (Parker, 2016). The descriptive approach, therefore, downplays the notion of rationality in investment decisions (Sah, 2011). Rather, it emphasizes the importance of human capacity and the condition under which decisions are made (Roberts and Henneberry, 2007). Advancing the argument of Gau (1987) that the property market is prone to imperfections resulting from real-world problems, legal constraints and inefficient resource allocation, several studies have emphasized the significance of human subjective evaluation in the property-investment decision-making process (Gallimore et al., 2000; Gallimore and Gray, 2002; Lowies et al., 2016). Whereas normative models depict how

decisions *should be* made, descriptive models clarify how decisions *are* made (Sah, 2011; Parker, 2014). According to Roberts and Henneberry (2007), descriptive models recognize the heterogeneous nature of property-investment decision-making and the significance of human reasoning and judgements in analyzing different event scenarios.

The descriptive model also clarifies how the focus of investment decisions can be influenced by the way information regarding a phenomenon or alternative is presented (Black et al., 2003; Diaz and Hansz, 2007; White, 2018). For instance, if a property is presented to be 80% prone to hazard and the same property is also stated on a different platform to be 20% hazard resistant, there is a tendency that decision-makers will have different perceptions of the same property thereby making divergent choices. Similarly, if it is stated that 18 out of 20 investors are interested in a property, it is the same as reporting that only two out of twenty investors are not interested in the property. These examples demonstrate how descriptions of information could impact decision makers' preferences. However, just as the manner through which messages are being communicated could infer different types of interpretations from decision-makers, Kosavinta et al. (2017) stressed that the way an investment objective is defined could also lead to preference reversal amongst investors. According to them, preference reversals refer to the observation of systematic inconsistencies in people's choices and pricing within a risky environment and according to classical economists, this is a violation of rational and logical reasoning (Tversky and Thaler, 1990).

2.3.3 Prescriptive decision-making model

Trivializing the significance of the investment context and human mental capacity in decision making could hinder optimal investment outcomes (Nsibande and Boshoff, 2017). According to Jackson and Watkins (2011), the investment market is constantly evolving and there is a need for decision-makers to individually and collectively adjust to the market dynamics through their decisions to maximize investment outcomes. As a result, scholars have suggested that decisions regarding contemporary property investment require in-depth and integrated knowledge that depicts the reality of the investment process and circumstance, through the combination of the normative and descriptive models within specific market contexts (French 2001; Parker, 2016). The prescriptive decision-making model, therefore, describes how decision-makers can and should make decisions to achieve a reasonable outcome. In other

words, the prescriptive framework complements the normative and descriptive models. Thus, ensuring the robustness and reliability of the decision-making process. According to Atherton et al. (2008), the prescriptive strategy offers an event-based approach that suits the peculiarity of the intended task based on the available information and projected outcome. The model seeks to explore the judgments, beliefs and preferences of decision-makers in relation to the issues they face (French, 2001).

Prescriptive frameworks precisely focus on specific decision tasks based on a fair understanding of the established normative path and appropriate descriptive reasoning (French and French, 1997; Parker, 2016; Lowies et al., 2016). Prescriptive models are developed out of the understanding that it is often unrealistic to describe what constitutes an ideal decision and the corresponding rules that inform its choice (French and Gabrielli, 2005). As a way of achieving investment objectives, “*the prescriptive model can be described as an application of normative ideas within the context of the findings of descriptive decision studies that lead decision makers to a good decision rule*” (French, 2001, p.401), thus, providing valuable insights to enhance the decision-making process (Atherton et al., 2008). Although the prescriptive decision model may not be optimal, it sufficiently addresses the gap between *what people should do* and *what people actually do*, by way of conforming to the set rules and norms within the satisfying limit of the decision-maker (Parker, 2016). While investors faced with critical decisions and those that are attempting a complex task for the first time are likely to embrace the prescriptive framework as they strive towards optimality (French, 2001), Sah (2010) suggests that experienced investors are bound to rely on their intuition and reject the normative and prescriptive strategies. To ensure the efficient use of prescriptive decision models by property investors as a way of driving efficiency and reasonable investment output, Parker (2014) and Nsibande and Boshoff (2017) suggest that the model assumptions should be transparent, easy to understand and compatible with the distinct objectives of decision-makers.

In summary, French (2001) and Parker (2014; 2016) grouped and defined the decision making process as follows; normative (*what people should do*), descriptive (*what people actually do*) and prescriptive (*what people should and can do*). The distinguishing factors among these approaches, however, lie in the prevailing condition of the decision-maker and projected decision outcome (French, 2001). Indeed, scholars that have attempted to study property investment decision-making process have either emphasized the rules and strategies the decision-maker should adopt or the reality of the investor’s cognitive capabilities in a practical

scenario. While it has been established that property investors make decisions primarily based on the resources available to them and their expected return on investments (Sah, 2011), scholars have also documented behavioural patterns that investors demonstrate when making decisions. Having evaluated the different approaches to process-based decision-making in this section, the next section focuses on behavioural tendencies that influence the decision-making process.

2.4 Decision-Making Behaviour

The foundation of behavioural research in real estate decision-making can be traced to the information processing framework of Newell and Simon (1972), which has continued to guide scholarly investigations into the significance of human capacities and limitations in evaluating investment information. According to French (2001); Gallimore and Gray (2002); Roberts and Henneberry (2007) and Sah (2011), human belief, emotion, perception and experience influence investment preference. These and other related studies suggest that property-investment decision-making is not scientific, methodical or objective and that property investors often deviate from predefined models as they analyze factors that contribute to their final decisions. Based on the understanding that all investment decisions are not solely based on financial gains (Nsibande and Boshoff, 2017), behavioural studies in real-estate investment and practice have leveraged the field of sociology and psychology through behavioural finance, to elucidate and increase the understanding of investors reasoning pattern in the decision-making process (Waweru et al., 2014; Lowies et al., 2016).

Studies from the emerging field of behavioural finance have continued to clarify the limit of decision makers' adherence to rational² expectations, with evidence on why individuals, groups and organizations make irrational³ decisions (MacCowan and Orr, 2008; Waweru et al., 2014; Jain et al., 2019). The behavioural influence on the decision-making process is also drawn from the domain of cognitive psychology (Roberts and Henneberry 2007; Gallimore et al., 2000; Parker 2014), with the understanding that investors operate within an imperfect investment environment (Gallimore and Gray, 2002; Nsibande and Boshoff, 2017), where they are vulnerable to different forms of delusion and bias (Imazeki and Gallimore, 2009; Seiler et al., 2013), due to the restricted and inconsistent access to market information, in an increasingly

² Expected pattern.

³ Unexpected pattern.

complex environment (Keogh and D'Arcy, 1999; Agboola, 2015). Gallimore and Gray (2002) believe that investors are bound to demonstrate irrational and unanticipated investment preferences in a rapidly changing investment environment, while Bruin and Flint-Hartle (2003) posit that the ability of investors to operate satisfactorily within market fluctuations, despite the limitations of rational models, is a perfect validation of behavioural influence in the decision-making process.

Behavioural tendencies can be triggered by either cognition "*the way investors think*" or emotion "*the way investors feel*" (Grover, 2015) and could have different effects on real-estate investors as shown in Table 2.1. According to Antony (2009), who examined forty investors and their behavioural influence on property prices and investment decision-making in Nairobi, Kenya, overconfidence, framing, representativeness, mental accounting and herding are important factors that influenced the decision-making outcome (see Table 2.1). Lowies et al., 2016 and Akinsomi et al., 2018 also reported the herd mentality as a behavioural tendency that influences the decision making of property fund managers in South Africa and Real Estate Investment Trusts (REITs) in Turkey respectively. Loss aversion was also reported by Seiler et al. (2012) to impact property investment decision making.

Although different behavioural tendencies exist in the field of behavioural finance, these tendencies can be discussed under the broad categorization of heuristics and biases (Tversky and Kahneman, 1974; Hadin, 1999; Gallimore et al., 2000). Heuristic-driven behaviour has been described as the act of skipping processes or cognitive shortcuts in arriving at quick judgements (Hertwig and Hoffrage, 2013) while bias refers to the tendency of decision-makers to be influenced by emotion when making decisions or judgements (Jain et al., 2019). Tversky and Kahneman (1974), also posits that heuristic tendencies, such as representativeness and anchoring, could lead to bias behaviours as exemplified by Abraham et al. (2014) and Lowies et al. (2016) in the property-investment decision-making context. Some of the studies that have investigated behavioural tendencies and their influence on property investment decision-making are summarized in Table 2.2 below. Subsequently, heuristics and biases are discussed as major behavioural classifications in the context of property investment decision-making.

Table 2.1: Behavioural factors and their effect on investors (Grover, 2015)

Factors	Effect
Representativeness	Applying shortcuts through the reliance on past experiences to guide the decision-making process.
Anchoring	Tendency to rely too much on the first piece of information available, when making decisions.
Gambler's fallacy	Situation where investors tend to predict the reverse of a particular trend.
Overconfidence	Unwarranted faith in one's intuitive reasoning, judgement and cognitive abilities.
Herding	Common phenomenon where investors tend to follow the investment decision taken by the majority.
Cognitive Dissonance	Feeling of uncomfortable tension, which comes from holding two conflicting thoughts in the mind at the same time.
Loss Aversion	People's tendency to strongly prefer avoiding losses to acquiring gains. (losses are twice as powerful as gain)
Regret Aversion	Can make investors either risk-averse or motivate them to take a greater risk.
Mental Accounting	Tendency for an individual to organize their world into separate mental Account.
Hindsight	Tendency to change an original thought or action to something different because of newly provided information.

Table 2.2. Some of the studies that have investigated behavioural tendencies and their influence on property investment decision-making behaviour

Author	Title	Behavioural Trait	Research Method	Findings
Imazeki and Gallimore (2009)	Domestic and foreign bias in real estate mutual funds. <i>Journal of Property Research</i>	Home Bias	Quantitative	Irrespective of personal benefit or foreign opportunities, investors demonstrate preference for investment within their region or country.
Gibilaro and Mattarocci (2016)	Are Home-biased REITs Worthwhile? <i>Journal of Real Estate Portfolio Management</i>	Home Bias	Quantitative	Managers of Real-estate investment trust (REIT), generally tend to focus on domestic investments, for which they have more available information, even when the domestication of their portfolio does not suggest higher probability of good return.
Beracha and Skiba (2014)	Real Estate Investment Decision Making in Behavioural Finance. <i>Book-The Psychology of Financial Planning and Investing</i>	Familiarity Bias	Conceptual Paper	Property investors are susceptible to various biases when making investment decisions and they readily invest in assets and companies that they are familiar with based on the information that is readily available to them.
Seiler et al., (2008)	Regret aversion and false reference points in residential real estate. <i>Journal of Real Estate Research</i>	Bias	Quantitative	Women were found to be more susceptible to regret aversion and false reference points than men.
Seiler et al., (2008)	Familiarity Bias and the Status Quo Alternative. <i>Journal of Housing Research</i>	Familiarity Bias	Quantitative	Investors often gravitate towards investment markets that are proximate with respect to their location. However, Asians, in contrast to North Americans

				and Europeans, seem not to be susceptible to bias.
Seiler et al., (2012)	Mental accounting and false reference points in real estate investment decision making. <i>Journal of Behavioral finance</i>	Bias	Quantitative	Irrespective of the transaction cost, investors demonstrate willingness to sell when they are in the profitability territory
Seiler et al., (2013)	Familiarity Bias and Perceived Future Home Price Movements. <i>Journal of Behavioural Finance</i>	Familiarity Bias	Quantitative	Familiarity bias is the reason why people abandon rational investment processes and future expectations.
Seiler et al., (2014)	Mimetic Herding Behaviour and the Decision to Strategically Default. <i>The Journal of Real Estate Finance and Economics</i>	Herding/Familiarity Bias	Quantitative	Homeowners exhibit bias towards actions that are consistent with that of their peers, especially the experienced and knowledgeable ones, resulting in herding behaviour.
Cheng et al., (2006)	Perception of real estate investment opportunities in Central/South America and Africa. <i>Journal of Real Estate Portfolio Management</i>	Familiarity Bias	Quantitative	Familiarity and lack of knowledge of the local market in Central/South America and Africa make investors reluctant in seeking opportunities in these regions based on the notion that the market is very risky.
Adair et al., (1994)	Investment decision making: A behavioural perspective. <i>Journal of Property Finance</i>	Familiarity Bias	Review	Institutional real-estate investors operate in markets that they are familiar with and for which they have high-quality information.
Roberts and Henneberry, (2007)	Exploring office investment decision-making in different European contexts. <i>Journal of Property Investment and Finance</i>	Heuristic and Bias	Mixed	The findings of in-depth case studies of investment decision-making in France, Germany and the UK indicate that the investors tend to streamline the decision-making process by taking shortcuts to

				achieve investment outcomes. These short-cuts potentially leave the decision-making process open to the influence of bias, judgement and sentiment.
Chukwudumogu et al., (2019)	The influence of sentiments on property owners in post-disaster rebuild A case study of Christchurch, New Zealand. <i>Property Management</i>	Sentiment	Qualitative	Property investment decisions are made significantly, based on emotions and passion for place for Christchurch by investors in the area.
Gallimore and Gray (2002)	The role of investor sentiment in property investment decisions. <i>Journal of Property Research</i>	Sentiment	Quantitative	For UK property investors, sentiment is a useful source of information in property investment decision making
Abraham et al., 2014	Anchoring and adjustment and herding behaviour as heuristic-driven bias in property investment decision-making in South Africa. European Real estate Society Conference	Heuristic-Bias	Quantitative	Property fund managers may be prone to anchoring driven biases that could lead to error.
Lowies et al. (2015)	The role of market fundamentals versus market sentiment in property investment decision-making in South Africa. <i>Journal of Real Estate Literature, 23(2), 297-314.</i>	Sentiment	Quantitative	Although not as evident as some developed countries, market sentiment plays a role in property investment decision making in the South African context
Lowies et al., 2016	Heuristic-driven bias in property investment decision-making in South Africa <i>Journal of Property Investment and Finance</i>	Bias	Quantitative	Rather than the lack of understanding of new information, anchoring and adjustment may influence the decisions made by property fund managers

2.4.1 Heuristics

Heuristics is described as the ability of decision-makers to facilitate the process of decision making by avoiding the associated procedural and sequential norms (Tversky and Kahneman, 1974). It refers to people's attributes such as character, belief, ethics and experience that are applied intentionally and constantly in shortening decision-making by skipping some phases in the decision-making process (Sah et al., 2010; White, 2018). By going through a satisficing process, Simon (1986) argues that the decision-maker explores available options until he strikes a balance between his output aspiration and input limitations. Hadin (1999) also reported that heuristics is suitable for decision-makers that have clearly defined investment preferences and the required skill that will enhance their ability to evaluate available options and associated consequences. It is therefore responsible for some preferences demonstrated by investors as they make investment decisions (Hadin, 1999; White, 2018). For instance, people have demonstrated their preference to invest in a particular location based on long-held beliefs, loyalty to cultural values and personal preferences without a thorough consideration of the normative process of decision making (Robert and Henneberry, 2007).

While analyzing the application of heuristics in property investment through a process-tracing investigation, Sah (2011) observed that there are differences in the decision-making pattern of experts and novices. The differences were further attributed to the experience gathered by expert property investors over time about information that is not available to novices. Scholars also posit that decision-makers could analyze investment information without carefully exploring all the available data (Gallimore et al., 2000; Diaz and Hansz, 2007; Lowies et al., 2016; White, 2018). Such decision-makers rely completely on their knowledge and experience from similar investments. According to Gallimore and Grey (2002), property investors' reliance on personal judgement and market trends is usually justifiable and suitable for markets with limited or rapidly changing information.

Whereas heuristics have been heavily criticized for their tendency to mislead decision-makers by not considering salient information regarding the available alternatives (Kahneman et al., 2011), the complexities that may arise as a result of the operational environment, deadline and anticipated outcome often make it unrealistic to adopt pre-defined, procedural decision-making strategies (Hadin, 1999). As a result, heuristics-driven decisions could be more efficient, when compared with methodical decision-making practices (Hertwig and Hoffrage, 2013).

Acknowledging that the investment environment and the manner in which decision alternatives are presented could affect the judgment of decision-makers, Robert and Henneberry (2007) posit that heuristics play a vital role in accessing investment alternatives and anticipating decision outcomes in situations of uncertainty. Lowies et al. (2016), argued further that although heuristics has been extensively considered in property valuation studies, its consideration in property-investment decision-making is emerging.

2.4.2 Bias

Instead of adhering to the logical process of analysing market information, people make irrational decisions by adhering to their opinion or belief (MacCowan and Orr, 2008; Anastasia and Suwiro, 2015) or rather, by evaluating only the information that is vital to them (Gallimore et al., 2000; Sah et al., 2010). Such irrational decisions could manifest in form of biases, due to the influence of emotion and cognition in the decision-making process (Grover 2015; Jain et al., 2019). As illustrated in Table 2.2 above, bias is a behavioural tendency that influences property investors' investment preferences. Property investors demonstrate different forms of biases, leading to stereotyping, gambling and overconfidence in selecting investment preference (Seiler et al., 2008; Waweru et al., 2014). The variants of bias that dominate property research can be viewed from the lens of home bias (Imazeki and Gallimore, 2009; Gibilaro and Mattarocci, 2016), heuristics-driven bias (Lowies et al., 2016) and familiarity bias (Adair et al., 1994; Seiler, 2013; Beracha and Skiba, 2014).

According to Imazeki and Gallimore (2009) in their investigation of domestic and foreign bias in real-estate mutual funds, they reported that investors demonstrate preferences for investments within their region, state or country irrespective of the foreign opportunities or personal benefit. Seiler et al. (2008; 2013), argued further that property investors exhibit familiarity bias by investing in assets and companies that they are conversant with, based on the information that is readily available to them. The tendencies of investors to speculate within their home market despite inherent uncertainties have also been documented by Imazeki and Gillemore (2009) as familiarity bias. This behaviour suggests that irrespective of the inherent risk, some investors prefer and are generally comfortable in environments that they are familiar with, thereby displaying optimistic views about such market, with little regard for the fundamental principle of investment diversification (Beracha and Skiba, 2014). However, not

all investors demonstrate familiarity bias. Asians, in contrast to North Americans and Europeans, seem not to be susceptible to familiarity bias (Seiler et al., 2008).

Bias could also be triggered by other factors, such as age, gender, knowledge and experience (Bhalotra et al., 2019; Su et al., 2020). For instance, Seiler et al. (2008) reported that individuals tend to demonstrate status quo bias by adhering to a similar investment view that they have explored in the past, even when the option is sub-optimal, thereby showing reliance on previous information and circumstance, through what Tversky and Kahneman (1974) described as anchoring and adjustment. In their study of regret aversion and false reference points in residential real estate, Seiler et al. (2008), also reported that male investors are more prone to bias decisions than their female counterparts. Similarly, Seiler et al. (2012) analyzed the probabilistic behaviour of investors through mental accounting and loss aversion and concluded that investors are driven by certainty over uncertainty.

Biases are demonstrated by property investors irrespective of the availability and transparency of market information. According to Chukwudumogu et al. (2019), property investors could define their investment preference deliberately, based on their passion for place, love and belief, thereby demonstrating an emotion-related bias for such investment preferences. Bias also influences investors' view of the market information and plays a vital role in how they evaluate information through gambling and framing (Levy et al., 2020). While investigating the investment diversification and risk across different locations and property classes, Adair et al. (1994) attributed the discrepancy between the general perception of investment interest and the actual behaviour of property investors to the influence of bias in the decision-making process. Indeed, several biases exist and have continued to emerge in real estate literature (Seiler et al., 2008;2012;2013; Gibilaro and Mattarocci 2016; Jain et al., 2019) and the recognition of these biases could inform a deeper understanding of property investment decision-making, as it is being explored in this study.

2.5 Property Investment Environment

Irrespective of the decision-making process or associated behaviour, property investment decisions are dependent on the information available in the property market, otherwise referred to as the investment environment (Isaac and O'Leary, 2011). Property markets are generally synonymous with traditional markets where buyers and sellers meet for trade activities (Hoesli

and MacGregor, 2014; Linneman 2018). Like the conventional markets, the property market is also defined based on risks the expected returns (Fraser, 1993). According to Wang (2000), it is a platform within which investors speculate by exchanging their current resources for future income based on the forces of demand and supply. While fixed-interest securities, shares and bonds are traded globally in centralized markets that encourage flexibility and transparency in the trading system, the property market is decentralized (Hoesli and MacGregor, 2014). As a result, there is a high level of ambiguity regarding property-market operation (Idzorek et al., 2007; Linneman 2018). According to Isaac and O’Leary (2011), the imperfect knowledge of the market rules by investors, which is influenced by law, tradition, location and established norms of the society is a major bottleneck affecting the centralization of property markets.

Despite the standard assumption of classical economists which assumes rationality in the behaviour of property investors within an ideal market environment, scholars have argued that property markets are dynamic and imperfect (Hargitay et al., 2003; Waweru et al., 2014; Lowies et al., 2016), comprising of different actors, institutions and organizations with diverse but interrelated roles that constantly alter market information (Bruin and Flint-Hartle, 2003; Adair et al., 2005). Irrespective of the scholarly evaluation of property investment decision-making (process-based or behavioural), the significance of the market formation, participants and regulations are critical in driving a holistic understanding of investment decisions across diverse market environments (Keogh and D’Arcy, 1999). Amongst other factors, government policies, available competition, end-user expectations are some market attributes that are constantly evaluated alongside various market participants for investment decisions to be made (Isaac and O’Leary, 2011; Linneman 2018).

To better understand the reality of property-investment decision-making, a detailed study of property investors’ interaction at different levels of the market hierarchy is necessary (Black et al., 2003; Newell and Seabrook, 2006). According to Lowies et al. (2016), there is a high level of human interaction that exists amongst organizations within the investment environment, which impacts property investors’ decision-making preferences. For instance, Gallimore et al. (2000), reports that small property companies in the United Kingdom demonstrate a high level of confidence in the private information derived through market contacts than the general information that is available in the property-investment domain. This often leads them to deviate from the normative practices, leading them to demonstrate bias-driven investment

decisions. Smith et al. (2006), suggests further that decision-makers should observe how markets are formed instead of focusing on the traditional market limitations. As a way of optimizing investment outcomes within the property market, Hodgson (2006) also argues that attempts should be made to understand the distinct roles of different market participants, and how they evolve within a unique market environment. Rather than assuming property investors are submissive to market rules, property investment decision-making strategies should accommodate the role of investors' cognitive and social behaviour in evaluating investment preferences and shaping operations within the property market environment (Henneberry and Roberts, 2008; Hoesli and MacGregor, 2014).

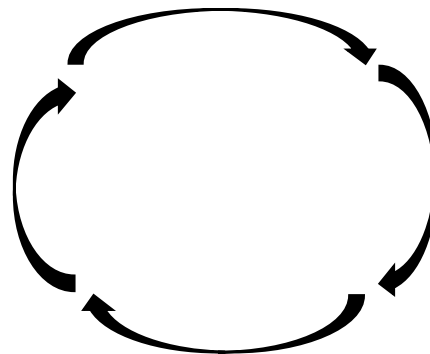
Based on the understanding that investment revolves around market fundamentals including risk and opportunities, Linneman (2018), argued that the interactions across market participants and the justification for property investment should be based on the answers provided to the sequential questions in the cyclic diagram below:

Question 1:

What is a property worth if everything goes according to plan?

Question 2:

What can go wrong?



Question 4:

How does it affect the property value and investment outcome?

Question 3:

What do we do when it does?

Figure 2.2: Justifying property investment

However, recognizing that markets are prone to both rare and obvious events (MacCowan and Orr, 2008; Anastasia and Suwiro, 2015; Nsibande and Boshoff, 2017) and are not solely appraised based on judgements regarding risks and opportunities (Keogh and D'Arcy, 1999; Agboola, 2015), the relevance of procedural models in evaluating different property markets and their peculiar attributes is not clear. This is particularly true for investors evaluating

property investments in markets that are prone to disruptions. *“Property performance indices have invariably focused upon prime markets with a variety of approaches used to measure investment returns. However, there is relatively little knowledge regarding the investment performance of property in regeneration areas. Indeed, there is a perception that such locations carry increased risk and that the returns achieved may not be sufficient to offset the added risk”* (Adair et al., 2005, p.7). Apart from the multi-complex nature of the property market arising from different actors, organizations and institutions (Agboola, 2015), the property market is also exposed to various forms of disruptions that could significantly alter market information and parameters. To further put this study in context the next section explores disruptions and their variants in the property market.

2.6 Property Market Disruptions

Disruptions have triggered dramatic changes globally, across different sectors of the economy (Nyu and Nilssen, 2020). Several socio-economic, political and environmental events have led to profound and accelerated changes in the way businesses activities are conducted in manufacturing, supply chain, financial markets, construction and real-estate markets (Gron and Winton, 2001; Mills, 2003; Cook, 2015) leading organizations to constantly rethink their operating models (Hagel et al., 2008; Burgess and Rapoport, 2019). Although some organizations have leveraged the opportunities associated with disruptions to improve their performance and competitive advantage through proactive measures and efficient resource allocation, others struggle and fail because they are simply unprepared or uninformed about the right strategic response to disruptions (Nyu and Nilssen, 2020). For contemporary property investors, disruptions are now considered a recurring phenomenon that should be considered in their investment decisions to remain versatile and competitive.

Real-estate studies have described disruptions as a sudden or gradual phenomenon, resulting from events that alter the normative flow of activities in the market (Cook, 2015; Veuger, 2018). These events often emanate from social, economic, technological and environmental changes (Gron and Winton, 2001; Mills, 2003), which cause investment markets to operate abnormally (Cook, 2015) resulting in business anxiety (Veuger, 2018) and in extreme circumstances, market collapse (Vishwakarma, 2013). Sudden demographic changes, financial crises, regulatory adjustments and increased automation are typical examples of market disruptions (Kreimer et al., 2003; Cook, 2015). Other hazards including flooding, tsunamis,

hurricanes, earthquakes and the coronavirus (Covid-19) pandemic have also caused disruptions across real-estate markets in recent times (Burgess and Rapoport, 2019; Tanrıvermiş, 2020). Although disruptions are often associated with challenges culminating in falling property values, low liquidity, high operational costs and increase in insurance premiums (Kreimer et al., 2003; Egbelakin et al., 2014), there are opportunities for property values to grow amidst disruptions. The aftermath of disruptions commonly results in uncertainty and changes to investors' well-established practices, necessitating the need for adaptation. As disruptions now pose a growing systemic threat to real-estate investment (Wilkinson et al., 2014), there is a need to constantly adapt investment decisions to prevailing market conditions. Some of the major forms of disruption that currently impact the property market include those outlined in the following sections.

2.6.1 Economic disruption

According to Liow and Angela (2017), economic disruption often emanates from unexpected and steep variations in market fundamentals such as demand, supply and interest-rate fluctuations, like it was observed during the Asian crisis of 1997 and the global financial crisis (GFC) of 2008, with the potential of leaving a lifelong devastating effect on people and their livelihood (Bryant, 2012). The impact of the GFC distorted the economic activities of most countries (Newell and Razali, 2009; Lizieri, 2013; Scanlon and Elsinga 2014), and was felt more within the real-estate market (Bryant, 2012), resulting in a decrease in the trading volume of property assets. In New Zealand, for example, interest rates were high, demand for property assets was low and it took the intervention of the reserve bank and the willpower of property investors to salvage the situation and revive the economy (Murphy, 2011). Whereas rational, objective procedures existed to cushion the impact of possible economic disruptions in the built environment before the 1997 and 2008 economic crisis, (Murphy, 2011) observed significant deviation from the assumed behaviour of stakeholders including property investors as they made investment decisions in response to the market changes.

Contrary to the predesigned objective frameworks, Chivakul et al. (2015), and Chen et al. (2019) reported the influence of cognition in the implementation of the economic models and framework that revived the Chinese national economy during the Asian crisis, with GDP rising by 4% between 1997 and 2004, and up to 15% in 2013 (Chen et al., 2019). Thus, substantiating the significance of behavioural strategies in property-investment decision-making. Other

countries, including the United States, United Kingdom, Australia and Netherlands also reported behavioural and non-financial interventions by public and private entities to cushion the effect of the economic anxiety and restore stability to real-estate operations (Scanlon and Elsinga, 2014; Linneman, 2018). Appraising the impact of economic disruptions on the property market after the 2008 GFC, Scanlon and Elsinga (2014) stated that there is a need for a consistent and integrated appraisal of the property market to avert a repeat of the 2008 episode. Linneman (2018) stressed further that real-estate investment decisions should involve the consideration of factors that are outside the boundary of financial returns.

2.6.2 Social disruption

Demographic changes are also of crucial consideration in property investment decision-making (Hebb et al., 2010). Hoesli and MacGregor (2014) noted that changes in population composition and migration could disrupt property investment patterns, which require flexibility in the decision-making behaviour of property investors. According to Alola (2019), despite the projection that the global population will hit 9.8 billion by 2050, the world is already experiencing a disproportionate mix of ageing and youthful population demographics. Increased migration within and among countries has also been linked to people's reluctance to validate mortgages (Jung et al., 2018). While millennials (i.e. people born in the 1980 and 1990s) are gradually taking over the senior management positions in the society, increased awareness and participation of women in the workforce have also continued to increase globally with a corresponding need to redefine office spaces to suit the associated needs (Forrest and Xian, 2018). Also, the current market perception of an ideal residential or office property is expected to accommodate remote working and living arrangements as a demonstration of preference for flexible lifestyles (Jung et al., 2018). Although today's demographic trend may suggest clear limitations to the traditional decision-making process, it also offers potential opportunities for property investors to thrive, through flexible and innovative decisions (Rabari and Storper, 2014).

2.6.3 Technological disruption

Although disruptive changes have been generally conceptualized to depict catastrophic occurrences (Veuger, 2018), Cook (2015) argues that technology can strengthen the demand for property assets, thereby fostering economic growth. More than ever before in the history of

real estate, a large amount of data is generated in today's market, and this is gradually and continuously re-defining property investment (Rabari and Storper, 2014). According to Cook (2015), sensors and robots have made it possible to enhance security through motion detection and also minimize wastages through operational savings arising from the efficient use of resources. Furthermore, with the help of a cloud repository, property data are now being stored and updated effectively for property valuation and marketing purposes (Rabari and Storper, 2014). Technology has also made it possible to share as-built information of building components across various stakeholders and resolve financial and non-financial issues relating to property investments in an online real-time manner (Cook, 2015). Given the reality and impact of technological innovations in the real estate market, stakeholders including property investors are constantly adjusting, integrating and adapting their decisions regarding predefined investment and operational models (Veuger, 2018).

2.6.4 Regulatory disruption

Depending on the focus of regulations and their implementation processes, Desai and Sarmiento (2015) argue that they could also be referred to as disruptions within the property market. Currently, efforts of various governments are visible in the area of awareness and emergency response strategies to uncertainties (Kreimer et al., 2003). To this end, series of legislations exist within the property investment domain in the form of building codes and standards, sustainable practices, information management and safety expectations (Desai and Sarmiento, 2015), and are constantly reviewed as more understanding of disruptions and their consequences emerge (Filippova et al., 2018). According to Wilkinson et al. (2014), legislations often challenge the *status quo* and requires property investors' compliance regardless of its implication on their investment portfolio. Thus, sudden regulatory changes could create anxiety in the investment environment. Although regulators expect a rational, compliant response to legislative changes from decision-makers, previous studies have highlighted instances where the actual response of property investors deviate from the expectation of policymakers (Desai and Sarmiento, 2015; Filippova et al., 2018). According to Kreimer et al. (2003), the tendency of property investors to accommodate regulatory changes is influenced by the viewpoints of other stakeholders (such as tenants, banks and insurance companies) in the market environment.

2.6.5 Covid-19 pandemic

The declaration of Covid-19 as a pandemic in March 2020 also triggered systemic disruption in the real-estate sectors (Akinsomi, 2020; Nanda et al., 2021). The impact of Covid-19 on the real-estate sector has been described as the most catastrophic in recent history (Milcheva, 2021), owing to the human impact of the health crisis which halted economic activities and gave rise to a high level of uncertainty arising from changing public health and economic policies. Following the unavoidable restriction of human interactions to limit the transmissibility of the causative virus of the pandemic, many organizations adopted remote-working strategies to keep their business going where applicable (Akinsomi, 2020) and most conventional retail transactions were switched to online transactions with the help of technology (Nanda et al., 2021). Consequently, the market witnessed reduced activities across different property types, especially in the office and hospitality sectors (Hoesli and Malle, 2021).

According to Milcheva (2021), the health pandemic revealed significant vulnerabilities in the traditional, rigid asset development and management strategies, and highlights the need for flexibility and innovation in the management of property assets. Akinsomi (2020) also argued that market participants responded differently to the changing market situations occasioned by the pandemic due to its sudden impact and the need for urgent response. Although the overall effect of Covid-19 on real-estate investments remains uncertain at the time of writing this thesis, scholars have argued that the health pandemic could inspire long-term changes in the way real-estate markets and transactions are conceptualized (Milcheva, 2021; Hoesli and Malle, 2021).

Whereas disruptions do not solely define the potentialities of property assets (Hebb et al., 2010) the possible impact of disruption is underestimated in the existing decision-making frameworks. According to Veuger (2018), how investors respond by way of adaptive decisions to the changes in the investment environment determines the viability of properties within a disrupted market. Cook (2015) suggests further that property investors should constantly adapt their decisions to the current trends in their investment environment to maximize the realization of their investment goals.

Lo (2004) described the adaptive market strategy as an approach where intelligent but fallible investors constantly adjust their investment decision-making to changing market conditions. The focus of the adaptive strategy is that humans are mostly rational in their decision making but quickly descend into irrationality as a reflexive response to market instability and uncertain events (Mushinada, 2020). Adaptation is now recognized as a requirement for successful investment outcomes within financial markets (Lo, 2004), and from a theoretical viewpoint may resolve some of the constraints implicit in predefined market assumptions such as modern portfolio theory and the efficient market hypothesis. Given the increasing pace of disruption, “*conventional wisdom holds that in the absence of equilibrium, adaptation is the best strategy*” (Hagel et al., 2008, p.3). This view suggests that investors will have to constantly adapt to the changing business environment and events that disrupt their predefined business models.

Whereas several regulations have been enacted to reduce investor scepticism and drive the adaptive strategies of property investors to market disruptions, studies have shown that property investors’ adherence and commitment to regulatory guidelines vary with their investment objectives and alternatives (Egbelakin et al., 2014; Filippova et al., 2018). As a result, very little is known about how property investors adapt to disruptions. According to Burgess and Rapoport (2019, p. 4), “*the real estate investment industry as a whole is still early in its development of strategies to recognize, understand, and manage disruptions.*” The need for adaptation in managing disruptions, therefore, remains an important subject within property literature and underscores the need to fill the gap in understanding how property investors adjust their investment decisions to changing market environment. The present study explores this issue in the context of the New Zealand property market.

2.7 Chapter Summary

This chapter explored relevant literature in the study area with a detailed description of various concepts that could inform the realization of the research aim and objectives outlined in Chapter One. The chapter commenced with an overview of property-investment decision-making and the relevant approaches. Process-based decision-making models were examined first and then the behavioural attributes of decision-makers were explored. The significance of the property investment environment and the various forms of market disruptions were also reviewed. The next chapter establishes the theoretical lens and framework for the research.

CHAPTER THREE

Theoretical Framework

3.1 Chapter Overview

Chapter Two provided an overview of the decision-making process for property investment, investors' behaviour, and property market disruptions. The present chapter offers a theoretical framework for understanding disruption-driven investment decision-making for listed property trusts (LPTs) in New Zealand. The chapter is divided into six sections. Further to justifying the need to explore decision-making from a theoretical viewpoint in Section 3.2, Section 3.3 evaluates relevant decision-making theories in the normative, descriptive and prescriptive contexts. Section 3.4 explains the principles of the institutional theory with reference to isomorphic tendencies, while Section 3.5 clarifies the relevance of institutional theory to this study. The last section provides a summary of the chapter.

3.2 Theoretical Perspective to Property Investment Decision-Making

As a distinct feature in most developed fields of study, theories constantly drive knowledge acquisition and dissemination (Dynes, 1994). The postulation of theories is regarded as benchmark for academic prosperity (Madani and Lund, 2011; Gintis, 2014), especially because it converts the available knowledge in a field into useful tools for both experienced and inexperienced researchers to understand and explore relevant research areas efficiently. Decision-making theories in the context of property investments have, therefore, been described as 'frameworks' that scholars explore to delineate the processes involved in the evaluation of alternative investment options (Roberts and Henneberry, 2007). As established in the extant literature, scholars have described the decision-making pattern of property investors through various theories that have been propounded and critiqued (French, 2001; Parker, 2014; Nsibandé and Boshoff, 2017). While there are arguments that some theories have limited relevance based on their scope (Gigerenzer and Selten, 2001; Sah, 2011), the mode of gathering information useful for decision-making is restricted in other theories (Roberts and Henneberry, 2007). To understand the multidimensional tendencies of property investors and the values that influence their judgment, this chapter examines relevant theories as the basis for understanding property investment decision-making amidst market disruptions.

3.3 Evaluation of Relevant Decision-making Theories

To ensure a comprehensive assessment of relevant theories that have been proposed to understand property investors' decision-making practices and their applicability in evaluating market disruptions, the framework highlighted in Figure 3.1 was followed. Similar to the approach adopted by (Klamer et al., 2017), a 'snowballing' approach was used to assemble pertinent decision-making theories from the field of psychology, sociology, economics and urban studies. Commencing with an index search of high-impact journals that have previously assessed risk, uncertainties, human activities and their interactions in the built environment, an extended data exploration was also done using the Google Scholar web search engine and Web of Science databases to broaden the search scope. The search process resulted in a preliminary dataset of 82 papers with relevant decision-making theories. However, focussing on the crux of this study, exclusion measures were put in place, and papers that did not focus on investment decisions and human behaviour were discarded. The final dataset comprised 27 articles and seven theories.

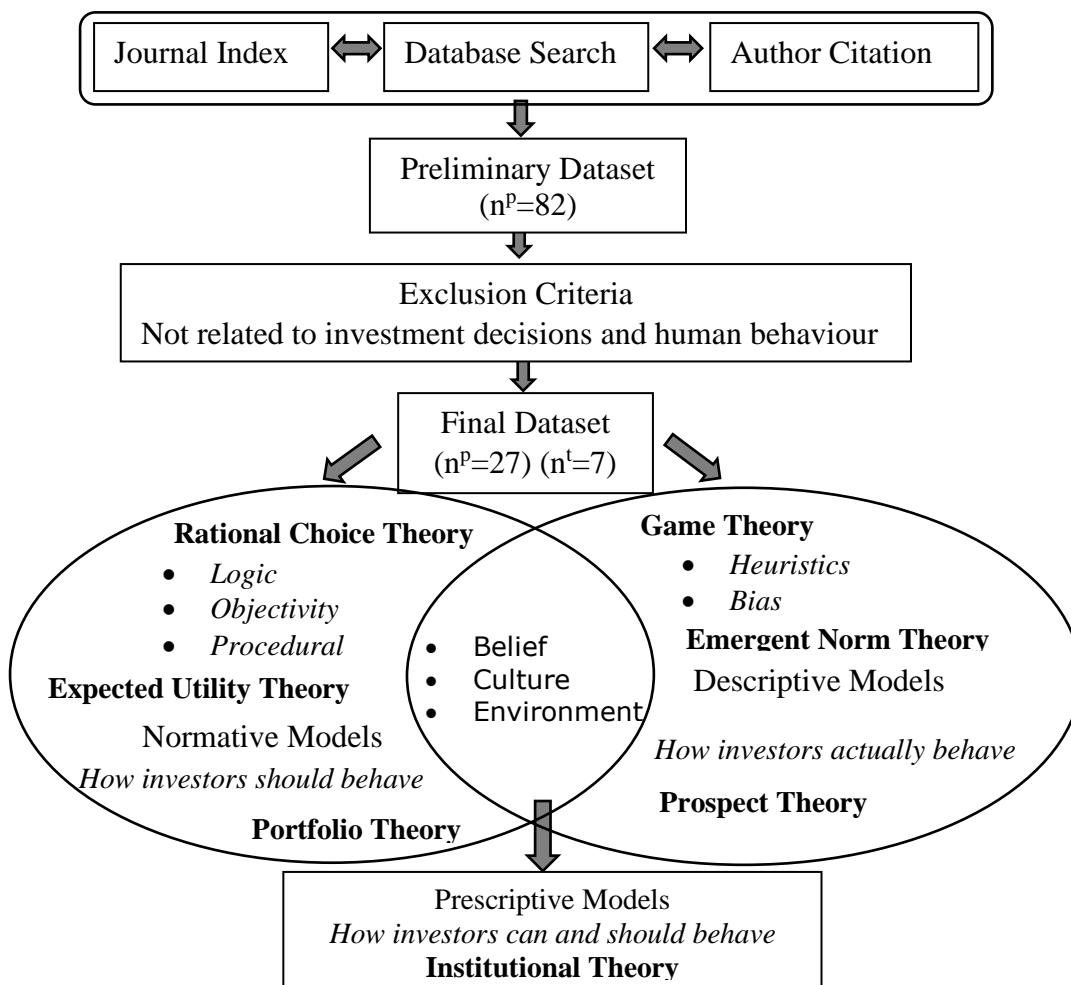


Figure 3.1: Theoretical framework of this study n^p = number of relevant papers; n^t number of relevant theories

Following the decision-making models suggested by Gallimore and Gray (2002), Sah et al. (2010), French (2001) and Parker (2014), the theories were subsequently grouped as ‘normative’, ‘prescriptive’, and ‘descriptive’ models, as shown in Figure 3.1. While the rational choice theory, expected utility theory, and modern portfolio theory are categorized as normative models that rely on logical, stage-based decision-making patterns in describing ‘*how investors should behave*,’ the descriptive models comprise prospect theory, emergent norm theory and game theory that are more expressive and also emphasize the significance of human cognition in describing ‘*how investors actually behave*.’ However, the prescriptive model, within which the institutional theory fits, recognizes both stage-based and instinctive decision-making patterns. Therefore, it recognizes the importance of human belief, culture and environmental factors in rationalizing ‘*how investors can and should behave*.’ The identified theories as they apply to the illustration in Figure 3.1 are discussed below.

3.3.1 Rational Choice Theory

According to French (2001), most conventional economic assumptions are based on rational choice theory. This theory postulates that people will always make realistic and predictable decisions that offer maximum personal benefit or satisfaction (Simon, 1986). Gigerenzer and Selten (2001) further argue that ‘self-interest’ is the driving factor behind rational choices as people strive to maximize opportunities and minimize losses. The theory is relevant in property investment and has contributed significantly towards understanding the behaviour of investors in an ideal situation (Roberts and Henneberry, 2007). However, more recently, economists have been sceptical about the general applicability of rational choice theory (Anastasia and Suwiro, 2015; Nsibandé and Boshoff, 2017). Sah (2011) and Gigerenzer and Selten (2001) argue that property investors do make irrational decisions as they are not always provided with all the information they require to optimize their decision-making choices. Chen et al. (2019) stressed further that although rational choice theory is straightforward and easy to comprehend on paper, its real-world application is controversial. Robinson et al. (2013) also concluded in their research that human stress levels and anxiety affect rational thinking. The perceived behavioural implication of such apprehension often results in time and cost pressures, leading to the inability of the decision-maker to make coherent choices. Moreover, while rational choices are suitable for evaluating alternatives in an ideal environment, scholars have faulted its relevance in making investment choices amidst uncertainty (French, 2001; Roberts and Henneberry, 2007; Nsibandé and Boshoff, 2017). Considering the attitudinal changes that

individuals and organizations exhibit when faced with uncertainties, it has been argued that investment decisions should not be totally dependent on the logical postulations of this theory.

3.3.2 Expected Utility Theory (EUT)

In dealing with the limitations and variations in investment risk and uncertainties, scholars have documented the adoption of expected utility theory (EUT) by real-estate investors as a measure of their investment preference and likely outcome (French and French, 1997; Newell et al., 2015). Premised on a weight-based evaluation framework, EUT recognizes the various perceptions of property investors in accessing investment risk through an objective process that is open to the potential influence of delusion and bias (Kahneman and Tversky, 1979). EUT attempts to highlight the value attached to decision outcomes by decision-makers as they evaluate loss aversion through gambling or probability (French and French, 1997). Also considered as a fundamental principle of evaluating logical economic behaviour under uncertainty (Newell et al., 2015), EUT has been used interchangeably as a normative and descriptive theory in property literature because it acknowledges the significance of rationality and perception in assessing decision-making (French, 2001). Whereas EUT remains relevant in evaluating property investment decision-making, critics of the model argue that the theory does not provide a consistent approach to accessing risk because not all property investors are risk-averse (Seiler et al., 2012). French and French (1997) also noted that risk is not quantifiable, as it has multiple interpretations to different people, making it difficult to evaluate within the EUT framework.

3.3.3 Modern Portfolio Theory (MPT)

Modern portfolio theory (MPT) facilitates investment diversification based on the normative model of utility maximization (Hoesli and MacGregor, 2014), with the assumption that investment outcomes are solely based on financial returns (French, 2001). The theory was propounded by Harry Markowitz in 1952, based on the postulation that optimal return on investment can be achieved when investment risk is spread across different classes of assets as a way of establishing optimality (Guerard, 2009). Also referred to as portfolio management theory (Omisore et al., 2011), MPT advances the orthodox investment model by encouraging diversification to reduce investment risks peculiar to individual assets (Fu and Blazenko, 2017). Whereas the rational choice theory emphasizes the analysis of individual property assets

(Roberts and Henneberry, 2007), MPT is focused on identifying the strength and weaknesses of various investment options (Nelson and Nelson, 2003) and subsequently identifying a set of investment assets that collectively offer a higher return and lower risk exposure (French, 2001).

The rationale underlying the application of MPT in real estate investment is premised on the risk and return trade-off between different property types (Guerard, 2009), with the assumption of a perfect market scenario (French, 2001), where relevant and timely information is available and accessible to property investors. However, while the expected return on a portfolio investment is usually evaluated using a weighted average (Fu and Blazenko, 2017), risk evaluation is more complex, and it often involves correlation amongst individual assets (Roberts and Henneberry, 2007; Hoesli and MacGregor, 2014). According to Farragher and Savage (2008), apart from the unsystematic risk such as property location, tenant type, lease arrangement and obsolescence that affects property investment assets differently, systematic risks arising from economic and regulatory uncertainties also impact property returns and are difficult to integrate into the MPT framework (Nelson and Nelson, 2003).

MPT has also been criticized for its practicality in real-life scenarios on the premise that not all investors are utility maximizers (French, 2001; Hoesli and MacGregor, 2014). While MPT attempts to depict risk in terms of probability and impact, it is silent on the potential causes of the risks (Guerard, 2009). In fact, behaviourists also argue that property investment returns are not solely based on risk considerations (French, 2001; MacCowan and Orr, 2008; Sah, 2011). Furthermore, the versatility of MPT has been challenged because the theory “*does not consider personal, environmental, strategic or social dimensions of investment decisions*” (Omisore et al., 2011, p. 27). According to Nelson and Nelson (2003), diversification is only effective for peculiar risks that affect specific asset classes or locations. For the broader and more-extensive risk that often leads to a market crash like the 2008 global financial crisis, Fu and Blazenko (2017) stated that even investors with diversified portfolios are prone to negative returns on their investment. However, by eliminating the unsystematic risks, investors can reduce the overall risk impact on their investment, thus, optimizing the concept of utility maximization, which is the main logic behind MPT (Hoesli and MacGregor, 2014).

3.3.4 Emergent Norm Theory

Emergent norm theory is premised on the assumption that a group's collective action in response to events or situations emerges through unconscious but reasonable decisions that often lead to new behavioural norms (Caterino et al., 2009; Gintis, 2014). Originating from the field of sociology, this theory is particularly relevant in understanding human perception and response to uncertainties (Dosi et al., 2002; Boteler, 2007). The theory suggests that when people deliberate during a crisis, they abandon their usual behaviour and adopt a new behavioural standard (Xu, 2017). According to Dynes (1994), this is because when people are collectively faced with uncertainty without an accepted norm, they tend to focus on the new distinctive emerging behavioural pattern within the group as they feel discontent about their situation. The new norm that emerges from the group is devoid of any rule or order; rather, it is formed based on the general perception of what is deemed appropriate (Xu, 2017).

Emergent norm theory has been applied extensively in various fields to study peoples' collective response to uncertainties (Reicher, 1987; Dosi et al., 2002; Boteler, 2007). For instance, in investigating how people made decisions during the evacuation process at the World Trade Centre in 1991, Dynes (1994) adopted the emergent norm theory, and he discovered that anxiety, aggression, and panic were behavioural norms that emerged during the chaotic circumstance. As a preventive strategy, emergent norm theory is useful in understanding the dimension of human preparedness towards hazards. According to the National Academy of Sciences, "*Emergent norm theory of collective behaviour which posits that groups faced with the potential need to act under conditions of uncertainty (or potential danger) engage in interaction in an attempt to develop a collective definition of the situation they face and a set of new norms that can guide their collective behaviour*" (NAS, 2006, p. 126). Consequently, in determining the appropriate response to disruptions, people make decisions based on risk perception and their knowledge about the environment.

Like other theories, the emergent norm theory has also been faced criticisms. According to Reicher (1987), when people converge, they do so with their behavioural norms intact; therefore, a new norm does not emerge. Reicher believes that the ultimate goal of the group is responsible for their collective behaviour. Bruin and Flint-Hartle (2003) also stated that behavioural norms evolve not as a result of mere interaction but through an extensive and

deliberate renegotiation of existing norms. The method of evaluating and establishing the emergence of new norms is, therefore, not clear.

3.3.5 Prospect Theory

Prospect theory was proposed by Kahneman and Tversky (1979) as an alternative to the rational construct of evaluating uncertainties. Advancing the view of the expected utility theory, prospect theory evaluates decision-making from the perspective of bounded rationality based on the psycho-social attributes of the decision-maker (Seiler et al., 2012). Instead of focusing on the outcome of the decision-making process, prospect theory anchors people's preference on losses and gains (Barberis, 2013; Newell et al., 2015). According to Kahneman and Tversky (1979), decision-makers demonstrate risk aversion when faced with gains and risk preference when faced with losses. Therefore, peoples' sensitivity to losses and gains affects their ability to make coherent choices (Seiler et al., 2012) as they are exposed to various types of inducements in the decision-making process (Buisson, 2016).

In the real-estate context, prospect theory has been explored to understand market performance and the behavioural factors that impact decision-making in property investment. For instance, Seiler and Seiler (2010) argued in their study of investors' risk-seeking behaviour that investors strive to avoid regret and, therefore, prefer to retain non-performing assets instead of divesting them at a loss. Further, Mori et al. (2010) reported that mortgage choices are affected by psychological and cultural factors, with evidence suggesting that risk-averse people demonstrate willingness to accommodate risk as mortgage rate fluctuates. Recently, Levy et al. (2020) also examined the effect of framing and market familiarity on the residential property market and they reported that optimistic and pessimistic framing influences the perception of home buyers as they evaluate house prices.

Notwithstanding the significant breakthrough of prospect theory in understanding decision-making behaviour, prospect theory has been criticized for being silent on the roles of emotion (Newell et al., 2015) and possible variations in environmental factors that could influence the loss and gain perceptions of decision-makers (Barberis, 2013).

3.3.6 Game Theory

Another major behavioural theory that has been widely used in property research to understand the interaction that exists among decision-makers is the game theory (Ball, 1998; Camerer, 2011). The game theory employs the use of mathematical models in interpreting logical reasoning as it seeks to understand and interpret players in the decision-making circumstance and their manner of interaction (Madani and Lund, 2011). Premised on the interdependence of decision-makers, game theory models a situation of disputes and synergy amongst players as a function of their mood, behaviour and payoffs (Mu and Ma, 2007). By assuming a model of a real-life occurrence, the game theory accesses and classifies players based on their cooperative and non-cooperative tendencies (Gintis, 2014). It provides a robust data collection base, useful in predicting the behaviour of decision-makers towards an anticipated outcome (Ball, 1998). As various actors in the property market evaluate available investment alternatives, game theory is useful in aligning optimal strategies to players' interests, and it is suitable for analysing situations involving two or more actors.

Although game theory is a relatively simple and widely used tool in analyzing decision-making in a social context, there are observed limitations to its efficiency (Camerer, 2011). Caterino et al. (2009) observe that the decision-making pattern of players frequently diverges significantly from the anticipated predictions. Camerer (2011) stressed further that players are not as rigid as being envisaged. Studies have shown that decision-makers are flexible in their behaviour and are less selfish, as projected by the theory (Paker, 2014; Chukwudumogu et al., 2019). Therefore, considering the impact of behavioural factors, such as sentiment, belief and cultural norms, Gintis (2014) argued that game theory should not be solely used to interpret human behaviour. It should rather be used to complement other relevant behavioural concepts (Madani and Lund, 2011). "*Game theory without broader social theory is merely technical bravado, so social theory without game theory is a handicapped enterprise*" (Gintis, 2014, p. 11). Investigating the pricing strategies of property investors, Mu and Ma (2007) revealed that property investors make more-optimal pricing decisions independently, compared to their position within a cooperative circle. As such, investors with relevant experience are capable of maximizing decision outcomes through deliberate subjective actions.

Although the aforementioned theories have enhanced our understanding of property investment decision-making, concerns have been raised about their suitability in achieving optimality (Sah

et al., 2010; French, 2001; Parker, 2014), especially in disruptive circumstances. Some of these concerns are linked to investors' definition of optimality, inadequate market information, and market uncertainties (Gallimore et al., 2000; Gallimore and Gray, 2002; Roberts and Henneberry, 2007). While mainstream studies ignore the fundamental significance of property market environments, their evolution and peculiarities, Keogh and D'Arcy (1999) and Agboola (2015) have emphasized the importance of understanding market structures and interactions across various markets hierarchies with respect to making investment decisions. To advance the current view of property investment decision-making, the next section explores institutionalism as a theoretical basis for understanding property investment decision-making amidst market disruptions.

3.4 The Institutional Perspective

Institutional theory can be traced to the imaginative insight and works of scholars, including Max Weber, Charles Cooley, Thorstein Veblen, and John Commons, much of which was accomplished in the nineteenth century (Scott, 2010). The theory addresses the internal elements of an organization, which includes the processes through which beliefs, rules, norms, and routines are established as principles that guide social behaviour (North, 1990; Hodgson, 2006). It evaluates how these elements are formed, dispersed, and adapted in various environments (Salomon and Wu, 2012) as well as their relevance in achieving organizational goals (Meyer and Rowan, 2006). The institutional theory does not only ensure stability within an organizational construct by way of compliance and conformity with the assumed norm, but it also accommodates disputes and conflict of interest that exists therein (Scott, 2010). The robustness of the theory has been further demonstrated through its multiple conceptualizations. For instance, it has been explored under the lens of classical and neoclassical school in economics (Williamson, 1985; Keogh and D'Arcy, 1999; Agboola, 2015), the study of human behaviour in politics (Immergut, 1998; March and Olsen, 1996), and knowledge sharing in sociology (Meyer, 1977; Zucker, 1977). As a result, institutional theory has been used in understanding organizational behaviour across diverse fields of human endeavour such as education (Meyer and Rowan, 2006), healthcare (Ruef and Scott, 1998), social welfare (Scott, 2008), and the study of firms and agencies (Monahan et al., 1994) as a way of evaluating both intra and inter-organizational behaviours that emanates from institutions⁴.

⁴ institutions in this sense are defined as the 'rules of the game' in society or, more formally, are the humanly devised constraints that shape human interaction (North, 1990).

The core of institutional theory is premised on achieving legitimacy and survival (Hodgson, 2006) within organizational and environmental structures, influencing the realization of this goal (Scott, 2008). The theory evolved from the perception that organizations that operate in a particular sector of society resemble themselves to an astonishing degree (DiMaggio and Powell, 1991). Therefore, it analyses this homogeneity in an in-depth manner to draw inferences on the reason for such similarities (Meyer and Rowan, 2006). For instance, people have a certain idea of what a typical shopping mall should look like in terms of its structure and the services provided. However, a more detailed evaluation of several shopping malls could reveal specific goal-driven practices that exist within them that may not be obvious at first. As a result, Keogh and D'Arcy (1999) argue that the external obligations, rules and norms do not solely shape organizations but also the interactions within them. Institutional theory, therefore, provides a framework through which behaviours and processes within and outside organizations are evaluated in order to make sense of a phenomenon. The theory considers the impact of both rational and cognitive interactions on organizational structure. These interactions within an environment result in comparable operational tendencies, otherwise described as isomorphism (Salomon and Wu, 2012). Isomorphism can be described as behavioural resemblances in the operational procedures of various organisations despite similar limitations (Yang and Hyland, 2012), and it is categorized into three groups, namely:

- Normative isomorphism: which describes the influence of professional bodies or groups on organizations, as a way of legitimizing behavioural standards (DiMaggio and Powell, 1991). For instance, professional groups' accreditation of individuals and organizations suggests that people who emerge from the same discipline are expected to behave and tackle problems in similar ways. Socialization amongst various organizations promotes and strengthens normative isomorphism through the cross-recruitment of professionals and their subsequent domination within specific environments (Mizruchi and Fein, 1999), thereby compelling them to align with an assumed norm through adherence to social obligations, certifications or accreditations.
- Coercive isomorphism: These are the formal and informal pressures put upon organizations to promote certain behaviours that conform to expectations (DiMaggio and Powell, 1991). Coercive isomorphism stems from enforced protocols on organizations upon which institutions depend, as well as the expected cultural

compliance from society at large (Mizruchi and Fein, 1999). These protocols include existing law and tradition, relevant government policies and reporting standards. All of which makes organizations behave the way they do, according to a perceived standard.

- **Mimetic isomorphism:** According to DiMaggio and Powell (1991), mimetic isomorphism explains the likelihood of an organization to imitate the behaviour of similar organizations within an environment, based on the notion that the latter organizations are more informed and proficient. It includes following best practices, which can be a result of benchmarking or performance comparison amongst various establishments (Immergut, 1998). According to Yang and Hyland (2012), mimetic isomorphism is demonstrated when firms derive their motivation or strategies from other organizations to improve their processes. Mizruchi and Fein (1999) also stated that mimetic patterns could be observed when influential or experienced individuals move across organizations with their ideas and expertise. It is observable across organizational fields and sectors and has been particularly useful in dealing with uncertainties (Yang and Hyland, 2012) wherein an organization imitates the behaviour of other organizations that have responded or are responding to a similar predicament.

Understanding the role of isomorphism in institutional theory clarifies the relationship between formal and informal behaviours within organizational structures and how they influence behaviour (Salomon and Wu, 2012). It also allows various organizations to monitor compliance with established norms and procedures while motivating them towards a standard behavioural practice. Although scholars have attempted to prioritize one isomorphic tendency over another (For instance, while economists emphasize the significance of coercive structures (Williamson, 1985; North, 1990), sociologists advocate more recognition of normative structures (Meyer, 1977; Scott 2008), understanding how the institutional theory works in practice involves an integrated analysis of the normative, cohesive, and mimetic tendencies that exist within and outside the organizational structure. Thereby making institutional theory a holistic framework for evaluating organizational behaviour, especially amidst uncertainties.

To commence the study of institutions within the property market, Keogh and D'Arcy (1999) suggest that scholars should observe how markets are formed. Instead of focusing on the traditional market limitations and assuming a submissive role of property investors in the

market environment, investors' cognitive and social behaviour that could shape their operations should be explored (Hodgson, 2006; Roberts and Henneberry, 2007). Although mainstream property literature on decision-making is silent in recognizing the relationship and impact of actors and processes on property investment decisions in the market environment, recent studies have admitted that interactions exist between investors and other market participants (Lieser and Groh, 2014; Agboola, 2015). In fact, Keogh and D'Arcy (1999) suggested that markets exist as a function of investors that operate within them. Gallimore and Gray (2002) also attempted to establish a relationship between market sentiments and market participants, but the implication of such interaction on decision outcome was not explored. Figure 3.2 summarizes the various hierarchy in the property market, the actors involved and the interaction that takes place therein.

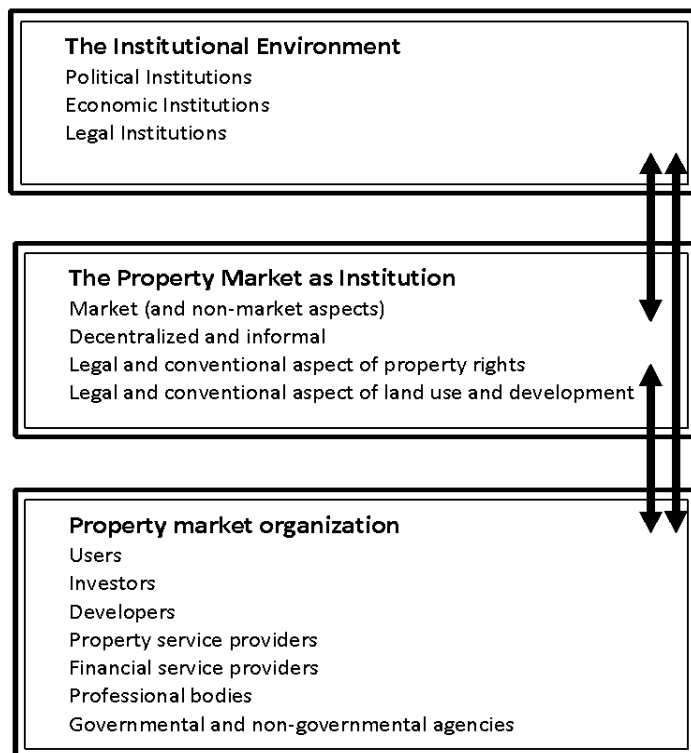


Figure 3.2: Institutional hierarchy within the property market (Keogh and D'Arcy, 1999)

Arguing that the market environment is made up of different stakeholders, including government agencies, investors, developers, banks, insurance companies, and tenants with distinct roles and behaviour that aligns with their projected output (Keogh and D'Arcy, 1999), the categorization of these stakeholders and their behaviour has been used interchangeably within the literature as institutions and organizations (Hoesli and MacGregor, 2014). In

clarifying the role of organizations and institutions within a functional investment market, Hodgson (2006) argues that organizations are the entities that interact within the investment domain, while institutions are the rules that govern these interactions. The position of Hodgson was also corroborated by Ball (1998) in his study of institutions in British property.

3.5 Relevance of Institutional Theory to this Study

Although there is no universally accepted model for property investment decision-making, the property literature is inundated with several ideas and concepts that attempt to simplify the decision-making process to maximize investment outcomes. Indeed, property investment decision-making can be viewed from different lenses. While the traditional property investment approach is dominated by the positivist stance that depicts a logically coherent, stage-based model, based on the neoclassical assumptions that property investors operate within an ideal market, scholars have argued that the traditional view ignores the underlying importance of property investors' behaviour and their role in a dynamic market environment. A lot of studies, including Egbelakin et al. (2014), Desai and Sarmiento (2015) and Filippova et al. (2018), have attempted to understand the decision-making behaviour of property investors amidst market disruptions based on their response to the existing formal rules that subsist in various locations. However, despite their valuable contribution to the property investment decision-making literature, gaps remain regarding the impact and influence of informal interactions that exist within the organizational structure and the investment environment on the decision-making behaviour of property investors amidst market disruptions.

Whereas property investors conform to formal regulations as enforced by the state in ideal circumstances, Keogh and D'Arcy (1999) argue that informal interactions across various hierarchies, environmental demands, and continuous evaluation of organizational objectives are essential in seeking and maintaining legitimacy in unusual circumstances. DiMaggio and Powell (1991) and Scott (2010) also stressed that organizations exist and develop within an environment wherein the existing culture impacts their decision-making strategies as they gather experience and gain more understanding of the local environment. No two property investment environments are the same. Recent studies have, therefore, reiterated the significance of human cognition, social interactions and norms in evaluating property investment preferences.

Indeed, the property investment environment is imperfect. Although earlier studies that examined property investment decision-making posits a ‘top-down’, rational influence on the organizational structure (Hargitay and Yu, 1993; Gigerenzer and Selten, 2001), scholars have, however, challenged the efficiency of this unilateral approach based on the dynamism of the property market environment (Gallimore and Gray, 2002; Hargitay et al., 2003). According to Veuger (2018), the property investment environment is susceptible to disruptions, often conflicted and not monolithic. It is, therefore, not ideal for property investors to set boundaries for the organizational structure to accommodate divergent and salient views, particularly because suppressed opinions that often emanate from various players within the organizational structure could lead to a legitimate behaviour that offers great insights and practical approaches, useful in adapting to disruptions. Therefore, as much as the formal regulations in the form of professional and legislative rules govern the activities of property investors within a specific market, informal rules that emerge as a result of interactions within an investment environment are equally important.

Disruptive occurrences also provoke innovation amongst property investors as they interpret and make sense of the changes in the normative pattern of events through subjective interactions that often result in a clearer conceptualization of their investment decisions. Formal regulations and standards should, therefore, not dominate informal strategic thinking. While rational decision-making theories remain relevant and widely used in property investment decision-making, it has been suggested that more attention should be directed towards recognizing the behaviour of human agents that operate within the complexity of an uncertain market (Robinson et al., 2013; Chen et al., 2019). As such, institutional theory serves as a framework that coordinates the reality of human culture, belief, and interactions, together with the rational assumptions of existing formal rules, for property investment decision-making amidst market disruptions to be clearly understood. It conceptualizes the property market as a complex structure that is susceptible to both internal and external influences (Keogh and D’Arcy 1999).

In exploring the subjective attributes of property investors, institutional theory recognizes that players within the market environment do not have access to complete information, and their ability to process information is limited. It also acknowledges that changes in players’ circumstances could influence their decision-making preferences. Institutional theory is capable of eliciting findings on how and why institutions evolve (Immergut, 1998). It probes

how factors such as principles, laws, tradition and routines can lead to an established standard of behaviour (Hodgson, 2006). Proponents of institutional theory, therefore, argue that it recognizes the 'bottom-up' influence that exists within an organizational structure and its complementary role on prevailing 'top-down' models as a way of enhancing our understanding of organizational behaviour in uncertain circumstances. Although it is acknowledged that the preference for one theoretical model should not subvert the viability of others, institutional theory consolidates the views of classical and contemporary theorists through interactive and recursive models that substitute one-way, determinist arguments. Thus, offering a more balanced understanding of the decision-making behaviour of property investors amidst market disruptions.

The consideration of institutional theory as a suitable model for understanding property investment decision-making behaviour amidst market disruptions is borne out of the limitations observed in theories that recognize rationality as the core of organizational efficiency and those that are based purely on human cognition. Unlike other theoretical approaches, institutional theory recognizes the dynamism in the investment environment and the uncertainties therein. Rather than assuming the availability of complete information, the theory analyses the behaviour of decision-makers based on existing norms, culture and environmental influence. It is, therefore, suitable for understanding both inductive and deductive behaviours that evolve within an environment. Furthermore, institutionalism probes how factors such as principles, laws, tradition and routines can lead to an established and legitimate standard of reasoning and as such, it is useful in investigating the essence of interactions within an investment environment, their emergence from various social, cultural and economic settings and how they influence investment decisions in a complex environment. Concerning the focus of this study, which is premised on understanding the disruption-driven investment decision-making of LPTs, the institutional theory expands and integrate our understanding of the traditional property investment decision-making process by recognizing both rational and cognitive attributes of property investors within an operating environment that is governed by formal and informal rules. Thus, contributing to a deeper understanding of how property investors react to market disruptions and their motivation for doing so.

3.6 Chapter Summary

Relevant decision-making theories, such as rational choice theory, modern portfolio theory, emergent norm theory, expected utility theory, prospect theory, game theory and institutional theory were reviewed in this chapter. Based on the consideration of investors' access to information, the definition of optimality, consideration of market actors and interaction in the investment environment, amongst other factors, this chapter reveals that property investment organizations do not exist in a vacuum. Rather, they are influenced by various internal and external conducts that emanate from cultural attachments, legislative requirements, conventions, belief systems and norms, of diverse actors (e.g., government agencies, tenants, insurance companies). Despite recognizing the significance of stage-based and intuitive strategies in making investment decisions, this chapter highlights the relevance of institutional theory in developing a holistic response to market disruptions. Further, the chapter highlights the need to integrate formal and informal rules as a way of seeking legitimacy from a holistic point of view. By emphasizing the dynamism of the investment environment and its implication in addressing market uncertainties, this chapter posits the institutional theory as a robust theoretical framework that could guide the detailed understanding of the adaptive decision-making of LPTs to property market disruptions. The next chapter explores the methodological approach to this study.

CHAPTER FOUR

Research Methodology

4.1 Overview of the Chapter

The previous chapter evaluated theoretical viewpoints that are relevant to property investment decision-making and the significance of institutional theory as a lens for exploring the disruption driven investment decisions of Listed Property Trusts (LPTs) in New Zealand. In this chapter, the overall research design, comprising the ontological assumptions, epistemological requirements and methodological approaches are clarified. The chapter describes the various components of research philosophy as they apply to this study. Also, relevant research strategies and methods that are applicable to the study were highlighted and evaluated in line with the research problem identified in Chapter One. Adopting a phenomenological approach within case studies, this chapter clarifies the appropriateness of the chosen methodological worldview, researcher's reasoning stance, data collection and analytical methods, research participants and ethical considerations involved in this study.

4.2 Research Approach

“Research approaches are plans and procedures for research that span the steps from broad assumptions to detailed methods of data collection, analysis and interpretation” (Creswell, 2014, p. 3). According to Fellows and Liu (2008, p. 4), a well-formulated and implemented research approach is vital for any form of disciplined inquiry that aims to contribute to a body of knowledge or theory. Depending on the research question or subject of enquiry, a research approach encompasses the generation and investigation of hypothesis, collation of evidence and formulation of theories based on the reasoning stance of the researcher (VanderStoep and Johnston, 2009). The research approach can be inductive or deductive (Saunders et al., 2009). Whereas deductive research progresses from broad concepts and observations to specific propositions, inductive research emanates from specific ideas to generalizable principles (Creswell, 2014)

Unlike the deductive research that provides a systematic technique of verifying existing concepts, inductive research leads to a completely new conceptualization of an established phenomenon (Saunders et al., 2009). As demonstrated by Sutrisna (2009), an inductive study

involves the immersion of the researcher in the subject of investigation to have a clear comprehension of the knowledge that is being sought in a less-structured manner. As such, this approach is suitable for investigating changes in human behaviour, perception, culture, experience as its impact on their decision-making, which is the focus of this study.

Commencing with the review of previous studies in the research area, the inductive approach involves the identification of research gaps that lead to the research questions (as highlighted in Chapter One), philosophical underpinnings and the overall research design (Creswell, 2014). A detailed description of these components as they apply to this research is provided below.

4.3 Research Problem

The research problem states the motive for undertaking a study, elucidating why it is worth exploration (Naoum, 2013). Although research problems emanate from various sources, they should clearly rationalize the research objectives (Savin-Baden and Major, 2013), which is essential in justifying the study route (Groat and Wang, 2013). For instance, a problem may be defined as an extension of existing findings in the knowledge area or as a way of closing identified gaps in extant literature (Savin-Baden and Major, 2013), as is the case in this research. While substantial research has been conducted in the area of property investment decision-making, limited evidence exists on the disruption-driven investment decisions of property investors. Having established the research problem (i.e., limitations of the existing decision-making frameworks amidst market disruptions), the research aim and objectives highlighted in Chapter One provides a premise for understanding the decision-making pattern of property investors amidst market disruptions. A detailed exploration of this knowledge gap requires a thorough consideration of relevant research philosophies and strategies that are capable of informing novel insights on the research problem, as discussed in subsequent sections of this chapter.

4.4 Research Philosophy

Research philosophy can be simply described as a “*system of beliefs and assumptions about the development of knowledge*” (Saunders et al., 2016, p. 124). In exploring any research field, philosophical assumptions provide the needed framework that shapes the way research is conceptualized and applied (Crotty, 1998). According to Blaikie (2000), research philosophy is a major determinant of the overall research integrity as it offers a coherent explanation for

the various ideological considerations that are involved in the research process. Although several philosophical considerations and categorization exist in the extant literature, the key essence of research philosophy is based on understanding what constitutes knowledge and how it can be sought. The three major philosophical considerations that are often rehearsed in the field of social science include ontological assumptions (i.e., the nature of reality and its existence), epistemological assumptions (i.e., how knowledge is constructed) and methodological premise (i.e., the procedure for acquiring knowledge). A detailed assessment of these philosophical considerations as they apply to this study is examined as follows.

4.4.1 Ontological assumptions of the study

Ontology is the branch of philosophy concerned with the study of being, existence or reality (Crotty, 1998). Blaikie (2000, p.8) explained further that an ontological worldview provides clarification on “*claims and assumptions that are made about the nature of social reality, claims about what exists, what it looks like, what units make it up and how these units interact with each other.*” Ontology, therefore, reflects how individuals’ perceptions of fact amidst social interactions are presented. Such perception has been broadly classified as either realism or relativism (Guba and Lincoln, 2005). The notion of realism, also known as realist ontology, posits a constant and pre-existing reality independent of social actors, while relativism, also known as relativist ontology, holds that reality is dynamic and is dependent on social actors (Crotty, 1998). Most traditional real-estate studies that have explored decision-making align with the realist ontology as the basis of the logic behind the assumption of a perfect market environment. However, given the influence of different market actors, institutions and disruptions, the current study recognizes that property markets are imperfect. This study acknowledges that the market is prone to different changes emanating from the divergent attributes of the various participants. Thus, to develop a framework that is suitable for making practicable investment decisions in a rapidly changing market environment, this study is premised on the philosophical assumptions of relativist ontology. The next section clarifies the epistemological premise of this study.

4.4.2 Epistemological assumption of the study

As a branch of philosophy that deals with how knowledge can be acquired, epistemology critically accesses the process of knowing what is considered ‘acceptable knowledge’ and the

relationship between the researcher and the subject of enquiry (Creswell, 2014; Saunders et al., 2016). According to Dancy *et al.* (2010), epistemology can be viewed from the lens of objectivism or subjectivism. Whereas objectivism posits that researchers are capable of conducting investigations without influencing or being influenced by the research process (Blaikie, 2000), subjectivism acknowledges the influence of the researcher's perception and interaction in the research process (Guba and Lincoln, 2005). In other words, objectivists on the one hand believe that reality exists independently of individual assumptions or conception and, as such, are only assessable through measurable, scientific or logical evaluations, from which generalizable theories can be drawn (Crotty, 1998). On the other hand, subjectivists are of the opinion that reality is constructed by the actions and inactions of different entities (i.e., actors, institutions etc.) within a study context and the diversity of such entities are embedded in their distinct attributes (e.g., behaviour, culture, experience) which are not generalizable. In executing this study, subjectivist epistemology is adopted because it recognizes the role of the different market actors (e.g., investors, tenants, lenders, etc.) and institutions (e.g., regulatory, and political and cultural bodies) in the property investment decision-making process. Also, considering the central phenomenon of this study, which is the decision-making pattern of property investors amidst market disruptions, subjectivism is useful in understanding the perceptions, beliefs and behavioural responses of market participants to property market disruptions and how these impact their decision-making.

4.5 Research Design

Having highlighted the philosophical position of this study in Section 4.4, the development of an appropriate research design is necessary. According to Naoum (2013), a research design is the master plan of events that spans through the investigation of research gaps to the establishment of research findings. It represents an overview of the actual phases involved in the conduct of a study, which includes an outline of how the research is structured as well as the techniques for collecting, analysing and reporting data. The essence of research design is to ensure that the study is tailored towards the realization of its aim. Therefore, it must take the research question into consideration, deduce what data are involved and how the data will be evaluated (Fellows and Liu, 2008). According to Creswell (2014), to successfully design an investigation path, researchers must reminisce on philosophical assumptions that will give a worldview of the study (as clarified in Section 4.4) and suggest the appropriate approach for investigation. Also, consideration for the research problem, existing literature and theoretical

underpinnings associated with the topic of investigation contribute to the development of a research design. Indeed, the overall adoption of a certain research design is often guided by the researcher's own presumptions about both the order of relevance of the various research components and the possibility of their realization (Groat and Wang, 2013). Figure 4.1 provides an overview of the various considerations in the overall research design employed in this study.

Fellows and Liu (2008) argue that the circumstances surrounding a research design can be viewed, either from a positivist point of view or an interpretivist standpoint. Positivism is aligned to an epistemological view that believes that knowledge relies on objectivity against the subjective nature of interpretivism that relies on peoples' understanding and interpretation of a phenomenon (Mathews and Ross, 2010). While positivism is often adduced to realist ontology due to its reliance on the observation and measurement of facts as being independent of human perception, interpretivism is usually linked to relativist ontology due to the subjective, thorough and intuitive manner in which the truth regarding a real event is sought and verified from research participants (Fellows and Liu, 2008). This study is, therefore, inclined towards an interpretivist design, based on the desire to deduce individual perception regarding the research problem. Further to the research outline in Figure 4.1, subsequent sections of this chapter highlight the adopted research strategies and methods of data collection, analysis and interpretation.

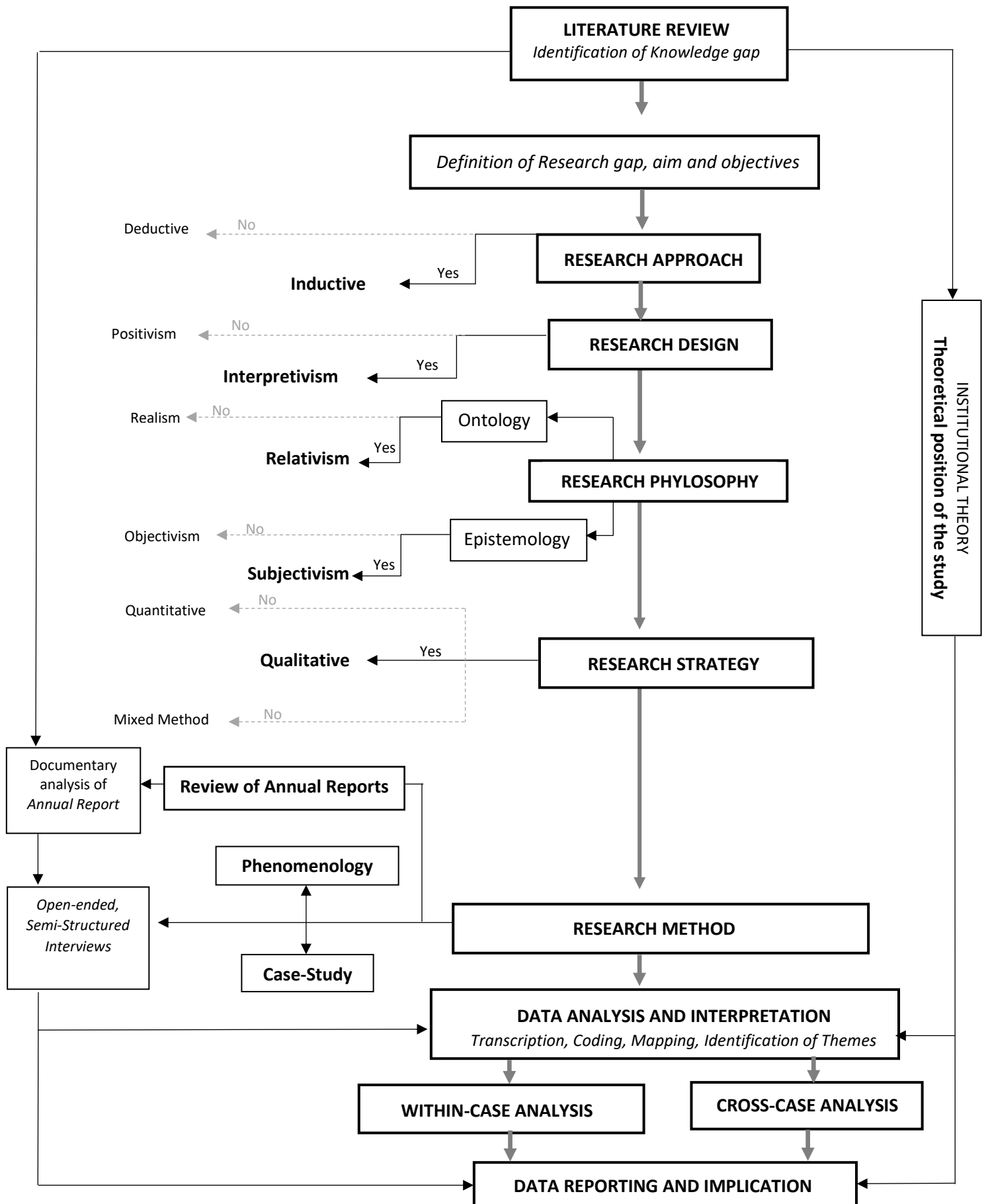


Figure 4.1: Adopted research outline

4.6 Research Strategy

Ranging from who, what, where, why and how to study, researchers are confronted with various options when planning and executing a study. However, the conscious consideration of available options and a careful selection of the appropriate choice is a prerequisite for successful research (Savin-Baden and Major, 2013). Essentially, the method by which researchers go about their work of observing, predicting, and narrating occurrences, as it relates to the research aim and objectives, is described as a research strategy (Sutrisna, 2009). Choosing a research strategy usually depends on the motive of the study, the type of details required as well as the availability of the required information (Naoum, 2013). Also, the relevance of research strategy could be determined by the extent of the researchers' participation or the nature of the study (Descombe, 2010). Depending on the research philosophy, qualitative, quantitative and mixed-method research are the major strategies applicable to social research (Creswell, 2007).

4.6.1 Qualitative research

Consistent with the philosophical assumptions of this study (i.e relativist ontology and subjective epistemology), a qualitative research strategy, which recognises that knowledge is derived from the divergent and multiple beliefs that exist within a social construct (Guba, 1990; Crotty, 1998; Guba and Lincoln, 2005; Naoum, 2013) was adopted in this study. According to Creswell (2007), qualitative research is driven by people's interpretation and perception and therefore rejects the notion of absolute truth (Groat and Wang, 2013). Unlike quantitative studies that are based on the logic of scientific principles, and executed with the aid of numeric variables (Naoum 2013), qualitative researchers are of the view that individuals and groups are capable of constructing their own version of reality, which is dependent on their experience or social-cultural background (Fellows and Liu, 2008). According to Creswell (2007), qualitative research involves the identification, examination, and appraisal of a sample population aimed at a detailed comprehension of a subject matter. It entails the investigation of issues in their natural state, with a view to discovering new insights and ideas regarding a particular problem, based on people's opinions (Clarke and Dawson, 1999; Groat and Wang, 2013). While many qualitative studies involve the use of data pertaining to people's assumptions, others involve a more in-depth approach (e.g., observation and interpretation) in investigating the effect of people's behaviour regarding a particular event (Fellows and Liu, 2008).

As this study set out to understand the disruption-driven investment decision-making of property investors, an in-depth qualitative strategy was deployed to explore investors' behaviour within a complex market environment comprising different actors and institutions. The qualitative strategy recognizes that market environments and the inherent players are subject to several factors that impact their behaviour and interaction, which cannot be modelled across different scenarios. Hence, by focusing on the individual market actors, the researcher can gain in-depth insight into the motivations and factors that influence their decision-making in response to market uncertainties. As described by Descombe (2010), insights from qualitative studies often reveal the hidden perspectives regarding a complex situation through deliberate interaction with experienced and concerned stakeholders. These unique perspectives are contextualized with rich information that is relatively free of ambiguity. However, there are various forms of qualitative research strategies (Savin-Baden and Major, 2013).

4.6.2 Phenomenology within case studies

Some of the commonly adopted strategies involved in the execution of qualitative research include grounded theory, case studies, ethnography, narrative and phenomenology (Creswell, 2014). Whereas all the variants of qualitative research involve the researcher's immersion in the investigation process (Naoum 2013) through detailed, first-hand interaction with native participants and the observation of social relationships and belief that exists across a group of people (Creswell, 2014), their mode of implementation and appropriateness as a medium of inquiry varies (Fellows and Liu, 2008). For instance, despite their insightful interpretation of respondents' opinions, grounded theory⁵ and ethnography⁶ were not considered suitable for the conduct of this study because the aim of the research is neither to develop a new theory on decision-making nor generate ideas that are limited to a particular group or organization. Similarly, narrative research, which has been described as the study of individual life events, with the aim of re-telling the story through a narrative chronology (Savin-Baden and Major, 2013) did not align with the focus of this research as the study is not focused on probing into life histories and biographies. However, given the nature of this research which involves the understanding of the disruption-driven decision-making of LPTs, case studies and phenomenology are considered the most appropriate data collection strategies. This is because

⁵ The collation of unstructured data, aimed at formulating theories that are rooted in the opinion of research participants (Creswell, 2007).

⁶ The comparative analysis of human societies, cultures and their emergence over an extended period (Denscombe, 2014).

case studies are suitable for clarifying misconceptions, in other to generate an in-depth understanding of complex problems involving a broad group or organisation (Walliman, 2011), while phenomenology explores and interprets the lived experiences of various individuals regarding an event (Creswell, 2007) by focusing on the fundamental, undiluted forms of human experiences that are yet to be put through any form of scrutiny or speculation (Denscombe, 2010). Both strategies are therefore considered relevant in evaluating the unique tradition, culture, behaviour and interactions that exist within and across organizations and individuals, regarding an event.

The desire to comprehend and report decision-makers' lived experiences regarding the research problem, with the view to revealing obvious and non-obvious issues regarding the disruption driven investment decisions of LPTs in New Zealand informed the choice of phenomenology within case studies. Phenomenology within case studies refers to the unique experiences of research participants in different case scenarios (Mourlam et al., 2019). For instance, individual experience within a case analysis could differ considerably from what is applicable across other cases in similar circumstances, with consequential impact on the overall discipline or sector that is being investigated. The depth and richness of phenomenology within case studies, therefore, has the potential of revealing unique perceptions of decision-makers in complex situations as is the case in this study. The strategy was carried out by consulting with individuals that are knowledgeable and experienced in the research area, as expected for both phenomenology and case studies (Fellows and Liu, 2008). The lived experiences of these experts and their unique insights on the research problem were collated, analysed and subsequently reported.

Phenomenology within case studies has been extensively used in the conduct of organizational research across different disciplines due to its ability to reveal unexpected intra and inter-organizational behaviours that could hinder or enhance organizational value, culture and objectives (Rowlett, 2006; Anosike et al., 2012; Mourlam et al., 2019; Medina et al., 2020; Eisenbach and Greathouse, 2020). The significance of individual lived experiences has also been highlighted by different scholars, including Crotty (1998), Yin (2003) and Creswell (2007; 2014), who argued that the evaluation of lived experiences is suitable for investigating emerging events in their natural, real-world context. Yin (2014) also believes that the comparison and evaluation of emerging constructs across diverse lived experiences and case situations is an appropriate way of interpreting and making sense of relative events. Not only

does phenomenology within case studies draws the researcher close to the subject of investigation, thereby informing novel research outcome that is devoid of assumptions (Rowlett, 2006; Eisenbach and Greathouse, 2020), it recognizes the peculiarity of each respondent and also involves a thorough investigation of the research problem in order to arrive at a comprehensive result irrespective of the research complexity. Therefore, based on its ability to interpret and make sense of the unique experiences of different research participants across the various LPTs, phenomenology within case studies was considered suitable for investigating the disruption-driven decision-making strategies of LPTs in New Zealand. This strategy is also useful in understanding and interpreting the unique experiences of the research respondents in the context of diverse and dynamic institutional values and culture, thereby aligning with the theoretical focus of this study.

4.7 Participant Selection – Purposeful Sampling

The choices made regarding the selection of research participants have a direct impact on the integrity and credibility of the research outcome (Savin-Baden and Major, 2013). It is on this basis that this study sought the participation of property organizations and professionals that have lived through different types of market disruption in New Zealand. Specifically, this study focuses on LPTs because they are the main drivers of real estate transactions in New Zealand, they are visibly traded and are capable of influencing market trends. According to the Property Industry Impact Report (2021), the value of commercial real estate in New Zealand (which is mainly driven by LPTs), stands at NZ\$243 billion (PCNZ, 2021). This suggests that commercial real estate alone is equivalent to 70% of the country's GDP that is currently around NZ\$345 billion (Statistics NZ, 2021). LPTs, therefore, represent a significant contributor to New Zealand economy and the understanding of their disruption-driven investment decisions could set the premise for the effective management of property market disruptions.

Further, property professionals within the LPTs were engaged to participate in this study. According to Abidoye and Chan (2016), property professionals are individuals who are equipped with the formal education and practical knowledge needed to maximize the opportunities and overcome the challenges associated with property investment and its overall management. The actions or inactions of these professionals may affect the realization of investment aim and objectives (Sah et al., 2010), especially as they make investment decisions in their various organizations. Identifying and interacting with property professionals is therefore instrumental to the success of this research, and it was on this basis that this study

sampled and sought the participation of executive board members involved in the decision-making process across major property LPTs in New Zealand.

According to Saunders et al. (2009), sampling can be described as a way of gathering data that represents the idea of a whole population from a selected part of the population without compromising on the quality of the information. Descombe (2010) noted further that sampling is particularly useful in executing studies that are bound by time or research pertaining to a particular phenomenon, as is the case in this study. There are different forms of sampling, as presented in Figure 4.3. However, selecting an appropriate sampling technique involves a thorough consideration of who and what to be sampled and the extent of anticipated information expected from the participants (Creswell, 2007).

A careful examination of the available sampling options informed the choice of purposive sampling in selecting research participants for this study. According to (Creswell, 2007, p. 125), using a purposeful sampling strategy, “*the inquirer selects individuals and sites for study because they can purposefully inform an understanding of the research problem and central phenomenon in the study.*” Purposive sampling, therefore, aligns well with the focus of this research as it provides a premise to target organizations and individuals that can offer reliable information and judgment on investment decision-making amidst property market disruptions.

At the initial stage of the study, the annual reports of LPTs in New Zealand were reviewed to understand their documented decision-making strategies amidst property market disruptions. Further to the review of annual reports (see Chapter Five), participants (executive board members across LPTs in New Zealand) were purposefully contacted to share their perception on disruption-driven investment decision making based on their experience, current role as a decision-maker and familiarity with the New Zealand property market. By targeting executive board members of LPTs in New Zealand, this study aims to gather first-hand, reliable information on the disruption-driven decision-making strategies of LPTs, the motivation for these decisions and the role of institutional factors.

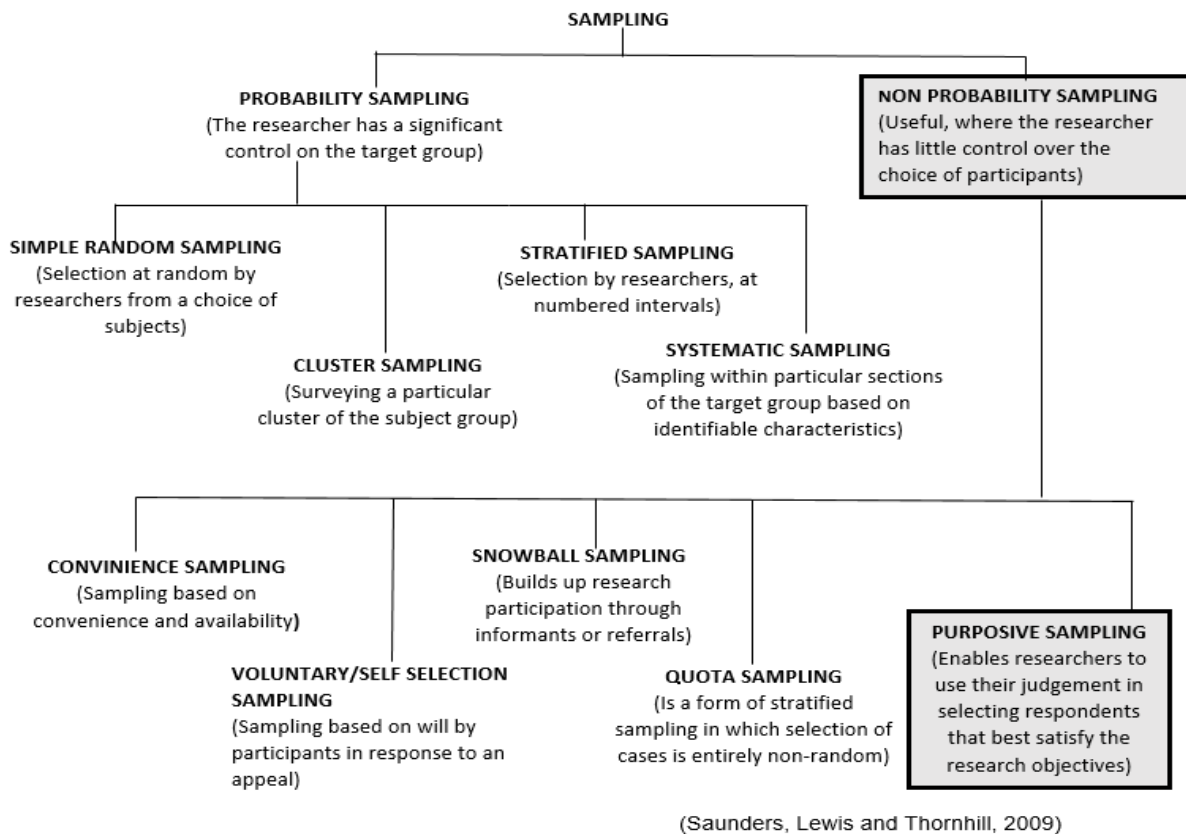


Figure 4.2: Sampling chart, rationalizing the use of purposefully selected research participants (Saunders et al., 2009)

Having identified the appropriate sampling strategy for this study, the sample size was also given due consideration. While there is no definitive consensus amongst qualitative researchers on the appropriateness of sample size, scholars are of the view that sample size should be based on the concept of ‘data saturation’ (Saunders et al., 2018; Suri et al., 2011), with the general expectation that research interviews should be within the range of 5 and 25 (Patton, 2002; Creswell, 2014). According to Suri et al. (2011), data saturation in qualitative research is described as the stage where more contributions from new research participants do not result in additional information or contribution.

To fully explore the available sample pool, all the eight LPTs in New Zealand were targeted to be involved in this research and the research was carried out in two phases. The initial phase of the research focused on the documented information deduced from the LPTs’ annual reports, while the second phase of the research involved the direct accounts of decision-makers across the LPTs. Of the eight LPTs in New Zealand that were purposefully identified for evaluation at the initial stage of the study (the documentary analysis of annual reports as discussed in Section

4.8.1, below), information on seven LTPs was publicly available for evaluation. Subsequently, all the seven LTPs that were involved in the first phase of the study were contacted to participate in the second phase of the study. However, five LTPs (representing the case studies in this research) were willing to participate in the second phase of this research.

The LTPs were explored as case studies based on their distinct organizational goal and values, peculiarity of their asset types and target market. For the second phase of the research investigation, the viewpoints of major decision-makers were collated based on their lived experiences and perceptions regarding the disruption-driven decision-making strategies of LTPs in New Zealand. Comprising mainly of the chief executive officers across the identified trusts, the participants in this study were engaged because they have the requisite expertise and knowledge needed to evaluate property market changes, having lived through different forms of disruptions. Seven interviews were conducted in the five highlighted cases in this study, and this number of interviews conforms with Patton’s (2002) and Creswell’s (2007) recommendations. While Appendix 1 illustrates the LTPs involved in the initial phase of the study, Table 4.1 describes the participants and LTPs involved in the second phase of the study. Data saturation was reached at the end of the fifth interview.

Table 4.1: Summary of the participants involved in this study

Listed Property Trust	Case Study	Participant’s Office	Years of Experience
R1	Case Study A	Chief Executive Officer	>25
R2	Case Study B	Chief Executive Officer	>20
R3	Case Study C	General Manager	>20
R4	Case Study D	Chief Executive Officer	>25
R5	Case Study E	Chief Executive Officer	>35

4.8 Data Collection

Following the description of the research participants, the data collection methods clarify the procedures employed for collating information needed to probe the research questions (Matthews and Ross, 2010). Although there are various ways of collecting data, Denscombe (2010) specifies four major methods involved in social research as follows:

- Questionnaires: This involves a list of formulated queries aimed at retrieving information from research participants about issues relating to the study.
- Interviews: This involves a conversation between the researcher and the participant based on a set agenda.
- Observation: This picks on the live submission from an eyewitness, thus providing first-hand information.
- Documentation: This involves research documents drawn from written, audio or visual sources like reports, pictures, sounds or other artefacts.

According to Naoum (2013), the data collection process is dependent on the sort of study and the kind of knowledge that is desirable and obtainable. Hence, when the researcher requires a deep understanding of people's judgement, beliefs and experiences, the appropriateness of data collection methods should be considered cautiously (Denscombe, 2010). Amongst the highlighted methods of data collection, Creswell (2014) argued that qualitative research is usually associated with interviews, observations and document reviews that are often informal and carried out under natural circumstances. Whereas most qualitative studies adhere to a single process of data collection, Creswell (2007) argues that exploring multiple sources of evidence could result in the convergence of ideas on multiple insights that can enhance the overall research outcome. As such, two data collection approaches, including document analysis and in-depth interviews, were explored in this study. The data collection commenced with the documentary analysis of annual reports of LPTs and provided the premise for in-depth interviews with experienced senior management decision-makers across the LPTs. Following the preliminary findings from the review of the annual reports, the interactions with senior executives of LPTs provided the basis to assess the reliability and validity of the research outcome. The combined data collection method in this study, therefore, ensured that information was systematically gathered across the LPTs and participants highlighted in Table 4.1.

4.8.1 Document analysis

The exploration of the annual reports of the LPTs in New Zealand was informed by the need to evaluate documented historical events that disrupted commercial activities of LPTs and influenced their previous decision-making strategies. Following the techniques adopted by Linsley and Shrivs (2006) and Albertini (2019), the annual reports of the identified LPT were

carefully analysed for changes in portfolio size, value and occupancy rate, as shown in Appendix 1. Furthermore, the annual reports were read repeatedly by the author and critically scrutinized for commentaries on property market disruptions that emerged during the period of review. The commentaries were subsequently coded for themes and patterns. According to Hsieh and Shannon (2005), themes are products of keywords⁷ or phrases which guide researchers when summarizing the content of a large volume of data. The alternative meanings of the keywords and their multi-use within the sentence structure were also considered in order not to undermine the purpose of each expression. This is important because people could make use of synonyms in documenting events solely for stylistic reasons, which may mislead the researcher (Smith and Taffler, 2000). For instance, the word ‘place’ could mean ‘a location’ or, in verb form, ‘to put’. It is, therefore, important for researchers to constantly acknowledge the multiple meanings of words as they extract trends and patterns from published documents (Weber, 1990).

Similar to the approach employed by Abraham and Cox (2007), the sentences that describe the information around the keywords were highlighted. This ensured that the contextual meanings of the identified keywords were retained to reflect the focus of this study. According to Krippendorff (2004, p. 263), “*reading a list of words of which a text is composed is obviously not the same as reading a coherent narrative*”. Following the process described by Braun and Clarke (2006) as ‘mapping’, the initial keywords that emerged from the sentences were coded and sorted into preliminary themes based on their relevance in the research context. Sentences that did not infer the meaning of the initial keywords as they relate to this study were discarded at this stage. Further, the preliminary themes were reviewed, and distinct themes that relate to this review were established. The established themes were subsequently reported (see Table 5.2, Chapter Five), with excerpts from the annual reports used in corroborating or substantiating the outcome of the review.

Chapter Five describes how LPTs in New Zealand respond to disruptions based on the insights deduced from their annual reports. The data gathered from the review of annual reports formed the basis of the interview questions that purposively selected decision-makers in the Trusts were asked. As such, research participants were able to clarify possible misconceptions of their

⁷ Keywords connote the main words or phrases within the context of participants’ opinion, which are highlighted because they retain and reflect the participants’ intention.

documented decision-making strategies and also provide in-depth insights on issues that could not be documented in the annual reports.

4.8.2 Research interviews

Further to the preliminary exploration of annual reports, in-depth interviews were conducted to thoroughly evaluate the research questions. According to Crotty (1998), interviews are an essential part of qualitative studies that aim to attain a detailed understanding of specific problems within a defined context. Apart from revealing key insights, interviews also open up new areas of research interest and could be a basis of theoretical constructs (Mathews and Ross, 2010). Qualitative interviews could be structured, semi-structured or unstructured depending on the restrictions set by the interviewer or interviewee (Fellows and Liu, 2008) and are carried out using face-to-face, focus-group, or telephone-based data collection techniques (Patton, 2002). Whereas structured interviews are targeted at definitive responses as informed by closed-ended questions, unstructured interviews are open-ended and allow the respondents to take charge of the extent of information that is revealed (Savin-Baden and Major, 2013). Semi-structured, however, combines the attributes of structured and unstructured interviews and, as such, is very effective and feasible in probing people's thoughts and experiences (Creswell 2007; 2014), hence ensuring a more robust and detailed information gathering process (Descombe, 2010).

After careful consideration of the available data collection techniques, this study adopted the use of semi-structured interviews based on the wide spectrum they offer in terms of prompting a rich description of the respondent's experience. The questions that emerged from the review of literature and the annual report of LPTs in New Zealand guided the conduct of the semi-structured interview. In-depth face-to-face interactions with executive board members of LPTs in New Zealand formed the primary source of evidence in this study as the purposively identified participants shared their opinion and experiences on the adaptive responses of their organization to market disruptions. Interviews were initially conducted at locations specified by the research participants, but later, interviews were conducted virtually through online electronic platforms, owing to the government policies that restricted movement and social gatherings at the time.

4.8.3 Interview protocol

The purposively identified research participants were contacted via email to take part in the research. The email contained a brief description of the study and was also used to seek the participants' consent to participate in the study. A copy of the participant information sheet and consent form (see Appendices 2 and 3, respectively) were attached to the invitation email to provide further clarification on the roles and rights of the participants in the research process. All the LPTs in New Zealand were contacted, and five positive responses were received. The actual interviews were conducted by the primary researcher between December 2019 and July 2020. A flexible interview protocol (see Appendix 4) comprising main questions complemented by occasional further discussions and prompts was employed in the conduct of this study. The protocol literally comprised a dialogue between the interviewer and interviewee and was intended to understand the respondents' perceptions and beliefs on the topic under investigation. The protocol was divided into sections, covering questions on participants' information, knowledge of market disruptions, the 'lived experience' in the property industry and perceptions regarding property investment decision-making amidst market disruptions. The protocol ensured that questions aligned with the research objectives, and spontaneous discussions were allowed to explore other aspects of the research that might have been omitted while designing the interview protocol.

Although it is possible to jot down information provided by research participants during an interview, such practice can distort the interview pattern when done simultaneously (Descombe, 2010). Therefore, to ensure a detailed account of the respondent's opinion for the purpose of analysis, the conversation between the interviewer and interviewee was recorded with audio equipment. This technique was very effective in gathering information from research participants, and respondents were also advised of the guidelines in place to ensure their anonymity and confidentiality (see Appendices 2 and 3). Also, whereas the interview protocol ensured an organized and consistent interview process, respondents were not compelled to answer questions in a particular order. The interview protocol was subjected to the ratification and approval of research supervisors and the University of Auckland's ethics committee. The interviews were conducted in the presence of senior academics in the research area, who listened and sought clarification from the respondents occasionally. None of the respondents showed any sign of intimidation during the data collection process. Further, copies

of the interview transcripts were sent to the participants for review purposes before the commencement of data analysis.

4.9 Data Analysis

Data analysis involves the presentation of information in a manner that allows researchers to evaluate and establish knowledge (Savin-Baden and Major, 2013). In qualitative research, this process can be carried out using different techniques, such as content analysis, thematic analysis, grounded theory or discourse analysis (Noble and Smith, 2014). However, Creswell (2007) argues that each research approach has its matching analysis and representation techniques. For document review and phenomenological research, he argued that available data should be analysed for distinct phrases which are subsequently appraised to deduce overarching viewpoints and perceptions pertaining to the study. Wong (2008) also noted that probing qualitative research often involves the scrutiny of transcripts such that the similarities or differences across respondents' opinions are recognized, categorized and established into concepts accordingly. The significance and frequency of these concepts are essential in rationalizing the central phenomenon of the study (Noble and Smith, 2014).

The main data collected in this research were, coded and analyzed for themes across participants. This type of evaluation, referred to as 'thematic analysis', recognizes that the data collection and reporting process does not have to follow a rigid pattern (Savin-Baden and Major, 2013). Thus, making it appropriate to evaluate data collected from a semi-structured interview. Thematic analysis is also suitable for this study because of its ability to investigate both intrinsic and extrinsic concepts pertaining to the research questions. Rather than grounded theory or discourse analysis, thematic analysis was adopted in this study because it offers a flexible and efficient data evaluation process capable of eliciting unexpected insights (Braun and Clarke, 2006).

4.9.1 Thematic analysis

Fereday and Muir-Cochrane (2006) describe thematic analysis as a pattern search within qualitative data that results in themes capable of reporting respondents' insights on the overall research. Beyond counting explicit words or phrases, thematic analysis identifies direct and indirect ideas emanating from the data (Braun and Clarke, 2006). Such ideas are based on perceptions, opinions and beliefs and must be in tune with the theoretical framework of the

research for the thematic analysis to be reliable (Guest et al., 2012). According to Braun and Clarke (2006), some of the advantages attributable to thematic analysis include its flexibility, accessibility to researchers with minimal experience in qualitative studies, ability to provide a summary of key themes in a large body of data, appropriateness in investigating collaborative data, ability to trigger unexpected insights and its usefulness in generating information, suitable for policy development. Wong (2008) posits that the ideal thematic analysis is executed in stages, and the six phases involved in the thematic analysis, as described by Braun and Clarke (2006), are highlighted in Table 4.2 below.

Table 4.2: Stages involved in thematic analysis. (Braun and Clarke, 2006)

No.	STAGE	DESCRIPTION OF ACTIVITIES
1	Data Transcription	This essentially requires the familiarization of the researcher with the collected data. It often involves a repetitive reading of the collected data in order to pinpoint initial ideas among research participants. Verbal interviews are also transcribed into written form at this stage.
2	Data Coding and Categorization	Coding and categorization of data is an essential part of thematic analysis. It simply involves the examination of raw data and their grouping into categories. Depending on the volume or nature of data, coding can be done manually or with the aid of computer-aided applications
3	Observing Themes	Codes are compared and sorted into themes. Other than codes that may not be meaningful at the initial stage, themes are more robust and defining. The initial codes may be sorted into themes or sub-themes, depending on their significance to the research problem.
4	Reviewing Themes	At this stage, it becomes clear that some previously identified themes are not qualified to be themed. While some themes will require further breakdown into parts, others might have to be collapsed into one theme. The outcome at this stage should reveal distinct and meaningful set of themes.
5	Establishing Themes	The researcher defines each theme and relates it to a broader perspective of the research problem. The scope and

		distinctiveness of each theme is established and ready for reporting.
6	Reporting Themes	This phase gives a thick description of the established themes. It rationalizes the themes especially as it answers the research questions. Extracts from the collected data are involved in corroborating and validating arguments.

Thematic analysis can be carried out within a single case or across different cases depending on the qualitative research method that is employed (Fereday and Muir-Cochrane, 2006). According to Braun and Clarke (2006), within-case analysis involves the thorough exploration of a single case of investigation as an entity, while cross-case analysis examines the similarities and differences of various case scenarios as they pertain to the subject of investigation. For the purpose of this study, the collated data were analysed within and across the different cases of the LPTs that were involved in this study. This approach was employed to ensure a rigorous and detailed analysis of the available data with the aim of deducing robust findings that will aid a deep understanding of the research topic

Also, thematic data analysis can be done with or without software applications (Saunders et al., 2009). While researchers have widely accepted software programmes (e.g. NVivo, ATLAS.ti, Maxqda etc.) as an efficient data retrieval technique (Noble and Smith, 2014), Wong (2008) argues that the role of computer applications is limited to the effective organization and data reduction phase. Therefore, the researcher's ability to spot, reconcile and deduce meanings from the collated data, predominantly those not captured by the computer application, is essential for a well-grounded thematic analysis (Wong, 2008). For the purposes of this study, the use of computer-based applications as well as the manual identification of similar patterns across participants' experiences was employed.

Following the stages highlighted above in Table 4.2, the recorded telephone interviews were transcribed and read severally to identify common words or phrases across research respondents. Furthermore, NVivo software was also used to ensure a more in-depth search for patterns. The commonly expressed words emanating from these techniques were deduced, quantified, and codified. According to Noble and Smith (2014), codes are keywords or phrases within the content of participants' opinions, which are highlighted because they retain and

reflect the participants' intention. The codes were sorted into groups based on their meaning and alignment with the research framework. This was done through a process described by Braun and Clarke (2006) as mapping.

The keywords were continually studied, paraphrased and summarised to create the initial set of themes. These themes were further reviewed across groups to ascertain their validity and consistency. While some were totally discarded because they do not reflect the purpose of this study, others collapsed into one another to build a more robust and reflective set of themes. To demonstrate and summarize the whole process, Table 7.1 illustrates the participants involved in this research and their perception right from the code identification to the establishment of a pattern.

4.9.1.1 Thematic analysis within-case

Following the data collection process (see Section 4.9.3) that involved the presence of experienced academics in all the interviews conducted, the senior academics were also involved in reviewing the analytical process to ensure a fair reflection of respondents' opinions. The within-case analysis commenced with the transcription of each interview and interpretation of individual respondents' opinions in line with the research objectives (stated in Section 1.3). The data were transcribed from the recordings, analysed and interpreted across the major sections upon which the research interviews were premised (see Appendix 4) in order to guide the realization of a robust research outcome.

The within-case analysis was carried out through open coding as recommended by Srivastava and Thomson (2009). At the initial stage of the coding process, keywords were identified, revised and classified for each of the interviews conducted. The keywords and themes were identified following the process of thematic analysis described in Section 4.10.1. Based on their relevance to the research problem, themes were duly supported with appropriate evidence from the transcript. Subsequently, the identified themes were examined by senior academics that are knowledgeable in the research area to ascertain their relevance to the study and interpretation within the research framework. In some instances, the review process involved the re-examination of themes, and the within-case analysis was not concluded until the researcher, and the advisory academics, agreed on the appropriateness of the identified themes. The within-case analysis was carried out for each of the research interviews conducted, and by the end of the fifth interview, saturation was reached as no new theme was generated across all the four

major questions that represent the focus of the analysis. As previously adopted by Levy (2005), Figure 4.5 describes the within-case analysis of each respondent involved in this study.

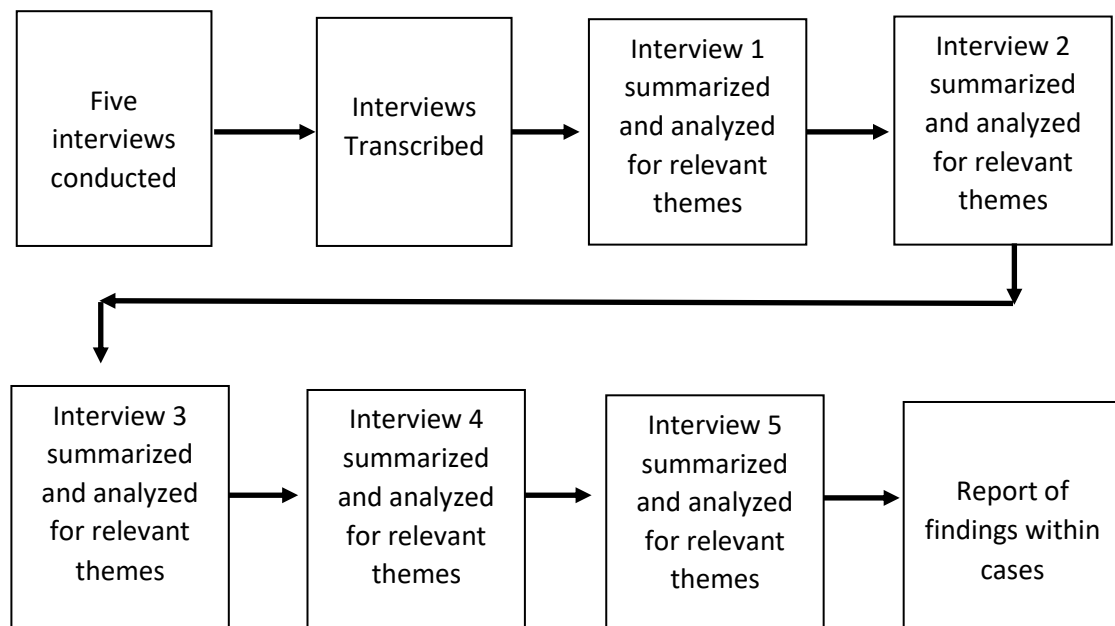


Figure 4.3: The process of identifying themes within cases

4.9.1.2 Thematic analysis across cases

As with the individual case analysis described in the previous section, this section illustrates how the consistencies and disparities in the viewpoints of research participants were deduced across cases involved in this study. The cross-case analysis of the lived experiences of the purposively selected research participants was carried out in order to infer a robust and insightful interpretation of their opinion regarding the subject of investigation, which is understanding the disruption-driven decision-making strategies of LPTs. To demonstrate and summarize the analytical process, Figure 4.6 illustrates the adopted approach in analysing the data collated across all the research participants as previously exemplified by Levy (2005).

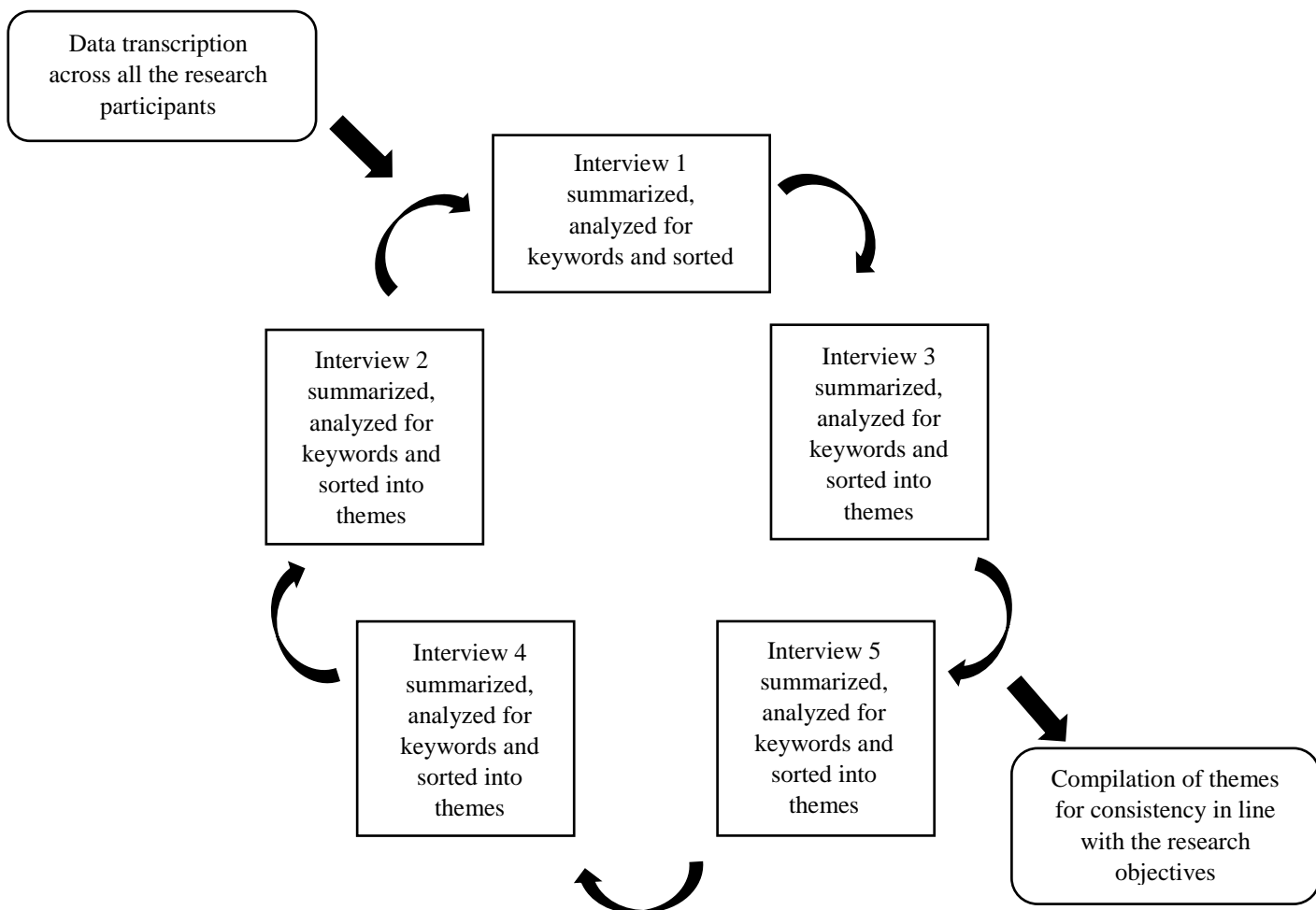


Figure 4.4: The process of identifying themes across cases

Following the process illustrated in Figure 4.6, the cross-case analysis commenced with the observation of patterns across the transcribed interview data of LPTs as described by Srivastava and Thomson (2009), with the view to identifying both distinct and common expressions that depict the intention of the research participants. The initial search for common expressions and patterns was done using NVivo software to identify frequently used words that are central to the aim of this study. Also, a pattern search was conducted, and keywords were identified from the frequently expressed words. The keywords that emanated from the pattern search were sorted into codes based on their meaning and alignment with the research framework. Aside from the electronic identification of keywords, the original transcript was also read severally across all the case studies, and expressions that relate to the adaptive behaviour of LPTs to market-induced disruptions were identified manually. As stated in Section 4.10.1, this process was done to give more depth and detail to the analytical process by ensuring that unique viewpoints of the participants were not omitted.

Unlike the open coding process adopted in the within-case analysis, axial coding was adopted in exploring similar concepts and ideas across all the case studies, as previously demonstrated by Levy (2005). The axial coding also involved the researcher and senior academics that were involved in the data collection process. The coding process required merging keywords that are similar into themes and discarding keywords that did not align with the focus of the study. For the purpose of this study, keywords were merged to initial themes and later to final themes as described by Braun and Clarke (2006) and illustrated in Chapter Seven (see Tables 7.1, 7.2, 7.3 and 7.4). The researcher initiated the axial coding process by generating similar themes across all the case studies based on the previously identified keywords and supporting evidence. The generated themes were subsequently examined by the senior academics for moderation in terms of relevance to the research aim and representation of participants' intention.

4.10 Ethical Considerations

Ethical considerations are integral components of the overall research process that specifies the principles that govern the conduct of research activities in a way that justifies the overall research integrity and credibility (Walliman, 2011). Ranging from participants' anonymity, confidentiality, conflict of interest, information storage and application of research findings, Creswell (2014) argues that ethical issues should be considered from the inception of the research process and given the necessary attention. It is, therefore, the responsibility of the researcher to safeguard research participants and their organizations, the information they provide and how the information is used, stored and disposed of without any form of deceit (Walliman, 2011). Based on the foregoing, ethical approval for the conduct of this study was sought from the University of Auckland ethics committee (see Appendix 5).

In line with the ethical approval and the sampling approach highlighted in Section 4.8, purposively selected participants were provided with the participant information sheet (PIS) (see Appendix 2) before the commencement of the data collection process. The PIS outlined the research aim, objectives and data collection strategy. It also explains the need to record the research interview, participants' privacy protection considerations, participants' right to withdraw from the research without notification, and how the collated data will be transcribed, analyzed, stored and disposed of. Consent forms (see Appendix 3) were also signed by research participants before data collection, to ensure that participants understood the essence of the

research. The information collated in this study was coded and stored in the university repository, with limited access to the researcher and the main supervisor.

4.11 Research Validity and Reliability

The credibility of qualitative research has remained a subject of debate amongst researchers for decades. Despite its use in eliciting deep insights into human behaviour, perception and belief, there is no consensus on a universally accepted strategy for determining the reliability of qualitative data. Rather, scholars have suggested that the plausibility of qualitative studies is based on the overall research design, data source, analysis and reporting process (Savin-Baden and Major, 2013; Creswell, 2014). As such, the research design and strategy adopted in this study are based on robust theoretical and philosophical underpinnings. Also, specific precautions tailored towards minimizing misconceptions and biases in the conduct of this study include:

- Consistent engagement with literature to ascertain existing knowledge and corroborate research findings.
- Peer debriefing with scholars as the research progressed through relevant seminars and conferences.
- Exploration of multiple sources of evidence (i.e., annual reports and interaction with experienced professionals) to establish the robustness of research approach and outcome.
- Participants' reassessment of data after transcription to ensure clarity and accuracy.

In summary, the research process described in this section is premised on established theoretical, philosophical and methodological viewpoints, alongside the robust evaluation of documents and participants' lived experiences.

4.12 Chapter Summary

Based on the philosophical world view and the reasoning stance of the researcher, this chapter justifies the significance of relativist ontology and subjective epistemology, which aligns with the qualitative research method in addressing the research question identified in Chapter One. Specifically, the suitability of phenomenology within case studies was substantiated in this chapter. Further, justification was made for the sample size of LPTs involved in this study and the purposively identified participants drawn from the executive management team of LPTs in

New Zealand. The essence of documentary analysis and recorded semi-structured interviews in collating data from the identified participants, and ethical considerations involved in this study, were also discussed. Subsequently, the appropriateness of documentary and thematic analysis in evaluating qualitative data and the precautionary measures taken to ensure the reliability and validity of this research were elucidated. The next chapters outline the outcome of the documentary analysis of annual reports of LPTs in New Zealand.

CHAPTER FIVE

New Zealand LPTs' Strategies for Adapting to Disruption

5.1 Overview of the Chapter

This chapter discusses the findings related to the documentary analysis of annual reports of New Zealand Listed Property Trusts (LPTs). It is divided into six sections. Section 5.2 provides an introduction to the seven LPTs analysed in this study, while Section 5.3 unveils the relevant disruptive events that have led to radical changes to the well-established business operation models of LPTs in New Zealand over an extended period. Section 5.4 describes how LPTs in New Zealand respond to disruptions based on the insights deduced from the documentary analysis, and Section 5.5 uses a proposed typology to illustrate and discuss the factors that influence the adaptive strategies of New Zealand LPTs to disruptions. The final section provides a brief summary and culminates the chapter.

5.2 Introduction to LPTs included in this study

As stated in Section 4.8.1, findings from the review of annual reports of LPTs that operate within New Zealand are highlighted in this chapter. Of the eight LPTs in New Zealand, all of which were purposively identified for evaluation in this study, information on seven LPTs was available to the author. A total of seventy annual reports from seven LPTs, which represent a significant majority and saturation coverage of the available data were reviewed, analysed and the findings presented in this chapter. Table 5.1 provides an overview of the LPTs involved in this study, their scope of operation, years of operation and portfolio spread across the country. The documentary analysis covers the period between 2009 and 2019.

Table 5.1: A brief overview of the listed property trusts (LPTs) involved in this study.

LPT	Scope of Operation	Years of Operation	Portfolio Spread
T1	Property Investment	23	Throughout New Zealand
T2	Property Acquisition, Development and Management	22	Auckland and Wellington
T3	Property Investment and Management	25	Throughout New Zealand
T4	Property Acquisition, Development and Management	20	Auckland and Christchurch
T5	Property Acquisition, Development and Management	17	Throughout New Zealand
T6	Property Management and Development	18	Throughout New Zealand
T7	Wealth Management, Financial advisers and Property Investment	22	Throughout New Zealand

5.3 Disruptions LPTs have responded to

As illustrated in Table 5.2 and following the process described in Section 4.8.1, the established themes that emerged from the review suggest that the New Zealand LPTs responded to disruptions arising from seismic, demographic, economic, regulatory and technological events during the review period.

Further, Appendix 1 summarizes the numeric data extracted from the annual reports across all the sampled LPTs. Information regarding their portfolio size, value and occupancy rates were highlighted for each property trust and compared for the duration of the review, i.e., 2009 to 2019, as a basis for tracking investment performance during the period. More specifically, the number of assets, the percentage rate of occupancy and property value were symbolized by number (No.), occupancy rate (%), and portfolio value NZ\$ (millions), respectively. Although most of the annual reports are publicly available through the online repository of the property trusts, some periods were not accessible to the author (represented with NA).

A general decline in the number of assets being managed by LPTs over the review period was observed in Appendix 1. However, the reduction in the number of assets did not lead to a corresponding reduction in value. For instance, comparing the reduction in the number of assets with portfolio value between 2017 and 2018, the assets of sample 1 reduced by 3, yet its portfolio value increased by US\$7m. This trend is noticeable across all the sampled investors.

Furthermore, the table suggests that investors' choice of assets was suitable in meeting changing market expectations throughout the review period. Despite the major disruptions that took place between 2009 and 2019, the asset performance highlighted in Appendix 1 suggest that they were all in high demand, with an average occupancy rate of 98%. Whereas the changes in asset composition and the steady occupancy rate indicated in Appendix 1 suggests adaptation in the decision-making of LPTs, descriptive evidence of how LPTs adapt to disruptions were also found in the documentary analysis, with direct quotes extracted from the annual reports.

Table 5.2: Summary of themes on disruptions

T1	T2	T3	T4	T5	T6	T7	Codes	Initial Theme	Final Theme	Disruption
✓	✓	✓	✓	✓	✓	✓	New Zealand is prone to earthquake hazard	LPTs were affected by the Canterbury and Kaikoura earthquakes	New Zealand Property market is exposed to seismic disruption	Seismic Induced
✓	✓	✓	✓	✓	✓	LPTs were affected by Canterbury earthquakes				
✓	✓	✓	✓	✓	✓	LPTs were affected by Kaikoura earthquakes				
		✓	✓	✓		✓	Seismic upgrade of vulnerable assets			
✓	✓	✓		✓	✓		Compliance with NBS rating	LPTs upgrade their buildings to mitigate seismic impact		
✓	✓	✓	✓	✓	✓	✓	Population mix has changed over the years	Population mix has changed significantly over the years	Demographic changes influence asset location and demand	Demography Induced
	✓		✓	✓		✓	Young, millennials are taking charge			
	✓		✓	✓		✓	Different expectations across age groups			
✓	✓		✓		✓	✓	Increasing population density in major cities			
✓	✓	✓	✓	✓	✓	✓	GFC affected property investment significantly	GFC resulted in a fall in asset demand and interest rate	LPTs experienced the impact of GFC	GFC Induced
	✓		✓	✓		✓	High-interest rate volatility			
		✓	✓		✓	✓	Asset devaluation followed the GFC			
✓	✓	✓	✓	✓	✓	✓	GFC affected share prices	The GFC was significant		
✓	✓		✓		✓	✓	Market volatility			
✓	✓		✓	✓	✓		LPTs adjust to changing business Standards	Markets are subject to various regulations and standards	LPTs adjust to constant regulatory changes	Regulation Induced
✓	✓	✓	✓	✓	✓	✓	LPTs are regulated organizations			
✓	✓	✓	✓	✓	✓		Government policies affect investment activities			
✓	✓		✓	✓	✓	✓	E-commerce is the new normal	Technology is constantly simplifying real estate processes	LPTs respond to evolving technology to drive efficiency in operation	Technology Induced
	✓	✓		✓	✓		Automation has simplified property transactions			
✓	✓		✓		✓	✓	Digital platforms have continued to emerge	Technology influences customer experience		
	✓	✓		✓	✓	✓	Customer experience is driven by technology			
✓	✓		✓	✓		✓	Customers adjusting to digital operation			

5.4 How LPTs Respond to Disruptions

Aside from the numeric data deduced from the annual report as illustrated in Appendix 1, the systematic evaluation of the annual reports revealed documented opinions and perspectives on how LPTs respond to disruptions. As previously argued by Beattie et al. (2004), such multiplicity of research outcomes is ideal in an exploratory study as it suggests a thorough evaluation of the research problem. It also presents an opportunity for the research outcome to be probed for discretionary narratives (Smith and Taffler, 2000).

In summarizing the dynamic nature of the property market, the extract below from one of the LPTs provides a descriptive interpretation of disruptions and adaptation strategies.

“The current environment of rapid technological advancement, sustained regulatory pressure, ageing populations, rising customer expectations and intensifying competition in the wealth management and insurance industries presents both threats and opportunities to XXX’s business. Significant changes in the competitor and customer environment may disrupt XXX’s business operations. For example, a significant change in customer preferences may impact sales volumes, revenue and customer satisfaction. XXX has programs in place aimed at anticipating and responding to threats and opportunities that arise from changing customer preferences and competitor strategies and capabilities. We are investing in digital technology and using behavioural insights to understand our customers’ motivations and life experiences and help them realise their financial goals.” (T7)

In answering the question of how LPTs in New Zealand respond to the highlighted disruptions in Table 5.3, the outcome of the analysis suggests that the adaptive response of LPTs is dependent on the demand for their assets, and their response strategies are premised on portfolio diversification and well-formulated business continuity plan. The documented views of LPTs on how they adapt to disruptions are discussed in subsequent sections, with relevant excerpts from the annual reports used in clarifying their viewpoints. Although most of the excerpts are linked to seismic disruptions given the geographical location of New Zealand and the impact of the Canterbury and Kaikoura earthquakes during the review period, some quotes relating to other forms of disruptions were also included in the discussion.

5.4.1 Reason for adaptation

In line with the traditional understanding that property investment is driven by market demand, most of the LPTs acknowledged in their annual reports that they adapt to disruptions, and the demand for their assets is the main reason they remain active in the market despite the associated uncertainties. Although awareness regarding the various forms of disruption and the consequential socio-economic implications has continued to grow with increased knowledge, investors have demonstrated that attractive investment opportunities should not be dismissed solely on account of susceptibility to market uncertainties. For instance, whereas Auckland remains the prime property investment market in New Zealand (Filippova et al., 2018), Wellington and Christchurch featured strongly in the narratives of the LPTs despite their high susceptibility to the major disruptions that occurred during the review period. Commentaries from the reports suggest that the Wellington market will remain attractive because of its strategic role as the seat of government where high net worth individuals, agencies and prime businesses operate. As such, high-quality office and retail spaces will continue to be in demand, especially in strategic locations like the central business district. Therefore, rather than leaving the market because of the inherent hazard, LPTs have demonstrated pragmatism by continuously upgrading their properties in these locations according to the current standards and regulations, thereby attracting high-quality tenants with stable demand over the medium to long term. In ensuring that his Trust's properties remain viable and to attract quality tenants, T6 stated that:

“The way in which people are working is changing, and we are responding to this to keep our vacancy rates very low. Major businesses and their employees are now demanding flexibility, social interaction, work-life balance, digital connectivity and a positive workplace environment, all of which are integrated into our properties to keep them in high demand.”
(T6)

Also, while describing how the demand for property assets influenced their decisions after the 2016 Kaikoura earthquake, T5 revealed that:

“With ongoing supply and demand imbalance, there is a need for new office stock with large floor plates. Owners of well-located properties in the city with good seismic ratings remain well-positioned and as a Trust, we are responding to this.” (T5)

Although the Kaikoura earthquake disrupted the Wellington commercial property market, tenants' demand for quality spaces has remained high, with the average occupancy of the existing building stock estimated at 99%. This observation suggests that regardless of the disruption, net absorption and rental growth were stable as tenants sought additional space immediately after the earthquakes. Commenting on one of their assets that was being renovated for better seismic performance, T3 noted that:

“At XXX Centre, where we are undertaking substantial seismic upgrade works, tenant enquiry continues to be strong, reflecting market demand for those buildings which carry superior seismic performance ratings. Since commencing the project, we have concluded new leases for approximately 10,500 sqm of space, representing 43% of the building by area” (T3)

The foregoing argument corroborates the previous submission of Farragher and California (2008), who posit that property investors are utility maximisers. As such, they will only invest in locations where they are convinced of a reasonable return on investment.

5.4.2 LPTs adaptive strategies to disruptions

5.4.2.1 Portfolio diversification

All the sampled property trusts indicated that a well-balanced mix of property assets was a viable way of minimizing the impact of disruptions on their portfolio. Their annual reports indicate that optimal return on investment can be achieved by spreading investment risk across a range of asset classes and locations. Therefore, as a way of ensuring that their total investment at any given period can withstand an extended period of possible disruptions, they chose to invest in several high-quality assets across multiple locations with long-term leases and high tenancy enquiries. To demonstrate the impact of diversification on their investment portfolio, T1 and T4 recounted that:

“...our strategy of maintaining a diversified property portfolio by sector and location softened the impact of location-specific and sector-specific events on our portfolio” (T1)

“The variation in the Trust’s property portfolio over the past year is a reflection of adverse global economic conditions and negative sentiment in financial markets worldwide” (T3)

Also revealing how they were able to manage their exposure to seismic induced disruption through portfolio diversification after the 2011 Christchurch earthquake, R3 stated that:

“As of 31 March 2011, our portfolio was predominantly weighted to the Auckland region, with the balance of assets spread over Wellington, Christchurch, Palmerston North and Hamilton. With the value of our Christchurch assets impacted by the earthquake, we have now reduced our exposure to this region to 12%, from 16% as of March 2010.” (T3)

Previous studies have noted that the impact of disruptions on property assets could differ significantly depending on their classification (Egbelakin et al., 2011; Filippova and Noy, 2020). For instance, while retail assets may be able to withstand an extended period of disruption and remain viable (remain in high demand by tenants) in a location, occupants of office properties in a similar situation may be reluctant about returning to their previous workplaces as they are able to work remotely. Most investors have, therefore, acknowledged portfolio diversification as a fundamental strategy that should be encouraged in adapting to market uncertainties.

Although portfolio diversification has helped LPT in managing potential risk exposure, researchers have also argued that the true extent of disruptions may not be foreseeable (Egbelakin et al., 2011). Hence, the need to combine portfolio diversification with other adaptive models has been emphasised (Wilkinson et al., 2014).

5.4.2.2 Business continuity

The commitment to maintaining quality assets that guarantee minimal business interruptions in the event of market uncertainties was also identified in this review as an indication of how LPTs adapt to disruptions. The property trusts argued that a good business continuity plan minimises the impact of disruptions, even in extreme circumstances. This view explains LPTs’ decision to continue operating in a number of vulnerable locations despite the inherent risk of

market uncertainties and the significant cost of ensuring regulatory compliance. The annual reports revealed that LPTs constantly anticipate the possible impact of disruptions on their portfolio, budget for possible remediation works and regularly update their assets in line with the current best practices. By doing so, they not only position their assets strategically to attract long-term premium tenants, but they also instil confidence in their customers to go about their business seamlessly with assurances of minimal interference in the event of disruptions. Commenting on their adaptive response to disruptions, the evaluated LPTs noted that:

“We are always trying to think ahead of the game in remaining well-positioned for the next opportunity.” (T2)

“To enable business continuity, it is essential to focus on seismic performance amongst other things. Although not all situations can be predicted, risks can be mitigated by increasing building reliability with a structured capital expenditure plan.” (T2)

“As we look forward to the next 20 years, we will continue to build upon our online and digital presence to complement our traditional ‘bricks and mortar’ strategies, assisting our retailers as they continue to develop their multi-channel distribution capability” (T5)

According to Potter et al. (2015), it is not enough for a building to withstand a major catastrophe. Rather, the reliability of a building lies in its capacity to return to its previous function at the end of a crisis. LPTs, therefore, strive to make their property assets durable and adaptable through considerable planning, risk assessment and management as well as financial investment to remain the preferred choice of their customers. Depending on the type of disruption, excerpts from the annual reports indicate that business continuity plan involves specialist personnel recruitment and training on emerging trends and asset management. Some LPTs have also adopted funding of research activities that will provide clearer pathways of managing disruptions to pre-empt and minimize the impact of market uncertainties. These strategies demonstrate how LPTs adapt to the dynamic nature of their operating environment. According to R1:

“The environment in which we operate is constantly changing, and these changes create both opportunities and risks for our business. We have a strong strategic plan in place to drive our business forward and a robust risk management framework to identify, understand and manage risks in order to meet our legal and regulatory obligations” (T1)

While describing the outcome of their approach after the Christchurch earthquake, T4 also stated that:

“.... having dedicated local staff allowed us to respond quickly to the second major earthquake in February 2011. After ensuring the immediate safety of our customers, our portfolio manager and his team were able to call on the wider resources of the business for support.” (T4)

The development of a business continuity plan, therefore, emerged from the review as a viable adaptive strategy of LPTs, because of its capacity to project and respond to possible disruptions that could significantly affect businesses that are not prepared.

5.5 Factors that Influence the Adaptive Strategies in New Zealand LPTs

Findings from the document analysis suggest that the adaptive strategies of LPTs to disruptions are triggered by several factors, including government policy outlook⁸, experience from previous disruptive events, competitor behaviour and insurance terms⁹, as illustrated in the typological below (see Figure 5.1). Depending on whether the adaptive response of the concerned LPTs is reactive or proactive over the short and long term, the typology indicates the relevance of each of the factors deduced from the review. For instance, for LPTs that are focused on the long-term, proactive response to disruptions, experience from previous disruptive events emerged as the main factor that guides their adaptive response to disruptions. Similarly, government policy outlook informs the adaptive response of LPTs that explore long-term, reactive strategies. Although the impact of peer activities emanating from competition also emerged as a major factor that informs the short-term, reactive strategies of LPTs to disruptions, insurance terms was identified from the review as a determinant of short-term

⁸ Interpretation of government policy or position regarding property market disruption

⁹ The extent of claim that is payable in the event of disruptions and the conditions attached to it.

proactive response of LPTs to disruptions. The identified factors are discussed further, with excerpts from the annual reports used in highlighting their significance.

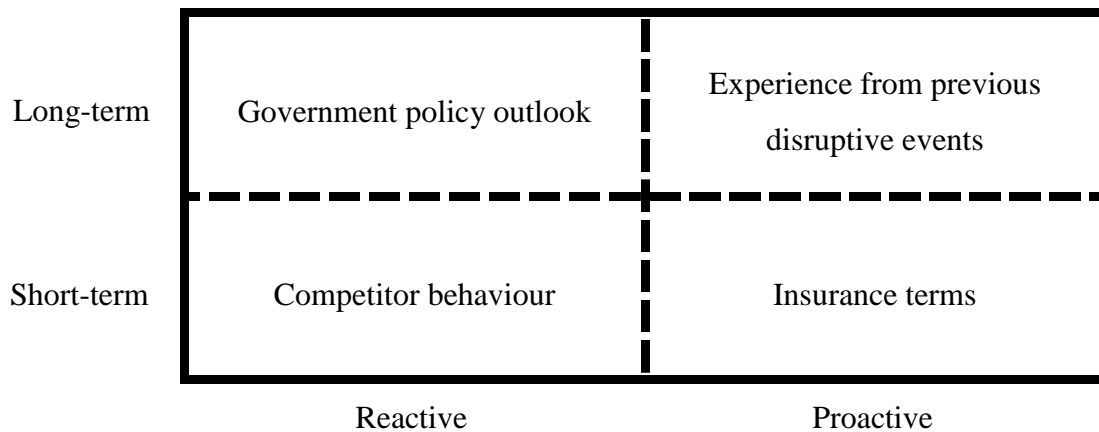


Figure 4.1: Adaptive response typology

5.5.1 Government policy outlook

Most of the LPTs recognize the role of government in ensuring the safety and stability of the property investment environment through regulatory policies that address the prevailing market situations and advances in knowledge. As a result, the LPTs noted in their annual reports that policy directions greatly influence their long-term, reactive strategy towards disruptions. Aside from complying with relevant regulatory requirements, the LPTs also stated that policy outlook helps them in adjusting appropriately to tenants’ requirements. For instance, whereas the current legislation on earthquake-prone buildings (EPBs) requires all buildings to be at least 34% of the New Building Standard (NBS), property trusts expressed willingness to strengthen their buildings above the required minimum in order to meet up with tenants’ expectations. With evidence suggesting that the first set of information that potential tenants often seek in seismic locations is based on the NBS rating of buildings (Filippova et al., 2017), property trusts often leverage their adaptive decisions on tenant’s expectation of regulatory compliance in order to maintain their market relevance amidst uncertainties. Although regulatory compliance in terms of building strengthening is often expensive and building occupants may not be able to differentiate a structurally compliant asset from the one that is not, the LPTs noted that they operate in accordance with the prevailing regulatory provisions to maintain a good safety rating and satisfy client’s curiosity. The highlighted quote below illustrates how LPTs explore government policy outlooks in responding to disruptions, as observed in the annual report of T3.

“...we have provided for an increase in the earthquake strengthening budget, which will allow us to increase the building’s seismic performance to a targeted 100% of New Building Standards, consistent with market demand for assets which have good seismic performance.” (T3)

Findings from the review also indicate that LPTs react to disruptions by constantly evaluating and improving the risk classification of their portfolio in order to outperform other investors and remain attractive to tenants occupying their buildings over the long term. In doing so, they monitor the structural integrity of their assets in line with the current regulatory requirements to ensure that their buildings exceed market expectations. One of the disclosures made by T5 in this regard is highlighted below.

“XXX building was physically tested for its seismic strength with certain sections being stretched with hydraulic jacks to assess the stress points of the frame. The results confirmed that the building far exceeded the current seismic code, and testing was stopped when it reached 180% of the new building standard.” (T5)

5.5.2 Insurance terms

Property trusts also expressed their recognition of insurance cover as a risk management mechanism that is essential in managing disruptions. However, the LPTs indicated that insurance condition varies with types and impact of disruption. For instance, the LPTs noted that while insurance policies cover the cost of putting a property to its original state before disruptions, they do not cover investors against the loss in the value of a property or illiquidity caused by the impact of major disruptions. Depending on the insurance terms, LPTs are, therefore, of the view that insurance cover cannot solely address the challenges associated with disruptions. The findings of this review indicate that LPTs explore insurance as a short-term proactive strategy in adapting to disruptions. This is because the LPTs argued that insurance coverage might not be suitable to drive business continuity. Based on the research findings, LPTs are more interested in preventing losses that could accumulate due to vacant buildings arising from disruptions instead of waiting for insurance pay-out on such assets. In clarifying this view, T5 reported thus:

“To meet demand, we have carried out limited reinstatement works, necessary for the reoccupation of the building, without agreement from its insurers.” (T5)

Property trusts also demonstrated their willingness to divest some of their assets that do not reflect the anticipated market value after significant disruptions, despite being fully insured for market uncertainties. In the documented instances, the property trusts stated that the benefit of disposing vulnerable assets at a loss could outweigh the prospect of re-investing insurance payout in such assets. According to T1:

“XXX investment property was valued at \$10,510,000 as of 31 March 2012 and subsequent to further structural investigations and settlement of the insurance proceeds was valued at \$7,550,000 as of 31 March 2013. The Group settled on the sale of this investment property for \$6,720,000 on 28 March 2014, with the resulting loss on sale of \$1,080,143 reflected in the current year.” (T1)

Insurance settlement terms, therefore, emerged from the review of annual reports as a factor that dictates how LPTs adapt to disruptions.

5.5.3 Competitor behaviour

Evidence from all the reports reviewed in this study also reveals that LPTs usually align with the perception of other market participants in arriving at their own adaptive decisions. As such, LPTs tend to make similar investment decisions as their competitors in the same market environment. Often adopted as a short-term reactive strategy in responding to disruptions, LPTs indicated through their annual reports that the observation of peer activities is particularly relevant in responding to unprecedented disruptions.

In this review, the property trusts are unanimous on the supply shortfall in Wellington as a motivation to invest in the city. Despite the devastating impact of the Kaikoura earthquake, which led to consequential property damage that hindered business operability (MBIE, 2017), the LPTs based their optimism in the Wellington market on the enduring demand for their assets and the reasonable return on investment. Similar commentaries as documented by T2 and R5, demonstrating group action as a trigger of how LPTs respond to disruption, are stated below:

“In Wellington, supply remains constrained due to stock withdrawals from the Kaikoura earthquake in November 2016. While new supply is at visibly low levels, there is solid demand from a growing government employment base.” (T2)

“The office market in Wellington remains under supply pressure to the extent that vacancy rate of good quality accommodation is very low.” (T5)

LPTs also benchmark similar organisations in devising business continuity plans to ensure the continued relevance of their assets. One of such plans involves adjusting to technological trends and practices that may affect the viability of their assets. According to T7:

“Technology is disrupting the market, and as a Trust, we are observing and following the trend in our market segment and figuring out how we can improve the experience for both our investors, customers and our staff.” (T7)

5.5.4 Experience from previous disruptive events

Most of the LPTs also referenced their response to previous disruptions as a factor that influence how they adapt to uncertainties. As stated in the reports, the act of leveraging previous events is a common phenomenon that is particularly relevant when quick judgments are required or when LPTs anticipate market uncertainties. According to the LPTs, previous events provide a premise upon which long-term, proactive, adaptive strategies are developed. For instance, in documenting how they have responded to disruptions in the past, the LPTs continuously emphasized the significance of adjusting lease duration in minimizing the financial burden that could arise from disruptions. Also, based on historical performance during similar events, property trusts have made decisions to either invest or divest their portfolio in concerned markets. According to T3:

“At XXX, we negotiated the challenges of the global financial crisis in 2008 reasonably well, but then faced a whole set of new challenges with the Canterbury earthquakes in 2011. The quakes have been a sharp reminder that we live in a seismically active country and have led us to revisit the seismic resilience of all our buildings. This has required us to spend over \$137 million on earthquake strengthening nationwide – which has been tough on our shareholders but the right thing to do from our experience and safety perspective.” (T3)

The relevance of previous events in responding to technological disruption is also exemplified by T4 below:

“Catalogues have largely given way to online, digital and experiential marketing strategies. Learning from that and knowing that consumers are looking for new and more convenient ways to shop and buy, we are expanding our digital presence through the use of smartphone apps and social media.” (T4)

5.6 Chapter Summary

This chapter provides a nuanced understanding of how LPTs in New Zealand respond to disruptions, as well as the factors that influence their response strategies. Findings from the documentary analysis of annual reports of LPTs in New Zealand indicate that their adaptive response to disruptions depends on asset demand. Their response strategies are premised on portfolio diversification and a well-formulated business continuity plan. These strategies are triggered by government policy outlook, experience from previous events, available competition in the market and insurance terms. Therefore, the empirical evidence from this review suggests that LPTs are not only compliant with regulatory guidelines but also dynamic in evaluating and responding to market uncertainties.

Although most of the discussion around disruption in this chapter is related to earthquakes, this can be linked to the geographical location of New Zealand and the impact of the Canterbury and Kaikoura earthquakes during the review period. Nonetheless, other forms of documented disruptions were also highlighted in this review. The review findings are illustrative rather than exhaustive and were conceptualized using documentary analysis of the annual reports of LPTs in New Zealand. The findings of the documentary analysis are primary and affirm the viability or otherwise of an emerging research area, which could be examined further for discretionary narratives (Linsley and Shrives, 2006; Abraham and Cox, 2007). Consistent with this and being essentially an exploratory investigation, the findings from this study serve as a basis for further investigation through in-depth qualitative interviews. The review findings were referred to while engaging experienced property investors across LPTs in New Zealand on their perception regarding the adaptive response of LPTs to disruptions. The next chapter, therefore, provides clarity on the disruption driven decision-making of LPTs as described by experienced property investors and decision-makers that were purposively selected across the previously identified LPTs.

CHAPTER SIX

Within-case Study Descriptions

6.1 Overview of the Chapter

This chapter shifts the focus of the study away from the documentary analysis that traced how New Zealand LPTs have responded to disruptive events over an extended period. Specifically, it examines the opinions and perceptions of top-management decision-makers (as informed by their lived experiences) regarding the disruption-driven decision-making strategies of their respective LPTs, thereby clarifying why LPTs respond to disruptive events the way they described in their annual reports. This chapter, therefore, elucidates the adaptive strategies of LPTs and factors that influence these strategies from an institutional perspective, which is the main aim of this study. The chapter is divided into four sections. Section 6.2 describes the five case studies involved in this component of the research and the participating respondents across the case studies. Section 6.3 illustrates the within-case analysis, providing a detailed reflection of each respondent's opinions, beliefs and experiences regarding the research objectives stated in Section 1.4. The research findings within case studies were subsequently presented for each respondent. Each case description and analysis follows a similar pattern, with variation depending on the depth of information collected from the interviews. Section 6.4 summarises and culminates the chapter.

6.2 Case Studies Involved in this Study

Out of the seven LPTs in New Zealand whose annual reports were reviewed and subsequently contacted to participate in the research interviews, five agreed to participate in this study which constitutes a significant coverage of the market representation as stated in Section 4.8. Within each of the five LPTs representing the case studies in this research, as shown in Table 6.1, respondents were purposively identified based on their strategic role in their respective organizations, experience and potential to aid the detailed exploration of the research problem. As a result, chief executive officers of the participating LPTs were the primary respondents in this study, constituting four out of the five respondents, while the fifth respondent is a senior management staff and board member in his organization. Each individual had over twenty years of experience in the commercial property sector at the time of the interview and has lived through various forms of property market disruptions. Background information on each respondent is provided in the analysis of individual cases in the next section.

Table 6.1: Case Studies involved in this study.

Case Study	Respondent	Scope of Operation	Years of Operation
Case Study 1	R1	Chief Executive Officer	>25
Case Study 2	R2	Chief Executive Officer	>20
Case Study 3	R3	General Manager	> 20
Case Study 4	R4	Chief Executive Officer	>25
Case Study 5	R5	Chief Executive Officer	>35

6.3 Within-case Analysis

Following the process described in Section 4.10.1.1, as previously adopted by Levy (2005), the within-case analysis focuses on deducing and interpreting the views of each respondent regarding the disruption-driven adaptive strategies of their respective LPTs. Sections 6.3.1, 6.3.2, 6.3.3, 6.3.4 and 6.3.5 provide an in-depth analysis of each of the case studies involved in this study, while subsections within these case studies offer a detailed exploration of the research objectives. For instance, within Section 6.3.1, Sub-section 6.3.1.1 provides a brief description of the respondent (R1), and Sub-section 6.3.1.2 clarifies the disruption-driven decision-making strategy in the respondents' LPT. Further, Sub-section 6.3.1.3 describes the respondents' accounts regarding property market disruptions that informed the disruption-driven decision-making strategy described in the previous sub-section. Section 6.3.1.4 illustrates the adaptation of the respondents' LPT to property market disruptions, drawing on the motivation for adaptation, the actual adaptive response of the concerned LPT.

6.3.1 Case study A

6.3.1.1 The respondent

Respondent R1 is an experienced property professional who has practised in the real estate industry for almost three decades. The respondent specializes in property investment and asset management and has been involved in making investment decisions relating to property acquisition, operation and disposal. R1 has been through various forms of disruptions in the real estate market, such as the Asian financial crisis, the GFC, climate change and technological

evolution. The respondent believes that investment decision-making approach amidst disruptions should be evidence-based. According to R1:

“I’ve been in the property industry for over 25 years. Initially as a research analyst then property consultant, before climbing the ladder. So, I am from a fairly heavy research-based background, and a lot of my decision-making in response to disruptions is based on research.”

(R1)

The respondent holds a bachelor’s and master’s degree and is a member of several professional organizations and has held senior roles in reputable real-estate trusts within and outside New Zealand. R1 is a member of the executive management team in one of the LPTs in New Zealand.

6.3.1.2 Disruption-driven decision-making strategy

According to R1, disruption-driven investment decisions in his organization is made at the board level. While describing the organizational structure in the firm, which comprises the management team and an independent board, R1 stated that the management team is made up of the asset manager, general managers, financial manager and chief executive officer (CEO) that oversees the affairs of the whole team. He highlighted further that the management forms the internal investment committee that presents investment proposals or ideas to the board for ratification. On the other hand, the board, which comprises independent directors selected through voting by shareholders, is the ultimate decision-maker. In clarifying the procedure for making disruption-driven investment decisions in his organization, respondent R1 acknowledged a combination of both predefined and impulsive approaches in the decision-making strategy.

R1 argued that before he assumed office, the disruption-driven decision-making strategy in his organization was heavily drawn on reactionary and opportunistic responses to the market trends instead of strategic responses to real market fundamentals like risk, return and pricing. The respondent clarified further that the old strategy was mainly driven by the spontaneous evaluation of the prevailing market drifts and the projection of future returns in a specific market segment based on the management board’s belief, experience, and expertise. For instance,

“if a building came on the market, they’d look at it, and if they like it, they would invest in it.”
(R1)

However, since assuming his current role, the respondent argued that the disruption-driven decision-making strategy has evolved to recognize the need for “*checks and balances.*” According to him, whereas the previous strategy worked well for the Trust in identifying investment hotspots amidst disruptions, R1 expressed his reservations on the “impulsive” strategy based on his personal experience and training, which has evolved from a fairly heavy research-based background. For instance, he stated that when he joined the organization, he observed that the Trust was massively overweight in its allocation to retail assets and massively underweight in its allocation to industrial assets, which made him express concern about the concentration risk related to focusing on a specific market segment. According to R1, there should be a benchmark on the level of risk that investors are willing to take. In his words:

“... my assertion to the board, which we haven’t fully established yet, is that we are a core fund and so, we should be looking at, in my view, greater diversification across the portfolio. We’ve got some very large assets, which gives us concentration risk, and I want the board to start thinking about whether they’re comfortable with that concentration risk. So really, the first step is establishing risk appetite. Then from risk appetite, we can identify what an appropriate asset allocation is. I will always reference the MSCI benchmark, and I would typically look at all properties benchmark rather than a specific sub benchmark.” (R1)

Following his presentation to the board, R1 stated that the risk appetite and asset allocation benchmark has been identified across each of the market segments (i.e., retail, commercial and industrial), and the focus of the management board has shifted to a more detailed approach that has to do with stock selection within the identified sectors of the market as they make disruption driven investment decisions. The respondent argued that the current disruption-driven decision-making strategy of his Trust has become more of a valuation exercise where the management board now evaluates their preferred assets in relation to factors such as gross domestic product (GDP) forecast, rental growth and population growth. Depending on the market size, R1 believes that the current approach has helped the management board in identifying, acquiring and managing high-quality investment stock amidst disruptions:

“...you can actually draw up a list fairly quickly of the top twenty office buildings in the country, the top twenty shopping centres in the country and actually maybe a bit longer, but the top fifty say industrial buildings, and so that gives you your shopping list. Now, they’re not all going to be available in the market, but you could say look, if we assumed that they were all available, these would be our preference.” (R1)

Although R1 affirmed that most investment decisions are aimed at optimum return, he also recognized that optimality in the context of property investment is relative and very dynamic. Comparing similar investment assets, R1 argued that high building quality or specification may not always translate to better investment return. As such, absolute reliance on a purely stage-based procedure across property types or asset classes could be prone to some level of inefficiency. According to him:

*“...an example here would be **Asset A** centre versus **Asset B**. **Asset A** Centre in terms of quality, I mean the air conditioning systems, the lifting capacity for the building, the design quality of the lobby and so on, is a higher spec building and will attract the kind of tenants that **Asset B** would struggle to attract. So quality-wise, **Asset A** is better. But then you start to look at okay, so what’s the current market rents within **Asset B** and how do they sit relative to **Asset A**, and which has the best opportunity to grow those rents. And this is a relatively new concept for our board?” (R1)*

Consequently, R1 argued that research is useful but not always right, particularly when it comes to forecasting. He argued, therefore, that all market actors (i.e., investors, tenants, financiers, competitors, government and so on) are capable of influencing investment decisions, and the extent of their influence should be adequately considered by decision-makers. R1 believes that decision-makers should continually interact with stakeholders across the different formal and informal hierarchies in the market environment in order to acquire useful information that will guide their adaptive investment decisions. According to him, his experience has taught him that there should be checks and balances in the behaviour, belief and tradition of market participants and the formal rules that govern investment activities in the market environment. In further clarifying his position, R1 stated:

“I think that the older you get, the more you realise that there’s always more than one approach. I questioned myself quite a bit as well about believing too firmly that research will guide me, you know, you have to challenge the research as well. So, like I said, my interaction with the board and our customers enables me to do that and also experience enables me to do that.” (R1)

R1, therefore, believes that the essence of procedural considerations in disruption-driven investment decision-making is to balance the excesses of intuitive reasoning. To him, adhering solely to established investment patterns or being too emotional about buildings would not yield the best investment decision amidst disruptions.

6.3.1.3 Property market disruptions

This section describes the property market disruptions that informed the decision-making strategies described in the previous section.

According to R1, any occurrence can be deemed disruptive once it affects people’s ability to achieve set goals. From the perspective of a real estate investor, he described property market disruption as any event or action that makes investors reconsider their investment options based on new realities that were non-existent at the inception of the investment plan. R1 acknowledged that the real estate market has been through significant transformations due to unpredictable activities that have continued to re-invent the real estate investment outlook around the world. Whereas property market disruptions could be deliberate or unintended, R1 revealed that the most impactful disruptions that have led to the reconsideration of investment decisions throughout his professional career were triggered by unanticipated events. Recounting his lived experience, he reiterated that the impact of disruptions on real estate investment portfolio differs across location, investment type and market response. Notable events that stirred property market disruptions as referred by the respondent include:

- *Seismic-induced disruption*

According to R1, seismic hazard is a major disruptive factor that has made his organization review its investment decisions consistently. He noted that before the Canterbury and Kaikoura earthquakes of 2011 and 2016, respectively, seismic strengthening of buildings was known to be important, but was not a major subject of debate in terms of investment decisions. He clarified further that while property trusts ensured that the minimum seismic requirements of

buildings according to the New Zealand Society for Earthquake Engineering (NZSEE) and the New Building Standard (NBS) were satisfied over the years, tenants were not as keen on seeking compliance to the building regulations as they are today. After the Christchurch and Kaikoura earthquakes, R1 reported a significant surge in earthquake awareness and safety consciousness on the part of building occupiers.

Consequently, LPTs have had to respond to tenants' expectations. As a result, building strengthening evaluation has changed considerably from what it used to be. The role of engineers in carrying out a detailed seismic evaluation and standard due diligence on buildings before investment decisions are made have also become critical. So critical to the extent that building strengthening requirements are hardly justifiable from the economic viewpoint. For example, R1 argued that:

“... to give you an idea of the scale, so, pre-Christchurch, the XYZ building was worth roughly \$110 million. As a result of engineering assessments post-Christchurch, the company and the shareholders had to pay roughly \$80 million for the strengthening of that building. After that work was completed, we sold the building for 123 million. So, for shareholders, that was a really bad deal and what that's done is, it really changed the view of where you can invest.”
(R1)

Referring to the New Zealand seismic map, which is also illustrated in Appendix 6, and how it has influenced investment decisions in his firm, R1 noted that Auckland is a low-risk city, from Hamilton down to the lower half of the North Island is medium risk and then from the lower part of the North Island right through to the South Island is high risk in terms of seismic hazard. As such, he stressed that Auckland remains a preferred investment location for his firm because when compared to other cities, it has benefitted from a growing population and GDP, based on its low-risk classification.

- *Pandemic (Covid-19)-induced disruption*

Covid-19 also featured significantly in the narrative of R1 as a sudden phenomenon that disrupted the property market. According to the respondent, the impact of the health crisis transcends all classes of property assets as movement and supply restrictions hindered production, sales and service delivery. Unlike other property market disruptions, R1 argued that the Covid-19 situation did not only impede the expected cash flow across all property

types, it also challenged investors' ability to make long-term socio-economic projections. He argued that the outbreak of infectious diseases came with changes in lifestyle and behavioural patterns that could significantly redefine people's need for certain asset classes (e.g., office and retail). Although he argued that pandemic-induced disruptions are rare in the real estate market, he emphasized that the impact of such disruptions could be difficult to manage when they do happen. While projecting the likely, long-term impact of Covid-19 on the real estate sector, R1 argued that LPTs should be prepared for the possibility of a systemic change across shopping centres, According to him:

"... you might have heard of the term 'bifurcation of retail', and what that means is that regional dominance centres mostly would continue to perform well. But secondary, particularly grocery stores would continue to decline. And they may continue to decline to the point where actually they're really only worth land value less demolition costs. So, I think owners of those centres need to start making decisions fairly quickly about what their risk appetite is and if they're of the view to holding through the cycle." (R1)

He noted further that although people appear to have shifted to online shopping due to the impact of Covid-19, how far the penetration will go is still not clear. So, from his research-based experience, he stated that market penetration of e-retailing will have to reach a tipping point before we start to see the impact on bricks-and-mortar retailing, and we begin to draw inferences. Referencing the UK, he noted that if online sales get to 15% for a retail category (e.g., bookstore), that is when it starts to mean a decline in bricks-and-mortar rents. He, therefore, submitted that investors need to evaluate which categories New Zealand market indices are pointing towards. If it's that sort of 15% level and whether 15% is the right number. In his words:

"...the extent of retail market penetration during the pandemic is a piece of research that we're going to start looking at, and I think that there's the question of, what's the future of office occupancy as well. (R1)

While stating that his organization will continue to monitor and adjust to the impact of the pandemic, which is expected to persist for some time, R1 noted that his Trust has already recorded a significant loss of revenue and devaluation of prime assets, especially in the retail sector.

- *Global Financial Crisis (GFC)-induced disruption*

The respondent also acknowledged that the GFC of 2008 was a major form of disruption that had a significant impact on the real estate market. Owing mainly to interest rate volatility and a rapid decline in property value, R1 stated that the retail sector was severely hit by the financial crisis, which made property trusts to generally renegotiate lease and rent terms with their tenants. The respondent also revealed that office assets equally recorded a low occupancy rate during the crisis due to the increasing unemployment and the uncertainty regarding how soon economic activities will start to recover. However, despite the devastating impact of the GFC, R1 believes that the prime location of his organization's asset, tenant type and market knowledge helped his firm to navigate the turbulent period of the financial crisis with minimal disruption. The low debt profile of his organization also facilitated the quick recovery of his firm from the economic turmoil. R1 argued further that the systemic nature of the disruption made it easy for his firm to communicate with stakeholders on the impact of the crisis on their investment assets. Although most property trusts had negative experiences during the period, R1, reported that his organization was not badly hit. In his words:

"...the GFC experience was not that bad for XXX. In fact, it was really good. By gearing, there was no debt pressure on our portfolio. Although we had a decline in asset values, our portfolio was very liquid. The average asset value on our portfolio was less than 10 million, and actually, the assets were typically single-tenant high-quality buildings. Predominantly industrial buildings and some high street retail, one or two offices and few smaller offices. They remained very liquid through the immediate post-GFC and then created purchasing opportunities." (R1)

Considering the peak and trough periods that followed the GFC, R1 observed that the New Zealand market troughed in 2011 and peaked in 2013. As a result, property trusts that acquired assets between late 2009 to late 2011, bought at the bottom of the cycle.

6.3.1.4 Adaptation to property market disruptions

In adjusting to the highlighted disruptions, which is one of his core functions in the management team, R1 reiterates his belief in the introduction of a research-based decision-making approach to complement the existing organizational strategy, which, until he assumed his current role in his Trust, has been quite reactionary and opportunistic to market changes. In his view, the combined impact of regulatory compliance, societal norms, and ability to recoup

reasonable return on investment are the major factors that influence the adaptive response of his organization to property market disruptions. However, he believes that most of these factors are not easily deduced in isolation of the market and its participants. R1, therefore, posits that a detailed and purposeful investigation towards observing the changes in end-user behaviour and expectations will provide a clearer picture of what is needed to appropriately respond to unprecedented market changes. Detailing how his team strategizes toward responding to disruptions, R1 stated that:

“So, we’re trying to look very closely at our approach, and we’ve now got a fantastic marketing team here that do a lot of research about current consumer behaviours or future behaviours. This has broadened our adaptive techniques. You know, traditionally, we were office and retail. We’re now saying, well, actually, we want to think about people’s lives 24-seven” (R1)

The assertions of R1 regarding his organization’s adaptive response to disruptions are categorized as motivation for adaptation and actual adaptive response as discussed below:

6.3.1.4.1 Motivation for adaptation

- *Asset demand*

In providing details on the motivation for adaptive responses, R1 disclosed that irrespective of the type, or impact of property market disruption, investors will be willing to continue operation in markets with long-term demand for their assets. He noted that investors could leverage property market disruptions as an opportunity to penetrate specific markets that are well-positioned to attract valuable customers or constrained in the availability of certain assets. For instance, R1 mentioned that in the aftermath of an earthquake, some investors may divest because they are sceptical about returning to the market due to uncertainties relating to regulatory changes and the cost of compliance. Hence, depending on the available stock in the location, the demand for space could drive up rents and increase earnings for interested investors, which is a good motivation for capable investors in the affected location to capitalize in such markets by adapting accordingly. While describing asset demand as the motivation for seismic strengthening after the Kaikoura earthquake, R1 revealed that:

“...the decision to strengthen our buildings was quite easy, especially because we were quite certain about our ability to generate a reasonable return on investment and the quality of

tenants we had, with the government responsible for over 40% occupancy in our buildings.”
(R1)

- *End-user expectations*

To further clarify the motivation for adaptation in his organization R1 argued that regulations follow what happens in the market because the market components react faster to disruptions. He recalled that before the building codes were introduced, end-users of building facilities were already ‘ahead of the curve’, in search of solutions that could minimise the impact of earthquakes on their lives and livelihoods. R1 stated further that this practice has been going on for some time, and it is still observable in cities affected by seismicity across New Zealand, especially in Wellington, where tenants’ demand for buildings to be strengthened to a minimum of 80% of the NBS before they can be regarded as safe, against the 33% recommended in the EPB act. Reiterating the significance of end-users expectations, R1 stated that:

“Wellington City is a big market that is prone to seismic challenges, and resilient buildings are expected to be anything over 33%, but the tenant market for 33% to 80% is very slim. So, any institutional occupant would actually want something 80% plus. So, for us, we have regard for that and it’s more about where our market demand is coming from.” (R1)

R1, therefore, believes that end-user expectation is a major driver of the adaptive response of LPTs, especially when it comes from institutional tenants such as government agencies, banks, insurance companies and crown agencies.

- *Regulatory compliance*

Further to the role of end-user expectation and its impact on adaptive response to disruptions, the need to comply with regulations also emerged from the conversation with R1 as a motivation for adaptive decision making. According to the respondent, all property investors would have to comply with the dictates of the law, irrespective of their interest or organizational focus. The respondent stressed that regulations provide the premise for other adaptive actions that investors may want to adopt in response to disruptions. In his words:

“Government policy provides the basis upon which our strategies are developed. It cannot work the other way round. So we just have to comply to get going, and it has worked very well

in many instances ... we observed and responded to policy changes during the GFC, and we are doing the same now with this coronavirus thing.” (R1)

R1 stated further that regulations could also indirectly motivate investors’ response to disruptions. According to him, property insurance is a major requirement for successful property investments that is subject to regulatory changes. R1 argued that insurance guidelines have changed dramatically over time with changing market conditions and has translated to an additional financial burden on investment trusts that operate in the concerned markets. While sharing their experience in Wellington as a market that is exposed to seismic disruption, R1 affirmed that:

“Being a gross lease market, the impact of the increasing cost of insurance reduces our net operating income and the bottom-line earnings of the building owner. So, the cost of insurance is roughly four times in Wellington, what it is in Auckland. In Auckland, we can recover that cost from the tenants; in Wellington, we can’t.” (R1)

According to R1, the increasing cost of complying with insurance guidelines is growing parallel with rental growth or, in some locations, actually growing faster than the rental growth, which makes it a measure of investors’ incentive to divest vulnerable assets due to the divergence in the expected returns.

- *Location preference*

According to R1, firms would ordinarily review their portfolio exposure in line with the possible impact of disruption, and the outcome of the assessment will determine the appropriate adaptive strategy to be explored during and after disruptions. In his view, R1 stated that the focus of his organization’s attention has been and should continue to be directed towards Auckland because of the low-risk classification and additional incentives relating to population growth and GDP growth. According to him:

“...as a company, our portfolio distribution already signifies an Auckland bias, and the earthquakes accelerated that view.” (R1)

- *Personality*

In more-specific terms, R1 also highlighted personal influence in adaptive investment decisions, wherein individuals change jobs and move across different organizations, and as a result, such individuals initiate or influence change in their new roles. Depending on the responsibilities involved, R1 argued that the experience of the concerned individuals from their previous organizations could impact adaptive response to disruptions in their current organization. Describing how knowledge transfer amongst LPTs has influenced adaptive investment decisions in his organization, R1 noted that:

“.....property trusts can change their investment strategies, depending on who is heading the team. Some Trusts have had the same manager for a long time, and they’ve kind of learned from their experience. In my own case, I have learnt across various Trusts, and my overall experience is what I have brought into this Trust.” (R1)

Similarly, individual opinion could undermine or outweigh objective reasoning when exploring adaptive strategies. He revealed that there had been instances where individual actions and preferences dictate adaptive strategies. In describing such instances, R1 gave an example of an asset that does not seem viable but has remained in their portfolio because:

“... a board member built the structure, and he is emotionally wedded to it.” (R1)

He also pointed out through the quote below that the decision to divest in seismic locations is determined by one of the board members:

“...one of our directors is a director of XXX, and she has knowledge of the commission’s view of the risks, and she pretty much has said we’re not buying in Wellington or Christchurch because of earthquakes.” (R1)

Aside from the motivations for adaptation highlighted above, R1 also provided evidence on the actual adaptive response of his LPT to disruptions. These actual responses describe how the respondent’s LPT implement their adaptation strategies in response to disruptions.

6.3.1.4.2 Actual adaptive response

- *Effective communication*

According to R1, responding to property market disruptions often requires a huge financial commitment, which is a major hurdle that property trusts consider in implementing their decision-making strategies. He stated that investors mostly consider the option of divesting or investing massively in vulnerable assets to reposition them for alternative use. Irrespective of the chosen option of the decision-maker, R1 argued that it is better not to worry so much about the barriers associated with disruptions but focus on how to engage their tenants and occupiers towards ensuring business continuity. R1 cautioned that the uncertainty that is associated with property market disruptions can generate confusion amongst tenants and building owners, which hinders LPTs' ability to make clear adaptive decisions. While sharing the strategy employed in his firm, R1 stated that:

“... after the earthquakes, we focused on how to retain our tenants, and we did. We kept them informed. We decanted them through the building as we were doing the strengthening works to keep our earnings and then have a resilient building that we could sell at the end. Although the strengthening cost the business and the shareholders a lot more than we were told when we started the work, it was a better choice for us from the business continuity angle.” (R1)

He argued that if investors decide to invest in vulnerable assets without engaging relevant stakeholders, it may be difficult to evaluate how well such investment will realize value for money. Also, if investors choose to sell their building assets in a vulnerable state, R1 stated that there is a risk of overpricing the impact of the disruption and losing a lot of money in the process.

- *Flexibility*

The essence of flexibility in decision-making was also emphasized in the interview with R1 as a means of adaptation to disruptions. He believes that the value attached to long-term property investments should be thought of as a function of changing market forces (e.g., demand, supply, competition etc.). Hence, investors should be aware that rental growth forecasts might have to be tempered. Highlighting further that all categories of assets are not the same and should not be evaluated as such, R1 argued that both the present and future use of assets are important considerations in making adaptive decisions. According to him:

“....retail is very heterogeneous. Countdown supermarket is very different from just jeans speciality, hugely different. So, you've got to think about, OK, what's the tenant mix currently

in a centre? and what could it be? because ultimately, properties are only worth what income streams you can generate from them. So, if the property could be used for something else, you have to factor it in.” (R1)

R1 also shared a US experience of how investors’ flexibility could inform their adaptive response to economic disruptions. He stated that one of the things he found in the United States was that LPTs based their market projections on big retail operators including the likes of Macy’s that were ‘paying peanuts’ (low rates). However, after reconfiguring their assets post-2008 GFC and getting smaller operators in, the LPTs were able to diversify lease expiry risk and achieve much higher returns.

R1 highlighted further that flexible design is a popular adaptive strategy to property market disruptions in today’s increasingly dynamic market environment, owing to its prevalence amongst major property trusts around the world and because it accommodates partnerships, mixed-use and future developments as investment decisions are made. R1 justified the essence of flexibility in one of the recent investment decisions made in his firm as follows:

“... one of the reasons we really like our investment in XXX Park is because we’re carrying out a redevelopment there based on the Unitary Plan change to the Metropolitan zoning, that gives us some flexibility. The Metropolitan zoning is the second most dense zoning behind CBD. So, we can build to 72 metres across the entire site, the entire size is 22 hectares, and it’s actually bigger than Canary Wharf in land area. So, yeah, we can, and we are now looking at doing apartments there too.” (R1)

- *Market projection*

R1 also believes that transnational and interdisciplinary experience play a significant role in making adaptive decisions through market projections. According to him, it is important to be aware of global trends and to reflect lessons learnt in developing adaptive strategies that are centred around the provision of valuable services to customers and maximizing market share by spreading investment risk amidst disruption. R1 mentioned that:

“... my UK background and years of experience in the United States where I saw the impact of what they call Retail Armageddon has improved my knowledge and prepared me for the possible challenges ahead.” (R1)

To him, one of the lessons he learnt from previous disruptions is the need to acquire sites that are close to essential infrastructures like roads and railways that drive development, which his organization is adopting gradually. By aligning the firm's adaptive response to the government's infrastructure plan, R1 believes that the impact of property market disruptions could be minimized on the investors and the asset occupiers. Emphasizing that assets that are well-positioned around necessary facilities are more resilient to disruption, R1 argued that his organization has been able to maximize the experience of decision-makers in adapting to property market disruptions through reasonable projections. According to R1:

".....the type of development for train stations that you see in Penrose train station or even New Lynn train station will also occur at XXX, and we are hopeful to get land right across the railway. We will then create value on the land and as of right, our resources will increase. So, there's a long-term play there." (R1)

He disclosed further that:

"One of our customers announced that they were going to move people out of their CBD offices in Auckland and Wellington and have them at transport nodes around the city. And so, I spent a lot of my time understanding where the infrastructure spend is occurring. And that's why we bought XXX. So, we bought the asset essentially because there's going to be a new train station there." (R1)

6.3.2 Case study B

6.3.2.1 The respondent

Respondent R2 is a property expert and chief executive officer (CEO) of one of New Zealand's LPTs. He has extensive experience of over twenty years across various aspects of real estate, including asset development, property management and funds management. R2 oversees the decision-making strategies in his organization, and he has lived through various forms of property market disruptions, including the GFC, technological evolution and natural hazards. While sharing an overview of his experience, R2 stated that:

“Prior to my current role as CEO, I spent six years at XYZ Trust where I was the fund manager and I had a couple of years in XYZ as an estate manager. I was also at XYZ for a couple of years in what was initially a procurement role, then into property development. Certainly, I experienced the GFC in full, which was one major disruption and more recently, Covid-19, obviously. I’ve also seen some disruptive patterns sort of, like flexible workspace and it’ll be interesting for us to work our way through those as well.” (R2)

R2 holds a master’s degree, and he is an active member of several professional real-estate organizations in New Zealand.

6.3.2.2 Disruption-driven decision-making strategy

According to R2, disruption-driven investment decision-making in his organization is based on the combined inputs of the executive management and board of the Trust. Although R2 stated that there are provisions in the organizational structure of his company that allows the management team to solely make certain investment decisions, huge investments involving NZ\$50 million and above would require the approval of the board. However, irrespective of the circumstances informing their investment choices, the respondent argued that the disruption-driven decision-making strategy in his Trust is very rigorous. According to him, it involves the combination of individual ideas that are subsequently put through extensive peer evaluation of investment feasibility. He also stated that the executive management will not put an investment proposal up to the board without paying attention to how it aligns with the principles of the Trust. As he stated:

“So, our decision-making in response to disruptions is often both ways and you don’t often make decisions on your own. You do follow gut feelings, but you’d have to support all of your decision-making by making very real assumptions around what you think may or may not happen. We have developed in-house structures that is used in evaluating the potential risks and opportunities associated with individual ideas. In some way, we identify certain criteria that we want to assess an opportunity by, and those criteria can be rigid or flexible, depending on the circumstance.” (R2)

The respondent revealed that his firm’s disruption-driven decision-making strategy is triggered by opinions, perceptions or experiences of board members which often emerge from deliberate

meetings, informal arguments or random suggestions. According to him, instinct is really important in property management amidst disruptions because investors cannot establish their vision without having some level of gut feeling, which often involves a projected view of how the market will respond to possible investment choices. According to R2:

“...gut-feel always come first and then we can prove it out by ticking the boxes” (R2)

Following the acknowledged significance of gut-feel in the disruption-driven decision-making strategy of his Trust, R2 stated that not all investment opportunities are implemented. Rather, ideas are evaluated according to different weighting criteria that align with the organizational focus. These weighting criteria are then subjected to constant evaluation across different market and property classifications. While illustrating the weighting system based on location factor, R2 stated that:

“Before the emergence of Covid-19, we had a location performance rating of around ten in Auckland and seven in Wellington, which has been the driver of our portfolio exposure. However, we have recently lifted our weighting to Wellington and it is now around nine because we think Wellington right now is in a much stronger position. Not stronger than Auckland, but stronger than it has been on a relative basis.” (R2)

R2 also noted that the disruption-driven decision-making strategy in his organization is influenced by the market. He revealed that his organization is committed to focusing on city centre real estate in major metropolitan cities in New Zealand (i.e. Auckland and Wellington) and this informs their capital allocation choices. He explained further that over the years, his organization has been able to master the art of value creation in the major markets of Auckland and Wellington at a scale that cannot be replicated in other smaller markets. In emphasizing his argument, R2 revealed that:

“.... we will rather leverage on our platform in Auckland and Wellington to create additional value, instead of going to smaller markets with \$30, \$40 or \$50 million asset base.” (R2)

While providing more clarity in terms of their target market and how disruption-driven investment decisions are made, R2 stated that the allocation of capital for investment in his organization is focused on three things (i.e., stock selection, development opportunities and

flexible spaces). According to him, at the board level, the organization sets out and agree on specific criteria for stock selection in their target market. The resultant specification thereafter serves as a standard of asset acquisition and value projection in those markets. Some of the basic considerations for stock selection according to R2 include: location quality, access to infrastructure, policy outlook and tenant demand. Apart from evaluating existing market stocks, R2 hinted further that his organization also focuses on identifying development opportunities in greenfield sites or obsolescence buildings that could be repurposed to drive better performance. He noted that investment in flexible spaces has also served as a value creation strategy in their disruption-driven investment decision-making.

R2 noted that competitiveness and dynamism in the contemporary property market require innovation and flexibility in the decision-making strategy. He argued further that expectations from regulators, shareholders and customers have constantly challenged their decision-making and capital allocation strategy. While affirming that some disruption-driven investment decisions could be made on emotional grounds, he cautioned that personal feelings should not override fundamental economic principles. As a result, he believes that random ideas emanating from gutfeel, beliefs or experiences of decision-makers should also satisfy the objective determinants of project feasibility. Some of the significant objective parameters that are used in rationalizing capital allocation as mentioned by R2 is highlighted below:

“.... in justifying our investment ideas, we have a set of criteria that we look for in terms of stock selection. Basically, they are characteristics like location, tenant’s quality requirements, risk profile, all those types of things. So, we measure all of those. We also look out for development opportunities, so we’ll focus on greenfield sites or any sort of building that is facing obsolescence and could be repurposed, where we can drive out performance, and the third thing that we look for when we’re allocating capital is flexible office space. All of which is done to create value.” (R2)

The respondent also recognized the significance of various market participants in responding to disruptions by emphasizing the need for investors to be immersed in their target market as they make disruption-driven investment decisions. In his view, disruption-driven strategies will not achieve their aim, if they fail to consider how market actors, including end-users will be affected. Also, R2 argued that actions or inaction of other organizations in the market could provide the needed direction to respond adequately to property market disruptions. He argued

further that the role of LPTs is to explore relevant information across the various market participants and subsequently develop appropriate responses to property market disruptions. According to R2:

“At the initial stage of the disruption, our immediate response was to observe and collaborate. So, we quickly engaged with the Department of Health, and we understood their perspective and we did our own thinking around what it was that we felt we needed to do to sort of discharge our obligations and then we started communicating. So, we communicated a lot with our occupiers. And we’ve received very regular updates around what was happening in the buildings and are also seeking feedback from them. In short, it was a two-way sort of conversation. And that gave us the needed information to work with as we made decisions to ensure that our staff and building occupants are safe.” (R2)

In summary, R2 believes that in-house processes and instinctive attributes of decision-makers in recognition of the changing market environment contribute to the disruption-driven decision-making strategies of property trusts.

The next section describes property market disruptions that informed the decision-making strategies discussed in this section.

6.3.2.3 Property market disruptions

The respondent acknowledged that property investors are constantly faced with disruptions emanating from socio-political, technological and economic uncertainties. He stated further that these disruptions could result in temporal or permanent changes in market operations and stakeholder expectations. In his view, although some of these disruptions may be anticipated based on previous market trends and practices, most disruptions are sudden and often require investment trusts to promptly realign their strategic operational policies and procedures to accommodate the market changes in order to remain relevant and remain profitable. When asked about the major property market disruptions that have prompted his organization to rethink its investment strategies and decision making, R2 shared his experience on issues that emanated from the GFC, earthquakes, demographic changes, the Covid-19 pandemic, and technological evolution. These disruptions are described below.

- *GFC-induced disruption*

R2 joined his organization when it had just been hit by the impact of the GFC. Despite the systemic impact of the GFC across property trusts, he noted that his organization underperformed in comparison to its peers significantly due to the excessive loan obligations and strict repayment terms. As a result, R2 stated that a series of efforts were deployed towards reviving the organization. One such effort involved the review of the company's financial risk management (FRM) policy and the company's dividend policy, and it was discovered that asset value had dropped significantly and none of the existing recovery strategies was viable in accommodating the challenge at the time. Consequently, a deeply discounted rights issue was offered to the shareholders to enhance the company's balance sheet. In his words, R2 stated that:

“Our FRM policy is the best example to demonstrate how we adapted to the GFC. We simply looked at what happened to all of our market rings and we looked at what happened to all of their market values. What we saw was, in summary, a reduction of about 22% of our values from peak to trough as a consequence of our FRM policy. The policy was subsequently revised to improve shareholder participation.” (R2)

R2 also stated that before the GFC, the previous management team got the organization to a position that made it illiquid. They had sourced all of their funding from one bank and they had limited negotiation options with the bank when the GFC struck. The post-GFC plan was therefore to revise the company's FRM policy to improve their access to funding such that, at any given time, a lot of lenders are accessible for funding at a rate that is competitive and based on flexible conditions that recognize the possibility of unexpected disruptions. An example of the changes made to his organization's FRM policy as it relates to their banking convenience is highlighted below.

“Recovering from our loan-to-value (LTV) ratio which was around 80% post GFC, we agreed that moving forward we would have a maximum LTV covenant of 50% at any given time. But internally, we don't ever intend to reach that limit, and we hope to never have committed gearing up to 37.5%. By that, we know that at any given time, we can withstand the value of 25%” (R2)

R2 revealed further that the most important lesson he learnt from the GFC experience, which has been useful in managing other forms of property market disruptions is shareholder management. According to him, any form of change in market formation could trigger panic amongst investors and if not well managed through effective communication and response strategies could result in business collapse. In his words:

“... my experience from the GFC reminds me that there are lots of speculators out there that may not necessarily understand how the market works. It is, therefore, our duty to assure and reassure them of our investment focus and strategies with utmost transparency. Otherwise, if they make the uninformed decision to panic and divest abruptly amidst systemic disruption, it only makes a bad situation worse for both parties.” (R2)

- *Seismic-induced disruption*

R2 also mentioned the susceptibility of New Zealand and indeed Wellington to earthquakes as a factor that informs his Trust’s decision on asset choices and mixes, as they anticipate the possibility of earthquakes. Having learnt from the recent Canterbury and Kaikoura earthquakes of 2011 and 2016 respectively, R2 argued that the timing and impact of earthquakes cannot be forecasted and as an investment trust, his organization’s adaptive mechanism to earthquake hazards is focused on saving lives and minimizing business interruption. Based on past experiences, the Trust, therefore, ensures that all the assets within its portfolio are compliant with the current building legislation and safety standards as recommended by relevant government and professional institutions. According to R2:

“Earthquake is another event that is of concern to us, especially in Wellington and as a way of minimizing its impact, we constantly measure our existing building stocks and new builds based on the importance level two (IL2). Whereas the NBS refers to life safety, IL2 includes the operational resilience of buildings. In fact, the two buildings that we’re developing in Wellington at the moment, are designed to be able to withstand an earthquake to a certain level that will allow the occupants to continue to operate without disruption.” (R2)

Although the current EPB legislation requires buildings to be at least 34% of the NBS, he mentioned that the Wellington market demand for high-quality assets and insurability expectations has led his organization to undergo a comprehensive remodelling of its entire asset in earthquake-prone locations. R2 disclosed that after the Kaikoura earthquakes, the Trust

evaluated the performance of all the buildings in its portfolio and was able to establish the buildings that will be vulnerable in the event of an earthquake. While most of the identified buildings were upgraded to conform with market expectations and demand, others that were deemed unlikely to attract adequate return on investment were sold. In his words:

“... following the recent earthquakes, we’ve sold about \$600 million worth of real estate in the last five or six years and I’d say two-thirds of these were assets that we thought would underperform in a seismic event. Subsequently, we have upgraded all the buildings we own in Wellington to 100% NBS, except one that is only 80% NBS. So, we’ve shifted from focusing solely on life safety to minimizing business interference by investing in strategies that offer a much greater chance for people to access our buildings and continue their work after an earthquake.” (R2)

Despite the prevalence of seismic hazards in Wellington, R2 emphasized the buoyancy and prospects of the Wellington market, being the seat of power that attracts both public and private sector businesses. As a result, he argued that there will be continuous demand for high quality, safe buildings by business owners and government agencies. By considering policy expectations and market demand in their investment decision making as they respond to seismic disruption, R2 disclosed that his organization has been able to maximize the opportunities inherent in the Wellington market.

- *Demography-induced disruption*

Apart from the GFC and seismic disruptions, R2 also recognized demographic changes and projections as a form of property market disruption that is gradually informing investment decisions in his organization. He argued that factors such as migration trend, diversity, active working age and average income are some of the basic considerations that inform his Trust’s investment choices. Confirming the noticeable investment pattern in his organization’s annual reports over the past ten years which indicates that the Trust’s portfolio is predominantly concentrated in the major cities of Auckland and Wellington, R2 affirmed that the demographic outlook of both Auckland and Wellington is very promising, compared to other cities in New Zealand and this is responsible for the Trust’s investment preference towards these two major cities. While explaining the significance of demographics in the Trust’s portfolio spread, R2 noted:

“When I joined the Trust, we were about 50% to 55% Wellington and 45% Auckland. and what we’ve seen over the last few years is that Auckland’s economy has always outperformed Wellington’s and Auckland is a much larger, sort of economic powerhouse. A lot of Auckland’s economy is driven by immigration growth and the working-age population. So, we focus quite intently on those demographics and particularly on the working-age population. We have seen that for a long time now, Auckland has sort of really significantly outperformed Wellington in the demographic metrics, and the strength of the economy kind of follows this. So, we’ve gone from 55% Wellington and 45% Auckland 10 years ago to now be sort of 75% Auckland 25% Wellington. Our expectation is that we’ll stay somewhere between, maybe around 70-30, 80-20 between Auckland Wellington, and our strategy is not to go outside these two cities.” (R2)

According to R2, all demographic and urbanization indices are pointing towards Auckland and Wellington, and millennials are increasingly becoming the determinants of changes that takes place in these markets. His organization, therefore, puts flexibility into consideration when making investment decisions that will impact the lifestyle and expectations of this target group. Also, the multicultural nature of the population in the two cities reinforces the need for the Trust to be sensitive to cultural diversity in order to attract high-quality tenants that will drive meaningful returns in the market. While further justifying his organization’s presence in Auckland and Wellington, R2 revealed that:

“..... having considered the opportunities and limitations across the available markets, the amount of detailing and consideration that we put into the selection of our assets in Auckland and Wellington is painstaking. It is difficult to recoup commensurate return on investment in other smaller markets. The margin is not just there. But for Auckland and Wellington, we are confident that the influx of young people will continue to drive the demand for quality assets. In any case, successful real estate investment decision is about the demand and the demand comes from the people.” (R2)

Although R2 mentioned that the downside of a dynamic and vibrant demographic mix could mean that tenants may not be signing long leases as they may be very mobile and active due to the unpredictable nature of global events and trends, he noted that decision-makers should be flexible enough to incorporate such tendencies while making investment decisions to minimize the impact of business disruption.

- *Pandemic (Covid-19)-induced disruption*

According to the respondent, the Covid-19 pandemic also emerged prominently as a major disruption in the real estate market owing to the emergence and the global spread of coronavirus disease. R2 revealed that after the WHO declaration of Covid-19 as a global pandemic on the 11th of March, 2020, there was a high level of panic amongst investors and customers, which necessitated property trusts to devise timely ways of engaging these stakeholders in order to minimize the overall impact of the pandemic on their portfolio. According to him, the emergence of the pandemic and its impact on real estate investment is unprecedented. No antecedence in recent history could be referenced in dealing with the uncertainties associated with Covid-19, especially as it relates to real estate. According to him, real-estate trusts, therefore, had to monitor the situation as it emerged and make adaptive decisions that suit the peculiarity of their portfolio mix and tenant type. He stated further that one of the first things his organization did was to suspend works on their current development projects as they devised internal strategies of responding to the crisis. The Trust also waited for the government's official response and policy intervention before engaging their tenants and shareholders. According to R2:

“... after the emergence of the strange coronavirus, we had to suspend our capital expenditure plan and also put some projects on hold. The two major challenges we faced at the initial stage had to do with engaging our customers who were really nervous, in need of support from us, and also considering the possible impact of government policy on our proposed intervention. While we were really sceptical about the future, we needed to maintain a balanced approach in managing the situation.” (R2)

After the first recorded case of Covid-19 in New Zealand and the subsequent announcement of different alert levels, R2 revealed that the impact on their customers was huge. People were concerned about their safety and yet the survival of their businesses was also important to them. Although the government introduced a wage subsidy scheme that was meant to cushion the impact of the pandemic on businesses, the respondent was sceptical about the impact of the subsidy on small businesses. In his opinion, the ability of small business owners in their books to return to normal operations will depend on the longevity of the lockdown and the consequent change in end users' behaviour:

“..... we went into about ten weeks of complete lockdown on alert level 4, with the hope that the market will gradually ease at level 3. Unfortunately, this did not happen because of the increasing number of Covid-19 cases and associated uncertainties which makes it difficult to predict the overall impact of Covid-19 disruption on our portfolio. But so far, it is clear that unemployment is increasing, and default rate is likely to increase too.” (R2)

R2 projected further that the overall impact of Covid-19 on different asset classes will vary, with the retail and office sectors being the most hit. He believes that there will be a significant drift in consumer behaviour from bricks-and-mortar shopping to online shopping. Although R2 acknowledged that online shopping is not new and has emerged gradually over the years, he argued that the circumstances surrounding Covid-19, which forced most consumers to transact remotely, will have an irreversible effect on some consumers' shopping habits. Also, the need for flexibility in the design of office spaces was reiterated by R2. He noted that one of the changes to look out for in the office segment of the real-estate sector is efficient space management as many businesses will shift towards 'hot-desking'. As such, real-estate trusts would need to consider flexible design in their investment decision making in order to remain relevant and profitable. In his words:

“Consumers have been forced to try e-retailing outlets and would have experienced the convenience. Although I reckon that retailers would still need to establish their presence across city centres and major areas to drive publicity, most retailers would continue to drive online sales, post-Covid-19. So far the retailers are able to maintain timely delivery of goods, where they operate from would not really matter. So, I think there will be an increase in retail vacancies and warehouses that are located across transport nodes in suburbs would be in high demand.” (R2)

Finally, R2 mentioned that the constant communication strategy adopted by his organization really helped in reassuring shareholders. Despite the heightened risk level at the initial stage of the pandemic, the respondent argued that investors had limited options because liquidating their investment to put in savings appeared less attractive. According to him, all the investors needed was constant reassurance and practicable post-Covid-19 plans that could drive value in the medium and long term:

“.....one thing that we did very quickly was to contact our customers and shareholders to inform them about our perception of the crisis and our plan. Initially, we were doing this on a weekly basis, but we now do that once in two weeks and it has really helped to reduce the pressure.” (R2)

- *Technology-induced disruption*

R2 also identified technology as a major disruptor in the evolving real-estate environment. According to him, the constant and rapid advancement in technology is bound to disrupt different aspects of property investment decision making. He noted that the operation and marketing models of LPTs are the most disrupted, as investment decision-making regarding digitalized marketing, sales, property development and facility management have changed consistently in the last decade. R2 also stated that the impact of technology in the real estate environment could trigger opportunities or challenges which varies with property types. He noted that tools like artificial intelligence, virtual reality, 3-D printing and building information modelling have redefined the efficient and timely management of data, in driving efficiency:

“No one would deny the fact that tech is gradually changing so many aspects of our business operation and decision making. Technological innovations have made it possible for us to simplify some of our processes and it’s now easier to track market performances, collaborate and communicate more effectively.” (R2)

According to R2, whereas some market participants were reluctant to adopt technological innovations as integral components required for developing successful business models, the significance and opportunities abound in technology as it relates to the real-estate sector has become more prominent in recent times, especially as a result of Covid-19 pandemic. He stated that the uncertainties associated with Covid-19 have significantly impacted the normal lifestyle of people. Consequently, a lot of people are gradually adapting to remote lifestyles, which involves working, learning and shopping virtually. Although the overall extent and impact of technology as it relates to the change in people’s lifestyle will become more apparent at the end of the pandemic, R2 believes that the penetration of technology across market participants would have increased remarkably, when compared to the pre-Covid-19 era. In his words:

“With Covid-19, we’ve seen that shift from traditional office use to electronic activities pretty quickly. I think it will probably settle back at 30% of the total activities in the market, to pick

a number, and I think it'll probably seal there because you just can't drive out the traditional market models. You can't create value for everyone that is sitting at home. Yeah, so I think those functions which are largely process-driven, can be done anywhere and it's fine. But if you've got to drive a high-performance culture, you can't do that if people operate from home.”
(R2)

R2 was also clear about the need to acknowledge and adapt to the changing impact of technology by projecting the need for flexible design and tenancy in their investment plan. He believes that technology will continue to redefine tenant expectations and the need for flexible lease terms, mobility and agility will be more apparent in the market. For instance, firms that previously occupied ten floors in a tower could rethink their need for space and then settle for six floors. Also, more firms are likely to adopt hot-desking where applicable. One of the strategies in his organization is therefore to move away from single tenancy, long term leases, to a more dynamic and robust occupancy base, which is service and technology-driven. As major stakeholders in the real estate sector, R2 believes that LPTs need to be more innovative in providing direction on the appropriateness of technology in maximizing the use of spaces in a way that enables businesses and work-related activities to thrive. He stated that leveraging technology to improve occupier experience is vital in achieving overall client satisfaction, remaining competitive and ultimately maintaining a high tenant retention rate. While sharing some of his organization's strategies towards technological disruption, R2 noted that:

“We are determined to provide tech compliant spaces, and we have employed an IT team that enables people to be connected to all sorts of IT services. This is however not for all our customers or buildings. For instance, when you are talking about government agencies like XXX, you don't go anywhere close to their operations. XXX is a really good example of where we are trying to take real estate, which is for it to be not just the provision of space, but the provision of service attached to the space. And so, if you get over to the new XXX tower, you can, you will be Wi-Fi enabled from the moment you get into the car park. So, you can sort of, you know, settle in, in the sky lobby or use the meeting suites, which we've built for our occupiers all the way up and then all of the occupiers in that building have access to a commercial bank club, so they can jump on the phone and they can order their lunch, they can, you know, book the dry cleaning, and they can do all these other things and all of that is enabled through tech.” (R2)

6.3.2.4 Adaptation to property market disruptions

R2 believes that adaptive strategies involve a combination of several factors that are both internal and external to the market. He argued that while some internal decisions within the LPT could be enough to respond to disruptions in some circumstances, other response strategies require a more-detailed understanding of market participants, investors and end-users of the asset. Consistent with this view, the adaptive response of LPTs to property market disruptions as stated by R2 has been discussed below as motivation for adaptation and actual adaptive responses.

6.3.2.4.1 Motivation for adaptation

- *Asset demand*

R2 believes that asset demand is the most significant factor that determines how investors respond to disruption. According to him, it is easier for him to present a capital-intensive adaptation budget with a reasonable return on investment to his board for approval than a moderate budget with no clear path for return on investment. In his opinion, R2 argued that the prime assets of his organization are constantly remodelled to suit market expectations in locations with enduring demand. His Trust considers the opportunities in Wellington, rather than the risk of seismic hazards. As such, it has been able to identify reliable tenants, with long term interest in this location and have continued to offer them the best possible space in the market in order to retain them in its books. Clarifying his point further, R2 noted that Government agencies constitute the bulk customers in his Trust's books and these agencies have proven to be reliable tenants that are willing to pay the premium for top-notch assets. In his words:

"... even with the earthquake, the government remains our major occupier in the city. And our expectation is that they will continue to grow that market." (R2)

- *Regulatory compliance*

Once the demand for assets has been clarified and established across investment locations, R2 stated that regulatory compliance becomes a mandatory exercise, without which his organization may not be able to operate. In his opinion, government legislations determine the legitimacy of real estate Trusts and also form the basis of accessing corporate credibility by real-estate stakeholders. According to R2, issues relating to audit and transaction disclosures,

building code, sustainability requirements and information management in his Trust are carried out in line with stipulated regulatory guidelines. Whereas there are minimum compliance expectations for relevant legislations across target markets, R2 stressed that his Trust ensures that their assets' compliance level is well above the minimum market expectation. He gave an instance:

“... we know that the minimum strengthening level for buildings is pegged at 34%, but for me, I wouldn't be comfortable operating on a day-to-day basis on a building that is 34% and our business wouldn't own anything less than 80% NBS. As a business, we made a decision that if we had a building that was less than 80%, that we would strengthen it to at least 80% NBS.”
(R2)

He also noted that:

“... as an investor, you want to protect your investment by ensuring that you are up to date about policy directions and how that may impact your business. As a result, our portfolio is in full compliance with all legislation relating to building consent, zoning, health and safety, and sustainability principles” (R2)

- *Competition*

R2 stated that peer assessment of what is happening in their investment environment also motivates his organization's approach towards adapting to changing market conditions or significant events. This provides the opportunity for investors to evaluate their current strategies and prepare their adaptive responses or resilience plans. While describing the aftermath of the GFC and its impact on their decision-making strategies, he argued that his organization's financial risk management policy and dividend policy were found to be weak and as a way of adapting to the uncertainty at that time, the Trust had to anchor its adaptive decisions on the good practices that are obtainable amongst their peers in the market. According to R2:

“...we simply looked at what happened to all of our market rings and we looked at what happened to all of their market values. And what we saw was in summary, what was responsible for the reduction of about 22% of our values from peak to trough as a consequence of our FRM policy. And that was the starting point for our recovery plan.” (R2)

R2 also stated that peer observation as a motivation for response strategy is equally applicable in responding to technological disruptions. He noted that by understudying other organizations that have been through significant changes in the technological landscape of real-estate investment, his organization has been able to make more informed management decisions:

“... we observed the approach of two, sort of big global flex space companies, we saw that they are emerging, particularly in North America. And for us, it was always gonna be a case of do we ignore this strategy? Or do we actually try to understand it and buy into it? You know, we chose to buy into it, drive it and use it and it has paid off.” (R2)

To further clarify the significance of competition in developing adaptive strategies by observing the response pattern of similar organizations, R2 argued that LPTs could project the potential impact of the disruption and the general market expectation that will be useful in developing a holistic adaptive response. In his words:

“The good thing about being part of a corporate group is the ability to observe what is happening within your circle and that helps in guiding your own investment choices. By observing what was going on in other Trusts, we were able to value risk more appropriately and take a position on our response strategy.” (R2)

6.3.2.4.2 Actual adaptive response

- *Focus on specific market*

In R2's view, real-estate investment is built around people and the business can only thrive in environments with the right population. R2, therefore, argued that the adaptive response of his Trust to market changes is targeted at the current or projected demand for assets, which has led them to focus on specific markets. According to him, the portfolio distribution of his organization's assets across New Zealand has changed with the changing market environment across major cities in the country. Given the experience of the GFC, recent earthquakes and the demographic figures, R2 posits that some cities are reasonably better to invest than others and his Trust has a natural preference for such locations. While justifying his organization's preference towards Auckland, R2 argued that:

“If you go through all indices, Auckland is by far the best market in New Zealand for our type of assets and it is just logical to hold on to such market if you want to remain relevant. I mean, why would you leave certainty for uncertainty. You would have seen in our annual reports that we have narrowed our investment operations to two locations, Auckland and Wellington, and we have a fair understanding of the market because the information you require is quite accessible. Although our spread is limited to the best markets in the country, Auckland remains our preferred spot” (R2)

R2 also clarified further that the view of his organization that has informed its preference towards Auckland is based on a lot of research into the strength of the Auckland City Centre and Wellington City Centre, compared to all other regions and the research outcome has consistently shown that Auckland will be a stronger market.

- *Divestment*

According to R2, there have been instances when his organization had to sell off non-performing assets as an aftermath of seismic disruptions. Considering the huge amount of money that seismic strengthening requires, R2 stated that LPTs would generally worry about the practicality of recouping a commensurate return on investment, especially from an average tenant in seismically active environments. According to him, this is often responsible for the decision by some property trusts to divest their assets that have been identified to be vulnerable even if they would sell at a loss, instead of investing additional capital on such assets. For example, R2 mentioned that his organization had a property in Wellington that was 100% NBS prior to the Kaikoura earthquakes but did not perform up to expectation despite being above the minimum code. After being examined by the engineers, it was established that the building was not modelled according to plan, which meant that the building will be remodelled over again with huge financial implications. Eventually, the decision to sell the building was reached because the business justification for re-investment in that property was very weak.

While buttressing his argument, R2 stated that:

“We’ve sold about \$600 million worth of real estate in the last five or six years. And I’d say two-thirds of there were assets that we thought would underperform in a seismic event and sales decision was mainly based on the discussion around the cost of remodelling and what the return on investment will be. At the moment, all the buildings that we own in Wellington are of 100% NBS and are occupied by high-quality tenants, except one that is 80%.” (R2)

- *Proactive engagement*

In responding to disruptions, R2 also stated that his organization is proactive and does not wait for tenants and customers to come to them before responding to their needs. By assuming leadership responsibilities through genuine engagement with building occupiers, he argued that his organization has been able to work with asset users in developing a holistic recovery plan. Citing the Covid-19 pandemic as an example, he noted that his Trust was quick to reach out to its tenants as a way of providing support and partnership. R2 noted that his organization is not transactional (i.e. only concerned about buying and selling) and can not be. As such, adaptive responses are reached as a result of detailed consultation and engagements. The engagement approach adopted by R2's organization during the Covid-19 disruption was clarified by the respondent:

"... so, as a responsible owner of real estate that offers a whole lot of public space, we had to move really quickly in terms of educating our occupiers around hygiene and we immediately put stations everywhere for kind-of hand sanitizers and put in place several reporting techniques because we've got so many people coming in and out of our buildings and you know, take this building, we've got two and a half thousand people in it, you know, if one person [should] contract Covid-19, we are like, what do we do in that instance? You know, do you empty the building, deep-clean and all that sort of stuff. So, we had to establish what our protocols were quite quickly through adequate customer engagement." (R2)

R2 admitted that it was quite challenging for the Trust to respond to the Covid-19 pandemic at the initial stage because of its novel nature wherein no one had dealt with the kind of uncertainty before. According to him, it is understandable that a lot of occupiers were looking up to landlords for a solution as though they had additional information that could quickly reverse the trend. R2 stated that his Trust embraced the challenge by working with tenants to address their immediate areas of need, one of which was the uncertainty regarding their ability to meet financial obligations (i.e. rent payment) because of the lockdown.

"So, we were obviously compelled to work with our occupiers in providing some abatement. For retailers, it was easy as we proposed to give them rental relief for two or three months. Then for the rest of the portfolio, we were more detailed by proactively reaching out to all of them to choose between two months of paying no rent, which will be spread across the lease balance with no interest or 2 months rental holiday that will lead to the lease extension. And it

is interesting that across all of our portfolio, we had some 20 companies take up either of the options and the rest said look, that's an amazing thing, thank you so much for offering, but we're okay. This tells you that a general response will not take care of everyone. You need to engage proactively to know how to react.” (R2)

6.3.3 Case study C

6.3.3.1 The respondent

Respondent R3 is an executive team member in one of the leading property trusts in New Zealand. He has over twenty years of experience in the property industry, across different locations and asset classes. As part of the decision-making team in his organization, R3 is responsible for asset development and management and he has lived through different forms of property market disruptions. He gave a summary of his work experience as follows:

“My career started with a small but rapidly growing property company here in New Zealand and together with others, I was responsible for developing residential and commercial properties. I worked overseas for about two years, where I managed a range of properties (office, industrial, luxury retail and small sort of shopping centres). Since my return to the country, I worked briefly with XXX funds before joining this organization as an asset manager. In my current role, I am responsible for the overall management of the Trust's portfolio.” (R3)

R3 holds a bachelor of property degree and a Master of Business Administration degree. He is also an active member of several professional real-estate organizations in New Zealand.

6.3.3.2 Disruption driven decision-making strategy

According to the respondent, disruption-driven investment decision-making in his organization is informed by a realistic assessment of the available investment variables and/or preferences. Although R3 argued that the overall investment decision in his Trust is driven by economic considerations, he emphasized that the experience and perception of decision-makers is a primary driver of the Trust's disruption-driven investment preferences. In providing further clarification, R3 revealed that the choices of the Trusts' disruption-driven investment in assets are measured by the projected returns that they are able to generate in terms of leases.

According to him, locations that have been projected to generate enduring demand ranks first amongst factors to be considered in making disruption-driven investment decisions. While describing enduring demand, R3 stated that irrespective of how the market is doing (i.e. whether there is a boom or bust time) the assets that are positioned in central locations within the market will remain competitive by attracting good tenants. In other words, the Trust's disruption-driven investment decision is focused on identifying, developing and managing assets that are located in choice areas. In doing so, R3 argued that the risk associated with making uninformed decisions would have been minimized. According to him:

“Our decisions are based on ensuring that all our assets are centrally located. Even when the market is really subdued, we are confident of still attracting tenant interests. Although there might be a temporal drop in rent, we don't get to fake it for a long time, and everything comes down to destination fundamentally.” (R3)

While the aspect of location selection is based on a logical consideration of market parameters such as population, nearness to infrastructure, availability of competition and so on, R3 also noted that the 'gutfeel' of decision-makers also impacts their disruption-driven investment choices. According to him, the influence of gutfeel in the decision-making strategy often manifests at the point of making justifications for specific assets or projecting market performance in a highly dynamic market. In such instances, R3 argued that decision-makers in his Trust rely on their experiences, perception and individual judgement in assessing the available investment options, which could attract some element of prejudice in their final choices. For instance, despite acknowledging that the disruption-driven investment decision in his organization is primarily based on a 10-year IRR in locations with enduring demand, R3 noted that contemporary tenants are increasingly requesting for shorter lease periods and it seems to be clear that the long-term investment plan of the Trust may not suit the majority of the current tenants in their target market. As a result, R3 stated that his Trust had to develop innovative ideas to encourage flexible leases. Thus, complementing the initial prediction of market performance and ultimately maximizing investment returns. While describing his Trusts' disruption-driven decision-making strategy in response to the changing market conditions, R3 stated that:

“Our market observation which has now been integrated into our decision-making is that prime locations are increasingly becoming associated with short leases. So, we became innovative

about this and we resolved to offer flexible places that would suit different customers' needs”
(R3)

R3 argued further that the only way to attract quality tenants is to be constantly aware of market changes and be willing to take risks. In his opinion, leasing at risk is something that property Trusts would have to cope with, and coping strategies should not be solely based on pre-determined assumptions. Having considered the financial viability and performance of his Trust's existing assets in retrospect, R3 believes that there should be a deliberate consideration of tenant expectation in disruption-driven investment decisions relating to asset development, acquisition and management. By doing so, he argued that property trusts will be able to deliver quality assets that would attract a reasonable return on investment because there will always be a queue of tenants that are in search of high-quality assets, irrespective of market changes.

R3 reiterated that it is the responsibility of decision-makers to know when to stick with procedural tactics and when to incorporate novel ideas in order to make timely decisions. According to him:

“We do quite a bit of research in terms of what the depth of demand is in our locations of interest and we're really confident around both office and industrial assets. Industrial in particular, because it has less than 2% vacancy across Auckland and a lot of its vacancy is because the buildings just can't be occupied. However, we know that the Trusts' reputation is only as good as its last transaction and the board is always willing to accommodate novel ideas that could improve our market share even when such ideas are not based on our existing processes.” (R3)

The next section describes property market disruptions that informed the disruption-driven decision-making strategy discussed in this section.

6.3.3.3 Property market disruptions

While acknowledging that he has witnessed different forms of property market disruptions since the beginning of his career, R3 revealed that the disruption-driven decision-making strategy of his organization has been efficient in evaluating and responding to location-specific disruptions (such as population fluctuations, regulatory changes and fire hazards) and more

generalized disruptions (such as the GFC, health pandemic and natural hazards) that transcend specific locations and are capable of triggering the breakdown of the entire market structure. Some of the property market disruptions that influenced the disruption-driven decision-making strategy of R3's LPT are described below.

- *Demography-induced disruption*

R3 revealed that demographic changes in terms of increasing population, the average age in a location, and migration have continued to redefine the main markets in which his Trust operates. In his view, whereas an increase in population is synonymous with good asset performance emanating from increased economic activities, not all property asset classes respond to population changes in the same way. For instance, while residential properties could experience an upward drive in asset price or rent as a result of increasing population, industrial properties are not likely to witness a commensurate increase in value, despite operating in the same location. Consequently, he noted that the speciality of his Trust, which is the delivery of industrial assets in places like Auckland, has been consistently reviewed due to the rapid increase in population that has placed other property asset classes above industrial assets:

“The market for our industrial assets has witnessed a significant change due to changing population in the last 10 years. We used to have about 250,000 square meters of industrial assets built every year, this is actually coming right down because the land to do that isn't just available anymore. Despite the effort to justify the need for industrial assets in Auckland, the reality of such effort is not likely, when compared to Tauranga and then Wellington. Most of the good industrial stock here has been converted to retail residential or mixed-use assets”
(R3)

R3 stated further that the influence of demographic changes on his Trusts' asset preference has resulted in the consideration of suburbs and proximity to transportation nodes as alternative investment locations for asset development. Aside from the conversion of industrial properties to retail, residential or mixed-use assets, R3 also mentioned that the continued expansion of major cities like Auckland and Wellington may also lead to other forms of disruptions arising from natural and anthropogenic hazards. However, convinced that there will always be a need for well-positioned industrial properties to address the demand of the increasing population, R3 revealed that the consideration of demographics in his Trust's disruption-driven investment

strategy is an ongoing task. While describing the impact of demographic changes in the Wellington market, R3 stated:

“As a fall-out of demographic changes in Wellington, 40% of Wellington’s industrial stock is only a few feet above main high tide. So, it’s got a whole lot of future issues as well. So, as a Trust, we’re saying well, if you pick up an asset in this market, you may not get sustainable growth out of it because there’s, in some cases higher and better use for other asset classes in the location. So, like it is in Auckland, you can see the suburbs are expanding out and they are just right for industrial properties.” (R3)

While demonstrating how his organization’s preference for investment location has changed over the years, R3 argued that the observed demographic trends in its operating markets are instrumental to the recent disruption-driven investment decisions of the Trust. He stated further that in making new acquisition choices, consideration is given for proximity to essential facilities and supply channels as well as design flexibility that would allow for a possible change of use in the near future:

“We have bought a couple of commercial properties at XXX, and we like that because it’s the closest industrial town that is attracting some of the industrial tenants that are coming out of the old industrial locations. In any case, it now sounds bizarre to refer to locations like North Eden, which is now a high-density residential area as industrial. So, if you’ve owned industrial assets in these inner-city locations, there’s a higher and better use that comes around all of a sudden and then the default asset sort of cripples.” (R3)

- *Climate-induced disruption*

Respondent R3 also indicated that considerations for climate change have changed significantly from how it was when he joined the property profession. His view is that real-estate investors that were initially passive in terms of their response to changing climatic conditions and carbon emissions are now making concerted efforts to mitigate the consequences of climate change, which he adjudged to be a major market disruptor. He argued that investors’ acknowledgement of climate change is mainly driven by personal convictions amidst other factors like asset demand, public awareness, societal pressure and stricter regulations. Based on the current impact and future projection of climate change in the real estate sector, he revealed that the current disruption-driven decision-making strategy in his

organization entails the consideration of sea-level rise and land-use optimization. Consistent with his organizational target, R3 stated that when potential investment locations are identified, his Trust conducts an environmental impact assessment to justify proposed investment in such locations. Such deliberate, proactive measure as it applies to sea level rise was exemplified as follows:

“Our decision on climate change is taken seriously and apart from being a regulatory issue, we try to identify where the demand is going to come from, how that demand could change, and how our proposed property could soak up that demand. So, I guess XXX is an example of a location where the market demand could change significantly despite the projection of future supply. The tidal impact is making it difficult for tenants to get insurance and so new tenants won’t go there. Big organizations might even have a global mandate that says you must be x metres above sea level or whatever.” (R3)

Based on the above, R3 explained that the consequences of climate change are considered by investors as they make investment decisions. Although he agreed that individual belief may influence decision-makers perception of climate change, he maintained that the overall Trust’s response is based on the reality of the changing market environment. While referencing his organization to demonstrate the limit of investor’s opinion in the response to climate change, he stated that:

“I can tell you that the executive team members deliberate regularly on the need to save the planet in our own way by minimising wastages. Though we do not have the power to enforce our views, we encourage our employees and customers to use water, power and paper sustainably.” (R3)

- *Seismic-induced disruption*

Earthquakes also featured prominently in the narrative of this respondent as a major property market disruption that influences investment decisions in his organization. According to R3, although the vulnerability of New Zealand to seismic hazards has always been part of his organization’s investment considerations, the recent impact of the Christchurch earthquakes of 2011 and the Kaikoura earthquakes of 2016 reinforced the need for seismic provisions in his organization’s investment decisions. The respondent stated that whereas both investors and tenants were affected by the impact of the earthquakes, the market expectation was that

property investors should lead the response chain by way of evaluating and upgrading their buildings to comply with the prescribed regulatory standards that are expected to guarantee minimal loss:

“Earthquake risk is a big one that has always been there but it’s sort of just coming out now after the Christchurch and then Kaikoura earthquakes. Before those earthquakes, people were not keen about seismicity but after those events, everyone had to do seismic assessments of their buildings. And actually, this was driven by the large portfolio investors and especially the listed ones because the market was asking what they were doing. So, we undertook a detailed seismic analysis of every single one of our buildings, and it was quite an undertaking. Like, I think each report took eight weeks and costed \$60,000.” (R3)

Amongst other issues, R3 revealed that legislative changes and compliance expectations are major market after-effects that followed the recent earthquakes as evidenced in the current EPB legislation requirement of buildings to be at least 34% of the NBS. He stated that the government have issued deadlines for investors to comply with the new seismic guidelines or risk the demolition of their properties.

In complying with the deadlines, the respondent noted that investors are faced with the burden of justifying the long-term financial viability of investment in seismic strengthening through predictable leases and cash flow, alongside the commensurate return on investment to shareholders. Also, R3 argued that the market perception of a seismically safe building has increased since the Kaikoura earthquakes from 34% NBS to 80% NBS and this has triggered competition amongst large property trusts to remain relevant across target markets. Although R3 argued that private investors are unlikely to invest in seismic strengthening unless they are forced to by tenants or the government, he stated that his organization is committed to offering safe workspaces and as such, would not operate any property that is below 67% NBS. He also believes that investors that own properties in seismic locations (particularly Wellington) should disclose the status of their buildings. His view was that it only takes some time before tenants (especially the new entrants into the market) begin to ask questions about the NBS rating of the building they occupy versus what obtains in the market. Describing his Trust’s response to seismic legislations and tenant expectations, R3 stated that:

“... the legislation provides a timeframe for building owners to respond, I think you’ve got to the end of this year to establish what you’re building performances are and you’ve got another 5 to 10 years, depending on where the building is, to actually do the necessary work. The market is not giving you 5 to 10 years, the market wants to know now, otherwise, you can’t lease your building. And I guess that’s the view we’re taking, to say, if we stepped away from just being a property company to seeing ourselves as a company that supplies a product.... we’re looking at our product being buildings and saying, well, what’s going to become a barrier for tenants to sign for lease in these buildings, and if they all say it must be 80% of new buildings standard, then we will respond to that.” (R3)

Following the major change in seismic legislation, the respondent stated that most assets in his Trust’s portfolio suddenly fell below the market’s safety expectations. Buildings that were initially adjudged to be 100% NBS were rated between, 65 to 70. Although the rating does not make these buildings worse than they were before the legislative change, R3 stated that major clients and building occupants began to propose a contractual agreement with building owners insurance companies and banks for their buildings to be at least 67% of the rating at any given time, throughout their lease period. R3 however expressed his criticism of such an agreement, given the feasibility of possible review of the current earthquake legislation in the event of another seismic event:

“When leases are signed with tenants, we are expected to both acknowledge the state of the building at the start of the lease according to the regulation. For instance, let’s say it was 80% and over time, if the building is found to be less than 80%, in accordance with that rating, we will be obliged to do something, the banks will often say it needs to be two-thirds of what the rating is at that time. But for us, we can’t go out and commit to consistent upgrades over time because it might get to a point where it’s just not feasible to do. I guess the sort of the biggest problem with that arrangement is just thinking about what sort of changes are possible in the future and what you’re committing and exposing yourself to, through any sort of contractual arrangement you come into with the tenant or with the purchaser of the property.” (R3)

As a Trust whose investment choices are informed by asset demand, the respondent argued that the risk of seismic disruption is weighed alongside available market competition and alternatives when making disruption-driven investment decisions. Although most of his Trust’s assets are located in Auckland, R3 revealed that his organization owns retail properties in

Christchurch and these properties were affected by the 2011 Christchurch earthquakes. However, despite the devastating impact of the earthquake, R3 noted that his organization chose to continue operation in the city essentially because of the limited competition in the market. Rather than divest and leave the market as some investors did, he noted that his Trust was quick to access the level of damage on their buildings and undertake the necessary repair works needed to keep the buildings running with minimal disruption:

“... we don't just invest in any market because our investment mandate has a limit on how much we can invest outside of Auckland, which also sorts of dictates a little bit as to what we do. We do have investments in Christchurch, comprising six supermarkets and the supermarkets are quite different with resource management. We did that because it's really hard to establish supermarket competition, so the assets are good in terms of having that clear market domination.” (R3)

- *Technology-induced disruption*

The respondent also argued that the emergence of technology has constantly challenged various aspects of real-estate investment including procurement, construction, maintenance and marketing of assets. According to R3, technological disruption is driven mainly by the need for greater market efficiency, improved client experience and market competition. He stated further that innovation in digital technology is a major determinant of market relevance and is a critical element of successful property investment in modern times. According to him, property trusts now leverage technology as a business model for investment decisions through the use of its software and hardware components. Whereas he noted that several software exists in the modern marketplace that has simplified the identification, collation, and analysis of data to drive efficiency, he also acknowledged the role of technology in the advancement of building design, selection of construction materials as well as application of fittings across different asset class. While describing the impact of technology on individual asset types, he stated that the continued popularity of online marketing and sales is gradually hindering the expansion of existing retail assets. He argued that as customers get comfortable with online transactions, retailers are adjusting their need for space and investment trusts are also responding by providing flexible spaces. His view was that technology has resulted in an increased demand for distribution centres or warehouses over conventional retail outlets, especially warehouses that are positioned in strategic locations that could facilitate the efficient delivery of goods:

“Honestly I would say technology constitutes a huge and continuous market disruption. It’s changing the way retailers operate because they now like to have their distribution centres very close to everyone and close to transport routes in order to push online sales. And it’s been a big focus for us as we target industrial properties that are suitable for reverse logistics. So, the location is important because as retailers distribute goods to customers they are also able to accept returns through these central warehouses.” (R3)

Further to the outlook of technological disruption and the gradual shift from traditional retail to distribution centres, R3 observed that there is an increasing demand for short-lease contracts by logistic operators as retailers restructure their businesses in response to the dynamic nature of the market. According to him, the logistic operators distribute goods to different stores and customers on behalf of retailers and they only require temporary storage for the items in warehouses for the duration of the task. He explained:

“... a lot of those third-party logistics operators don’t sign up long leases because they only have short contracts with the retailer. One of our tenants had a three-year contract with Nike to distribute out to all their stores. So, they had a van going out, sort of every half an hour or something. So, when the store sells a pair of shoes it goes straight into the system automatically and our tenant will pick it up from there. So ultimately, the business relevance of our customer is determined by the retailer that uses its services and the longevity of such services are not predictable.” (R3)

R3 also mentioned that technology has also disrupted client demand for office assets. He indicated that given the increasing adoption of versatile work tools that enable people to work remotely and flexibly, the typical definition of office space as a quiet, business-like environment is fading quickly. Driven mainly by millennials that are gradually occupying the middle and senior management roles in major organizations, he noted that there is an increasing demand for facilities that support relaxed working conditions, hot-desking and collaboration. He argued specifically that the adoption of artificial intelligence and remote sensing robots in office asset offerings has emerged to be a major determinant of asset quality in modern times. Consequently, technology has triggered competition amongst various property investors in a bid to attract or retain quality tenants. Despite the possible reduction in lease contracts, he argued that property trusts are now investing massively in technology to ensure market relevance and asset viability:

“We have really changed the way we approach things by saying well, we want to own the best quality properties. We know that we may eventually have to spend lots of money and valuable resources in doing that, but we are optimistic that there’ll always be tenants for it and we can actually charge a premium on the rent by offering them short term lease for the latest tech innovation and environment. So, I’m prepared to take a shorter-term lease with a premium from tenants that are not willing to sign the traditional long leases.” (R3)

R3 concluded that the real-estate investment trusts of the future are those that will be able to leverage their investment decisions on the reality of digital transformation in the property sector.

6.3.3.4 Adaptation to property market disruptions

R3 felt that all businesses and, indeed, real-estate investments are laden with risk and business owners should always be prepared to adjust to emerging changes and market variables in a way that threats are turned into business opportunities. By doing so, investors will develop the needed resilience that could guarantee optimum use of resources and return on investment. Similar to the previous respondents, the commentaries of respondent R3 on his Trust’s adaptive response to disruptions are categorized as motivation for adaptation and actual adaptive response as discussed below.

6.3.3.4.1 Motivation for adaptation

- *Regulation*

Being an essential requirement for business existence and validity, R3 stated that compliance with relevant regulations is a major determinant of the adaptive decisions in his organization. He indicated that it is the responsibility of the building owners to provide safe assets for end-users and to disclose building inefficiencies where necessary. Although he stated that he did not totally agree with the multiple regulatory expectations in the New Zealand real-estate sector, R3 argued that if a building does not meet the minimum safety or sustainability expectation as stipulated in the relevant legislation, it becomes difficult to attract quality tenants that will guarantee steady cash flow. As a result, his organization is committed to satisfying all the legal requirements and certifications that will ensure the continued relevance of its assets:

“... you have an obligation to disclose the condition of your building to your customers, and the directors of the organizations have an obligation to provide safe workspaces. So health and safety and what we were sort of saying earlier about green-star and green buildings are major key factors. I don't think all the legislations are completely relevant but if you have a building that doesn't meet the requirements under any of these aspects of legislation, then you have to reinvest into the asset, otherwise, it will impact your occupancy rate and cash flow.” (R3)

- *Asset demand*

Further to the regulatory expectations, R3 stated that the motivation for adaptive decisions in his organization is not solely based on present market realities or considerations. Rather, the long-term justification of investment decisions is also of major interest to decision-makers. Hence property trusts evaluate current market demand, lease period, asset flexibility and location viability as determinants of enduring asset demand when substantiating adaptive investment decisions. R3 argued that beyond the conviction of in-house decision-makers, the establishment of enduring demand makes it easy for property trusts to justify their adaptive decisions amongst stakeholders like banks, insurance companies and shareholders:

“In making justifications for investment preferences, it is easier when assets have really long leases or designed for alternative uses that suggest that the properties will remain relevant in the market.” (R3)

Irrespective of the type of disruption, R3 noted that asset demand is a major determinant of adaptive response. By considering long-term asset demand and its impact on their investment choices, he argued that property trusts are able to appropriately strategize for possible disruptions.

- *Competition*

Staying competitive in a chosen market also emerged from the submissions of R3 as a significant factor that influences the choices of property trust in response to disruptions. In clarifying this, he argued that irrespective of the market situation, tenants are always in search of the best properties that offer value for money and this implies that such properties stand a better chance of generating good returns on investment through long term leases. He stated

further that real-estate trusts grow by doing things differently. According to R3, by observing their competitors closely, LPTs are able to provide improved services where such is lacking. He noted that the need to observe the actions of other market competitors is a major part of his organization's strategy because it provides the needed clue on the merits and demerits of each market segment as well as the needed ideas on how to invest and expand the organization's asset base. While describing how competition has informed his organization's response to property market disruptions, he stated that:

“After the financial crisis, we did a thorough evaluation of all our existing assets, and we saw the need to pick up more assets and go for specific opportunities. One gap we identified in the market at that time was large format retail. I mean at the time, other trusts like XXX was interested in office assets and XXX would only invest in industrial properties. So, we decided to invest in large format retail after putting our observations through a syndicator. So, to penetrate that portion of the market, we resolved to purchase two properties solely for large format retailing.” (R3)

The essence of competition was also highlighted in the respondent's description of his organization's choice of asset and investment location. In justifying his organization's preference for Auckland and Wellington, R3 noted that although these markets are already saturated with assets across different property trusts and occupancy types, his LPT is able to explore the market limitations and compete reasonable, compared to Christchurch, where a particular Trust has dominated market presence, thereby making it difficult to penetrate. He argued:

“Our view was that industrial properties are great but limited in Auckland and Wellington because each of these locations has real barriers to entry of further stock. But when we looked at Christchurch, we could see from the airport that there's a vast potential industrial land and a lot of it is owned by XXX with the entire value chain. So, it's really hard to compete against those guys and at the end of the day, the key point for us was to remain focused in Auckland where we are able to compete despite the limitation of development land.” (R3)

This quote signifies that despite the investment prospects in Christchurch, the inability of R3's organization to compete in Christchurch compelled it to adapt to the market conditions in Auckland and Wellington.

In reiterating the significance of competition, R3 stated that his Trust monitors investor and consumer behaviours that are emerging from other global market environments. For instance, he argued that issues relating to sustainability requirements in the real estate sector have not been really enforced in the New Zealand market, unlike the Australian market where tenants are well informed of the different building ratings and minimum customer expectations. He mentioned, however, that a particular investment Trust has started to advertise one of its buildings and this may be the beginning of a mass customer awareness that will necessitate other investors to follow the same trend:

“So, we’re sort of seeing the sustainability trend in the market in New Zealand at the moment and the only ones that are actually telling you what their ratings are, are the ones that are actually scoring really well. Others are not saying anything because they don’t really know, and you will soon start to see them adjust to others’ actions as time pass. You will find out that some really big buildings in Auckland are two stars in terms of sustainability and they need to be upgraded before tenants start to talk about it. One of the things done in Australia at the initial stage was that some of the big office investors would sign up a lease, and in the lease, there is the commitment to upgrade the concerned building, say two stars, up to five stars within three years as a plan, and the same may also happen here”. (R3)

Apart from the sustainability rating, R3 mentioned that tenants require a lot more from buildings including access convenience, technological efficiency and flexibility. He argued that investors would have to tick all the relevant boxes relating to end-user expectations before assets can be regarded as competitive or being able to attract good tenants. In a bid to get this done, he stated that conversations regarding the recruitment of personnel with the required skillset to drive building efficiency usually ensue across LPTs. In his view, LPTs are eventually left to compete for the few people that have the required expertise to drive the realization of end-user expectations:

“Every building owner wants to build an efficient portfolio and a lot of employers are attracting staff, especially some of the younger generations that are smart and curious on technological and sustainability issues. Most of these guys move between firms in the industry and they tend to improve on their previous performances in providing service. You know, we lose some good guys and gain some. We are indirectly connected in a way.” (R3)

- *Technological innovation*

R3 believes that despite the disruptive nature of technology in the real-estate space, the deployment of technology could equally serve as a motivation for adaptive mechanisms in real-estate investment. In his view, emerging trends and practices in the market environment, as well as end-user expectation, remain major factors that dictate how investors make adaptive decisions. He argued that retailers are rethinking their presence in major cities by merging multiple assets into one, which is usually situated in a conspicuous location in the city centre, where their brand can be projected. Once that has been achieved, they then focus on online marketing and promotions to drive sales. In clarifying his position, he argued:

“I think the retailers are now treating some of their retail presence as billboards or enquiry outlets. So their retail presence is for maybe swapping stuff that has been bought online, that wasn’t the right fit, or just to have that customer interaction. So they don’t care if you come in to test the product and have the salesperson run through how it works, but they are more concerned with driving the online sales and improving the online customer experience. In any case, online sales turn out to be cheaper because it doesn’t involve the cost of rent and it is usually a win-win for the buyer and the seller.” (R3)

According to R3, the changing pattern of retail operations opens opportunities for industrial assets that are located in suburbs and could serve as distribution centres.

6.3.3.4.2 Actual adaptive response

- *Location preference*

Consistent with the objectives of his organization, R3 stated that the actual response of his organization to property market disruption is informed by the Trust’s preferred investment location. In his view, most adaptation strategies are based on economic terms and as such his Trust’s adaptive response follow the pattern of existing or projected demand for assets in identified markets. While reiterating that his organization has a long-standing preference towards Auckland, he stated that most of the significant changes relating to property market disruptions in Auckland have been well-managed over time to meet client and stakeholder expectations:

“When acquisition or renovation budget is presented to the board for locations like Auckland or Wellington, we do not expect the same level of scrutiny as other locations because all our properties in these locations (Auckland and Wellington) have performed well and the board is confident and willing to keep those portfolios in the best form possible in order to attract tenants interest.” (R3)

According to R3, the ability of his organization to provide market-specific responses to disruptions is also informed by the cumulative experience of the board members, most of whom have operated in these markets for a long while. For instance, he confirmed that majority of the board members in his organization are familiar with the market operations in Auckland, having acquired most of their real-estate experience in this location. Consequently, these decision-makers can leverage their market knowledge when responding to property market disruptions:

“We have a board that is really experienced, knowledgeable and familiar with the happenings in our target market, especially Auckland. And they just seem to be driven by their interest in the location, when making market adjustments.” (R3)

- *Effective communication*

R3 also believes that the ability of investors to actively engage stakeholders is important in responding to market uncertainties. He maintained that disruptions are often misconceived by market players because of the lack of timely information from credible sources. This, in turn, triggers panic in the market and could further worsen the consequential impact of disruptions across the market. Although he agreed that even experienced investors could be caught unaware by some forms of disruption, he argued that having an engagement mechanism in place to address market changes could redress the impact of disruptions and enhance stakeholders' confidence in the market. Learning from the GFC when shareholders anxiety resulted in a rapid fall in the Trust's share price, he stated that his organization has been really proactive about information dissemination. Some of the engagement plans of R3's organization include the issuing of regular newsletters to shareholders on the financial position and investment projection of the Trust as described by expert analysts, consultation with customers to provide the needed support as partners in ensuring life safety and business continuity, and emphasizing the need for regulatory compliance in guiding against possible disruptions. He

explained that when people are engaged with honest and factual information, they are unlikely to make unintended decisions. In his view:

“Having too much information is better than no information. You need to constantly talk to your clients and customers. If you do that honestly when the market is stable, you are likely to earn their Trust and it makes it easier for them to believe you when the market is unstable and that could make a huge difference.” (R3)

From the health and safety perspective, R3 stressed that it is the responsibility of Trusts as asset owners to educate tenants and general users on the potential risk in the buildings (e.g. use of equipment and fittings, fire safety protocols and earthquake hazards) and response strategies that are in place to minimize such risks. He maintained that his organization is very keen on working with its customers to manage any form of threat that could affect the smooth operation of its assets and consequently limit its viability. Quoting the safety act, he stated that:

“As PCBU [Person in Control of Business or Undertaking] we are responsible for the people using our space. So, if someone falls off the passage because the handler is really low, that’s our fault. So occasionally, we sit down with our tenant to work on ways of managing potential risk. We understand that if risks are not well managed, it could affect our reputation.” (R3)

- *Innovation*

According to R3, property market disruptions also provide unique opportunities to reconsider previous investment decisions in order to emerge with more-efficient use of resources. He argued that given the dynamic nature of the market and the influence of socio-political and economic activities, the expectation of end-users is changing, and this requires property investors to constantly re-invent in order to remain relevant amongst their peers. For instance, R3 stated that following the adoption of technology in the real estate space, his organization now refers to shopping centres as ‘lifestyle centres’ because the retail assets of the future will offer services that are beyond the conventional practice of buying and selling. By taking the lead in shaping end-user behaviour, based on their expectations, he posits that contemporary retail centres now provide a range of entertainment services that appeal to customers and increase their patronage.

“If you look at what we are doing at XXX, with the presence of food courts and entertainment points, a lot of people come around there to relax and spend hours without even knowing it. I mean, who would have ever thought that the University staff will be going to be there for an end of year Christmas party. It’s sort of interesting. So, at the end of the day, it’s about the sales, and sales is about people’s patronage.” (R3)

“... the inclusion of charging stations across our shopping centres is to build a point where you’re going to track specific customers because they’ll come there to charge the cars. And as such, they will come to the centre to spend money and if you don’t have that, you might lose those customers to somewhere else.” (R3)

Beyond the remodelling of assets, R3 believes the innovative response to market reality could help in improving cost savings and overall operational efficiency. By adopting technological solutions, he argued that the safety and wellness of occupants could also be improved through noise minimization, thermal comfort, improved mobility, and adequate lighting. While illustrating the benefit of innovative adaptive responses in his Trust, he stated that:

“For us, it’s all about energy efficiency, we believe that building design, through the right use of technology could put our assets to better use. By switching to the use of LED from traditional lights, we have been able to save on our operational cost and the LEDs last five times longer supposedly with minimal use of energy.” (R3)

R3 also mentioned that the changing demographic composition across investment locations requires flexible and innovative use of resources. He maintained that some industrial and retail centres were built in the wrong locations or too far ahead of their time. For instance, he argued that some industrial properties in major cities would perform better as offices based on the available demographic evidence. He, therefore, suggests that it is important for property trusts to realign their property portfolio with changing market expectations in order to maximize market share. In his opinion:

“We have creatively embraced innovation because asset use changes with market expectation and there is nothing wrong in that.” (R3)

- *Divestment*

Amongst other forms of response to disruptions, R3 also mentioned that property trust could divest assets in a particular class or location if it is deemed that the assets may not offer a reasonable return on investment following market uncertainties. By making divestment decisions, he argued that investors are able to release the capital on vulnerable assets to create more liquidity to acquire other assets or improve existing ones in line with the organization's investment strategy. Based on his experience, he believes that during the period of investment re-assessment, the option of selling low-performing assets is usually considered by decision-makers. According to R3:

"... every investor is open to the partial or full disposal of assets given the prevailing market circumstances as compared with the organizational strategy. It's not new. It's just common sense and it happens everywhere, all the time." (R3)

While acknowledging that there had been several instances when the management board of his organization chose to divest, R3 gave a specific example of a particular building that was disposed of by his Trust after the Kaikoura earthquakes. According to him, his Trust once had a building that was worth NZ\$9.5 million in Wellington but after the earthquake, it was estimated that a total sum of NZ\$14 million will be needed to rebuild it. In his opinion, rebuilding such property is tantamount to an economic loss and because the insurance policy that covered the building allows for the building to be pulled down and rebuilt in any other part of the country, it was easy for his organization to divest in Wellington and build elsewhere. While explaining the essence of divestment and the need to engage relevant stakeholders, R3 stated:

"One of our buildings XXX was fully occupied and still standing after the earthquakes. Though it was at an acceptable level of the code, it had cracks and would constantly clinch. Our belief was that we needed to upgrade the building to maintain its market relevance, but we were given a renovation bill of \$14 million to fix a property that was worth \$9.5 million, which was not just realistic. So, we engaged the occupants and insurance company separately to inform them of our choice to sell the property. Eventually, we got a lump sum resettlement and we reinvested in another viable location and I think we are happy about that decision." (R3)

6.3.4 Case study D

6.3.4.1 The respondent

Respondent R4 is the chief executive officer of one of the major property Trusts in New Zealand and he is responsible for the overall management of the Trust's portfolio. He has practised in the property industry for over 25 years and his experience spans different aspects of property management including asset acquisition, operations, funds management and valuation. He has held senior positions as a decision-maker in property trusts across the United Kingdom, Australia and New Zealand. Over the years, he has worked as part of a larger, global team in making strategic property investment and management decisions. While describing himself R4 stated that:

"I have been in the property business for a while, both here in New Zealand and overseas. I have managed residential, commercial and industrial assets at senior levels, and I have been CEO here for over 15 years." (R4)

R4 holds a bachelor's degree and he is an active member of several professional organizations in New Zealand.

6.3.4.2 Disruption-driven decision-making strategy

As stated by R4, the disruption-driven decision-making strategy in his organization involves both internal and external considerations. According to the respondent, while the internal considerations are dependent on a formal structure (the Trust executives and board members) that evaluates the essence of investment decisions, the external factors are driven by the possible consequential impacts of the disruption-driven investment decisions on the Trust, its customers and its shareholders. In terms of the structure, R4 mentioned that his organization has an investment committee that is chaired by the global chief executive, through whom all the global investment opportunities, including those triggered by disruptions, are considered. At this level, the committee is concerned with the alignment of investment decisions with organizational goals, regulatory considerations, economic viability, demographics and impact on the environment. It is only when investment ideas are approved at the committee stage, that it is passed to the second stage, which involves a further review and implementation of ideas by the board in New Zealand. According to R4, the second stage of the decision-making

strategy involves the consideration of diverse opinions emerging from the particular context of the New Zealand market. At this stage, the New Zealand board considers the various perceptions of board members on the possible impact of the proposed investment decision on the customers and shareholders. In describing the disruption-driven decision-making strategy of his Trust, he stated that:

“There’s a lot of discussion going into our investment decisions, not just locally, but internationally as well. At the international level, we hold our committee meeting, once a month to go through all the prospective opportunities that we’re looking for, so there are never any surprises because we get feedback all the way. For instance, in the last meeting, we deliberated on the possible impacts of Covid-19. What it means for our portfolio and pricing. After that, the fall-out of the global meeting was evaluated for implementation here, in New Zealand. So, a lot of opinions and voices goes into making disruption-related decision. But at the end, for the New Zealand businesses, it’s my decision to make.” (R4)

While reflecting on how the disruption-driven decision-making pattern of his organization has emerged over the years, R4 stated that the strategy was more localized and not as rigorous in terms of structure in the early 2000s. However, he clarified that the strategy became more rigorous post-GFC, when issues relating to finances, investment location, regulation and demographics were considered and compared across several countries as a way of positioning the Trust for better performance. Unlike other property trusts, he revealed that his organization’s disruption-driven investment decisions are not driven by the actions or inactions of market competitors. Rather, it is a product of conviction arising from the ideas and opinions of industry experts. He stated further that his organization does not emphasize rigorous market research because it negates the philosophy of the Trust’s chairman. According to him:

“There are no tests in our disruption-driven decision making. First of all, we have no research department as such. We do a bit of, sort of, thought leadership, where you can get access to look up the trends around and the sort of demographics. Then you know, we try to simplify the message for our investors. But generally, our portfolio reflects our chairman’s entrepreneurial nature because he is constantly processing information in terms of his own thinking. Our chairman is sort of anti any sort of strategy department or anything like that. For him, he says that the decision making at individual country level is our job and at the global level, that’s his job.” (R4)

In the context of the property market environment, R4 believes that market participants have diverse influences on the disruption-driven decision-making strategies of LPTs. For instance, he argued that the responsibility of the government as a market participant is to provide regulatory guidelines and drive compliance. However, LPTs are also expected to satisfy the multiple interests that emerge from other market participants (e.g. of banks, insurance, tenants, other LPTs) as they respond to disruptions. According to him:

“as we develop our strategies, we definitely have to comply with regulations, but we don’t have to wait for the regulations.” (R4)

The next section describes the disruptions that informed the decision-making strategy discussed in this section.

6.3.4.3 Property market disruptions

R4 acknowledged instances when the real-estate market ceased to operate normally due to unforeseen situations that emanated from socio-political, environmental, and economic factors. He considered property market disruptions as events that challenge existing processes and are thus, part of the market cycle. When asked to provide a brief description of property market disruptions, he argued that:

“...any circumstance that makes us reconsider our investment decision can be described as disruption. So, any event that could threaten our existence or limit our competitiveness in our target market should be described as market disruptions.” (R4)

Some of the forms of disruption that has affected the investment strategy of the respondent’s LPT include the following.

- *Technology-induced disruption*

According to R4, as a Trust that deals more with industrial assets that are concentrated in major cities around the world, the major disruptor to his organization’s investment strategy is e-commerce. He noted that since the emergence of digital innovation in the real-estate space, a lot of transactions have moved online and has gradually changed the market formation and operation. He stressed that the emergence and integration of robotics and other forms of

disruptive technology in the real-estate sector have simplified the process of buying and selling, reduced the need for bricks-and-mortar spaces and has provided more efficient channels for the distribution of goods and services. The respondent noted that the consequential impact of e-commerce across real-estate markets made it imperative for property trusts, including his organization to adapt to market changes in order to remain relevant. For instance, he mentioned that:

“We saw the tech trend coming. So what that shift means is that there is less demand for bricks-and-mortar retail, and there’ll more demand for industrial, and particularly industrial that’s located close to consumers because people want to get the goods the next day or the same day in some cases. So, you know, I think we saw that trend pretty early and positioned our business deliberately to be on the right side of the new economy. So, for example, in 2006, we built our first facility for XXX in Europe and we’ve now got 20 facilities with XXX as our biggest customer. So, if you look at that, and it’s not just them. It’s all the others, you know the Alibaba and all those other e-commerce providers, you’ll get my point”. (R4)

R4 argued that his organization has been able to embrace the prospects of technological evolution to increase market share and improve customer experience. Based on the emergence of technology and its consequent impact in revolutionizing the real-estate sector, he stated that his Trust is now focused solely on industrial assets as a way of maximizing the market share in that sector:

“So, from our report, you’ll notice we are 100% industrial and 100% Auckland. And that’s pretty much mirrored across our organization around the world. We used to own quite a bit of office property, which we generally sold to zero down on the sector, and the big disrupter and overall determinant of that is e-commerce. Like I said, this was not done only in New Zealand, but internationally. The impact of e-commerce has been huge.” (R4)

- *GFC-induced disruption*

R4 revealed that the global financial crisis of 2008 remains undoubtedly the most significant disruption in the history of his organization. In his view, the Trust went through the crisis with enormous debt which nearly led to the collapse of the organization. As interest rates continued to increase with low economic activities, he stated that the share price and market value of his organization started to drop at an unimaginable level. However, given the experience and role

of his Trust's chairman in repositioning the organization, he argued that his Trust has fully recovered and has put all the lessons from the financial crisis into proper use to ensure informed decision making, going forward. According to the respondent, one of the major lessons that emanated from the GFC was the need for the Trust to reduce its debt exposure.

“The GFC could be easily described as our worst disruption as an investment Trust and that led us, as a group to be very committed to having low debts in our business. So, we sort of reached that decision based on our experience in the GFC, which was pretty brutal, with our stock price declining from \$7.50 to 17 cents, and we nearly lost the company. So now, we have the lowest debts in New Zealand of any property trust by some distance, with the debt exposure of less than twenty percent and even at the group level (internationally), we should be between five and ten percent. So, from that point of view, we've learnt from the then experience that even when times are really, really good, and it's so tempting to just kind of borrow some money and buy something, it is not always the best option. You need to have a business that's resilient.” (R4)

Since the GFC, R4 stated that his Trust had developed a strategy of constantly reviewing the peculiar and overall situation of investment across its various international locations as a way of proactively identifying signs of possible disruptions and also sharing ideas that could position the organization well in situations of uncertainties:

“Since the GFC, we have sort of focused on the macro view of global events, which has been quite helpful, and as part of the Trust's resolution post-GFC experience, we now hold regular briefing sessions, every week, which the group CEO coordinates. The session involves all of us (global executives that came through the GFC together) and we have been doing this for ten years or probably longer. The good thing about it is that we are constantly kept abreast of any form of disruption across the world and how that could affect our local markets.” (R4)

- *Pandemic (Covid-19)-induced disruption*

The respondent also shared his view on the Covid-19 pandemic and how it has disrupted global socio-economic activities in the real-estate sector. According to him, a global health hazard was the least of his worries and that of other investors at the beginning of the year 2020.

However, Covid-19 emerged suddenly and it literally changed investors' and consumers' behaviour in a very short while:

“I mean, I was sitting on the beach in January, I wasn't thinking about Covid-19. I was sort of thinking that this year looks pretty solid. We've got an election that could be nibbling around the edges, but no matches with the type of disruption that we have witnessed with Covid.” (R4)

R4 argued that the nature of Covid-19 pandemic as a highly transmissible disease that limits peoples' interaction and gatherings made retail and office assets more vulnerable to the consequential impact of the disruption. He stressed further that due to the required self-isolation that hindered people from interacting freely when consummating market transactions, e-commerce became more popular as a preferred alternative for people in conducting their businesses. He also mentioned that virtual offices replaced the bricks-and-mortar workspaces fairly quickly as a way of minimizing the overall impact of the pandemic. However, unlike the retail and office asset classes, the respondent argued that industrial assets, which are the core of his organization's portfolio, experienced the least impact of the Covid disruption. In his opinion:

“I cannot dismiss the negative impact of Covid in the real-estate sector and the overall economy, but what I can say is that industrial properties would not be as vulnerable as retail and office properties. Irrespective of the operating environment, essential services will keep the supply chain going and this is directly linked to our target market as a trust.” (R4)

Although border restrictions affected supply chain activities, R4 explained that his organization's strategy over the years had focused on increasing warehouse and distribution spaces across Auckland and major cities across the globe. According to the respondent, his Trust will be able to leverage the rapid growth in e-commerce and its critical role as a major provider of industrial assets in major global cities to minimize the overall impact of Covid-19 on its portfolio. He believes that his Trust is responding well to Covid-19 disruption and would be able to generate steady cash flow throughout the period of uncertainty. He indicated that:

“We resolved early enough, well before Covid-19 to focus solely on industrial assets in major cities as our strategy towards embracing e-commerce, and in a funny sort of way, you know, this event [Covid-19] is resulting in more online deliveries everywhere including the US. So,

in that point of view, it's a sort of positive thing. Yep. To give you an example, we've got a facility in California and it has had the biggest data ever from Amazon. Half a million parcels in a day." (R4)

- *Seismic-induced disruption*

Based on his previous experience, R4 also identified earthquakes as a major disruptor in the real-estate context. In his view, there are several positive reasons to invest in property and earthquake hazard is just a low probability, high-impact event that should be factored into the investment strategy in seismic environments. Due to the infrequent and unpredictable nature of earthquakes, R4 revealed that the investment environment is usually thrown into a state of disarray whenever there are high-magnitude seismic events that result in significant financial and non-financial losses. However, since the introduction of the NBS legislation and building seismic rating, R4 believes that responding to seismic disruption has been quite clear in terms of regulatory requirements and end-user expectations. While commenting generally on seismic disruptions as it affects LPTs, R4 stated that:

"Earthquake should not be the sole reason for ignoring a promising asset or market. Through the seismic strengthening of earthquake-prone buildings as stated in the NBS rating, property Trusts have been able to respond fairly quickly to minimize the impact of possible disruption that could arise as a result of earthquakes and I would say that we will continue to learn from the process. This is because there is no single answer to an earthquake resilient building as different engineers could come up with different numbers which would often require Trusts to get multiple opinions." (R4)

Although R4 stated that responding to seismic disruption requires a huge financial commitment, he believes that seismic preparedness should be a commercial necessity in vulnerable locations because if assets are found to be earthquake-prone, no one would lease the property. He believes, therefore, that LPTs should focus on how to make a better return on investment when making financial decisions on seismicity and other forms of disruption. He argued further that his organization's decision to leave Christchurch was not solely about the earthquakes but because they thought better returns will be in Auckland. According to him:

“... we thought from an industrial point of view that the properties we had in Christchurch were good but there're 1000 acres of industrial zoned land in Christchurch and that's about 50 years of supply. So, we just don't think we're going to see rental growth in that market and the reality about what we've seen in the last couple of years is that rents have actually varied. Earthquake happened, power supply was destroyed and couldn't be rebuilt quickly enough, so rents went up, got back to equilibrium and is now coming down again.”(R4)

- *Demography-induced disruption*

R4 also acknowledged the changing demographic information in the market as a typical example of property market disruptions. He mentioned that the population growth, changing lifestyles, work ethics and increasing diversity across global cities have continued to redefine end-user expectation in terms of an ideal asset. Focusing on industrial assets which is his organizations primary stock, he stated that decisions of financial investment are premised on locations with stable demand, where the present and projected population suggest long term return on investment:

“Wellington is actually quite a small market firm for industrial and logistics because it's kind of the end of the line, unlike Christchurch which is the hub for the South Island and Auckland which is obviously the hub for the North Island. For us, Wellington's is a relatively small market that is geographically constrained, plus the demographic of Wellington is not as strong as Auckland in terms of population growth and economic growth, which is kind of what we need to see underpinning that market.” (R4)

R4 argued that the combined impact of city expansion and e-commerce is gradually disrupting the conceptualization of industrial assets as production or storage centres. As such, he believes that industrial assets are gradually overlapping the role of retail assets when it comes to service delivery, wherein items are delivered straight to the end-users. In his view, this has resulted in a more-flexible design and approach towards managing industrial properties in a way that they remain relevant in addressing demographic trends in their target location.

6.3.4.4 Adaptation to property market disruptions

R4 also shared his views on the adaptive strategies of his Trusts to changing market conditions. His views are classified as motivation for adaptation and actual adaptive response as discussed in the following sections.

6.3.4.4.1 Motivation for adaptation

- *Location*

Although the motivation for adaptive response and preparedness for property market disruptions could be triggered by several factors, R4 believes that investing in the right locations with stable demand for the services provided is the main driver of his organization's adaptive strategy. According to him, his Trust focuses on major high-density, cosmopolitan cities. Having studied the market trend over the years, the respondent stated that the decision-makers in his organization envisage a situation where megacities will continue to expand and compete to attract migrants to support the ageing population and shrinking workforce. Consequently, an in-house gateway strategy was developed by his organization, to be part of the global change in some of the identified cities where the predictions are expected to manifest. The overall portfolio spread of the Trust was therefore narrowed to the biggest and most viable markets, where better returns have been projected to come from. In his view:

“Our adaptive decisions are driven by a number of things, but the most important aspect is investing in locations where we think we’re going to get the best returns. So, over time, we have, sort of recognized that we probably don’t need to be in every single city in every country that we invest in. In New Zealand, for example, we felt we were going to get better returns in Auckland versus Christchurch and in Australia, you know, it’s 85% Sydney, a bit of Melbourne, a bit of Brisbane, compared to Adelaide and Perth. So, for us, it’s really focusing on what we call our gateway city strategy.” (R4)

Beyond specific locations, R4 revealed that his organization is focused on developing industrial assets in city suburbs. Compared to city centres, he stated that suburbs are more suitable for industrial assets because of their high consumer density which keeps growing and also translates to long-term demand. He argued that following the ongoing changes in demographic and technological disruption in the real estate industry, there is an increasing desire for shopping convenience by consumers and one of the ways to improve consumer experience and timely delivery of goods is by locating industrial assets in form of warehouses, close to the suburbs where the people live. According to R4:

“We are monitoring the demographic pattern of major cities and we believe that industrial properties that are close to consumers will remain viable.” (R4)

- *Previous experience*

R4 also revealed that experiences from previous property market disruptions serve as a good reference point for adaptive strategies in response to disruptions. Having lived through several periods of market uncertainties, the respondent stated that his Trust has been able to learn and develop expertise on how to predict and avert disruptive occurrences. Ranging from stakeholder engagement and management, to risk identification and aversion, he stated that his LPT's experience through previous property market disruptions has helped in accessing investment options through several plausible perspectives, which consequently boosts his confidence as a decision-maker in making tough investment decisions. He argued further that the combined experiences of board members influence the overall Trust's adaptive strategy through collaborative discussions:

"... what I find is that my understanding of some of those big trends which we have been through and keep hearing about all the time, leads us to make better decisions here. Because you can sort of link these events and the possible impact because the world is so connected right now, that you're never immune from these things." (R4)

R4 however cautioned that the role of experience in disruption-driven investment decision making is limited to the extent of its alignment with stated regulatory guidelines and stakeholder needs. He clarified further that whereas experience is essential in developing internal strategic responses to property market disruptions, the overall success of experience-based adaptation is dependent on the prevailing market environment and participants. While describing the significance of experience in making adaptive investment decisions, R4 stated that:

"My experience has taught me a number of things, obviously, there will be a lot of panicking around during turbulent times. So, I've sat down with my senior leadership team and just said, look, we just need to make sure people are not panicking and worrying because the last time we had a major disruption in the GFC, we had to make a lot of people redundant. So, you know, the first thing is to give our people the support they need. Reassure them that we've got a very strong business with a very strong platform, low level of debt, you know. There's a lot of things to worry about in the world, but the state of our business is probably not one of them. Secondly, we know that some of our people are more affected than others and a blanket solution will not take care of everyone." (R4)

- *Personality*

R4 also mentioned that the nature of his Trust's Chairman is a major factor that dictates the adaptive response of his organization to disruptions. In his view, the Trust emerged from a family business to a multinational organization and the chairman, who is an expert realtor also doubles as the representative of the founding members. As such, he is trusted by shareholders and board members in making vital decisions that dictate the strategic focus of the Trust. In executing his duties, R4 stated that the Chairman has performed satisfactorily over the years in ensuring that the Trust remain profitable and competitive across its target markets. The respondent mentioned that unlike the leadership structure of typical property trusts, the final decision on investment issues in his organization ultimately depends on the approval of his chairman, who often rely on intuition rather than predefined procedures. According to R4:

“XXX is a big company, yet, sort of like a family company. So, if you look at it from our chairman's point of view, you know, he's invested a lot of the family's money in this. So, he's, he's not thinking about, pie charts or anything like that. In fact, he gets quite upset when you talk about pie charts.” (R4)

R4 described his chairman as someone who is willing to take risks in order to maximize income and the impact of his individual belief and personality is a reflection of how the Trust responds to market uncertainties. Having experienced various forms of disruption, he argued that the chairman seeks opportunities that emerge from disruptions rather than the limitations and he is very efficient in assessing and responding to investment proposals. Although he expressed some scepticism on the continued reliability of the Trust's decision on the personality of the chairman, he admitted that the chairman's approach has worked well for the organization especially since the GFC, when the price of the Trust's shares fell from about NZ\$8 to less than 20 cents. While illustrating the personality of the chairman and its impact on investment decisions, he gave the two instances below:

“To give you a view on this, we bought something (a property) a couple of years ago for 93 million and, you know, in my thought, we sort of paid top dollar for it [felt it was expensive]. But you know our Chairman's view was that; I see this type of site all around the world and I'd pay 100 million for it.” [R4]

“I was with the chairman on the call on Monday, that such and such property is in the market and is set to go unconditionally and we might need to get a quick approval. He said: That’s approved! Just give me the paperwork, and I’ll turn that around in 24 hours. So, the decision-making is, is very, very rapid. You know, He likes to get stuff done quickly.” [R4]

6.3.4.4.2 Actual adaptive response

- *Communication*

The significance of effective communication in responding to property market disruptions emerged from the submissions of R4 as a reliable adaptive strategy to market fluctuations. In his view, being able to communicate clearly and in a timely fashion helps in minimizing the consequential panic and uncertainty that follows major disruptions. Although investors are also caught unaware by most disruptions, he stated that customers and shareholders believe the contrary. He maintained that customers and shareholders look forward to the body language of investors and also anticipate their intervention in form of actual conversations as a way of developing an understanding of the consequences of market uncertainties. While describing how his organization responded to the sudden emergence of Covid-19, R4 revealed that no one in the management team had experienced such a situation before and it was difficult to ascertain the suitable response strategy, especially because the full extent and consequences of the pandemic were not clear at the initial stage. However, in responding to the pandemic, he mentioned that representatives of the executive teams in each of the countries with his organization’s presence met virtually on a weekly basis to discuss the latest update on the pandemic and also explore possible ways of addressing the situation. According to him:

“Covid-19 is a once in a lifetime event that no one seems to have a clue about. To be honest, we don’t know what to expect next and the eventual implication on our business is not clear. So we have a Zoom meeting of all the CEOs across the world to share ideas every week to discuss our views on the pandemic, the possible consequences on our portfolio and our organizational response strategy to minimize its impact on our customers and our shareholders.” (R4)

According to R4, the fall-out of the rigorous discussions amongst the top-level decision-makers was to engage shareholders at the local level on the universal nature of the Covid-19 situation, which meant that there was no peculiar risk to the company’s operations. This was expected to

ease their worry and prevent shareholders from divesting, especially as all economic sectors were affected by the pandemic and there were limited investment alternatives for them. On the other hand, R4 clarified that customers were equally engaged as the consequential impact of the pandemic on customers' businesses and obligations emerged. Following the restriction of movements which hindered the daily operations of building occupants (i.e. office occupants had to work from home, retailers had to switch to e-commerce) and the provision of government subsidy to minimize the impact of the pandemic on individuals and small businesses, R4 stated that his Trust also engaged its tenants to collectively develop a strategy that will lessen the impact of the pandemic on their businesses. Some of the strategies include the introduction of rental holidays and rescheduling lease agreements:

“The government’s financial intervention is good but that wouldn’t last forever. What we are doing is to meet each of our customers to appraise their peculiar situation and provide them with the option of either going on rent holiday or extending their leases. We believe that this will provide a more structured way of adjusting to the impact of the pandemic on their businesses.” (R4)

Whereas Covid-19 was used to demonstrate the significance of effective communication in adapting to market changes, R4 emphasized that effective communication is essential in adjusting to all forms of property market disruptions. Amongst other techniques, he stated that marketing awareness and campaign is currently adopted by his Trust in communicating the technological, financial and demographic trends in the market and what they imply for customers and shareholders alike.

- *Divestment*

R4 also mentioned that investors may surrender their ownership of assets that are deemed to underperform in the aftermath of disruptions. Depending on the extent and impact of market uncertainties, he stated that investors often base their divestment decisions on the post-disruption viability of their assets. For instance, while illustrating the impact of the Canterbury earthquakes on his organization's portfolio and the consequent decision of his Trust to divest its assets in the city, he revealed that although a lot of his organization's assets in the city had no significant damage, the regulatory expectation at the time required the Trust to strengthen its assets for them to be deemed safe. He argued further that the economic justification for investing in seismic strengthening was not realistic as there was no indication that the market

situation will support the consequence of increment in rent and lease prices on building occupants:

“Our decision to leave Christchurch wasn’t necessarily about failure that has to do with earthquakes. It was essentially driven by where we thought better returns would come from. In fact, we were actually beneficiaries of the earthquake because we had vacant spaces that were filled up in a couple of days. We thought from an industrial point of view that the properties we had in Christchurch were good but there was still a lot of room for competition. So, we just didn’t think we were going to see rental growth in that market. That was why we left.” (R4)

R4 also gave the example below regarding the GFC:

“... thinking through the last cycle and the GFC. You know, the quality of the assets we had weren’t as clear as what they are now. So, around the world, we’ve sold 12 billion worth of real estate. In New Zealand, we’ve sold 1.2 billion, which was about half of what we owned, and in the last four-five years, and that’s been a deliberate decision.” (R4)

Similarly, R4 mentioned that his Trust had to vacate Wellington at one point, despite the viability of the city. He indicated that as part of the post-2008 GFC investment strategy, his Trust resolved to focus solely on industrial properties and locations that support such assets. As a result, the Trust had to withdraw from some markets and the Wellington market is an example. He argued as follows:

“Wellington is good for office and retail but is quite a small market for industrial and logistics. The population projection cannot drive the kind of transactions that we see here in Auckland. Our properties in Wellington were not doing badly until the GFC but we eventually decided to leave after the GFC.” (R4)

- *Innovation*

The need to constantly innovate in adjusting to the e-commerce and automation trend that has gradually revolutionized the real-estate business was also documented by R4 as a response strategy to property market disruptions. In his view, tenants are adjusting to the opportunities in technology and automation by exploring online sales, virtual offices and automated warehouses across retail, office and industrial assets respectively. He argued, therefore, that it is important for investors especially LPT to be ahead of the change curve through innovative

strategies that will ensure the continued viability of their assets. Amongst other innovative strategies, R4 identified “*partnership in automation*” as a strategy that his organization is keyed into as a way of managing technological and demographic disruption. Instead of solely funding an asset for general purposes, the respondent’s organization now partner with prospective tenants in developing specific assets that will suit customers expectation and in the process of doing so, the investor and customer share the attached risk and possible gains. To clarify his argument, he stated that:

“... a lot of developmental projects have become more complex. Before now, investors would spend, say about 20 million on a warehouse, with necessary fittings in the store that will serve a general purpose. Tenants can then spend up to a million bucks to personalize the asset according to their needs. But that arrangement has changed with modern facility expectations. You know, for some facilities, your tenant could spend up to 5 million to remodel. Yes! So, what we now do is to work with customers in the development of assets that will accommodate customers’ needs. To minimize the risk in this arrangement, the facility must be timely and precise, and the benefit is more of a long-term thing, based on long leases and steady cash flow.” (R4)

R4 also claimed that innovative strategies have been useful in managing environmental and sustainability issues. As a responsible organization, he stated that his Trust is aware of climate change and its consequences, and as such has been exploring several initiatives around renewable energy. The obvious one for industrial owners is putting solar panels on the roofs of properties. In his view, shareholders and tenants are now more informed about sustainability, climate change and global warming. They seem to have lost faith in the Government and a lot of them want to see how sustainability is reflected in the investment strategy and portfolio of LPTs. As a result, he stated that his organization has resolved to innovation in responding to customers’ expectations that are associated with environmental changes. According to R4:

“... if you don’t have clear sustainability strategies, people wouldn’t want your shares or properties. The reality is that, you know, the planet’s running out of resources, and we can’t carry on doing things the normal way. We need to explore disruptive thinking in innovating and challenging the tradition. One of our initiatives is to embrace renewable energy across our global assets and this is already happening. I think people have lost a lot of faith in governments to actually act on these things. So then, they’re looking for businesses to take the lead.” (R4)

Finally, R4, believes that successful implementation of innovative responses to disruptions can only be achieved when investors work together with other market participants. For instance, he argued that management of the sudden impact of the Covid-19 pandemic across property markets was mainly driven by the pre-existing relationship between the investment trusts, their customers and other stakeholders. He mentioned that it is not easy to build relationships or seek audience during uncertainty. In his view, people experience diverse forms of stress when faced with uncertainties and as a result, they find it difficult to critically analyse the information that is being passed in a disruptive environment. Rather, stakeholders in the market observe and rely on one another based on previous relationships to make decisions on their current circumstances. In clarifying his opinion, R4 stated that:

“... if you look around, you’ll see that the pre-Covid relationship with suppliers, tenants, and financial institutions was what defined how well property trusts were able to negotiate and communicate during the first wave of Covid-19. If you know your circle well enough, you start to develop some level of trust amongst yourselves and that really helps in managing systemic challenges.” (R4)

6.3.5 Case study E

6.3.5.1 The respondent

Respondent R5 is the chief executive officer of one of the listed property Trusts in New Zealand. An engineer by background, he has over 35 years of experience in the property industry. His experience covers different aspects of property development and management, having worked as a design engineer, building services manager, engineering development manager, asset manager and general manager before becoming the chief executive officer in his organization. R5 has a strong link with academia having lectured in one of the Universities in New Zealand. He is also a distinguished member of various property-related associations in New Zealand.

6.3.5.2 Disruption-driven decision-making strategy

In discussing the disruption-driven decision-making strategy of his organization, R5 described it as well structured with some influence of gutfeel. He stressed further that the strategy comprises both top-down and bottom-up models with the top-down model focusing on asset allocation by sector and location, while the bottom-up model involves the coordination of the existing asset base and tenant's requirements in terms of relationship management and offering value for money. According to the respondent, the combined strategy of market projection and stakeholder management has ensured that his Trust remains a major force to reckon with amongst its competitors in terms of offering valuable assets in its target market. He explained the disruption-driven decision-making strategy thus:

“We employ a two-way, top-bottom and bottom-top approach. The top-bottom essentially has to do with where we are in the market and where we wish to be as a listed property entity, while the bottom-up strategy is based on our relationship with the users of our facilities and the tenants we intend to attract, in relation to the event we are trying to respond to.” (R5)

As a Trust that is highly diversified across the three main sectors, R5 argued that his organization does not aim to be the topmost player in any of the major sectors. Rather, his organization constantly strive to maintain market relevance and steady growth by investing in less volatile and highly remunerative assets and locations. The respondent argued that understanding and managing the expectations of stakeholders reflect in his organization's disruption-driven decision-making strategy as his Trust has a natural appeal for domestic investors that are mainly risk-averse. According to him, the biggest concern for these set of investors is losing their capital and they are therefore in search of businesses that are reliable with clear risk-management plans. Consequently, he clarified that the expectations of his LPT's investors are responsible for the asset and market diversification preference of his organization and the detailed selection of assets that makes up the organization's portfolio. For instance, R5 stated that:

“We continue to diversify and adjust our investment weighting across the three main sectors to accommodate possible changes in the market landscape and just to give you a very broad example, about 10 years ago, we felt retail is going to be struggling so we reduced our retail weighting first to 20% and then to 15%. and we increased our industrial weighting right up to

50%. So, we remain diversified, but we're focusing our growth and our investment aspirations into the sectors that we think are going to be one, less volatile and two, more remunerative.”
(R5)

R5 also stated that:

“Our investment decisions are tailored to our customers' needs. Majority of our shareholders are not risk savvy. They are not looking for the biggest earner in the market. So, by understanding where our customers are coming from and what they expect in terms of risk weighting, we are able to drive the top-down asset allocation across the asset categories and also weigh the bottom-up stock selection.” (R5)

Apart from the logical considerations for investment preferences, R5 stated that the overall ratification of disruption-driven investment choices by the board is also influenced by personal factors. According to him, irrespective of the clear justification of investment prospects, individual board members would sometimes have to be taken through the rationale that leads to the consideration of particular investment choices. He argued further that at this stage of the disruption-driven decision-making strategy, the board members often rely on their beliefs and experience. As a professional and leader of the executive team, R5 revealed that there were instances where the board did not totally agree with his investment assumptions but trusted his team enough based on previous investment outcomes to enable them to proceed with their proposal. He maintained that such gestures of trust and confidence are not replicated in all instances and as such could not be deemed normal. Rather it demonstrates the influence of individual character in the disruption-driven decision-making strategy. R5 clarified thus:

“You don't want to have everybody at the board table to grin all the time. That's okay. But the board certainly allowed me latitude and on a couple of occasions, even the Chairman of the board once said to me that he didn't actually agree with me, but the argument was strong and that gave him enough faith to let me proceed. Fortunately, we didn't let him down.” (R5)

R5 explained further that effective disruption-driven investment decisions should start with the understanding of the peculiar need in the market and how value can be created to meet the identified needs or gaps. As a result, the respondent stated that his organization has a dedicated team that evaluates and categorizes the Trusts' customers and their need analysis across

different market segments. Based on the findings of the team, his Trust is then able to offer reliable interventions that guarantee optimum customer satisfaction and retention. According to him:

“For us, we think about our customers, from when people wake up to when they go to sleep, to have an idea of what they want. And it is the understanding of those daily journeys and experiences that we are bringing to bear at XXX. That symbolizes our mantra, which is around how can we save people time, cost or both? And because time is money as the old expression goes, and you know, cost is money as well, we focus on how to make our customers experience an enjoyable one. Because that’s how we get sticky notes. And what I mean by stick notes is tenant retention or occupier retention.” (R5)

Based on his experience and role within the organization, R5 summarised the disruption-driven decision-making strategy in his Trust as a comprehensive task comprising both preconceived and impulsive components, as triggered by changing investment environment.

The next section describes the disruptions that informed the decision-making strategy discussed in this section.

6.3.5.3 Property market disruptions

R5 agrees with the view of other participants that the real-estate market is bound to experience challenges at different stages of the investment cycle. In his view, property market disruptions could be mild or severe, predictable or unpredictable, and it takes an experienced, well-grounded investor to identify and respond to the opportunities and threats associated with managing these disruptions. He stated that:

“Market disruption cuts across all investment types. If you remain in a trade long enough, you will understand and may be able to predict the positives and the negatives and how to manage your gains and losses. Climate change, e-commerce, and financial crisis are typical examples of market disruptions and there is no doubt that these disruptions impact our business operations.” (R5)

The major disruptions identified by R5 are discussed below.

- *GFC-induced disruption*

Based on his experience, the respondent revealed that the main record of property market disruption that comes to mind is related to financial crisis. He considered the 1997 Asian financial crisis, a worse disruptor for real-estate trusts in the region than the 2008 GFC. Insufficient cash flow, drop in currency value, fall in asset prices and the inability of investors to meet debt obligations were amongst the factors that contributed to the impact of 1997 as well as the 2008 financial crisis. Based on his experience and understanding of investment cycles, R5 argued that he learnt certain lessons from the previous financial disruptions that guide his risk perception and business operation strategies. In clarifying his view, R5 noted that:

“... certainly, there are some advantages to having been around for a while. My first boss used to say that there’s no use getting old if you can’t get coming and when you look through a lot of cycles, you’ll discover that the 1997 crisis for instance was a much better teacher than the GFC. What bothers me is that we’ve now got people who are driving businesses, who didn’t really live through the GFC, let alone the 1997 financial crisis. So, we are making mistakes or potentially setting ourselves up for mistakes if we continue to ignore the role of experience. Was it Winston Churchill, who said that those who refuse to study history are doomed to repeat it... was that Winston Churchill? Anyway, I think there is a fair influence of past knowledge in what we do and the way we manage risk in business because I have been through 1997 and I know what can go wrong. So, certainly being around for a while has some benefits. There’s no doubt about that.” (R5)

- *Seismic-induced disruption*

Earthquake was also identified by the respondent as a natural hazard that occasionally disrupts real estate investments in New Zealand. According to R5, the geographical location of the country makes it susceptible to seismic hazard and investors have had to factor in the potential impact of seismic events on their portfolio and investment performance. R5 believes that his Trust has been able to adapt well to seismic disruption especially because it is a rare event. He stressed further that the evaluation of investment location alongside end-user expectations has helped the Trust in managing the impact of earthquakes. For instance, R5 stated that no one wants to get hurt, either as an individual or organization but unfortunately, the reality of human nature is to learn from and value risk when faced with its consequences. As such, contingency

plans for an earthquake is minimal in locations that are not susceptible to the hazard and is also commensurate with people's perception of the hazard. In his words:

“Earthquake is a major issue here that surfaces once a while in specific locations and the discussion on earthquake is at its peak only after a major strike, unlike other forms of market risks that are considered on an ongoing basis. So long as we haven't had an earthquake in Christchurch, no one's going to be focused on it. So long as we haven't had a tsunami or a volcanic eruption in Auckland, no one's going to focus on it. In fact, if you did a survey of your tenants and your government or local government people, you would find that they will probably be 80% more focused on other issues in Auckland than on earthquakes.” (R5)

R5 also observed that policy interventions that evolve after major seismic events also contribute to the disruptions faced by property investors. He argued that several regulations have emerged over the years that require building owners to spend huge sums of money in strengthening their assets as a way of making them earthquake-resilient. However, he noted that not only do investors find it difficult to justify the financial expenses as most strengthening actions are structural, he argued that successive earthquakes have shown that strengthening alone may not be the answer to earthquake resilience. While commenting on the financial implication of seismic strengthening, he said that:

“...the exercise is really not adding any obvious value. It's costing us a lot of money. Delays and consenting in the last calendar year cost us \$1.7 million. Just wasted money, no one got that money. That's just what it cost us. So that is the reality across the sector. We're wasting an enormous amount of money and it's a big issue.” [R5]

He also gave an instance as follows:

“We once had a building with steel doors and corner frames, stood up well over 100 years, survived a lot of earthquakes and no damage in recent earthquakes. The only building in the portfolio with nothing, not even a piece of paper moved. Council then decided it was earthquake-prone and gave us three months to demolish the building. That doesn't even get you time to get an engineer to argue the case. We had to demolish the building.” [R5]

R5 believes, therefore, that the rigid regulatory requirements further complicate the impact of seismic disruption in the investment environment. Other impacts of regulatory disruptions he identified are described in the next section.

- *Regulation-induced disruption*

While acknowledging the role of government agencies in ensuring smooth market operations, R5 mentioned that sudden government policy changes have also been proven to disrupt the flow of events in the real estate market. According to him, regulatory actions are usually introduced to minimize the impact of other forms of property market disruptions (e.g demographic changes, financial crisis, technological evolution) but if not properly implemented could also alter investment projections significantly. This is because investors are expected to demonstrate absolute compliance with regulatory expectations irrespective of the impact on their investment portfolio or practices. According to him, the reality is that most regulations are not well thought through, and this is the reason why they are reappraised frequently with little regard for the financial and non-financial cost of compliance by individuals and organizations. He argued that:

“... legislation does have a big effect on our investment portfolio and projections. Unfortunately, not all regulatory interventions are reasonable. In terms of building standards, I’ve long been of the view that businesses like ours should lead the recovery and resilience strategies because we have to live with the results. If we build a leaky building, we can’t go to the council... We have to fix it. Because we are in those assets for 10 and 20 years, we have more vested interest in making sure the quality is adequate than the council does.” [R5]

R5 also mentioned that regulatory changes are usually disruptive because they are carried out without adequate consultation with property Trusts. He believes that most of the policy interventions towards minimizing property market disruptions fail because the policymakers do not have a fundamental understanding of how the market works. Instead of proposing regulations that are purely based on scientific models, which often require market participants to reconsider their operations in entirety, he advised that market regulations should evolve from the actors and market participants. In his view, this is the only way of developing people-oriented policies that would be able to achieve the intended purpose, with minimal disruption. According to R5:

“The reality is that we are getting probably controlled by the least appropriate person when it comes to introducing legislative changes and enforcing compliance. For a business like ours, we have to do it right [compliance with safety guidelines] because we have to live with the ramifications if we don’t. We actually know more about it than the council does, all they should require from us is a certificate that says we have built that according to the plan and safety requirements.” (R5)

- *Technology-induced disruption*

R5 also revealed that the rapidly evolving influence of technology in real estate development, operations and management is a major factor that disrupts today’s market environment. He maintained that technology has transformed the real-estate business, particularly in the retail sector where customer definition and expectation of efficiency has continued to change. Having studied the market trend and as a Trust that is heavily diversified across all asset types, he stated that his organization prioritizes the disruptive impact of technology on the continued relevance of its retail stock and has since adjusted its asset mix by reducing the Trusts weighting in retail assets and increasing industrial assets, as a way of reducing its overall investment exposure. In his words:

“Obviously, we anticipated the internet-retail thing and we probably prepared for it more highly than others did in terms of what the potential long-term impact will be on our income stream. So, we formed the view that the penetration impact from the internet retailer’s perspective was going to be stronger than the rest of the market. Over time that snowballed to the point where we now constantly adjust our retail exposure and internet retail is the main driver.” [R5]

R5 argued further that anyone that understands retailers and the retail business would agree that retailers tend to be ardent optimists. He clarified further that retailers are usually willing to sign leases that they cannot afford, on the account of futuristic projection of market performance. Although the respondent argued that such retail optimism is often demonstrated in new locations, he cited instances where retailers defaulted on their lease obligations due to the influence of demographic and technological changes in their target market. Having operated across different locations in New Zealand for a long time, R5 clarified that tenants’ failure to meet obligations can be associated with the continuous emergence of technology in the real estate space and also predominantly weighted towards retail than the other two sectors. The

viewpoints of decision-makers in his organization, therefore, led to the reconsideration of the Trust's retail exposure, to focus on industrial properties that support online shopping offerings. R5 stated that:

“Technology has made us to reconsider our retail exposure and to focus more on flexible industrial properties in iconic locations where we have a good traffic flow for goods and customers. We had to sell some of our large format retail assets, and we decided to be futureproof and being futureproof required having flexible industrial properties that have really good accessibility and really good loading facilities that will match the efficient use of technology. What we expected to see, based on our decision has actually happened and we think we're pretty well-positioned.” (R5)

- *Climate-induced disruption*

Based on his personal experience, R5 also mentioned that the prevalence and increasing awareness of climate change, global warming and sustainability issues are gradually redefining the way real-estate investments are conceptualized and implemented. According to the respondent, investment proposals in his Trust are now considered alongside their environmental impact. He also noted that the use of alternative energy now forms the basis for accessing quality assets in contemporary market environments. Although he believes that not everyone would see the changing climatic condition as a major disruption as he does, he noted that consideration for responsible use of resources in real-estate investment is important in minimizing the negative impact of possible disruption that could emerge due to climate change. Reflecting on his individual life experience and relating same to the impact of climate change on the built environment and indeed, property investment, R5 stated that he grew up with the beautiful scenery of the sea and being an admirer of nature, he understands the catastrophic consequences of sea-level rise. He maintained that this unique experience has guided his investment preferences and considerations. Compared to other decision-makers that do not have similar experiences, he stated that it is difficult for him to ignore the current and potential impact of climate change on his organizations' investment and vice versa. According to him:

“There is some correlation between climate change and property investment. If you go down to the yacht club, you will not find anyone down there that is a denier of climate change, because we live with it, day in and day out. People that live in a concrete jungle may not even notice it. They might feel justified in saying it's a hoax. But those of us who are close to nature,

that's the reality we've got to face. We haven't done enough work on history. What does one meter of sea-level rise do? Well, it's actually catastrophic. I've been yachting for well over 50 years and I know what's happening because you can see it. It's really obvious, and we get more severe, less predictable storms today, by a long way than we did 50 years ago. So, if you can notice it in a 50-year lifetime, the change is extreme.” (R5)

R5 revealed that building occupants are already requesting for the compliance rating of buildings before signing leases and it is just a matter of time before non-compliant assets start to record increasing vacancy rates if appropriate strategies are not developed and implemented towards climate change.

6.3.5.4 Adaptation to property market disruptions

Irrespective of the type of disruption, R5 noted that adequate preparedness and adaptive strategies by property investors' is vital in managing the impact of disruptions. The major highlights of his organization's adaptive response to disruptions are stated below in terms of motivation for adaptation and actual adaptive response.

6.3.5.4.1 Motivation for adaptation

- *Personality*

As the CEO of his organization, R5 admitted that his position and character have influenced his Trusts' disruption-driven investment decisions over time. According to him, his individual experience and relationship with property professionals and customers over the years have impacted his perception and judgement regarding disruption-driven investment decisions. As a leader that is expected to make difficult decisions amidst market uncertainties, he believes that his personality has enabled him to drive increased awareness of climate change and sustainable practices through the introduction of green courses that employees of his organization go through, to bring them up to speed on the consequences of climate change on property investment. He noted that:

“There are some prerequisites to integrating new entrants to our organization. So now, if you join, part of your induction training is, you've got to do the green courses and we've got two registered practitioners that are trained in this.” (R5)

R5 also stated that he has been able to create a framework that would outlive his tenure as the CEO of his organization. For instance, by promoting sustainable practices as a long-term strategy for his organization to confront climate change, R5 argued that he has been able to integrate his belief as influenced by personal experience and conviction into the adaptive strategy of his Trust. Another area where the personality of the respondent played a role in adapting to market changes is the introduction of green bonds as an income instrument for his organization. He stated:

“In a way, you want to leave the world better than you found it. I was so pleased to get our green bonds out, which carries with it, a green bond framework, which reflects on the green investment policy across the business. So, because those two green bonds are out there, if I get run over by a truck tomorrow, no one can change the direction of the company with respect to green. So, it means that it’s a long-term strategy for the organization, not just mine.” (R5)

- *Market expectation*

The resultant market expectation, following the changes in the normal conduct of activities in the market was also reported by R5 as a major determinant of his Trust’s adaptive response to disruptions. As an organization that is focused on safe and efficient property offerings, he argued that anticipated changes in customer and end-users expectation of value is reflected in his Trust’s adaptation plans. For instance, as the weighting of his Trust’s portfolio is reduced in the retail sector due to the impact of e-retailing, with a consequential increase in the industrial assets in line with market demand, the need for an efficient transportation delivery system was apparent. In his view, in order to meet market expectations and client satisfaction, completely separate traffic is maintained for goods and vehicles in all the locations where the Trust has industrial properties:

“...time has always been of essence in business, but technology has further made timing very apparent. Our in-house traffic management strategy that comprises space management, design and stock monitoring ensure timely delivery of goods in a way that meets the need of our clients.” (R5)

Also, R5 noted that people’s expectations in terms of office quality have continued to change with current market realities and as a Trust, his organization has constantly responded to such

changes in order to maintain its market relevance. He mentioned that, unlike the traditional office design that used to be carpeted warehouse with air conditioning units stuck through the window, people expect office quality similar to what is obtainable in the central business district, irrespective of the asset location. The impact of the frequent changes in clients' expectations has led to clients' commitment to short term leases and investors adoption of flexible designs. As part of the responses of his organization to changing customer expectations, he mentioned that space management and improved facility management services (e.g utilities and collapsible walls partitions) are strategies adopted by his organization to attract and expand its client base. In buttressing his argument, R5 indicated that:

"We used to be able to get away with having one shower for a 1200-meter building, now you can't. You really need two showers for every 300 square metres. People's expectation of quality is completely different. Ten years ago, the quality of the bathroom facilities and change facilities was not different from what we used to get in hostels. Now, that's not what people expect. People expect hotel-style bathrooms and change facilities. We now provide towels, soap dispensers, dryers etc." (R5)

6.3.5.4.2 Actual adaptive response

- *Communication*

According to the respondent, the actual response to property market disruptions in his Trust is usually tailored towards stakeholder expectation and driven by effective communication and engagement. He explained that his Trust is proactive in educating its customers and shareholders on the changing market situation and the impact such could have on the investment direction of his Trust. Referencing the lessons from the GFC, he argued further that it is not enough for investors to concentrate on the professional and analytical side of things (i.e. evaluating economic principles and projections). Rather, emphasis should be on how the layman interprets the changing market environment. In developing a holistic adaptive response strategy, the respondent, therefore, stated that his organization follow the market trend closely and demonstrate inclusive leadership by telling people what they need to know while taking responsibility for where the markets need to go in terms of recovery. R5 stated that:

"...our duty is to preserve the business at the right level, reassure our shareholders and tenants, and try to work out how to meet the needs of our stakeholders. As professionals, when

we show them the right way, they are usually pretty happy to go through the door, but you have to show them where it is, and that's true for all possible forms of disruptions.” (R5)

Despite acknowledging the significant role of effective communication, engagement and leadership in adapting to changing market and investment situations, R5 expressed his worry that the majority of property trusts do not live to expectation in this regard. He argued that a lot of decisions are indirectly left for building occupants to address, even when it is clear that they are not well-positioned to make informed choices. Therefore, he believes that more enlightenment on the essence of effective communication needs to be done for investors and building occupants alike to manage the overall impact of property market disruptions. While relating his observation to the changing climatic conditions and the green building initiative, he indicated that as investors:

“You cannot expect your tenant to be an expert on green buildings because they only make that decision once every 10 years. We are the experts, it's our responsibility, and we should be held accountable for driving that level of change. And I don't think the industry's got their head around that. The industry is still, by and large, building what the tenants ask for and the tenant needs to be educated in some way. So, we need as an industry to be more responsible. We know climate change is a reality, about a third of our time is spent on other forms of due diligence or property acquisition. We know that sea-level rise is here, we've spoken about the drought. We know about fires in Australia, it's not okay to turn around and pretend it's not happening.” (R5)

- *Innovation*

Based on his experience, R5 also argued that disruption type and impact on portfolio could require decision-makers to be innovative in responding appropriately to potential uncertainties. According to him, regulatory and customer expectations could vary with the nature of uncertainty and as a Trust that is in business to make money, his organization's response strategy requires a balance between ensuring business continuity, satisfying customer expectations and adhering to regulatory requirements. He stated that LPTs' adaptation to disruption requires creativity in the management of resources. For instance, R5 argued that insurance pay-out is often not readily available in repositioning vulnerable assets for better use after a disaster has occurred. He expressed worry about the insurance claim process, which in his view, is excessively lengthy, thereby causing LPT to lose a lot of rental income during the

waiting period. In his opinion, affected decision-makers would have to respond to the residual risk from market hazard by devising alternatives innovatively. Describing the complexities associated with insurance claims, R5 revealed that:

“...it’s just simple economics. Because with insurance, you can’t simply plan for what you want to do. So, for instance, if I have a building affected by a disaster, I need to get the building back and operating ASAP. If the building remains empty, with no one paying rent, that has a direct effect on my dividend. I can’t wait for the insurers who have no interest in processing the claim quickly. In fact, the insurance has a vested interest in playing that game as long as they can, being as difficult as they can, because they don’t have to pay you immediately. So, they’re interested in making it go as long as possible. So, if after three years of claim, there is no settlement, I can’t afford to have the building sitting empty for three years. That’s not commercial reality. Because I don’t get the three-year loss of rents from insurance. I need to get the building fixed and operating as soon as I possibly can, and that requires being innovative.” (R5)

The interrelated role of various organizations in the investment environment was also recognized by R5 as a premise for driving innovation. He argued that a disruptive activity that affects one market actor or organization may have a consequential impact on another, leaving the investor to assume the role of managing all the concerned participants. For instance, R5 stated that after the major change to legislation that followed the Christchurch earthquake, all the building assets in his Trusts’ portfolio suddenly didn’t comply with the required standard and had to be strengthened accordingly. However, considering the huge financial requirement needed for the strengthening, R5 stated that his Trust had to be creative in managing the situation. As a result, his LPT had to work with the government, tenants and banks in seeking a common ground that will inform possible adaptation strategies. He exemplified thus:

“Virtually all the buildings that were rated 100% EPB pre-Christchurch earthquake were rated less after the Christchurch earthquake. Although the government set a minimum EPB standard afterwards, there were conflicting expectations from tenants, banks and insurance companies in terms of our commitment. But for us, we can’t go out and commit to upgrades over time because it might get to a point where it’s just not feasible to do so. We had to devise a better way to work with the customers, tenants and banks in defining what a realistic

adjustment is. You need to understand what you're committing and exposing yourself to, through any sort of contractual arrangement and if that is actually what is right to do.” (R5)

6.4 Chapter Summary

This chapter provides a deeper understanding of the disruption-driven investment decision making of LPTs. Based on the lived experiences of senior-level decision-makers across the participating case studies, the unique perceptions and opinions of the respondents have provided clarity in understanding why LPTs adapt to disruptions in the way that has been documented in their annual reports. Corroborated with excerpts from the interview transcripts, the views of the respondents were analysed in line with the research objectives and particular findings regarding the disruption-driven decision-making strategies, forms of property market disruptions, and the adaptive response of each respondents' LPT were subsequently presented. To further examine the robustness of individual assertions, the next chapter evaluates and reports the consistencies and limitations of respondents' views across the case studies.

CHAPTER SEVEN

Findings Across Case Studies

7.1 Overview of the Chapter

The previous chapter analysed and reported the opinions of each respondent in clarifying why their respective Listed Property Trusts (LPTs) respond to disruptions in the ways documented in their annual reports. While the within-case analysis revealed the unique perception of the respondents, this chapter examines the assertions that emerged from each respondent across all the case studies to ascertain the wider relevance and limitations of individual viewpoints. This chapter, therefore, provides an overall representation of the key research findings that depict the disruption-driven decision-making strategy of LPTs and their adaptive response to disruptions. The chapter is divided into four sections. Section 7.2 describes the process involved in the across-case analysis while Section 7.3 describes the various categorizations of the research findings across case studies. The concluding section of this chapter provides a summary of the key findings.

7.2 Cross-Case Analysis and Interpretation

This section evaluates the consistency of viewpoints expressed by the research participants in order to infer robust and insightful interpretation of their perceptions on the disruption-driven investment decision making of LPTs. Following the process illustrated in Section 4.10, the cross-case analysis commenced with the observation of patterns across the transcribed interview data of the research participants, with the view to identifying both distinct and common expressions that depict the intention of the respondents. The keywords that emanated from the pattern search were quantified and sorted into codes, based on their meaning and alignment with the research framework. Aside from adopting the use of software in the identification of codes, the original transcript was also read severally across all the case studies and expressions that relate to the disruption-driven investment decision making of LPTs were identified manually. As stated in Section 4.10.1, this process was done to give more depth and detail to the analytical process by ensuring that unique viewpoints of the participants were not omitted. Assertions that emerged from the interview transcripts were compared across the case studies to ascertain their wider applicability and limitations.

7.3 Categorization of Findings Across-Case Analysis

Following the pattern adopted in the within-case analysis and in line with the research focus, the assertions from individual respondents were compared across cases based on the categorization listed below:

- (i) LPTs' disruption-driven decision-making strategies
- (ii) The different forms of disruptions that informed LPTs' disruption-driven decision-making strategies
- (iii) The adaptive response of LPTs to property market disruptions and
- (iv) The institutional influences that impact the adaptive response of LPTs to disruptions.

Based on the categorization provided above, Tables 7.1, 7.2, 7.3 and 7.4 summarize the research findings across the case studies. The participating LPTs are represented by R1, R2, R3, R4 and R5 as previously stated in Table 6.1.

For the purpose of illustration, using row three of Table 7.1 as an example, the code 'policy requirement' was frequently expressed across all the case studies. The code was later merged with another synonymous expression to form an initial theme, which is 'constant monitoring of Trusts' portfolio'. This was further reviewed. The review resulted in initial themes, consolidating into one another to establish 'internal organizational procedure' as a final theme that describes the disruption-driven decision-making strategies of LPTs to be rational in some instances. This process was replicated across the whole data and eventually, the role of intuition in the decision-making strategies of LPTs was also revealed. The same process of analysis was followed for Tables 7.2, 7.3 and 7.4.

Table 7.1: Disruption-driven decision-making strategy

R1	R2	R3	R4	R5	Codes	Initial Theme	Final Theme	Strategy
	✓		✓	✓	In-house research	Constant monitoring of Trusts' portfolio	Internal organizational procedure	Rationality
✓	✓		✓	✓	Decision-making template			
✓	✓	✓	✓	✓	Policy requirement			
✓	✓	✓			Documentation and knowledge sharing	Team assessment and reporting	Objective assessment of options among team members	
✓	✓	✓	✓	✓	Teamwork and collaboration			
	✓	✓	✓	✓	Logical assessment of information			
✓	✓	✓	✓	✓	Availability of competition	Benchmarking peer practices	Observation of market trend	
	✓		✓	✓	Comparison of peer actions			
✓	✓	✓	✓	✓	Asset Demand	Location viability	Focus on major cities with enduring demand	
✓	✓	✓	✓	✓	Location preference			
✓	✓	✓	✓	✓	Investment returns			
✓	✓	✓	✓	✓	Major cities	Drive Value		
✓	✓	✓		✓	Risk management	Multiplicity of asset use	Future projection and consideration	
	✓	✓	✓	✓	Asset flexibility			
✓	✓	✓	✓	✓	Lease condition	Long-term use		
✓	✓	✓	✓	✓	Regulatory requirements	Policy-driven	Client-focused strategies	
	✓	✓	✓	✓	Occupants expectations	Market-driven		
✓	✓	✓		✓	Management pattern	Internal Process	Leadership imposed strategies	Intuitive
✓	✓		✓	✓	Board driven			
✓				✓	Mutual responsibility	Combined Effort		
✓	✓	✓	✓	✓	Multiplicity of information	Information sourcing	Perception and interpretation of available information	
✓	✓	✓	✓	✓	Diverse perceptions			
	✓	✓	✓	✓	Cognitive tendencies	Personal interpretation		
✓	✓	✓	✓	✓	Gut feel of decision-makers	Reliance on self-confidence	Preference towards a specific approach	
✓	✓	✓		✓	Personality of decision-makers			
✓		✓	✓		Personal interest and preference	Personal or organizational preference		
	✓		✓	✓	Organisational values			
✓	✓	✓	✓	✓	Experience from previous events			
✓		✓			Belief and Trust	Belief in individual capacity or suggestions	Approval of Innovative ideas from specific individuals	
✓	✓	✓	✓	✓	Personal opinion			
✓	✓		✓	✓	Individual Projection			

7.3.1 LPTs' disruption-driven decision-making strategy

The respondents' opinions across cases revealed that the disruption-driven decision-making strategy of LPTs involve a combination of pre-defined and impulsive considerations. While evidence that reiterates the need to follow clearly defined organizational procedures and policies in making disruption-driven investment decisions were deduced from the narratives of the respondents across cases, the significance of personal experience, projection and gutfeel in making disruption-driven decisions were equally exemplified by the respondents. The assertions of the respondents revealed that the disruption-driven investment decision-making across LPTs is determined by several factors, including market demand, location, competition, risk perception, available information and personal attributes of the decision-makers. As such, the respondents' views suggest that it is often not realistic to base the strategy solely on preconceived ideas, policies or documented procedures. Whereas some of the respondents demonstrated preference for research and policy-driven strategies in facilitating informed investment decisions amidst disruptions, others emphasized that the opportunities and risks that could emerge during disruptions often require quicker interpretations and judgements that are better addressed by gutfeel and previous experiences. However, all the respondents agree that pre-defined processes and gutfeel are components of their decision-making strategies. Relevant commentaries across the case studies are highlighted below.

"You do follow gut feeling, but you'd have to support all of your decision-making by, making very real assumptions around what you think may or may not happen." (R2)

"We know that the Trusts' reputation is only as good as its last transaction and the board is always willing to accommodate novel ideas that could improve our market share even when such ideas are not based on our existing processes." (R3)

"So, a lot of opinions and voices goes into making disruption-related decisions. But at the end, for the New Zealand businesses, it's my decision to make." (R4)

"...the Chairman of the board once said to me that he didn't actually agree with me, but the argument was strong and that gave him enough faith to let me proceed." (R5)

In further clarifying the disruption-driven decision-making strategy, the assertions of the respondents revealed that investment decision making across LPTs involves several steps including the identification of opportunities or challenges, investment evaluation, investment approval and implementation and investment reassessment. According to the respondents, the strategy starts with the consideration of investment ideas in their raw form by either an entity (person within the organization) or collectively as a group. The intention at this stage is devoid of any form of order or logic, but could be influenced by existing rules, norms, culture and environmental variables. Some of the attributes of property investors that could influence the decision-making strategy at this stage include knowledge, experience, belief and leadership personality.

The conceptualized ideas are subsequently subjected to feasibility assessment in order to project their practicability and predict investment performance. At this stage, the respondents revealed that their initial ideas are tested in line with organizational policies, government regulations and research recommendations. The implementation stage follows the feasibility assessment and was adjudged by respondents to be influenced by intuition. At this stage, the resolution to approve investment decisions is greatly influenced by leadership perception, belief, knowledge and previous experiences on similar projects, location preference, trust, and so on. While the final stage involves checks and balances on how well an adopted strategy has been able to address the investment concerns. Market impact, value estimate and compliance are some of the factors that are considered at this stage. The respondents are therefore unanimous in their view that a holistic disruption-driven investment decision involves the combination of rational and intuitive components.

Table 7.2: Forms of property market disruption.

R1	R2	R3	R4	R5	Codes	Initial Theme	Final Theme	Type of Disruption
✓	✓	✓	✓	✓	Kaikoura earthquake	Earthquakes affect major cities in New Zealand	Earthquake hazard requires the code compliance of property investors	Seismic Disruption
✓	✓	✓	✓	✓	Canterbury earthquake			
✓	✓	✓	✓	✓	Earthquake-prone buildings			
✓		✓		✓	Seismic upgrade of vulnerable assets	Buildings should meet minimum seismic guidelines		
✓	✓	✓	✓	✓	Changes to the building code (NBS)			
✓	✓	✓	✓	✓	Financial Crisis	Economic crisis is a common disruption	All economies are vulnerable to financial crisis	Global Financial Crisis
✓	✓	✓	✓	✓	Economic instability			
✓	✓	✓	✓	✓	Decrease in asset value	Interest rate fluctuations affect investment decisions		
✓	✓	✓			Interest rate instability			
✓	✓	✓	✓	✓	Policy fluctuations	Government policy is not stable in the market	Frequent changes in regulations and the need for adaptation	Regulatory Disruption
✓	✓	✓	✓	✓	Changing market rules			
✓	✓	✓	✓	✓	Government intervention			
✓	✓	✓	✓	✓	Compliance expectations	Constant compliance		
✓	✓	✓	✓		Emergence of e-commerce	Technology is changing the pattern of traditional markets	Dynamic influence of technology	Technological disruption
	✓		✓	✓	Integration of Virtual reality			
✓	✓	✓		✓	Efficient information management	Drivers of technological influence		
✓		✓	✓	✓	Electronic channels and platforms			
✓	✓		✓	✓	State of pandemic	Global health emergency	Health uncertainty due to transmissible diseases	Covid-19 Pandemic
✓	✓	✓	✓	✓	Novel coronavirus disease	Restricted movement and transactions		
✓	✓	✓	✓	✓	Lock-down and social distancing			
✓	✓		✓	✓	Changing needs of millennials	Dynamic, Young and emerging professionals	Changing information of market participants	Demographic Disruption
		✓	✓	✓	High level of migration			
✓		✓		✓	Different expectations	Changing needs of the elderly		
✓	✓	✓	✓	✓	Population density	Location preference		
✓		✓	✓	✓	Alternative use of resources	Need to manage resources	Rapid change in environmental situation	Climate Change
		✓	✓		Rising sea-level			

7.3.2 Forms of property market disruption

Based on the assertions represented in Table 7.2, respondents across all the LPTs are of the view that the New Zealand property market is exposed to various forms of disruption, including seismic-induced disruption, global financial crisis, regulatory disruption, technological disruption, Covid-19 pandemic-induced disruption, demographic disruption, and climate change-driven disruptions. While the respondents revealed that some of the identified disruptive events (e.g. regulatory changes and technological advancement) are gradual in terms of their impact on the existing investment strategies of LPTs, the respondents also noted that some forms of property market disruptions (especially those triggered by earthquakes, and the recent Covid-19 pandemic) are unpredictable. However, irrespective of the predictability or suddenness of disruptive events, the respondents were unanimous in their view, on the need for LPTs in New Zealand to constantly adapt to disruptions, in order to remain relevant. The respondents provided evidence of how LPTs' business operation could be hindered by the various forms of disruption.

While analysing the impact of Covid-19 induced disruption, R1 stated that:

"...and they [retail properties] may continue to decline to the point where they're, really, only worth land value, less demolition costs. So, I think owners of those centres need to start making decisions fairly quickly about what their risk appetite is and if they're not of the view to hold through the cycle." (R1)

Assertions from R2, R3, R4 and R5 describing the impact of various disruptions on their respective Trusts are also provided below.

"... following the recent earthquakes, we've sold about \$600 million worth of real estate in the last five or six years and I'd say two-thirds of these were assets that we thought would underperform in a seismic event. Subsequently, we have upgraded all the buildings we own in Wellington to 100% NBS, except one that is only 80% NBS." (R2)

"The market for our industrial assets has witnessed a significant change, in the last 10 years. We used to have about 250,000 square meters of industrial assets, built every year, and this is actually coming right down because the land to do that isn't just available anymore." (R3)

“Our experience in the GFC was pretty brutal, with our stock price declining from \$7.50 to 17 cents, and we nearly lost the company. So, we have the lowest debts in New Zealand of any property trust by some distance.” (R4)

“Legislation does have a big effect on our investment portfolio and projections.” (R5)

Although the respondents acknowledged that their investment operation is likely to remain exposed to the identified disruptions, there are several guidelines as stated by designated authorities to minimize the impact of disruptions. By constantly complying with the minimum regulatory guidelines across their portfolio, some of the respondents are confident that their portfolio would experience minimal interference in the event of market uncertainties. However, other respondents believe that regulatory guidelines do not provide the overall solution needed to minimize the impact of disruptions. In their view, regulations regarding disruptive events would be effective to the extent of consultation with relevant stakeholders that are required to implement the regulatory dictates.

“The reality is that we are probably getting controlled by the least appropriate person when it comes to introducing legislative changes and enforcing compliance. For a business like ours, we have to do it right [compliance with safety guidelines] because we have to live with the ramifications that we don’t. We actually know more about it than the council does. All they should require from us is a certificate that says we have built that according to the plan and safety requirements.” (R5)

Irrespective of their perception, all the respondents are unanimous in their view that the dynamic nature of the contemporary property market will continue to give rise to various disruptions that would require LPTs to continuously strategize on ways to adequately adapt to the market uncertainties.

Table 7.3: Adaptation to Property Market Disruptions.

R1	R2	R3	R4	R5	Codes	Theme	Final Theme	Classification
✓	✓	✓	✓	✓	Standard practices	Best Practice in the Market	Adherence to formal rules in managing risk	Rational
✓	✓	✓	✓	Insurance requirements				
✓	✓	✓	✓	Current laws and guidelines				
✓	✓	✓	✓	✓	Demand for asset	Enduring demand throughout asset lifecycle	Consideration of market fundamentals as a measure of return on investment	Rational
✓	✓	✓	✓	Reasonable lease period				
✓	✓	✓	✓	Reasonable return on investment				
✓	✓	✓	✓	Risk evaluation				
✓	✓	✓	✓	Market Competition				
	✓	✓	✓	✓	Communication and information sharing	Effective stakeholder engagement	Continuous consultation	Rational
✓		✓			Chairmans' interest	Individual experience, position and responsibility	Personality is a major influence on decision preferences	<i>Personality</i>
✓	✓	✓	✓	✓	Chief Executive dictates the tune			
✓	✓		✓	✓	Management preference			
✓		✓	✓	✓	Specific market projection	Upcoming projects and amenities	Expectation of future development and expansion in asset demand	<i>Representativeness</i>
	✓	✓		✓	Alignment with infrastructure plan			
✓		✓	✓	✓	Location preference	Strategic asset location		
✓	✓	✓		✓	Leveraging technology	Digital transformation among competitors	Observing emerging trends and best practices	<i>Anchoring and Adjustment, Herding</i>
✓		✓	✓	✓	Observing competition			
✓	✓	✓		✓	Tenants' needs	End-user expectations		
✓	✓	✓	✓	✓	Portfolio management	Portfolio monitoring across asset type and location	Exploring divestment as a way of managing disruption	<i>Loss aversion</i>
✓		✓		✓	Interest in particular property types			
✓	✓	✓	✓	✓	Continuous asset evaluation	Investment alternatives		
	✓		✓	✓	Divestment	Risk distribution and redistribution		
✓		✓	✓	✓	Identification of vulnerable assets			
✓	✓	✓	✓		Market knowledge	Creating opportunities	Asset flexibility with a focus on maximizing returns	<i>Anchoring, Herding</i>
✓			✓	✓	Innovative ideas			
✓	✓	✓	✓	✓	Experience-driven			
✓	✓	✓	✓		Market research	Internal strategy and organizational procedure	Proactive in anticipating changing market conditions	<i>Herding, Anchoring and Adjustment</i>
✓	✓	✓	✓	✓	Internal strategy			
✓	✓		✓	✓	Teamwork and collaboration	Working with stakeholders within and outside the Trust		
✓		✓	✓	✓	Shared responsibility			

7.3.3 Adaptation to property market disruptions

As shown in Table 7.3 the interpretation of respondents' assertions also revealed several factors that influence the adaptive response of LPTs to property market disruptions. Whereas rational market considerations such as asset demand, supply, associated investment risk, return and regulations impact the adaptation of LPTs to disruptions as illustrated in the first eight rows of Table 7.3, behavioural tendencies that manifest in form of anchoring, herding, representativeness, loss aversion and personality traits were also deduced from this study. This further corroborates the interrelated role of rational and intuitive reasoning in adapting to property market disruptions. As stated by the respondents, the dual consideration of the rational and intuitive considerations manifest in form of investment flexibility, effective communication, innovative practices, proactiveness and divestment as LPTs adapt to market disruptions.

Some assertions that depict rational considerations in LPTs adaptive response to disruptions are stated below.

"In making justifications for investment preferences, it is easier when assets have really long leases or designed for alternative uses." (R3)

"Our adaptive decisions are driven by a number of things, but the most important aspect is investing in locations where we think we're going to get the best returns." (R4)

"There are some prerequisites to integrating new entrants to our organization. So now, if you join, part of your induction training is, you've got to do the green courses." (R5)

Intuitive tendencies are also exemplified below, with assertions of the research respondents used in clarifying the behavioural patterns that influence the adaptive response of LPTs to property market disruptions.

"... as a company, our portfolio distribution already signifies an Auckland bias, and the earthquakes accelerated that view." (R1)

“When acquisition or renovation budget is presented to the board for locations like Auckland or Wellington, we do not expect the same level of scrutiny as other locations because all our properties in these locations (Auckland and Wellington) have performed well and the board is confident and willing to keep those portfolios in the best form possible.” (R3)

“... from our chairman’s point of view, you know, he’s invested a lot of the family’s money in this. So, he’s, he’s not thinking about, pie charts or anything like that. In fact, he gets quite upset when you talk about pie charts.” (R4)

“Because I don’t get three-year loss of rents from insurance. I need to get the building fixed and operating as soon as I possibly can, and that requires being innovative.” (R5)

Indeed, the respondents are of the view that the optimum adaptation to property market disruptions can only be achieved through the adequate consideration of rational and behavioural factors.

Table 7.4: The institutional influences that impact the adaptive response of LPTs to disruptions.

R1	R2	R3	R4	R5	Codes	Initial Theme	Final Theme	Institutional Behavioural Resemblances (Isomorphic tendencies)
	✓	✓		✓	Market Group	Behaviour is influenced by group action and norms	Market pressure dictates investment behaviour and adaptive response	Normative
✓	✓		✓	✓	Tenant and customers			
✓		✓	✓	✓	Demographic composition			
✓		✓	✓	✓	Available Competition	Investors compete for tenant and occupant retention		
✓	✓	✓	✓		Customer expectations			
	✓	✓		✓	Market Participants	Market interaction varies with the investment environment		
✓	✓		✓	✓	Existing tradition			
✓	✓	✓	✓	✓	Investors' obligation	Adherence to regulations is compulsory	Compliance obligation to formal rules is a major determinant of property investment and adaptation strategies	Coercive
✓	✓	✓	✓	✓	Compliance with rules			
✓	✓	✓	✓	✓	Adherence to regulations			
	✓	✓	✓		Influence of Personality	Management and board dictate the process		
✓	✓	✓	✓	✓	Leadership pattern			
✓	✓		✓		Expected benchmark	Adaptation benchmark		
	✓	✓	✓	✓	Standard expectations			
✓	✓	✓	✓	✓	Market requirements			
✓	✓	✓		✓	Previous experience	Experience learnt across different organizations	Lessons from different LPTs contribute to overall investment and adaptation experience	Mimetic
✓	✓	✓	✓	✓	Organizational practices			
	✓	✓		✓	Personnel knowledge	Strategies adopted across board		
✓	✓	✓	✓	✓	Attracting professionals			
✓			✓	✓	Leveraging expertise	Investors observe what happens across their market ring		
✓	✓	✓	✓	✓	Observing market trend			
	✓	✓	✓	✓	Process monitoring			
✓	✓	✓	✓	✓	Similar actions			

7.3.4 The institutional influences that impact the adaptive response of LPT to disruptions

The respondents' assertions also provided evidence that aligns with the theoretical premise adopted in this study. The findings suggest that LPTs demonstrate normative, coercive and mimetic isomorphic tendencies as they respond to disruptions. Depending on the nature of disruption, the respondents demonstrate normative isomorphism by submitting to market pressure and norms, emanating from their relationship with different actors and organizations that operate within the investment environment. For instance, R2 and R3 stated that:

“The good thing about being part of a corporate group is the ability to observe what is happening within your circle and that helps in guiding your own investment choices. By observing what was going on in other Trusts, we were able to value risk more appropriately and take a position on our response strategy.” (R2)

“... if you look around, you'll see that the pre-Covid-19 relationship with suppliers, tenants, and financial institutions was what defined how well property trusts were able to negotiate and communicate during the first wave of Covid-19. If you know your circle well enough, you start to develop some level of trust amongst yourselves, and that really helps in managing systemic challenges.” (R3)

Also, the obligation and responsibility of LPTs to comply with regulations emerged from this study, which clarifies how LPTs demonstrate coercive tendencies. In this case, the adaptive response of LPTs follows a pre-defined regulatory obligation in order to be considered legitimate. According to R1 and R2:

“Government policy provides the basis upon which our strategies are developed. It cannot work the other way round. So we just have to comply to get going” R1

“At the initial stage of Covid-19, we quickly engaged with the Department of Health, and we understood their perspective, and we did our own thinking around what it was that we felt we needed to do to sort of discharge our obligations and then we started communicating.” (R2)

Evidence of mimetic tendencies was also found in the assertions of the respondents wherein experience of decision-makers across similar organizations have informed how LPTs responded to disruptions. The respondents also noted that LPTs constantly monitor the investment activities of their peers as they strategize on ways to adapt to the changing investment environment.

“I have learnt across various Trusts, and my overall experience is what I have brought into this Trust.” (R1)

“... we observed the approach of two, sort of big global flex space companies, we saw that they are emerging, particularly in North America. And for us, it was always gonna be a case of do we ignore this strategy? Or do we actually try to understand it and buy into it? You know, we chose to buy into it, drive it and use it and it has paid off.” R2

7.4 Chapter Summary

This chapter presents the research findings across case studies. Specifically, this chapter reveals that the disruption-driven decision-making strategy of LPTs involves a combination of pre-defined and impulsive components. Further, respondents from the LPTs involved in this study are of the view that the New Zealand property market is exposed to various forms of disruption, including seismic-induced disruption, global financial crisis, regulatory disruption, technological disruption, Covid-19 pandemic-induced disruption, demographic disruption, and climate change-driven disruptions. Evidence of rational and behavioural factors that influence the adaptive response of property investors to market disruptions were also highlighted in this chapter. Finally, the across-case analysis revealed that LPTs are influenced by normative, coercive and mimetic institutional tendencies as they respond to disruptions. The next chapter discusses the research findings.

CHAPTER EIGHT

Discussion

8.1 Chapter Overview

This chapter discusses the research findings highlighted in Chapters Six and Seven. The research findings informed the development of a model (see Figure 8.1) that illustrate the disruption-driven investment decision-making of Listed Property Trusts (LPTs) in New Zealand. In line with the research objectives stated in Chapter One, the research findings are discussed alongside evidence from the extant literature. The chapter is discussed under six broad headings. Section 8.2 describes the decision-making strategy of LPTs in New Zealand amidst disruption. Section 8.3 presents the factors that influence the disruption-driven investment decisions of LPTs from rational and behavioural perspectives. The adaptive response strategies of New Zealand LPTs to disruption is discussed in Section 8.4, and Section 8.5 highlights the significance of institutions in adapting to property market disruptions in New Zealand. The last section summarizes the chapter.

8.2 The decision-making strategy of LPTs in New Zealand amidst disruption

Decision-making has been extensively researched in the real-estate discipline as the major determinant of investment success (Hargitay et al., 2003; Roberts and Henneberry, 2007; Farragher and Savage, 2008). Although the traditional knowledge on property investment decision making is heavily drawn on the assumption that investors will only act rationally in a way that guarantees the maximum return on their investments, several studies have shown that property investors also demonstrate intuitive attributes that are subjective and behavioural (Gallimore et al., 2000; French, 2001; Gallimore and Gray, 2002; Parker, 2014; 2016). Also, because the property market environment is constantly evolving and does not model the ideal environment with perfect information that supports rational reasoning, scholars have argued that decision-makers will continue to adjust their investment preferences to suit the reality of the changing market environment (Dillion, 1998; Sah 2011; Nsibande and Boshoff 2017). Neither the people nor the market will always remain rational or efficient (Agarwal et al., 2016). The outcome of this study, therefore, aligns with the scholarly position in the extant literature as discussed in Section 2.2 that whereas several stage-based models have been proposed to simplify the decision-making process, decision-makers are also driven by

behavioural tendencies (which could lead to heuristics and biases) when confronted with investment choices.

The respondents in this study argued that the impact of market disruption in an investment environment comes with an additional layer of uncertainty that require investors to explore and adopt both rational and intuitive decision-making patterns. Although all the research respondents across the case studies recognize the essence of a structured, rational process in achieving pre-defined investment outcomes based on available market information, they were also unanimous in their view that market disruptions distort the perfect market environment that is synonymous with rational reasoning and therefore challenge the practicability of purely rational investment choices. Amongst other factors, the research findings suggest that decision-makers are usually confronted with time pressure and anxiety when making investment decisions amidst market disruptions, which makes it extremely difficult for them to reliably evaluate the available market information in respect of the different investment alternatives. Thus, the research respondents argued that investors often switch from rationality to rely on their intuitive reasoning or related experience in making investment decisions that align with the uncertain environment that is triggered by market disruptions.

The assertions of the respondents, therefore, extends the current understanding of property investment decision-making. In advancing the purely rational and intuitive decision making strategies, this study clarifies that disruption-driven investment decisions require both rational and intuitive reasoning. The study, therefore, aligns with the dual process of reasoning (Sloman, 2002; Evans, 2003), by clarifying the need to consider both the rational and intuitive tendencies of decision-makers and the investment environment in developing disruption-driven investment decision-making strategies. Although the interaction between rationality and intuition has been extensively explored in the wider literature on decision-making across different disciplines (Langley et al., 1995; Elbanna, 2006; Harteis and Gruber, 2008; Calabretta et al., 2017; Amidu et al., 2019), its express consideration in simplifying investment decision amidst uncertainties in the property investment literature is limited. Also, while most of the highlighted studies argue that either rational or intuitive reasoning is subservient in developing decision-making strategies, this study recognizes the matching significance of both approaches and the need to effectively integrate them in order to develop optimum decision-making strategies amidst disruptions.

In line with the objectives of this study, the decision-making strategy of property investors amidst market disruptions is summarized in Figure 8.1

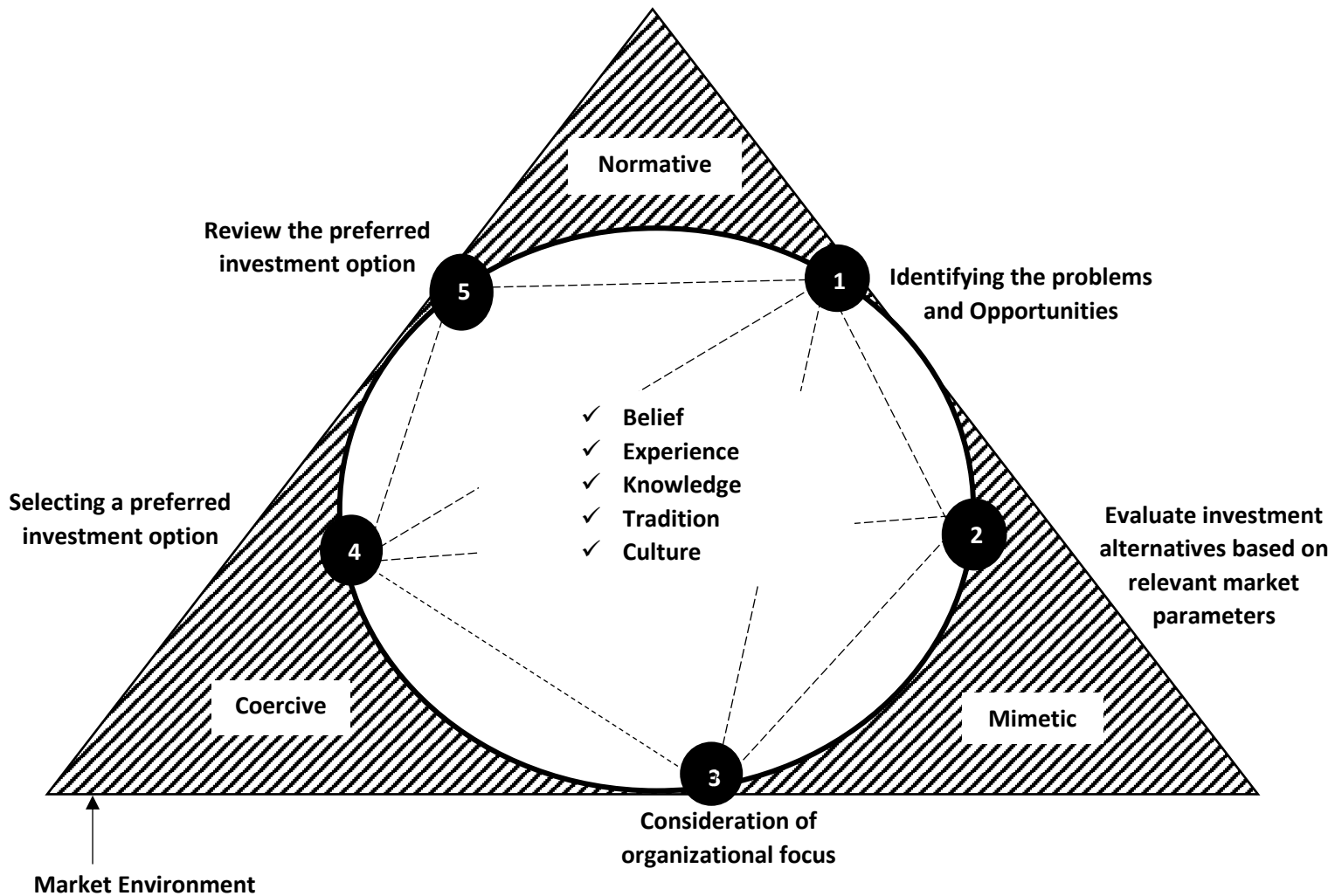


Figure 8.1: Disruption-Driven Investment decision-making of LPTs in New Zealand.

In describing the disruption-driven decision-making strategy of LPTs, as shown in Figure 8.1 above, the research findings suggest that the rational, stage-based decision-making component can be categorized into five distinct stages. These stages are listed below and are expected to be followed logically by property investors as they attempt to make investment decisions amidst disruptions.

1. The identification of the problems and opportunities associated with the type of disruption
2. The evaluation of possible investment alternatives
3. The consideration of peculiar organizational value or focus
4. The selection of a preferred investment option and
5. The review of the chosen investment option.

Although the stages mentioned above are expected to follow a rational process, the subjective nature of each of the highlighted stages and the reality of the changing investment environment makes it impracticable for investors to respond predictably to market disruptions. Similar to the submissions of (Adair et al., 1994; French, 2001; Lang, 2011) the respondents across the different LPTs argued that the disruption-driven investment decision-making of LPTs is greatly influenced by investor's risk perception and access to timely and relevant information, which is not predictable and cannot be quantified. The respondents noted further that a lot of unwritten rules are built into the process that informs their actual response to market changes. These unwritten rules which often emanate from the culture, belief, experience, knowledge or tradition decision-makers (as indicated in Figure 8.1) in the investment environment are demonstrated in form of intuitive behaviours (that could lead to heuristics and bias) that result in the partial circumvention of the rational process. For instance, when LPTs make disruption-driven decisions, the respondents argued that the decision-makers often leverage their experience, belief and knowledge in evaluating investment choices and preferences, thereby switching to their intuition within a rationalistic framework as clarified in Figure 8.1 and discussed in the next section.

Commencing with the identification of problems and the possible opportunities associated with market uncertainties, the respondents in this study argued that issues related to economic, political, technological, demographic and environmental concerns are paramount amongst other issues that they have had to adapt to, in the course of their real-estate career. In line with classical literature (see Adair et al., 1994; Lang, 2011; Isaac and O'Leary, 2011; Hoesli and MacGregor, 2014), the participants argue that there is a relationship between the risk and return associated with market disruptions. While some investors are risk-averse because they are mainly concerned about the negative consequences of market disruptions, others believe that risks can be managed to maximize output and create opportunities. Depending on the position of the investor, which is often influenced by experience, market knowledge, investment location and available competition, investors could skip the process of evaluating the available investment alternatives or consideration of investment values before selecting preferred investment alternatives. According to White (2018), such practices of taking mental shortcuts are common when decision-makers are faced with time constraints as they respond to market disruptions.

The next stage involves the evaluation of investment alternatives and it is at this stage that investors analyze their perception of the consequential impact of disruptions on their portfolio. The analysis involves market evaluation regarding the demand for a particular asset class, existing and possible competition in the delivery of similar assets, possible changes in rent and lease periods, the long-term impact of regulatory changes and the relationship between adaptation expenses and overall return on investment. As previously highlighted in Chapter Five, the interview findings also suggest that LPTs are willing to continuously adapt and adjust their investment decisions to changing market situations in locations with enduring demand and limited competition. For instance, some respondents argued that the devastating impact of earthquakes is not enough to leave the Wellington market because prime properties in this location will continue to be in high demand and only investors that continue to participate in the market will benefit from the market boom. Therefore, having identified the potentials of the market, investors have continuously enhanced the performance of their prime buildings despite the huge financial implications. Most investors have done this in line with the regulatory requirements and market expectations, in order to remain attractive to tenants while also generating a good return on investment. However, where LPTs are unable to establish enduring demand for their portfolio, the research findings suggest that they either divest their asset or minimize their investment exposure. Irrespective of asset demand, individual belief, experience and knowledge of decision-makers were reported by the respondents to impact the extent of consideration given to the evaluation of investment alternatives amidst disruptions. Depending on the type of organization, disruption driven investment decision is also subjected to internal scrutiny on how it aligns with the organizational value and focus, which is the third stage of the rational process illustrated in Figure 8.1.

After the consideration of available investment alternatives which are subject to changing market variables, LPTs assess the relevance of their investment preferences in accordance with the principles, standards and ethics of their organization. Apart from the market-oriented variables that affect investors' adaptive decisions, several studies, including (Gallimore et al., 2000; Lowies et al., 2016; Ball, 1998), have acknowledged the significance of internal bureaucracy in the overall decision-making process. Whereas some organizations are reactionary about their investment decisions, others are rigid about their focus on particular asset types, investment location and financial exposure (Meyer and Rowan, 2006). According

to Meyer (1977), the core values of organizations constitute the basis of their corporate existence and how they are managed as an entity, and in the context of this study, LPTs subject their disruption-driven investment decisions to stated organizational guidelines in terms of what they invest in, how they invest and where they invest. This practice is also consistent with their responsibility to shareholders as LPTs. According to the study conducted by Hargitay et al. (2003), major investment decisions are subject to shareholders' approval. The reality of market disruption and the consequent panic that it creates in the market, therefore, makes it more compelling for investors to ratify their adaptive responses within the internal strategic values of their organization in order to ensure effective management of uncertainties.

To further the stage-based decision-making strategy illustrated in Figure 8.1, investment considerations that align with the organizational focus of concerned LPTs are ratified at stage four of the model, while stage five, which involves the overall review of LPTs preferred investment option, is the final stage of the rational component of LPTs decision-making strategy amidst property-market disruptions.

The research findings indicate that disruption driven investment decisions do not follow a rigid process. This is because, as later discussed in section 8.3, several factors influence LPTs' decisions amidst disruptions and these factors vary with the type of asset, disruption, investment environment and the peculiar attributes of decision-makers. However, in advancing the scholarly view that there is no generally accepted procedure for property investment decision making (Sah, 2011), this study recognizes the complementary influence of both rational and intuitive factors that contribute to the adaptive decisions of property investors as they respond to market disruptions. The rational and intuitive factors are considered throughout the decision-making process and could lead to an established adaptive response amongst property investors. Section 8.3 describes the factors that influence the disruption driven investment decisions of LPTs in New Zealand.

8.3 Factors Influencing the Disruption-driven Investment Decision-making of LPTs in New Zealand

Neither rational nor intuitive reasoning can solely guarantee optimum investment decision as several criticisms of these investment approaches have been documented in real-estate literature (Dillion, 1998; Sah, 2011). Whereas the study findings suggest that rational reasoning is deemed to be appropriate by LPTs as a foundation for measurable investment choices, the LPTs also clarified that investment decisions that are made amidst disruptions are typically associated with intuitive reasoning. This is because investors are often speculative and anxious as they respond and adjust to market uncertainties. Having acknowledged that optimum investment decision making amidst market disruption is not definitive, factors that influence the rational reasoning of LPTs as they adapt to disruptions are highlighted and discussed in Section 8.3.1. Also, Section 8.3.2 leverages the current scholarly understanding in behavioural finance and psychology in highlighting behavioural factors that influence the intuitive reasoning that describes how LPTs adapt to disruptions. The major factors that emerged from the analysis are highlighted in Figure 8.2.

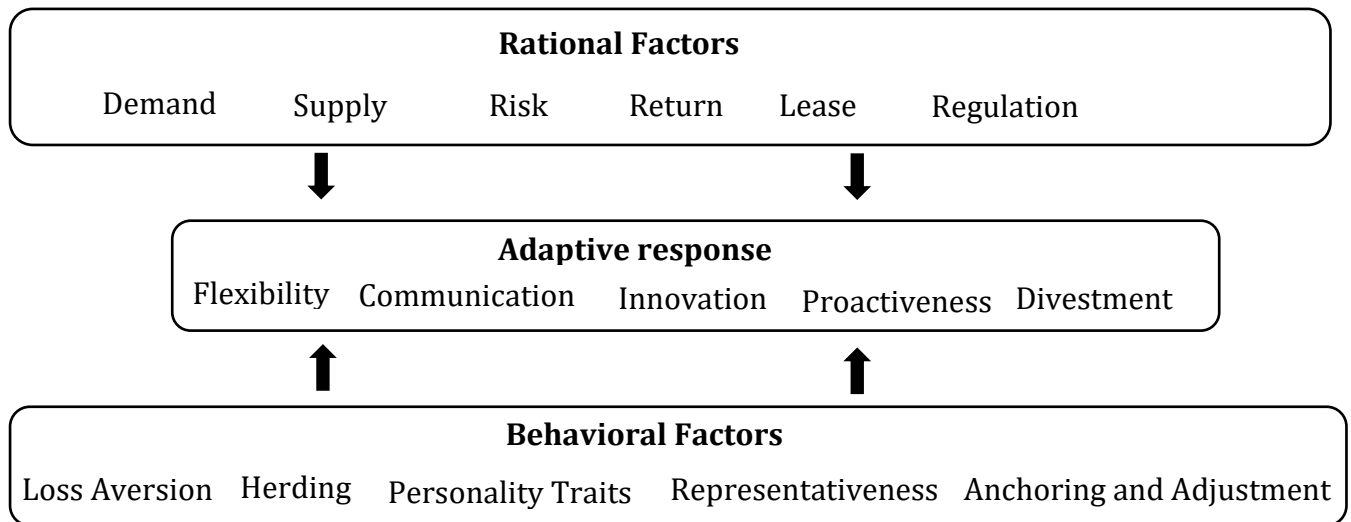


Figure 8.2: Adaptive response of property investors to market disruptions

8.3.1 Rational factors

Human actions can be deemed rational or reasonable in the context of specific expectations, or premises (French, 2001). Given the phenomenon of the market disruptions that are explored in this study, the conceptualization of rationality is theorized on the predictable, deliberate and

procedural response of LPTs to changing market conditions. These responses are made by decision-makers on the assumption of static and complete market information, with little consideration for the dynamic nature of the investment environment and the variables therein. As revealed by the respondents in this study, the basis for their rational reasoning, which is a major component of their decision-making strategy is premised on the fundamental market factors highlighted below.

8.3.1.1 Demand

All the respondents in this study acknowledged that asset demand is a major factor that influences their adaptive response to disruptions. Summarizing the respondents' viewpoints, the first question that investors tend to ask when developing response strategies to disruptions is 'to what extent will this disruption affect asset demand?'. The answer to the question consequently determines how investors rationalize and justify their financial and non-financial commitment towards developing adaptive strategies. Similar to the submissions of Kreimer et al. (2003) and Egbelakin et al. (2011) that the extent of investment required to keep an asset competitive or loss in value that may arise from market downturn are major determinants of investors' response to market uncertainties. The research respondents argued that demand analysis is integrated into their response strategies to market disruptions by initially identifying customers' expectations, needs and priorities. Afterwards, the identified expectations are evaluated in consideration of investment commitment and future demand to ensure the realization of value. For instance, the evolution of technology and demographic changes have redefined the standard attributes of retail and office spaces. More recently, customers' expectations have changed significantly in terms of where they work, how they work and what constitutes a satisfying shopping experience (Rosen, 2015). As a result, investors have had to respond appropriately in terms of investing in assets that meet customers' expectations and demand or risk losing their existing clientele. For assets that are not flexible enough to be adapted to the current market expectations, there is no rational justification for keeping them within the portfolio.

By aligning asset demand to the existing and future market needs, the research respondents stated that they are able to effectively manage the risks associated with market uncertainties and continuously monitor and review their adaptive decisions.

8.3.1.2 Supply

Similar to the demand for assets, the respondents also noted that the availability of assets that are suitable to meet the needs of their customers is a factor that influence their rational reasoning and response to market disruptions. They argued that their adaptive response to changing market conditions is influenced by the extent of competition emerging from LPTs that offer assets that provide similar services in their target market. Whereas disruption-driven investment decisions may not be easily justifiable in saturated markets¹⁰, the research findings suggest that it is easier for LPTs to rationalize their investment decisions and enhance value in markets with restricted supply, based on the limited options available to the end-users of the facilities. For instance, the extent of the capital expenditure required in responding to seismic activity and regulatory changes may not be easily justifiable in a saturated market, where customers can not differentiate a compliant building from a non-compliant one. This view is shared by Filippova et al. (2018), who argued that financial investment decisions aimed at improving the structural performance of buildings in seismic locations are difficult to justify in saturated markets, where the end-users are not willing to bear part of the financial burden due to the alternative assets available to them. However, for markets with a limited supply of particular assets, investors demonstrate their rational reasoning through their willingness to respond appropriately to market changes because they are more likely to pass the associated cost of adaptation to the end-users.

8.3.1.3 Risk

Investors in the real-estate sector have typically described property investment as multi-complex in terms of its risk management (Kapucu and Garayev, 2011; Isaac and O'Leary 2011). Hence the additional consideration of market disruption further compounds their challenges of devising effective risk management strategies. Indeed, no two property assets are the same (Sah, 2011) and depending on asset type, use, age and location, associated risks can vary significantly (Wilkinson, 2014). It is, however, the responsibility of asset owners (LPTs) to ensure that risk exposures are managed with minimal impacts on the concerned assets. According to the research respondents, this responsibility is demonstrated in the disruption-driven investment decisions of LPTs as they analyze their portfolio for different forms of risk

¹⁰ Markets with alternative options available to end-users at every given time.

(including tenant risk¹¹, income risk¹² and market risk¹³), in response to disruptions. These risks are usually estimated in terms of the vacancy rate, lease period and available competition, and their effect on the anticipated investment returns. Also, legislative, environmental, and technological considerations were highlighted by the respondents as components of the contemporary market forces that feature in their risk assessment strategies. In describing their adaptive response to market disruptions based on the availability of asset-specific data, the research respondents noted that they evaluate all the possible risk factors that could emerge from market disruptions and the impact on their investment projections. According to them, the evaluation is carried out based on market trends relating to political, social, and economic viewpoints.

For instance, assets that are in strategic locations are deemed to be able to attract more tenants and used for multiple purposes, compared to those that are located in remote or less populated areas. The respondents also noted that investment in flexible assets could be easily repurposed to other uses (e.g. retail to industrial and vice versa), which limits the risk of asset obsolescence and helps investors to respond adequately to changing market environment. Unlike assets that are homogeneous in nature such as equities and bonds, the heterogeneous nature of real-estate assets makes it difficult to model a risk management strategy across different classes of assets (Filippova et al., 2018). By specifically analyzing assets for peculiar risk, investors can devise practical ways of adapting to market disruptions and their associated uncertainties.

8.3.1.4 Return

Although well established in the traditional investment finance literature (Adair et al., 1994; Lang, 2011; Hoesli and MacGregor, 2014), ensuring a reasonable return on investment (ROI) was also considered by research participants as a logical component of their disruption-driven investment decisions. Returns from property investment could be recouped through rental income or an increase in asset value (Isaac and O’Leary, 2011), and according to Idzorek et al., 2007, it is a major factor that ratifies investment decisions. All the research respondents stated that their investment strategy involves careful and continuous consideration of all possible expenses that are associated with the acquisition and maintenance of their asset throughout its

¹¹ The tendency of losing major tenants to disruptions and the consequential impact on the viability of LPTs.

¹² The possibility of reduced income stream as a result of disruption.

¹³ The risk of being affected by overall market performance.

lifecycle. They noted further that the gross expenses are compared with the cumulative income that could be generated from the asset to determine whether they will be making profit or loss. Although the analysis mentioned above may be fairly straightforward in an ideal situation where investors have access to the information they require in making reasonable assumptions, the impact of disruption usually complicated the decision-making process due to unpredictable expenses and risks that investors would have to provide for.

Market factors such as pricing, interest rates, occupancy rate, and competition are influenced by market disruptions and have been proven to be major determinants of investment returns (Hoesli and MacGregor, 2014). For instance, by emphasizing enduring demand as the major determinant of their disruption-driven investment decision, the research findings indicate that LPTs are conscious of their potential ROI as they make relevant adaptive decisions. Also, the significance of risk-return tradeoff in investment decisions wherein investors associate high risk with high returns and vice versa was highlighted by the research respondents. Although some LPTs seem sceptical about specific types of disruptions, others demonstrated the willingness to incur additional expenses in responding to uncertainties in a stable market with potential growth. The expectation of ROI, therefore, emerged from this study as a determinant of rational investment decisions by LPTs as they respond to disruptions.

8.3.1.5 Lease

Lease duration also emerged from the research findings as a significant factor that contributes to the logical reasoning of LPTs as they strategize towards adapting to market disruptions. According to the respondents, a well-negotiated lease contract guarantees stable cash flow over the duration of the contract, which limits the redundancy concern that may emerge due to market disruptions. Although lease terms are usually determined based on the existing market information at the time of negotiation, most real-estate investors have continuously demonstrated their preference for long term leases that are associated with quality tenants (Isaac and O'Leary, 2011; Hoesli and MacGregor, 2014). In a rationalistic view, the investors believe that the longer the lease, the more stability they can introduce to their business.

Apart from the steady cash flow it generates, lease agreements also inform investors' willingness and commitment towards asset upgrade and remediation requirements (Kreimer et al., 2003). As exemplified by the research participants, the practicality of lease agreements to

accommodate additional expenses resulting from market disruptions is a major consideration for their adaptive decisions. For instance, while analyzing seismic-event disruption and their response to stipulated regulatory guidelines, most of the research respondents argued that their willingness to invest in strengthening to guard against the detrimental effects of seismic activity is informed by the extent to which they will be able to recoup their investment from the building occupants, in line with the lease agreement.

8.3.1.6 Regulation

The research respondents were unanimous in their view that regulatory compliance is a fundamental expectation of LPTs. Regulatory requirements could range from financial reporting, building code compliance, adherence to sustainability principles, conformity with client and tenant rights, and tax-related compliance issues (Egbelakin et al., 2011; Wilkinson et al., 2014). Whereas regulations are predominantly enacted by government authorities, professional organizations are also known to develop and implement guiding principles regarding the role of different actors in a typical market environment (Filippova et al., 2018). According to Kreimer et al. (2003), legislations are introduced to either minimize the impact of market uncertainties or encourage practices that would stabilize the market amidst disruptions. However, while some research respondents disagree with the application of some existing legislative interventions based on the argument that they are too rigid and should not be applied equally to all asset types and locations, they all expressed their resolve to comply with all regulations in their environment to be able to operate legitimately as a business entity.

The research respondents argued that adherence to relevant laws is an essential part of their business and their adaptation strategies are constantly evaluated in line with regulatory guidelines before being considered for implementation. Apart from its impact on their internal processes, the research respondents also stressed that regulations affect their inter-organizational interactions in the investment environment and it will be impracticable to work with other stakeholders in the property investment and management value chain without adequate regulatory provisions. For instance, there are stipulated laws that govern the transactions between LPTs, banks, insurance companies and end-users of property assets. The law highlights the terms and rights of market participants and the respondents agreed that it is an objective requirement of any investment decision.

Despite lamenting the multiplicity of legislation in the real-estate sector (e.g some investors believe that health and safety legislation should be merged with seismic risk regulations) and expressing some reservations about the effectiveness and relevance of some legislation in addressing market disruptions (for instance, some investors argued that the Building (Earthquake-prone Buildings) Amendment Act 2016 is insufficient in managing seismic risk by highlighting evidence of buildings that were below the expected threshold that survived earthquakes and those that were above the recommended threshold but were destroyed by earthquakes), the research respondents noted that regulatory compliance is a logical component of their adaptive response to market disruptions.

Whereas unexpected regulatory implementation can significantly alter the normal practices in the property market (as previously stated in Section 2.6.4) and can be considered as a form of disruption which may stir up uncertainty in the market (Desai and Sarmiento, 2015), the respondents noted that investors are expected to integrate the possibility of current and potential policy changes in their investment strategies. The research findings suggest that investors integrate regulatory expectations into their disruption-driven investment strategies, especially when entering into long-term contracts with other market participants in order to minimize potential litigations that could arise from the dynamic and heterogeneous nature of the property-investment market amidst changing regulatory requirements.

8.3.2 Behavioral factors

This section discusses the behavioural aspects of the disruption-driven investment decision making of LPTs in New Zealand. By recognizing that the market environment and its actors are unpredictable, this section illustrates the traits of LPTs as they gather and use information in reality. Thus complementing the rational view of the investment decision-making strategy. According to Kishore (2004), behavioural finance evaluates the actual ways that people explore in improving and predicting investment outcomes through their psychological attributes. Therefore, this section explores insights from the field of psychology and behavioural finance to categorize individual and organizational traits demonstrated by decision-makers and LPTs respectively as they respond to market disruptions. As reported by Seiler et al. (2013), besides analyzing the peculiar investment preferences of individuals, behavioural finance also provides clarity on corporate decision-making and financial planning. By analysing the responses of the

research participants, this section highlights the relevance of different behavioural factors (that could lead to heuristics and biases) in understanding human psychological phenomena as it applies to the disruption-driven investment decisions of LPTs. These factors are discussed below.

8.3.2.1 Personality trait

Personality has been described as the pattern of human reasoning and distinct attributes that dictates their perception, action and behaviour (Grum and Grum 2015). Albanese, 1990 also argued that personality is a relatively permanent psychological attribute that develops gradually and subjectively amongst individuals, which is difficult to reverse, once fully developed. Encompassing all aspects of human behaviour, personality traits have been adjudged to comprise elements of individual belief, principle, tradition, culture and experience as they evolve through different environmental situations in an individual's life (Chitra and Sreedevi, 2011). Several studies across the field of sociology and behavioural finance have documented the relationship between personality and decision preferences (Gardner and Steinberg, 2005; Borghans et al., 2008; Judge et al., 2004; Nga and Yien, 2013). Some of the explorations of these studies include the relationship between personality traits and sales performance, income derivation, career choice, political affiliation, and risk perception (Chitra and Sreedevi, 2011; Ben-Shahar and Golan, 2014). In the highlighted studies, personality is described as an identity, a measure or a compliance factor that guides people's preferences, orientation or association with a particular group or goal. However, despite the extensive review of personality in the wider business literature, the documented influence of personality in real-estate decision making literature is limited. Whereas Ben-Shahar and Golan (2014) attempted to investigate the relationship between personality and individual preferences on a series of housing tenure, mortgage and investment attributes, their study was focused on the rational conceptualization of the real estate market and the objective role of personality in correlating market preferences.

In this study, however, personality emerged as a behavioural trait that summarizes intuitive individual preferences and responses towards unpredictable market situations. The research findings provide clarity on the relationship between individual personality and the disruption-driven investment decisions of LPTs. Specifically, we found that individual belief, negotiation skill, market knowledge and disposition towards risk, impact the overall investment-decision making process at the managerial level. Although every individual is deemed to have a unique

personality that distinguishes them in terms of their behavioural orientation towards the attainment of set goals (Grum and Grum, 2015), this study suggests that market uncertainties often compel people to observe and rely on the personality-driven opinion of others that are perceived to be leaders or experts in the field or subject of concern. The respondents acknowledge the influence of personality at the board level deliberations, which is often informed by individual competence, perception and habits. According to them, the general perception of people's expertise or role within the decision-making team has formed the basis of some of their previous decisions as they responded to market disruptions. For instance, there were instances where the outcome of a response strategy was solely dependent on the chairman of an organization based on his disposition towards the pros and cons of the particular situation.

Having previously recognized that the decision-making process of property trusts involves a combination of rational and intuitive strategies (see Section 7.2), this study reveals that the extent of compliance with either of the strategies could be influenced by the personality of the decision-maker, especially the overall decision-maker that ratifies investment decisions for implementation. The orientation and willingness of the overall decision-maker (e.g. chief executive officer, chairman or whoever is so designated) towards risks and opportunities determine how efficiently property trusts respond to disruptions. For instance, the study revealed that most decision-makers at the managerial level often rely on their experience and belief, as they approve urgent actions that are needed to be taken in response to disruptions. The research participants argued further that some managers demonstrate 'risk-prone' behaviour during market disruptions as they independently suggest possible adaptive strategies without having complete information on the phenomenon under consideration. According to the respondents, such risky behaviours are attributable to individual personality. In their view, decision-makers whose personalities align with risk averseness perform below expectations amidst disruption, when compared to decision-makers that are willing to accommodate risk in order to address the challenges of market uncertainties. Essentially, decision-makers that are selfless in their pursuit of solutions and are willing to explore new horizons can respond quickly to market uncertainties, compared to the decision-makers that are laid back and would "rather be safe than sorry".

Although the significance of personality traits on investment decisions across financial markets have been extensively researched in extant literature (Chitra and Sreedevi, 2011; Rzeszutek et

al., 2015; Basic-Sontic et al., 2017; Gambetti and Giuberti, 2019), the explicit consideration of personality traits and its application to disruption-driven investment decision-making is limited.

8.3.2.2 Representativeness

Another behavioural factor that emerged from LPTs' disruption-driven decision making as demonstrated by the research participants, is representativeness. According to Tversky and Kahneman, (1974) representativeness can be described as the tendency of decision-makers to unconsciously attribute and evaluate the features of an event to connote another. By following mental short-cuts, representativeness implies and relies on stereotypes as a basis for making swift decisions (Waweru et al., 2014). Often useful in addressing investment decisions during situations of uncertainty as is the case in this study, Grover (2015) argued further that representativeness violates the principles of rational reasoning, by drawing heavily on intuition to form probabilistic judgements and opinions on investment preferences and possible outcomes. In exemplifying the relevance of representativeness in the disruption-driven investment decisions of LPTs, the research respondents argued that property investors usually rely on, and generalize, plausible solutions to a particular disruptive activity when responding to similar events, even when the impacts and consequences are not the same.

Further, the research findings suggest that investors do not follow all the highlighted stage-based approaches in their pre-designed investment response plan. Rather, they rely on their understanding of similar, past events and engage in mental shortcuts that help them avoid the need to analyze similar processes repeatedly. For instance, an investor whose portfolio was disrupted by the Asian financial crisis of 1997, may be tempted to apply the same strategy that worked for his organization during the global financial crisis of 2008 without a detailed evaluation of their peculiar differences. Also, the research participants highlighted instances when the strategies of a particular organization (such as peculiar asset focus, location preference, growth pattern and personal attributes of decision-makers) are considered to be typical standards of an ideal investment plan. By regarding the recent or past returns from such an organization to be a representative factor of what could be expected in future, the research respondents argued that investors are prone to behaving in the same manner or adopting the strategies of the referred organization.

Although representativeness is useful in making quick decisions, it has been documented in behavioural finance literature that stereotyping investment behaviour is prone to cognitive errors, which could worsen investment situations during market disruptions (Kreimer et al., 2003). This is because investors often make information processing errors, by assuming that similar events are more closely related than they really are. According to Grover (2015), the extent to which an event is representative of a general phenomenon is usually misrepresented as investors tend to overestimate their mental ability to adequately project the likelihood and relevance of previous events to a current incident. The respondents agree that rational market factors (such as demand, supply, risk and return) should not be dismissed, based on a representative outcome of a particular decision-making approach. The impact of today's diverse and dynamic market environment on investors ability to effectively apply simulated investment patterns and trends in different situations also highlights a major limitation of representativeness, which could lead to regrettable investment choices. Therefore, rather than relying solely on representativeness as a means of providing prompt response to market uncertainties, the relevance of representativeness in adaptive investment decision-making should be explored within the context of the relevant rational factors that are associated with the type of disruption that is being managed.

8.3.2.3 Anchoring

Anchoring refers to the tendency and possibility of making judgements based on the first set of information available to decision-makers when making investment choices (Diaz et al., 1999; Lowies et al., 2016), even when the information is irrelevant in the decision-making process (Scott and Lizieri, 2012). It explains why people focus on current activity, with little consideration for its long-term consequences. According to Lowies et al. (2016), anchoring traits are often demonstrated when negotiating amidst uncertainties. For instance, when making significant purchases, like houses and cars, people usually identify and align with a reference point for negotiation after looking at the price tag. To the prospective buyer, paying below the offered (referenced) price should translate to a fair bargain. Meanwhile, the seller at the other end of the transaction could use the anchor price to divert the attention of the buyer from considering the actual value of the item that is about to be purchased. The same principle is also applicable in the commodity and stock markets (Diaz et al., 1999). While it may seem an unusual phenomenon, scholars have argued that anchoring is extremely prevalent amongst

decision-makers in speculative markets, those in chaotic situations, and those that are attempting to act in novel circumstances (Scott and Lizieri, 2012; Lowies et al., 2016).

Evidence from this study, therefore, corroborates the existing arguments in the context of real-estate investment decisions. This is because the research participants argued that in the absence of a known order of pattern of behaviour (i.e. during market disruption), decision-makers could reference diverse information as they develop adaptive strategies, even when the consequences of making decisions based on such information is not clear. While explaining the role of anchoring in disruptive circumstances, the research participants argued that decision-makers speculate with the limited information that is available in the market. Although the respondents are aware that anchoring is an imperfect way of making investment decisions, they noted that anchoring is useful in providing timely responses to market uncertainties as decision-makers explore the investment choices available to them.

Whereas most of the existing studies on anchoring in the real-estate literature have described the role and impact of anchoring in terms of real-estate pricing and valuation (Diaz et al., 1999; Scott and Lizieri, 2012; Chang et al., 2016), this study provides evidence on the significance of anchoring in the intuitive responses of decision-makers as they adapt to uncertainties, based on limited market information. The study outcome clarifies that property investors initiate their disruption-driven responses with anchor information and constantly update their response strategy as new information emerges. For instance, the anchor information at the time of disruption could be that the share value of an organization is falling. In this situation, decision-makers may strive to ensure that the value of the share does not drop beyond its current state, where they think that such a drop could signify that the organization did not respond well to the market uncertainties. However, in reality, a drop in share value may not necessarily determine how well an organization has responded to disruption, which could then necessitate the consideration of other factors that were not explored hitherto. Also, the respondents in this study demonstrated anchoring as they benchmark the responses of their competitors in adapting to disruptions. This form of anchoring is noticeable when a particular asset type across different organizations is divested from a particular location or when compliance to regulation is prominent across different organizations in a particular location.

Indeed, anchoring is a form of behavioural tendency that decision-makers should be conscious of as they respond to market uncertainties. By doing so, the risk of making uninformed decisions that are based on limited information will be minimized. However, despite its relevance in making intuitive decisions, anchoring does not guarantee an optimum response to market uncertainties.

8.3.2.4 Loss aversion

The study findings also suggest that property investors tend towards minimizing the possibility of losses that are associated with disruptions than exploring ways of making gains when responding to changing market situations. This behavioural factor is termed 'loss aversion' and has been well documented in real-estate literature (Seiler et al., 2012; Levy et al., 2020). According to Grover (2015), loss aversion is a function of risk perception and preference, wherein people demonstrate risk-averseness due to their reluctance to accommodate losses. This behavioural tendency describes a significant asymmetry between losses and gains, wherein investors could weigh the impact of losses to be more significant than commensurate gains. For instance, the argument on loss aversion holds that an investor will ordinarily prefer to manage the risk of losing a dollar than the prospect of gaining a dollar. Kahneman et al. (1991), also argued that loss aversion can be expressed in terms of people's tendencies to gamble in loss situations, by holding on to loss positions in the hope that the market will recover.

Relating loss aversion to this study, the research respondents demonstrated their reluctance to accommodate possible losses that are associated with market disruption, as they develop their response strategies. According to them, it is often inevitable for investors to witness a drop in the value of their assets amidst disruption, however, owing to the responsibility of LPTs to their shareholders, they try to focus on strategies that will ensure that their share value does not drop, instead of considering ways of maximising possible prospects of advancing their market share. While referencing the role of loss aversion in their response to formal guidelines, the research respondents argued that they would rather invest in strategies that will ensure their compliance with market expectations, which will consequently impact the viability of their assets instead of holding on to the assets in a vulnerable state and eventually losing out to competitors. For instance, all the investors demonstrated their willingness to strengthen their

properties that are located in seismic regions to the extent that such properties meet the market expectations, despite the huge financial commitments involved. By doing so, they are able to retain their existing customers and minimize the risk of lease cancellations even when the lease income does not translate to commensurate gains.

However, as the respondents reflect the significance of loss aversion in their response to market disruptions, the extent of their willingness to hold on to potential losses in the long term is not clear. This is because, as discussed in Section 2.8, the long-term impact of some forms of disruptions could lead to market collapse, in which case could result in further losses for investors that try to minimise their loss exposure. According to Seiler et al. (2012) and Levy et al. (2020) in their studies on the management of loss aversion in investment decision-making, there is a need for investors to consider the prospect of making gains as an equally important phenomenon when making investment decisions. This study, therefore, posits that loss aversion should be explored along with rational market considerations when making adaptive investment decisions. Irrespective of investor type or experience, loss aversion is a common behavioural factor that is expressed by most property investment decision-makers (Seiler et al., 2012). Although it is usually a reflexive response to risk management, it can limit investors' long-term returns and overall market relevance.

8.3.2.5 Herding

Another fundamental behavioural factor that emerged from this study is that investors who deal with similar asset classes or operate in similar markets are prone to respond or adapt to market disruptions similarly. By imitating the practices of a group that is deemed to be better informed, Seiler et al. (2014) describes herding as a behaviour that is based on plausibility or speculations amongst competitors regarding a phenomenon, rather than the fundamental market values. Xu (2017) argued that herding behaviour in real-estate investment can be defined as an elusive concept, in which investors demonstrate the preference to follow the thoughts, ideas or actions of their peers while disregarding their own reasonable choices. Several studies in the real-estate literature have argued that herd behaviour could be premised on peer pressure to conform to certain values or beliefs of others, in order to be accepted to a group (French and French, 1997; Zhou and Anderson, 2013; Seiler et al., 2014) or the general notion that it is unlikely that a group decision is wrong (Akinsomi et al., 2018). Either way, investors that demonstrate herding behaviour believe that the herd has access to certain information that they are not aware of and

they would rather submit to the collective behavioural pattern than follow a pre-defined, rational course of action. As demonstrated in this study, herding behaviour is prevalent in situations of uncertainty or when the decision-maker does not have enough experience in dealing with a particular situation.

The research participants reported that, when responding to market uncertainties, they observe the strategies of their competitors since they are assumed to be reacting to the same set of market parameters. In their view, even the most experienced investors are sceptical in their adaptive responses to market disruptions due to the obscure nature of the available information and their reluctance to make uninformed decisions. As a result, investors observe the responsive actions of their peers, especially those that are deemed to be experienced and competent in their craft. The research respondents argued that by conforming to peer judgment, their adaptive response becomes more psychological than rational. This is because investors' adherence to a general opinion is not usually based on a clear outcome, rather it is based on the fear of not being left behind and the notion that the majority are not likely to be wrong. The Covid-19 pandemic was referred to by all the research respondents as a typical example that models a situation where property investment decision-makers demonstrate herd behaviour. In their view, the disruption caused by Covid-19 was novel in real-estate management history, and the extent of its impact on the market could not be clearly defined, six months into the pandemic. Despite the regulatory guidelines and intervention provided by the government to minimize the disruption and stabilize the market, most investors did not base their adaptive response solely on the regulatory provisions. Rather, they continued to observe, share information, and benchmark the strategies of their peers in responding to the phenomenon. The research participants clarified further that the decisions they made regarding lease reviews, communication strategies and rent holidays were based on the observed actions of their peers, as a way of measuring market expectation of an appropriate response strategy.

Similarly, the research respondents stated that herd behaviour is prominently demonstrated as investors adapt to technological innovations that drive efficiency in the market. According to them, most of the technological, innovative practices in the commercial real-estate space are linked to imitative behaviour wherein an investor replicates a modelled strategy that is trending in the market sector or location. For instance, since the evolution of smart buildings that make use of technology to analyze building information in order to optimize its performance, many

investors have upgraded their contemporary buildings so as to conform to the assumed model of efficient buildings. Irrespective of their long-term investment plan, many investors now have contingency plans for technological upgrades, to remain competitive in a highly dynamic market environment. Rather than contradicting the herd behaviour, investors reported that the limited access to information amidst disruption requires them to explore all possible sources even when they are irrational. Therefore, by sharing ideas and information with contemporaries, colleagues, and competitors, they are usually able to align their adaptive strategies to the general perception of an ideal response.

Also, based on the notion that the goal of every investment manager is to act in the best interests of the clients, the research participants stated that there are tremendous challenges associated with client scrutiny when managing market disruptions. Owing to market anxiety amidst limited verifiable information, the respondents argued that investors (i.e. shareholders) will often judge LPTs' response strategies, based on what is trending amongst their peers in the market. For instance, major shareholders could reference an investment gimmick that is gaining popularity during market disruption, with the hope that the investment manager adopts a similar strategy. In many instances, the investment manager will reluctantly follow the group decision, even when he is not totally convinced of the possible outcomes. After all, if the group strategy works out, the clients will be happy, and if it doesn't, the investment manager will feel justified to have followed the general view. While herd mentality is useful in providing quick responses to disruptions, it does not guarantee optimum investment decisions (French and French, 1997; Seiler et al., 2014). It is also difficult to ensure that investors are joining the herd at the right time when the trend has not peaked. Therefore, to effectively explore group behaviour in adapting to market uncertainties, decision-makers must apply the herd mentality cautiously, within the context of the rational market principles.

8.4 The Adaptive Response Strategies of New Zealand LPTs to Disruption

Based on the consideration of rational and intuitive attributes elucidated in the previous sections, the actual response of LPTs to disruption-driven investment decisions, as revealed by the research participants, are discussed through the major themes highlighted below.

8.4.1 Investment flexibility

Despite acknowledging the conventional argument that property assets are inflexible as an asset class (French, 1996; Gigerenzer and Selten, 2001), the research respondents noted that the effective management of property assets requires flexible modalities, especially amidst the uncertainties of market disruptions. In demonstrating their adaptive response to disruptions, the respondents generally argued that it is not appropriate for investment managers and decision-makers to ignore change, by being rigid in their disruption-driven investment decision-making approach. Rather, they should be flexible enough to embrace market changes as quickly as possible by adjusting their existing investment strategies to the reality of their changing investment environment, to minimize potential losses and reap the associated benefits. As previously stated by Ciaramella and Dall'Orso, (2021), a greater percentage of successful investors are flexible in their investment and management approach as they respond to opportunities and threats that are associated with market upturn and downturns.

In the respondents' view, the long-standing tradition wherein real-estate investors demonstrate rigidity in signing long-term leases for a particular use across their portfolio is gradually becoming less attractive to contemporary investors owing to the ever-changing business needs and customer expectations. They stressed further that the lessons learnt from previous disruptions have made it imperative for investors to consider short-term, flexible leases and on-demand use of spaces across their portfolio. For retail assets, the research participants stated that the impact of changing demographics and technological evolution has altered customer expectation of an ideal shopping centre, and as decision-makers, they have responded accordingly by embracing e-retailing and investing in strategically located warehouses with multiple access routes to their target market. While some of the respondents argued that bricks-and-mortar retail should be less emphasized, others believe that traditional retail assets are still relevant, but should be upgraded to incorporate essential lifestyle activities that will attract customers' interest beyond the fundamental purchase of goods and services. Also, as office owners respond to the changing need for space that resulted from Covid-19 disruption and the availability of technology to drive remote operations, the research participants stated that their actual response to the changing work pattern of their customers was to review the existing lease contracts with the affected customers and reconfigure available spaces to fit on-demand, multi-use functions.

To ensure that their portfolio is resilient to market changes, the respondents in this study also stated that disruption-driven investment decisions should be flexible in seeking and incorporating employee and customer feedback to ensure efficient allocation of resources. Compared to other industries like manufacturing and construction that seem to have embraced the reality of market changes and have integrated flexibility into their adaptive strategies, the research respondents agree with scholars (such as Riddiough and Steiner, 2020; Bancel and Mittoo, 2011) that the real estate industry as a whole is not quick to adapt to changes, and transit from conventional practices. However, due to the complexities and uncertainties around disruptions, the respondents were unanimous in their opinion that flexible investment strategies are essential in providing efficient and informed responses to market changes, in a way that does not compromise the expectations of their customers.

8.4.2 Proactiveness

The significance of proactiveness in the disruption driven investment decisions of LPTs also emerged from this study. Amongst other lessons, the narration of the research respondents revealed that previous disruptions taught them to be prepared for uncertainties. Therefore, rather than panic during market uncertainties, the respondents emphasized the need to remain calm and aggressive in seeking appropriate ways to minimize the negative impact of market disruptions on their portfolio. In their view, with the right stakeholder engagement strategy, market knowledge, marketing techniques and up to date insurance plans, investors should be able to anticipate possible disruptions and proactively plan to minimize the impacts instead of waiting for the disruptions to manifest. Although the significance of being proactive as decision-makers have been previously highlighted in the research conducted by Edwards and Seabrooke (1991), Hebb et al. (2010) and Teicher, (2018), the research respondents stressed that being proactive amidst market disruptions could quickly differentiate successful investors from unsuccessful ones. For instance, during the first wave of the Covid-19 disruptions, investors had the option to either ‘sit and wait’ for the lockdown to ease before engaging their stakeholders or take ownership of the situation as it emerged. Indeed, the respondents reported that proactive investors that deployed technology to interact and engage their customers were able to minimize Covid-19-related uncertainties and simultaneously evaluate their response to the market changes on an ongoing basis. According to Cook (2015), being proactive in the use of technology to streamline business activities in line with key performing indicators is

something that needs to be done continuously given the constant evolution of technology and its applicability in the real estate space.

Proactive investors are not only aggressive, they are also aware of the unpredictable nature of the market (Hebb et al., 2010). This view corroborates the perception of the respondents that experienced investors will not wait for a perfect moment to respond to disruptions. Instead, they will be willing to explore alternative strategies that could minimize their exposure to potential losses that could arise from the market disruption. Although being proactive does not automatically guarantee optimum choices, especially during disruptions (Teicher, 2018), the respondents argued that it offers the minimum benefit of pre-empting market uncertainties.

The proactive actions of the research participants were also demonstrated in terms of how they quickly reassess their short-term and long-term goals when responding to disruptions. By promptly cutting down on avoidable costs, renegotiating leases with their customers and adjusting profit-and-loss forecast based on the reality of the possible changes in expected cash flow, the research respondents stated that they were able to realistically engage their stakeholders and consequently minimize their anxiety. Consistent with the view of Isaac and O'Leary (2011), the research respondents submitted that when financial performances are closely monitored, investors can respond a lot better to market changes. The proactive actions of property investors were also demonstrated in terms of how they manage their human assets, as the respondents shared the view that organizational success is partly dependent on how employees are treated. As a result, they signified their commitment to engaging and training their employees regularly on the possible impacts of market disruptions and how they are expected to respond to unexpected events.

8.4.3 Communication

In further clarifying the disruption driven investment decisions of LPTs, the study findings revealed the significance of effective communication throughout the decision-making process. Indeed, the research respondents see themselves as market leaders, whose actions or utterances could make or mar the already complex phenomenon of market disruption. They, therefore, emphasized the need for their perceptions and actions regarding market disruptions to be carefully communicated to market participants. In accordance with the previous studies

conducted by Farragher and Kleiman (1996) and Hillenbrand et al. (2021), the outcome of this study reveals that real-estate shareholders and customers look up to professional and experienced investors for credible information during uncertainties, with a view to leveraging their experience and market insights in analyzing and reacting to market uncertainties. However, despite being aware of their leadership role in the market, the research respondents noted that their inability to access credible information amidst disruptions often hinder their ability to provide clear answers to the complex questions that are associated with market uncertainties. The research respondents noted that making tough decisions on market trade-offs and communicating in a simple and concise form to diverse audiences is one of the topmost challenges they face in adapting to market uncertainties. Yet, they agree that effective communication remains imperative to efficient disruption-driven investment decisions. The good news however is that the research participants believe that by keeping the communication channel open to all stakeholders to reassess collective goals, encouraging dialogue and evaluating feedback, they are able to respond more effectively to market disruptions.

In driving effective communication, the research respondents recognize the influence of emotion on stakeholders' anxiety and as a result, they believe that effective communication should be focused on minimizing market apprehension that could lead to uninformed decisions. Clarifying further, the respondents argued that effective communication should emerge as crises evolve, such that it gradually helps concerned stakeholders to make sense of specific disruptions and their consequences. As previously reported by Simon et al., (2015), the research respondents also highlighted the need for investors to explore multiple channels of communication and also disseminate information in a frequent manner. According to them, market disruptions could hinder people's ability to adequately comprehend information, which makes it important for property investors to ensure that actionable information is disseminated clearly and recurrently. The research respondents also believe that information should be appropriately framed before being communicated to the relevant stakeholders. This is because people are more likely to respond to do's than don'ts during disruption (Chan et al., 2003). Hence, by framing information positively, LPTs are able to leverage people's perceptions to provide information to them, in a way that they truly understand.

Aside from managing disruptions, effective communication also helps people to connect with the bigger picture¹⁴ (Hillenbrand et al., 2021). Referencing previous disruptions, the research respondents were unanimous in their view that disruption will come and go. However, they noted that LPTs should be clear in communicating to their stakeholders, what their organization stand to lose or benefit from the disruption in terms of their goals and shared values. By being honest about what is known and unknown, LPT can renew stakeholder confidence and minimize market speculations through effective communication that infuse understanding and renewed sense of purpose.

8.4.4 Innovation

To most of the research respondents, the disruption-driven investment decision of LPTs manifests through innovation, re-invention or revitalization of their existing investment strategies. According to them, overreliance on previous practices to solve emerging challenges is not realistic. Hence, the need for LPTs to constantly innovate to remain relevant in their target market. Unlike other industries that are swift in responding to change, the real estate industry is reluctant in accommodating change (Hebb et al., 2010) and the research respondents believe that this is a major reason for its slow response to market uncertainties. Nonetheless, the research findings suggest that LPTs tend to innovatively reassess their processes, with the intention of phasing out outdated practices that could hinder their ability to respond appropriately to market disruptions. For instance, to get the LPTs up to speed in terms of information gathering and dissemination, which is a major determinant of their disruption-driven investment decisions, the respondents argued that traditional practices involving manual consultations are being replaced with innovative technological solutions that drive efficient information gathering and management.

In demonstrating how innovation is integrated into the disruption-driven investment strategies across their respective LPTs, the research respondents revealed that they engage their employees, customers and shareholders through collaborative workshops, where they deliberate on disruption related issues and the possible impact on their organization's vision, strategy, values, resource allocation, governance and risk tolerance. By anticipating future trends based on current circumstances, the research respondents revealed that they are able to

¹⁴ Post-disruption market activities.

develop creative ideas (within their organization and in collaboration with relevant external organizations) that promote investment viability and resilience on an ongoing basis.

Further to the internal innovative practices of LPTs, disruptions could also trigger unexpected challenges that require the intervention of experts that are external to the LPTs. According to the respondents, such challenges in the context of New Zealand LPTs are often associated with environmental hazards, especially earthquakes and its aftereffects. For instance, the respondents admitted that they are not earthquake experts, yet they are expected to make decisions regarding seismic disruption whenever the need arises. Therefore, they integrate the technicalities of seismic strengthening and resilience into their disruption-driven investment decisions. Specifically, the respondents stated that seismic experts are usually consulted as part of their innovative approach, to evaluate the vulnerability of their assets to seismic hazards on an ongoing basis and as new information emerges.

In line with the argument of Veuger (2018), that innovation is a significant attribute that differentiates leaders from followers, the research respondents posit that LPTs are currently looking beyond minimizing the impact of disruption on their portfolios. By using technological tools, LPTs innovation in managing disruption has yielded significant expansion in their value proposition, diversification in their service provision and the use of alternative business channels through the innovative use of robotics, virtual reality, information modelling and augmented reality to facilitate e-commerce. This submission aligns with the position of Thompson (2015), who argued in his research on innovation in property management that the real estate industry needs to get ahead of the ever-evolving technological environment in order to consistently meet consumer expectations. For investors to remain relevant amidst disruptions, they are expected to embrace game-changing strategies that transcend self-devised adaptive response (Veuger, 2018).

8.4.5 Divestment

According to the research participants, divestment is an unconditional part of their disruption-driven investment strategies, given the reality of the changing market needs and expectations. Whereas the submissions of the research respondents suggest that some of them divest too early or too late in response to market disruption, they are all unanimous that a well thought through

divestment decision would not only strengthen the core focus of an organization amidst disruption, but also enhance value creation for shareholders. While the literature on property investment is extensive on the significance of divestment in investment risk management (Glascock et al., 1989; Liow and Ooi, 2004; Isaac and O’Leary, 2011), real-estate trusts are typically geared towards buying assets than selling (Stringer, 2001). However, studies have shown that asset disposition is just as important as acquisition in the effective management of an overall investment portfolio (Pottinger et al., 2002; Liow and Ooi 2004), as this study findings reveal that most LPTs have a dedicated team that evaluates organizational portfolio objectively, identify assets that do not align with their business trajectory and develop de-integration strategies for obsolete assets in a way that stakeholders’ perspectives are taken into account.

Also, following the argument of Stringer (2001), that a professional investor should approach divestment with the same level of detailing and rigour that he would apply to acquisitions, the research participants stated that they monitor the timing of their divestment decision to maximize value. In their view, non-adaptable assets are better traded in the market, when the prospective acquirers can access the assets for value and potential growth. Instead of watching an asset lose value due to underperformance resulting from market disruptions, investors should be quick and unsentimental in deciding whether an asset has potentials within their portfolio or not. For instance, some investors responded to changing seismic regulations and earthquake hazards by divesting their assets that fell short of the expected regulatory requirements despite being operational. According to the investors, having established that the financial commitment towards strengthening some assets to an expected standard may not justify a good return on investment in line with their organizational focus, the decision to divest was quite easy for them to make. Market projecting on the emerging role of technology in promoting e-retailing was also reported by investors as a major factor that triggered their decision to divest as a way of adapting to technological disruption.

Divestment does not necessarily suggest a failing business strategy (McAllister, 1999). Rather, it helps investors to shed unnecessary weight in terms of underperforming assets and focus on the assets that matter and could drive the realization of the core investment objectives of their organization, in line with market reality.

8.5 The Significance of Institutions in Adapting to Property Market Disruptions

In furtherance of the rational and behavioural factors (see Sections 8.3.1 and 8.3.2) that influence investment decisions amidst disruptions, this study also clarifies the role of institutions in the disruption-driven investment decisions of LPTs in New Zealand. Following the responses provided by the research participants in addressing the objectives of this research, this study affirms that real-estate market operation is governed by both formal and informal guidelines. These guidelines, which manifests as institutions have been described as “*the rules of the game in a society or, more formally, the humanly devised constraints that shape human interaction*” (North, 1990, p.3). As with other forms of decision-making in the investment environment, the research respondents revealed that the disruption driven investment decisions of LPTs is conceptualized within the framework of social norms and conventions, legislative expectations, and individual creativity. This revelation complements the existing argument of researchers (such as Keogh and D’Arcy, 1999; Hodgson, 2002; Agboola, 2015) that conceptualizes the market as a multi-complex system of hierarchical interplay, comprising different actors, whose interactions define the acceptable standard and limitations in the market.

Consistent with the argument of Keogh and D’Arcy (1991 p.2401), that “*the concept of property market efficiency remains poorly developed and inadequately theorised despite a growing body of empirical research on the issue*”, this study posits that information availability and processing is greatly influenced by behavioural tendencies and interactions within the investment environment, rather than a set of predefined criteria that is modelled towards efficiency. This critique of property-market efficiency suggests that market information is not static and can, therefore, not be modelled solely within a rationalist framework that assumes the availability of complete and accurate information. The research respondents agree with the submissions of French and French (1997), Gallimore et al. (2000), MacCowan and Orr (2008) that a typical market environment represents an intricate network of diverse behavioural influences emanating from different cultures, traditions, beliefs and laws of the constituent actors or organizations. In the context of LPTs, the respondents noted that these behavioural influences could be internal or external to the organization and are capable of gradually and constantly changing the existing trajectory of the market through standardization of practices and establishment of routines. Indeed, the role of human agents as drivers of activities within

the market environment is recognized in this study as a major trigger of responsive, adaptive practices in the investment environment.

Having indicated that property markets do not exist in a predefined state and are not practicable to base disruption-driven investment decisions solely on pre-conceptualized market indicators, the research respondents acknowledged the significance of human experience and knowledge, as a central phenomenon, upon which habits are conceived based on historical events in the investment environment. According to the research findings, the response of LPTs to market disruptions is usually drawn from interactions (formal or informal) amongst market actors and organizations in similar situations. The respondents argued that humans as discursive agents have continued to recreate market structures through innovative and mutually constructive strategies that recognize both rational and intuitive reasoning in minimizing the impact of market disruptions. Therefore, contrary to the purely rational, responsive models proposed by Farragher and Kleiman (1996), Roberts and Henneberry (2007), and Farragher and Savage (2008), the participants in this study suggests that the adaptive responses of property investors should recognize the role of different actors and accommodate their divergent and salient views, especially because such views emanating from individual actors or organization in the market could offer legitimate perspectives and practical approach towards adapting to disruptions. In the face of increasing global disruptions in the real-estate sector and consistent with the description of isomorphic tendencies in Chapter Three of this thesis, the research respondents provided insights on the emergence and the overlapping roles of institutions in conceptualizing the disruption-driven investment decision of LPTs in New Zealand. Based on the comparable operational tendencies demonstrated across the different cases explored in this study, the disruption-driven investment decision of LPTs in New Zealand is discussed in various isomorphic contexts below.

8.5.1 Coercive tendencies

Coercive isomorphism has been described as the propensity of organizations that are subjected to institutional pressures to act in a certain manner that demonstrates their submission to the command of other organizations, upon which they are dependent (DiMaggio and Powell, 1983). Edwards et al. (2009), argued further that coercive tendencies could stem from direct or indirect pressures, wherein powerful organizations mandate other organizations to comply with certain expectations in a particular context before they could gain acceptability or be seen as

legitimate. In explaining the susceptibility of their organizations to coercive tendencies as they adapt to market disruptions, the research respondents affirmed that their disruption-driven investment decisions are constantly developed to conform to the expectations of governmental organizations as described in relevant legislations. In their view, and as described in Figure 3.2 (Keogh and D'Arcy, 1999), governmental and other regulatory agencies are superior market actors in the institutional hierarchy that dictates the expected response strategy to possible challenges in the market environment. Whereas the respondents noted that the provisions of market regulations are not absolute as they do not accommodate unpredictable disruptions, they emphasized their consideration and submission to the market pressure emanating from the formal market regulations in order to remain legitimate as an investor in the property market. The perceptions of the research respondents regarding the significance of formal market pressures and the need for compliance corresponds with similar studies such as DiMaggio and Powell (1991) and Scott 2008 that have identified legislative authorities as the main drivers of coercive isomorphism.

Aside from the formal regulatory requirements emanating from governmental agencies, this study also reveals that LPTs conform to indirect coercive pressure that emanates from the expectations and perceptions of their customers and shareholders, similar to what has been documented in the literature (Williamson 1985; North 1990; Mizruchi and Fein, 1999). According to the research respondents, persuasion from customers and shareholders (which is expected due to the multiplicity of information in the investment domain and the uncertainty of investment outcomes amidst disruption) influence the disruption-driven investment decisions of LPTs and trigger their coercive tendencies. For instance, the research findings suggest that LPTs demonstrate coercive tendencies by consulting with market actors as part of their decision-making strategy, to evaluate the viability of their investment choices amidst disruptions and the consequences it portends on their investment portfolio. Although organizations may act contrary to their own judgements as they submit to coercive pressures (Edwards et al., 2009), the research outcome indicates that LTPs are likely to reduce their tendency to make uninformed decisions when they submit to coercive pressures. According to the research respondents, the supervisory roles of governmental and non-governmental agencies in the market ensures deep evaluation and accountability in the consideration of the consequential impact of their disruption-driven investment decisions.

8.5.2 Normative tendencies

The significance of normative isomorphic tendencies also emerged from this study. According to DiMaggio and Powell (1983), normative pressures emanate from the collective judgements of actors within specific organizational environments, groups or professions. Unlike coercive pressure that emphasizes compliance, normative pressure stems from conformity with an assumed norm (Mizruchi and Fein, 1999), which is often exemplified in form of educational achievement, professional membership or skill accreditation as a means of demonstrating legitimacy. For instance, property investors could demonstrate compliance to normative pressures by adhering to the tenets of professional property organizations (such as the Property Institute of New Zealand (PINZ) and the Royal Institute of Chartered Surveyors (RICS)), to gain recognition and legitimacy. Corroborating the conventional belief that individuals or experts within a particular group or profession are deemed to demonstrate homogeneous traits and attributes in their pursuit of legitimacy (Salomon and Wu, 2012), the research respondents argued that the disruption-driven investment decisions of their LPTs are developed with detailed consideration of the ethical norms of the real estate profession.

Further to the assertion of DiMaggio and Powell (1983), that professional network within an organization is an important vehicle for disseminating institutional norms and practices that are expected to collectively enhance organizational culture, routine and continued relevance, the research respondents affirm that the ambiguity and uncertainty associated with market disruptions compel decision-makers across LPTs to seek and adjust to social networks within their organizational environment to ascertain appropriate response strategies. Despite having their in-house strategic response to market disruptions, the respondents argued that they are obliged to comply with normative pressures emanating from professional organizations and other market groups in order to demonstrate their consciousness of stakeholders' expectations and adherence to institutional norms. For instance, attending a training session organized by a professional organization may not be necessary, having gone through similar training in a more formalized context. However, LPTs are likely to repeat the same training, just to gain accreditation and enhance their brand outlook.

Whereas the pressure from professional agencies is driven by the need for decision-makers to demonstrate conformity with assumed best practices (Mizruchi and Fein, 1999), the research

findings indicate that the extent and relevance of such ‘best practices’ in the context of market disruptions is not static.

8.5.3 Mimetic tendencies

The research respondents also reported that disruption-driven investment decisions could necessitate imitation of established or emerging trends in order to be perceived as legitimate. This form of institutional pressure to follow an established pattern is described as mimetic isomorphism (DiMaggio and Powell, 1991) and it is commonly demonstrated in uncertain circumstances, where organizations model themselves on referenced behaviours (Mizruchi and Fein, 1999; Martínez-Ferrero and García-Sánchez 2017). According to DiMaggio and Powell (1983), when organizations are faced with unprecedented phenomenon and the appropriate line of action is not clear, they exhibit tendencies to follow the actions of an organization that is deemed to be legitimate. The modelled organization usually represents the acceptable standard of appropriate actions and may not be aware that its actions are being replicated (DiMaggio and Powell, 1983). The research respondents noted that the unpredictable nature of market disruptions and the ambiguous nature of the property-investment environment makes it imperative for them to demonstrate mimetic isomorphic tendencies. They stressed further that their submission to mimetic isomorphic pressures is usually driven by the need to provide an urgent response to market changes despite the limitation of credible information. Similar to the argument of Galaskiewicz and Wasserman (1989), the research respondents also revealed that the realization of optimum results is usually not their goal when they mimic peer activities. Rather, the sense of “doing something” or being perceived to be aligned with the actions of successful organizations motivates them towards mimetic isomorphic tendencies.

Whilst explaining further, the research respondents argued that their mimetic tendencies could originate from the imitation of obvious attributes of acceptable practices amongst their peers or through the influence of individuals that move across organizations, in which case, salient ideas or practices of their previous organizations is replicated to enhance performance in their current roles. The respondents’ view corroborates the submission of Mizruchi and Fein (1999), that mimetic isomorphism can be demonstrated through the deliberate recruitment of professionals from a target organization that is deemed to be successful. According to them, such transition provides the opportunity for LPTs to model an acceptable and culturally guided

form of behaviour, in order to maintain competitiveness within the larger organization and minimize the risk associated with interest disorientation. Although mimetic tendencies do not guarantee an optimum response to market uncertainties, they provide benchmarks for acceptable behaviour in a disrupted environment and as such, could motivate organizational strategies that can improve existing processes (Immergut, 1998; Yang and Hyland 2012).

8.6 Chapter Summary

This chapter provides a holistic and detailed understanding of the disruption-driven investment decisions of LPTs in New Zealand. By relating the study findings with the existing knowledge in the research area, evidence of the complementary and contradictory nature of the study findings was discussed to provide deep insight on the research aim and highlighted objectives. The overall research summary and conclusion are presented in the following chapter.

CHAPTER NINE

Conclusion

9.1 Chapter Overview

This chapter concludes the study with a summary of the overall research. It commences with an overview of the research and an outline of the key research findings in line with the research objectives highlighted in Chapter One. Subsequently, conclusions are drawn from the research findings and recommendations made for policy, practice and theory. The significance of the research, research limitations and directions for future research are also highlighted in this chapter.

9.2 Research Overview

Decision making is a complex task that requires both rational and intuitive inputs of the decision-maker. Whereas decision-making is traditionally conceptualized as a process that is premised on logical evaluation of alternatives as informed by the assumptions of an ideal decision-making environment, evidence of behavioural influences on the decision-making process has continued to emerge to provide more insight on the significance of intuitive considerations in decision making. Like all other investment decisions, property-investment decision-making has been well researched in the real-estate discipline with recognition of both rational and intuitive reasoning that influence the investment choices of decision-makers. Whereas predefined stage based decision-making models suggest that property investment decision-making is rational, the intuitive attributes of decision-makers and the dynamic nature of market information often cause investors to behave in ways that negate the rational expectations. Despite the valuable insights and contributions aimed at improving the scholarly understanding of property investment decision-making, gaps exist regarding the impact of market disruptions on the decision-making strategies of property investors, especially on how property investors adapt to market disruptions through their investment decisions. Therefore, following an institutional approach, this thesis explored the disruption-driven investment decisions of property investors.

As highlighted in Chapter One of the thesis, this study aims to understand the disruption-driven investment decision-making of property investors in New Zealand, and in particular, explore

how different factors in the investment environment influence the decision-making strategies of property investors amidst disruptions. Commencing with the critical review of relevant literature on property-investment decision-making, the documented forms of property market disruptions that exist in the property market and the decision-making process of property investors were explored. The literature review focused on the existing knowledge in the study area and subsequently identified the gaps in literature that require further investigation. Also, this study explored the existing theoretical positions on investment decision making in the real-estate domain before highlighting institutional theory as a lens through which the study was explored. In particular, the theoretical framework adopted in this study (as illustrated in Chapter Three) recognizes the significance of process-based and intuitive components of property investment decision making as well as the interactions that exist within and across actors and organizations in the market environment, thereby advancing the conventional view of property-investment decision-making as a purely predictable and logical process. Following the identification of gaps in the property-investment literature, the research aim and objectives were drawn, which aided the establishment of a conceptual framework that guided the selection of the adopted methodological strategy.

This study was carried out in two parts. The first part of the study involved the documentary analysis of the annual reports of seven LPTs in New Zealand. The documentary analysis revealed relevant disruptive events that have led to radical changes to the well-established business operation models of LPTs in New Zealand over an extended period. Insights from the analysis revealed how LPTs responded to previous disruptions as documented in their annual reports and this was summarized, using a typology, as illustrated in Chapter Five. The findings from the documentary analysis provided the basis for in-depth semi-structured interviews with experienced decision-makers across the identified LPTs.

A qualitative research strategy involving the phenomenological engagement of experienced property investors across case studies of five LPTs in New Zealand was adopted in the conduct of the second part of this research. The research participants were purposively selected based on their extensive experience in property investment and management, as top management decision-makers (mainly chief executive officers of LPTs) were engaged in in-depth semi-structured interviews across the LPTs. Having informed the participants of their rights to withdraw from the interview without any consequence, the interviews were recorded for ease

of transcription and the transcribed interviews were analyzed for themes, following the thematic analytical approach described by Braun and Clarke (2006). The initial stage of the thematic analysis involved the use of NVivo software in the recognition of keywords that represent the intents of the participants as they address the research objectives. Also, recognizing that respondents could use synonymous terms to express their views or contextualize their opinions differently within statements, the research transcript was read severally and the expressions that align with the focus of this study were identified manually. As illustrated in Chapter Four, the initial set of keywords were mapped into codes and subsequently revised and merged to form the established themes that describe the findings of this study.

The interview transcripts were analyzed within and across cases, based on the lived experience of the purposively selected participant in each property trust. In doing this, pieces of evidence were drawn from the research transcripts in form of quotes to buttress the arguments of the research participants. Following the detailed data analysis, the research findings were presented in Chapters Six and Seven. Also, Chapter Eight of this thesis provides an in-depth description of the research findings with reference to the existing body of knowledge in the research area. As the concluding component of the thesis, this chapter provides a synopsis of the whole research. Following the preceding overview, the remaining part of this chapter is divided into three sections as follows. Section 9.3 provides a summary of the key findings in line with the research objectives stated in Chapter One. Section 9.4 highlights the implication of the research findings, with practical, policy, theoretical and methodological contributions. Section 9.5 illustrates the limitations of the research and Section 9.6 offer suggestions for future studies.

9.3 Summary of Key Findings

The findings from this study describe the disruption-driven investment decision making of LPTs in New Zealand. In line with the study focus, the information collated from research participants was analyzed, mapped and categorized into themes that describe their views on the research objectives highlighted in Chapter One. Firstly, this study found that the property market is prone to various forms of disruptions that alter the normative flow of activities within the market and could lead to uncertainties that require adaptive decision-making. As highlighted in Table 7.2, the different forms of disruption that affect the LPTs in New Zealand as stated by the research participants include financial crisis, regulatory changes, demographic

changes, climate change, seismic hazards, pandemic and technological evolution. Indeed, property market disruptions could emanate from socio-cultural, political, health, environmental and economic changes in and around property markets, which challenge the rational decision-making theories that are premised on the assumption of a perfect market environment and also underscores the need to consider the dynamic nature of the investment environment in making disruption-driven investment decisions.

Further to the identification of the various forms of disruptions that affect the property market, this study also explored the decision-making strategy of LPTs as they respond to market disruptions and it was revealed that the disruption-driven decision-making strategy involves both rational and intuitive components. According to the respondents, their disruption driven strategy is premised on a rational, stage-based technique of identifying the problems and opportunities associated with the market disruption, evaluation of possible investment alternatives, consideration of peculiar organizational value or focus, selection of a preferred investment option and the review of the chosen investment option. However, the respondents indicated that decision-makers across LPTs switch to intuitive reasoning within the rational framework as they evaluate limited market information towards making optimum investment decisions. The intuitive reasoning is informed by investors beliefs, experience, knowledge, tradition and culture. Having explored the intuitive measures of responding to market disruptions within the rational framework, the decision-making strategy is subsequently sealed through the rational consideration of relevant legislation, norms and market rules that guide the institutional functions of the property investors as market participants. It can therefore be said that property investors switch between rational and intuitive reasoning and considerations when responding and adapting to market disruptions as illustrated in Figure 8.1.

Aside from the decision-making process, the research findings also revealed some of the rational and behavioural factors that influence the disruption-driven investment decision making of LPTs in New Zealand as evidenced by the submissions of the research participants. As illustrated in Figure 8.2, the rational factors include basic investment considerations such as asset demand, supply, risk evaluation, return on investment, lease duration and regulatory requirements. Also, representativeness, anchoring and adjustments, loss aversion, herding and personality traits emerged from this study as major behavioural factors that influence disruption-driven investment decisions. The research findings revealed that the identified

factors (both rational and behavioural) are essential in addressing urgent and critical issues relating to investment viability during and beyond the period of disruption. Due to the high level of uncertainty that is triggered by disruptions, which also negates the reality of an ideal decision-making process in a perfect market environment, this study recognizes the need to integrate rational and behavioural considerations, towards establishing the adaptive response of LPTs to market disruptions.

In finalizing the disruption-driven investment decision making of LPTs, this study reveals how the adaptive response of LPTs to disruptions is demonstrated in practice. The adaptive response of the LPTs manifests in the form of investment flexibility which allows for easy transmission from an asset class to another, proactiveness by way of providing leadership and necessary guidance for stakeholders to live through disruptions and effective communication to minimize the possibility of uninformed decisions by shareholders and customers as they respond to the market changes. Further, the study findings highlight the innovative actions of LPTs that are used to project possible uncertainties and minimize consequential business disruption. The need to divest from markets that do not support the long-term, enduring demand of peculiar assets was also apparent from the research findings as an adaptive response of LPTs to market disruptions. The next section captures the findings of this study regarding the significance of institutions in adapting to property market disruptions.

9.3.1 The significance of institutions in adapting to property market disruptions

Aside from the internal considerations for investment decisions within property investment organizations, this study found evidence that institutional factors influence the adaptive choices of LPTs, as they respond to market disruptions. Consistent with the definition of institutions as the rule of the game in the society, which comprise the formal rules (e.g. laws, regulations, policies and contracts relating to the market environment), informal rules (e.g. market conventions, standards and norms) and enforcement mechanisms (North, 1990), this study recognizes the role of the political, economic, social and legal institutions as well as their interplay within the market environment as significant determinants of investor's adaptive response to disruptions. Rather than focusing solely on the rational, formal rules that are useful in modelling the behaviour of market participants in an ideal situation, this study highlights the significance of the interactions between the institutional hierarchies in the property market as illustrated by (Keogh and D'Arcy, 1999). As described in Chapter Three of this thesis, the

complementary interactions of the formal and informal rules across the various institutional hierarchies provided a robust basis for understanding property investment decision making amidst market uncertainties that are associated with disruptions.

Whereas this study found that property investors adhere to stipulated laws, regulations and expected professional conduct as they respond to market disruptions, it also reveals the importance of the socio-cultural attributes and impact of other market participants (such as end-users, shareholders, developers, financiers, non-governmental agencies, service providers and professional bodies) in developing a holistic framework that will minimize the impact of disruptions on investors' portfolio. Consistent with the dictates of organizational isomorphism in the study of institutions, evidence of coercive, normative and mimetic isomorphism emerged from this study. Also, this study revealed that individual perception and experience across the various institutional hierarchies in the market has a significant influence on decision-makers as they respond to disruptions.

9.4 Implications of Research Findings

9.4.1 Practical implications

The findings from this study have significant implications on the decision-making practices of property investors as they respond to market uncertainties. First, this study highlights the dynamism of the property investment environment, which limits the practicality of purely rational decision-making processes in adjusting to market disruptions. Whereas this study recognizes the need for property investors to comply with the formal regulations that guide the conduct of activities in the market, it also reveals the essence and influence of investors' intuitive attributes emanating from individual and organizational belief, culture and societal norms in responding and adapting to market uncertainties. This study, therefore, implies that neither rational nor intuitive investment decisions are independent of each other when attempting to make optimum investment decisions amidst disruptions. Rather, property investors are expected to explore rational and intuitive reasoning in line with the changing reality of the investment environment.

Further, this study recognizes the significance of different market players across the institutional hierarchies in the investment environment and the need to consider their peculiar attributes when making adaptive decisions in response to disruptions. As such, the research

highlights the need for investors to engage the market actors through effective communication. Whereas it is unlikely for investors to predict the overall impact of disruption on their portfolio, active and purposive engagement of market actors will minimize tenants and shareholders' apprehension and the possibility of an extended disruption that is often linked to panic and scepticism amongst market actors. In developing a holistic response and adaptive strategy, the findings from this study suggest the need for property investors to constantly engage relevant stakeholders before, during and after market disruptions. By doing so, investors will be able to address the peculiar concerns of these market actors and incorporate these concerns in the organizational strategy of the investment trust. Thus, ensure business continuity and minimize the potential of possible mistrust and fear associated with market uncertainties.

Also, this study establishes a link between personality traits, lived experience and investment decisions. It recognizes that the combined impact of investors' professional knowledge, market experience and psychosocial attributes is useful in developing adaptive strategies, tailored towards managing uncertain events. These attributes also impact the leadership pattern and the eventual investment choices that are made in different property investment firms. The outcome of this study, therefore, suggest the need for frequent informal interactions amongst management and board members of property trusts and by extension, other team members, in order to develop adaptive strategies that are driven by peoples' subjective innovations and unique perspectives towards addressing the uncertainties associated with market disruptions.

9.4.2 Policy implications

The empirical findings from this study provide clarity on the current role of legislation in managing market uncertainties and how it can be enhanced to achieve investment resilience. Whereas existing policies are developed within a formal, rational framework, with the expectation of a predefined, compliant response from investors as they adjust to the consequences of market disruptions, this study provides clarity on the need for regulators to acknowledge the role of informal institutions in the successful realization of policy objectives. Having deduced from the literature that the actual response of property investors to market disruptions often deviate from the expectations of policymakers, the findings from this study recognize the synergy between informal and formal institutions as a strategy for developing practicable adaptive strategies. Policies should therefore acknowledge the peculiarity of each investment environment, the relevance of existing institutions and the diversity of the market

actors therein. The consideration and integration of these diverse components in policy formulation and implementation will improve investors' compliance and ability to make informed decisions towards minimizing the overall impact of market disruptions.

9.4.3 Theoretical implications

A major theoretical contribution from this research stems from the need to integrate the rational and intuitive attributes of decision-makers in line with the intrinsic and extrinsic components of the investment environment. By exploring the claims and arguments of rational and behavioural theorists in the decision-making domain (see Chapter Three), this study explored the prospects and limitations of the existing theories in making adaptive decisions in a disruptive environment. The outcome of the review highlighted the significance and complementary role of rational and behavioural considerations in making investment decisions as clearly defined within the construct of institutional theory. As the theoretical position adopted in executing this study, institutional theory, therefore, advances our understanding of the limitations of both purely rationalistic and behaviour-driven models in investigating investment decision-making amidst market disruptions.

Having recognized that the behaviour of different market actors changes with changing market conditions, the institutional theory provides a basis for evaluating the similarities in processes and structure of organizations as they adjust to the dynamism in the investment environment. As applied in this study, the institutional responses of LPTs, as they demonstrate normative, coercive and mimetic isomorphic tendencies (see Section 8.5) under similar market constraints provide a basis for accessing their disruption driven investment decision-making pattern. Unlike the traditional decision-making process, this theoretical perspective offers a unique lens for understanding how investors adjust to regulatory, psycho-social, and environmental, changes, as informed by market disruptions. It also reveals the tendency of some investment firms to observe and replicate the responsive actions of other firms as they adjust to market uncertainties. The theoretical component of this study, therefore, offers a clearer description of the adaptive response of property investors to market disruptions and how subjective behavioural tendencies could evolve to become a legitimate standard of reasoning across different investment environments.

9.4.4 Methodological contribution

This study provides novel insights into the relevance of phenomenology in real-estate research. It extends the previous works of (Diaz, 1999; Levy, 2006; Klamer et al., 2017) on the need for the in-depth understanding of research phenomenon and the underlying behaviours. Although the real-estate literature is predominantly weighted towards quantitative studies that are premised on positivist philosophy (wherein scholars identify, measure and state facts objectively), the need to explore and interpret the influence of qualitative, subjective occurrences emanating from people's behaviours, beliefs, culture, tradition and norms have also been established and has continued to emerge in the real-estate discipline. Indeed, case studies and grounded theory are now common qualitative research methodologies that are prominent in real-estate literature. However, despite the relevance of phenomenology to real-estate studies (see Section 4.7) its application in advancing the understanding of behavioural research in the real-estate discipline is limited.

By recognizing the significance of individual experiences in dynamic investment environments that are prone to various forms of uncertainties, the phenomenological approach to this study provides unique perspectives on how investment decisions evolve within firms and organizations before they are accepted in a more generalizable context. Unique to other forms of qualitative inquiry, phenomenology as it was applied in this study recognizes and interprets individual reality as informed by their lived experience and environmental consciousness. By interpreting the perceptions, thoughts, actions and emotions of key actors regarding a phenomenon, individual accounts of historical occurrences were collated and analyzed to deduce findings that were otherwise obscure. Following its successful application in this study, it is hoped that subsequent studies will explore the use of phenomenology across different property investment and decision-making scenarios.

9.5 Research Limitations

As with most forms of qualitative research, this study has some limitations in terms of its scope and sample size. The data analyzed in this research were collated from the New Zealand property market and may not be generalizable across other property markets. Whereas New Zealand represents a robust property market that has witnessed different forms of market disruption, the market is relatively small compared to the Australian and the United States property market. Further, the possible variation in regulative guidelines, societal norms,

peculiar belief, tradition and culture of market participants, when compared with the situation in other countries might have affected the adaptive investment decisions of property investors in New Zealand differently. Consistent with the institutional framework adopted in this study, no two property investment markets are completely the same. The findings from this study are therefore limited in terms of their broad interpretation or replication across different scenarios.

This study was also limited to LPTs in New Zealand, due to their market dominance and investment performance history. Of the eight LPTs in New Zealand, seven were involved in the first part of the research (documentary analysis) and five LPTs were involved in the second part of this study (phenomenology within case studies). Unlike smaller property firms, decision-makers in LPTs shoulder the responsibility of making investment decisions on behalf of their shareholders and clients. They operate a structured procedure that differentiates the roles of board members and management staff in the decision-making process, in order to maintain checks and balances. As such, listed property trusts are likely to approach investment decision making amidst disruption differently when compared to smaller investment firms. This consequently limits the applicability of the research findings across all property investors in New Zealand.

9.6 Future Research

Having highlighted the research limitations, this research lays a premise for further studies that will improve the current understanding of the disruption-driven investment decisions of LPTs. Firstly, the data generated in this study is based on the qualitative, subjective attributes of the research participants that are linked to their beliefs, emotions, feelings, behaviour and individual experience. It will therefore be interesting to investigate the extent and impact of these subjective attributes on the overall property investment decision making process amidst disruptions. Through the adoption of a quantitative approach, aimed at investigating the impact of the decision-making attributes identified in this study, future studies could examine a larger sample size across different categories of property investors. The outcome of such a study will be useful in the development of a pre-defined risk mitigation model that could reduce the exposure of investors to disruptions and indeed, enhance the overall resilience of the investment environment.

Second, in executing this study, only experienced, top-management professionals were purposively engaged. The participants were selected based on their leadership positions and ascribed responsibilities of ensuring efficient investment decisions in different circumstances. However, despite the interesting findings that emerged from this study, little is known about the role of other team members in the decision-making process, especially as property investment firms set out to implement their adaptive decisions in response to market disruptions. The conduct of such investigation will reveal the extent of concurrence amongst employees within the internal organizational mechanism as LPTs respond to market uncertainties. Having established that the role of the management within an organization is inclusive of balancing the goals of the organization with the well-being of its employees (Medina et al., 2020) the outcome of the recommended research could yield valuable information and innovations that could improve our understanding of how team members perceive the decisions of their management amidst disruptions, the implication of such perception and how they can effectively work with the management through the period of market turbulence.

Also, it will be interesting to replicate this study in different contexts within the property market (e.g., in smaller firms, amongst middle-level managers, and in a developing economy) and compare the research findings with the outcome of this study. By highlighting the peculiarity of institutional factors such as the societal norms and culture and how it affects investment decision making across the different scenarios, such a study could aid the development of a comprehensive and robust policy intervention that will minimize the exposure of property investments to the potential hazard of market disruptions. Finally, this study is limited to the responsive actions of property investors amidst market uncertainties.

9.7 Overall Summary

This study set out to explore the disruption-driven investment decision-making of LPTs in New Zealand. Through the adoption of the institutional theory in the evaluation of market parameters and the changing investment environment, the study has been able to advance the traditional understanding of the property investment decision making process as a purely rational process. Whereas the study recognizes the role of formal institutions in adjusting to market uncertainties, it also emphasizes the significance of intra and inter-organizational interactions in making disruption-driven investment decisions. Aside from the basic economic

considerations for investment decisions, the subjective, qualitative findings that emerged from the unique experiences of the participants in this study was used to develop a framework that describes the adaptive response of property investors to market disruptions. While contributing to the extant literature on property investment decision making, the study outcome offers practical, theoretical, methodological and policy implications. The research limitations and suggestions for future studies were also highlighted in this chapter.

References

- Abraham, S. and Cox, P. (2007). Analysing the determinants of narrative risk information in UK FTSE 100 annual reports. *The British Accounting Review*, 39(3), 227-248.
- Abraham, G., Hall, J. H., and Cloete, C. E. (2014). *Anchoring and adjustment and herding behaviour as heuristic-driven bias in property investment decision-making in South Africa* (No. eres2014_217). European Real Estate Society (ERES).
- Abidoye, R. B., and Chan, P. C. (2016). Critical determinants of residential property value: professionals' perspective. *Journal of Facilities Management*, 14(3), 283-300.
- Adair, A. S., Berry, J. N. and McGreal, W. S. (1994). Investment decision making: a behavioural perspective. *Journal of Property Finance*, 5(4), 32-32.
- Adair, A., Berry, J., McGreal, S., Poon, J., Hutchison, N., Watkins, C. and Gibb, K. (2005). Investment performance within urban regeneration locations. *Journal of Property Investment and Finance*, 23(1), 7-21. 3(5), 412-429.
- Agarwal, A., Verma, A., and Agarwal, R. K. (2016). Factors influencing the individual investor decision making behavior in India. *Journal of Applied Management and Investments*, 5(4), 211-222.
- Agboola, A. O. (2015). Neoclassical economics and new institutional economics: An assessment of their methodological implication for property market analysis. *Property Management*, 33 (5), 412-429.
- Akinsomi, O. (2020). How resilient are REITs to a pandemic? The COVID-19 effect. *Journal of Property Investment and Finance*, 39(1), 19-24.
- Albanese, P. J. (1990). Personality, consumer behavior, and marketing research: A new theoretical and empirical approach. *Research in Consumer Behavior*, 4, 1-49.
- Albertini, E. (2019). Integrated reporting: an exploratory study of French companies. *Journal of Management and Governance*, 23(2), 513-535.
- Alola, A. A. (2019). Prescience evidence of the housing market and production sector performance nexus: Insights from Malta. *International Journal of Housing Markets and Analysis*, 12(1), 131-147.
- Amidu, A. R., Boyd, D., and Gobet, F. (2019). A study of the interplay between intuition and rationality in valuation decision making. *Journal of Property Research*, 36(4), 387-418.
- Anastasia, N., and Suwitro, A. L. (2015). The rational and irrational factors underlying property buying behavior. *Journal of Economics and Behavioral Studies (JEBS)*, 7(2), 183-191.
- Anderson, B. F. and Settle, J. W. (1996). The influence of portfolio characteristics and investment period on investment choice. *Journal of Economic Psychology*, 17(3), 343-358.
- Anosike, P., Ehrich, L. C. and Ahmed, P. (2012). Phenomenology as a method for exploring management practice. *International Journal of Management Practice*, 5(3), 205-224.
- Antony, M.K. (2009). Effect of investor psychology on real estate market prices in Nairobi and Kenya. *Journal of Finance*, 23, 122-134.

- Ashworth, A. (1996). Estimating the life expectancies of building components in life-cycle costing calculations. *Structural survey*, 14(2), 4-8.
- Atherton, E., French, N. and Gabrielli, L. (2008). Decision theory and real estate development: a note on uncertainty. *Journal of European Real Estate Research*. 1(2), 162-182.
- Ball, M. (1998). Institutions in British property research: a review. *Urban Studies*, 35(9), 1501-1517.106-110.
- Bancel, F., and Mittoo, U. R. (2011). Financial flexibility and the impact of the global financial crisis: Evidence from France. *International Journal of Managerial Finance*, 7(2), 179-216.
- Barberis, N. C. (2013). Thirty years of prospect theory in economics: A review and assessment. *Journal of Economic Perspectives*, 27(1), 173-96.
- Beattie, V., McInnes, B. and Fearnley, S. (2004). A methodology for analysing and evaluating narratives in annual reports: a comprehensive descriptive profile and metrics for disclosure quality attributes. *Accounting Forum*, 28(3), 205-236.
- Beehive, (2013) Building (Earthquake-prone Buildings) Amendment Bill. Available from <https://www.beehive.govt.nz/release/earthquake-prone-buildings-policy-announced>
- Ben-Shahar, D., and Golan, R. (2014). Real estate and personality. *Journal of Behavioral and Experimental Economics*, 53, 111-119.
- Beracha, E., and Skiba, H. (2014). Real Estate Investment Decision Making in Behavioral Finance. *Investor behavior: The psychology of financial planning and investing*, 555-572.
- Bhalotra, S., Chakravarty, A., Mookherjee, D. and Pino, F. J. (2019). Property rights and gender bias: Evidence from land reform in West Bengal. *American Economic Journal: Applied Economics*, 11(2), 205-37.
- Black, R., Brown, G., Diaz, J., Gibler, K., and Grissom, T. (2003). Behavioral research in real estate: a search for the boundaries. *Journal of Real Estate Practice and Education*, 6(1), 85-112.
- Blaikie, N. (2000). *Design social research: the logic of anticipation*. Cambridge: Polity.
- Bond, S. and Perrett, G. (2012). The key drivers and barriers to the sustainable development of commercial property in New Zealand. *Journal of Sustainable Real Estate*, 4(1), 48-77.
- Borghans, L., Duckworth, A. L., Heckman, J. J. and Ter Weel, B. (2008). The economics and psychology of personality traits. *Journal of Human Resources*, 43(4), 972-1059.
- Boteler, F. E. (2007). Building disaster-resilient families, communities and businesses. *Journal of Extension*, 45(6).
- Bothara, J. K., Dhakal, R. P. and Mander, J. B. (2010). Seismic performance of an unreinforced masonry building: An experimental investigation. *Earthquake Engineering and Structural Dynamics*, 39(1), 45-68.
- Braun, V. and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Bruin, A. and Flint- Hartle, S. (2003). A bounded rationality framework for property investment behaviour. *Journal of Property Investment and Finance*, 21(3), 271-284.
- Bryant, L. (2012). An assessment of development funding for new housing post GFC in Queensland, Australia. *International Journal of Housing Markets and Analysis*, 5(2), 118-133.

- Buisson, F. (2016). Prospect theory and loss aversion in the housing market. *Journal of Real Estate Research*, 38(2), 229-249.
- Burgess, K and Rapoport, E. (2019). Climate risk and real estate investment decision-making. *Urban land institute*. Available through: <https://www.heitman.com/news/climate-risk-and-real-estate-investment-decision-making/>
- Basic-Sontic, A., Czap, N. V., and Fuerst, F. (2017). The role of personality traits in green decision-making. *Journal of Economic Psychology*, 62, 313-328.
- Calabretta, G., Gemser, G., and Wijnberg, N. M. (2017). The interplay between intuition and rationality in strategic decision making: A paradox perspective. *Organization Studies*, 38(3-4), 365-401
- Camerer, C. F. (2011). *Behavioural Game Theory: Experiments in strategic interaction*. Princeton University Press.
- Caterino, N., Iervolino, I., Manfredi, G. and Cosenza, E. (2009). Comparative analysis of multi-criteria decision-making methods for seismic structural retrofitting. *Computer-Aided Civil and Infrastructure Engineering*, 24(6), 432-445.
- Chan, S. H., Erickson, J., and Wang, K. (2003). *Real estate investment trusts: Structure, performance, and investment opportunities*. Financial Management Association Survey and Synthesis.
- Chang, C. C., Chao, C. H., and Yeh, J. H. (2016). The role of buy-side anchoring bias: Evidence from the real estate market. *Pacific-Basin Finance Journal*, 38, 34-58.
- Chen, Q., Kamran, S. M. and Fan, H. (2019). Real estate investment and energy efficiency: Evidence from China's policy experiment. *Journal of Cleaner Production*, 217, 440-447.
- Cheng, L., McGreal, S. and Webb, J. (2006). Perception of real estate investment opportunities in Central/South America and Africa. *Journal of Real Estate Portfolio Management*, 12(3), 261-276.
- Chivakul, M., Lam, M. R. W., Liu, X., Maliszewski, W. and Schipke, M. A. (2015). *Understanding Residential Real Estate in China* (No. 15-84). International Monetary Fund.
- Chitra, K., and Ramya Sreedevi, V. (2011). Does personality traits influence the choice of investment?. *IUP Journal of Behavioral Finance*, 8(2).
- Chukwudumogu, I. C., Levy, D., and Perkins, H. (2019). The influence of sentiments on property owners in post-disaster rebuild: A case study of Christchurch, New Zealand. *Property Management*, 37 (2), 243-261.
- Ciaramella, A., and Dall'Orso, M. (2021). "Intelligent" Urban Regeneration: Global Trends and Challenges. In *Urban Regeneration and Real Estate Development* (pp. 1-15). Springer, Cham.
- Clarke, A. and Dawson R. (1999). *Evaluation Research: An introduction to principles, methods and practice*. Sage.
- Cook, D. (2015). RICS futures: turning disruption from technology to opportunity. *Journal of Property Investment and Finance*, 33(5), 456-464.
- Creswell, J.W. (2007) *Qualitative Inquiry and Research Design: Choosing among Five Approaches* [online]. 2nd ed. Thousand Oaks, Calif; London: Sage.

- Creswell, J.W. (2014) *Qualitative Inquiry and Research Design: Qualitative Quantitative and Mixed Method Approaches* 4th ed. Thousand Oaks, Calif; London: Sage.
- Crotty, M., (1998). *The Foundations of Social Research: Meaning and perspective in the research process*. Sage.
- Dancy, J., Sosa, E. and Steup, M. Eds., 2010. *A Companion to Epistemology*, 2nd edition. West Sussex: John Wiley and Sons.
- Davenport, P. N. (2004). Review of seismic provisions of historic New Zealand loading codes. *Proceedings, NZSEE Conference*.
- Denscombe, M. (2010) *The Good Research Guide: For Small-Scale Social Research Projects*. 4th ed. Maidenhead: McGraw-Hill/Open University Press.
- Desai, B. and Sarmiento, J. P. (2015). Risking disaster—The role of private investment and public regulation in disaster risk management. *International Journal of Disaster Risk Reduction*, 14, 203-204.
- Diaz, J. (1999). The first decade of behavioral research in the discipline of property. *Journal of Property Investment and Finance*, 17(4), 326-332.
- Diaz, J., Zhao, R., and Black, R. (1999). Does contingent reward reduce negotiation anchoring?. *Journal of Property Investment & Finance*. 17(4), 374-379.
- Diaz III, J., and Hansz, A. (2007). Understanding the behavioural paradigm in property research. *Pacific Rim Property Research Journal*, 13(1), 16-34.
- Dillon, S. M. (1998). Descriptive decision making: Comparing theory with practice. In *Proceedings of 33rd ORSNZ Conference, University of Auckland, New Zealand*.
- Dilley, M., Chen, R. S., Deichmann, U., Lerner-Lam, A. L. and Arnold, M. (2005). *Natural Disaster Hotspots: a global risk analysis*. The World Bank.
- DiMaggio, P. J. and Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147-160.
- DiMaggio, P. J. and Powell, W. W. (1991). *The New Institutionalism in Organizational Analysis*, The University Press Chicago.
- Dosi, G., Marengo, L., Bassanini, A. and Valente, M. (2002). Norms as emergent properties of adaptive learning: The case of economic routines. In *Economic Evolution, Learning and Complexity* (pp. 11-32). Physica, Heidelberg.
- Dynes, R. R. (1994). *Disasters, Collective Behaviour and Social Organization*. University of Delaware Press.
- Edwards, V., and Seabrooke, B. (1991). Proactive property management. *Property Management*. 9(4), 373-384.
- Edwards, J. R., Mason, D. S., and Washington, M. (2009). Institutional pressures, government funding and provincial sport organisations. *International Journal of Sport Management and Marketing*, 6(2), 128-149.
- Egbelakin, T. K., Wilkinson, S. and Nahkies, P. B. (2011). Impacts of the property investment market on seismic retrofit decisions. In *Building an Earthquake-Resilient Society: Proceedings of the Ninth Pacific Conference on Earthquake Engineering*, pp. 14-16.
- Egbelakin, T., Wilkinson, S. and Ingham, J. (2014). Economic impediments to successful seismic retrofitting decisions. *Structural Survey*, 32 (5), 449-466.

- Eisenbach, B. B. and Greathouse, P. (2020). Stage-Environment Fit and Middle Level Virtual Learners: A Phenomenological Case Study. *RMLE Online*, 43 (7), 1-12.
- Elbanna, S. (2006). Strategic decision-making: Process perspectives. *International Journal of Management Reviews*, 8(1), 1-20.
- Evans, J. S. B. (2003). In two minds: Dual-process accounts of reasoning. *Trends in Cognitive Sciences*, 7(10), 454–459.
- Farragher, E., and Kleiman, R. (1996). A re-examination of real estate investment decision making practices. *Journal of Real Estate Portfolio Management*, 2(1), 31-39.
- Farragher, E. and Savage, A. (2008). An investigation of real estate investment decision-making practices. *Journal of Real Estate Practice and Education*, 11(1), 29-40.
- Fellows, R. and Liu, A. (2008) *Research Methods for Construction* [online]. 3rd ed. Oxford: Wiley-Blackwell.
- Fereday, J. and Muir-Cochrane, E. (2006). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods*, 5(1), 80-92.
- Filippova, O., Xiao, Y., Rehm, M. and Ingham, J. (2018). Economic effects of regulating the seismic strengthening of older buildings. *Building Research and Information*, 46(7), 711-724.
- Filippova, O., Rehm, M., and Dibble, C. (2017). Office market response to earthquake risk in New Zealand. *Journal of Property Investment & Finance*, 35(1), 44-57.
- Filippova, O. and Noy, I. (2020). Earthquake-strengthening policy for commercial buildings in small-town New Zealand. *Disasters*, 44(1), 179-204.
- Forrest, R. and Xian, S. (2018). Accommodating discontent: youth, conflict and the housing question in Hong Kong. *Housing Studies*, 33(1), 1-17.
- Fraser, W. D. (1993). *Principles of Property Investment and Pricing*. Macmillan International Higher Education.
- French, N. (1996). The behaviour of investors: perceptions and decisions in real estate investment, *12th Annual ARES Meeting*, Lake Tahoe.
- French, N. and French, S. (1997). Decision theory and real estate investment. *Journal of Property Valuation and Investment*, 15(3), 226-232.
- French, N. (2001). Decision theory and real estate investment: an analysis of the decision-making processes of real estate investment fund managers. *Managerial and Decision Economics*, 22(7), 399-410.
- French, N. and Gabrielli, L. (2005). Judgments, forecasts and decisions: an analysis of fund managers over time. *21st Annual ARES Meeting*, Santa Fe
- Fu, Y. and Blazenko, G. W. (2017). Normative portfolio theory. *International Review of Financial Analysis*, 52, 240-251.
- Galaskiewicz, J., and Wasserman, S. (1989). Mimetic processes within an inter-organizational field: An empirical test. *Administrative science quarterly*, 34(3), 454-479.
- Gallimore, P. and Gray (2002). The role of investors sentiments in property investment decision. *Journal of Property Research*, 19(2), 111-120.
- Gallimore, P., Hansz, J. A. and Gray, A. (2000). Decision making in small property companies. *Journal of Property Investment and Finance*, 18(6), 602-612.

- Gambetti, E., and Giusberti, F. (2019). Personality, decision-making styles and investments. *Journal of Behavioral and Experimental Economics*, 80, 14-24.
- Gardner, M. and Steinberg, L. (2005). Peer influence on risk taking, risk preference and risky decision making in adolescence and adulthood: an experimental study. *Developmental Psychology*, 41(4), 625.
- Gau, G. W. (1987). Efficient real estate markets: paradox or paradigm? *Real Estate Economics*, 15(2), 1-12.
- Gibilaro, L. and Mattarocci, G. (2016). Are home-biased REITs worthwhile? *Journal of Real Estate Portfolio Management*, 22(1), 19-30.
- Gigerenzer, G. and Selten, R. (2001). *Rethinking rationality. Bounded Rationality: The Adaptive Toolbox*, 1, 12. MIT Press.
- Gintis, H. (2014). *The Bounds of Reason: Game Theory and the Unification of the Behavioral Sciences-Revised Edition*. Princeton University Press.
- Glascok, J.L., Davidson, W.N., and Sirmans, C.F. (1989), "An analysis of the acquisition and disposition of real estate assets", *The Journal of Real Estate Research*, 4(3), 131-40.
- Grimes, A. and Hyland, S. (2013). Housing market dynamics and the GFC: The complex dynamics of a credit shock. *Economic and Public Policy Research*
- Groat, L.N. and Wang, D. (2013). *Architectural Research Methods*. 2nd. ed. Hoboken, N.J: Wiley.
- Gron, A. and Winton, A. (2001). Risk overhang and market behavior. *The Journal of Business*, 74(4), 591-612.
- Grover, P. (2015). Study on Behavioural Factors Influencing Investment Decision in Real Estate: A Case Study of Udham Singh Nagar (Uttarakhand). *International Journal of Engineering Technology, Management and Applied*, 150-158.
- Guba, E.G. (ed.). (1990). *The Paradigm Dialog*. London: Sage Publications.
- Guba, E.B. and Lincoln, Y.S. (2005). Paradigmatic controversies, contradictions and emerging confluences. In: Denzin, N.K. and Lincoln, Y.S. (eds.). *Handbook of Qualitative Research*, 3rd edition, pp. 191-215. Thousand Oaks, CA: Sage.
- Guerard Jr, J. B. (ed.). (2009). *Handbook of Portfolio Construction: contemporary applications of Markowitz techniques*. Springer Science and Business Media.
- Guest, G., MacQueen, K. M., and Namey, E. E. (2012). Introduction to applied thematic analysis. *Applied thematic analysis*, 3(20), 1-21.
- Grum, B., and Grum, D. K. (2015). A model of real estate and psychological factors in decision-making to buy real estate. *Urbani izziv*, 26(1), 82-91.
- Hagel, J., Brown, J. S., and Davison, L. (2008). Shaping strategy in a world of constant disruption. *Harvard Business Review*, 86(10), 80-89.
- Hall, C. M., Fieger, P., Prayag, G. and Dyason, D. (2021). Panic buying and consumption displacement during COVID-19: Evidence from New Zealand. *Economies*, 9(2), 46.
- Hardin, W.I. (1999). Behavioral research into heuristics and bias as an academic pursuit – lessons from other disciplines and implications for real estate. *Journal of Property Investment and Finance*, 17(4), 333-352.
- Hargitay, S. E. and Yu, S. M. (1993). *Property Investment Decisions: A Quantitative Approach* London: E and F.N. Spon.

- Hargitay, S., and Yu, S. M. (2003). *Property investment decisions: a quantitative approach*. Routledge.
- Harteis, C., and Gruber, H. (2008). Intuition and professional competence: Intuitive versus rational forecasting of the stock market. *Vocations and Learning*, 1(1), 71–85.
- Hebb, T., Hamilton, A. and Hachigian, H. (2010). Responsible property investing in Canada: factoring both environmental and social impacts in the Canadian real estate market. *Journal of Business Ethics*, 92(1), 99-115.
- Hertwig, R. and Hoffrage, U. (eds.). (2013). *Simple Heuristics in a Social World*. Oxford University Press.
- Hillenbrand, C., Saraeva, A., Money, K., and Brooks, C. (2021). Saving for a rainy day... or a trip to the Bahamas? How the framing of investment communication impacts retail investors. *British Journal of Management*.
- Hodgson, G. M. (2006). What are institutions? *Journal of Economic Issues*, 40(1), 1-25.
- Hoesli, M. and MacGregor, B. D. (2014). *Property Investment: principles and practice of portfolio management*. Routledge.
- Hoesli, M., and Malle, R. (2021). Commercial real estate prices and covid-19. *Journal of European Real Estate Research*.
- Hsieh, H. F. and Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277-1288.
- Idzorek, T.M., Barad, M. and Meier, S.L. (2007). Global commercial real estate. *The Journal of Portfolio Management*, 33(5), 37-52.
- Imazeki, T. and Gallimore, P. (2009). Domestic and foreign bias in real estate mutual funds. *Journal of Property Research*, 26 (4), 367-389.
- Immergut, E. M. (1998). The theoretical core of the new institutionalism. *Politics and Society*, 26(1), 5-34.
- Isaac, D. and O’Leary, J. (2011). *Property Investment*. (2nd edition). Macmillan International Higher Education.
- Jackson, C. and Watkins, C. (2011). Planning policy and retail property investment in the U.K. *Urban Studies*, 48(11), 2321-2338.
- Jaffe, A. J., and Sirmans, C. F. (1994). *Fundamentals of real estate investment*. South-Western Educational Pub.
- Jain, J., Walia, N. and Gupta, S. (2019). Evaluation of behavioral biases affecting investment decision making of individual equity investors by fuzzy analytic hierarchy process. *Review of Behavioral Finance*, 12(3), 297-314.
- Judge, T. A. and Kristof-Brown, A. (2004). Personality, interactional psychology and person–organization fit. In *Personality and Organizations*, pp. 111-134. Psychology Press.
- Jung C., Jun Z., Laurie, G., Bhargavi, G. and Sarah, S. (2018). Millennial Homeownership Why Is It So Low and How Can We Increase It? *Urban Institute*. Available through https://www.urban.org/sites/default/files/publication/98729/2019_01_11_millennial_homeownership_finalizedv2.pdf
- Kahneman, D., and Tversky, A. (1979). On the Interpretation of Intuitive Probability: A Reply to Jonathan Cohen. *Cognition*, 7(4), 409-11.

- Kahneman, D., Lovallo, D. and Sibony, O. (2011). Before you make that big decision. *Harvard Business Review*, 89(6), 50-60.
- Kapucu, N. and Garayev, V. (2011). Collaborative decision-making in emergency and disaster management. *International Journal of Public Administration*, 34(6), 366-375.
- Keivani, R. and Werna, E. (2001). Refocusing the housing debate in developing countries from a pluralist perspective. *Habitat International*, 25(2), 191-208.
- Keogh, G. and D'Arcy, E. (1999). Property market efficiency: an institutional economics perspective. *Urban Studies*, 36(13), 2401-2414.
- Kishore, R. 2004. Theory of Behavioural Finance and its Application to Property Market: A Change in Paradigm. *Australian Property Journal*. 38(2), 105-110.
- Klamer, P., Bakker, C. and Gruis, V. (2017). Research bias in judgement bias studies—a systematic review of valuation judgement literature. *Journal of Property Research*, 34(4), 285-304.
- Kosavinta, S., Krairit, D., and Khang, D. B. (2017). Decision making in the pre-development stage of residential development. *Journal of Property Investment & Finance*, 35(2), 160-183.
- Kreimer, A., Arnold, M. and Carlin, A. (Eds.). (2003). *Building Safer Cities: the future of disaster risk*. The World Bank, p.11.
- Krippendorff, K. (2004). Reliability in content analysis. *Human communication research*, 30(3), 411-433.
- Kwasinski, A. (2011, October). Effects of notable natural disasters from 2005 to 2011 on telecommunications infrastructure: Lessons from on-site damage assessments. In *2011 IEEE 33rd International Telecommunications Energy Conference (INTELEC)* (pp. 1-9). IEEE.
- Lang, T. (2011). Urban Resilience and New Institutional Theory—A Happy Couple for Urban and Regional Studies? In *German Annual of Spatial Research and Policy 2010*, pp. 15-24. Springer, Berlin, Heidelberg.
- Langley, Ann, Henry Mintzberg, Patricia Pitcher, Elizabeth Posada, and Jan Saint-Macary (1995). "Opening up decision making: The view from the black stool." *organization Science* 6(3), 260-279.
- Lecours, A. (Ed.). (2005). *New Institutionalism: Theory and analysis* (Vol. 23). University of Toronto Press.
- Levy, D. S. (2005). *Conceptualising the Influence of Clients on Valuations*. Doctoral dissertation, Research Space@ Auckland.
- Levy, D. (2006). Qualitative methodology and grounded theory in property research. *Pacific Rim Property Research Journal*, 12(4), 369-388.
- Levy, D. S., Frethey-Bentham, C. and Cheung, W. K. S. (2020). Asymmetric framing effects and market familiarity: experimental evidence from the real estate market. *Journal of Property Research*, 37(1), 85-104.
- Lieser, K. and Groh, A. P. (2014). The determinants of international commercial real estate investment. *The Journal of Real Estate Finance and Economics*, 48(4), 611-659.
- Linneman, P. (2018). *Real Estate Finance and Investments: Risks and opportunities* (5th Edition). Linneman Associates.

- Linsley, P. M. and Shrives, P. J. (2006). Risk reporting: A study of risk disclosures in the annual reports of U.K. companies. *The British Accounting Review*, 38(4), 387-404.
- Liow, K. H., and Ooi, J. T. (2004). Does corporate real estate create wealth for shareholders? *Journal of Property Investment & Finance*, 22(5), 386-400.
- Liow, K. H., and Angela, S. Y. (2017). Return and co-movement of major public real estate markets during global financial crisis: A frequency domain approach. *Journal of Property Investment & Finance*. 35(5), 489-508.
- Lizieri, C. (2013). After the fall: real estate in the mixed-asset portfolio in the aftermath of the global financial crisis. *Journal of Portfolio Management*, 39(5), 43.
- Lo, A. W. (2004). The adaptive markets hypothesis. *The Journal of Portfolio Management*, 30(5), 15-29.
- Lowies, G. A., Hall, J. H., and Cloete, C. E. (2016). Heuristic-driven bias in property investment decision-making in South Africa. *Journal of Property Investment & Finance*, 34(1), 51-67.
- Lowies, G. A., Hall, J. H., and Cloete, C. E. (2015). The role of market fundamentals versus market sentiment in property investment decision-making in South Africa. *Journal of Real Estate Literature*, 23(2), 297-314.
- MacCowan, R.J. and Orr, A.M. (2008). A behavioural study of the decision processes underpinning disposals by property fund managers. *Journal of Property Investment and Finance*, 26(4), 342-361.
- Madani, K. and Lund, J. R. (2011). A Monte-Carlo game theoretic approach for multi-criteria decision making under uncertainty. *Advances in Water Resources*, 34(5), 607-616.
- March, J. G. and Olsen, J. P. (1996). Institutional perspectives on political institutions. *Governance*, 9(3), 247-264.
- Martínez-Ferrero, J., and García-Sánchez, I. M. (2017). Coercive, normative and mimetic isomorphism as determinants of the voluntary assurance of sustainability reports. *International Business Review*, 26(1), 102-118.
- Matthews, B. and Ross, L. (2010) *Research Methods: A Practical Guide for the Social Sciences*. Longman, Harlow.
- McAllister, P. (1999). Globalization, integration and commercial property. Evidence from the UK. *Journal of Property Investment & Finance*. 17(1), 8-26.
- Medina, A., Lopez, E. and Medina, R. (2020). The unethical managerial behaviours and abusive use of power in downwards vertical workplace bullying: a phenomenological case study. *Social Sciences*, 9(6), 110.
- Meyer, J. W. (1977). The effects of education as an institution. *American Journal of Sociology*, 83(1), 55-77.
- Meyer, H. D. and Rowan, B. (2006). *Institutional analysis and the study of education*. The New Institutionalism in Education, 1-13.
- Myers, G., Reed, R. and Robinson, J. (2008). Sustainable property—the future of the New Zealand Market. *Pacific Rim Property Research Journal*, 14(3), 298-321.
- Milcheva, S. (2021). Volatility and the cross-section of real estate equity returns during Covid-19. *The Journal of Real Estate Finance and Economics*, 1-28.

- Mills, E. (2003). Climate change, insurance and the buildings sector: technological synergisms between adaptation and mitigation. *Building Research and Information*, 31(3-4), 257-277.
- Mizruchi, M. S. and Fein, L. C. (1999). The social construction of organizational knowledge: A study of the uses of coercive, mimetic and normative isomorphism. *Administrative Science Quarterly*, 44(4), 653-683.
- Monahan, S. C., Meyer, J. W. and Scott, W. R. (1994). Employee training: The expansion of organizational citizenship. *Institutional Environments and Organizations: Structural Complexity and Individualism*, 255-271.
- Mori, M., Diaz III, J., Ziobrowski, A. J. and Rottke, N. B. (2010). Psychological and cultural factors in the choice of mortgage products: a behavioral investigation. *Journal of Behavioral Finance*, 11(2), 82-91.
- Mourlam, D. J., De Jong, D., Shudak, N. J. and Baron, M. (2019). A phenomenological case study of teacher candidate experiences during a yearlong teacher residency program. *The Teacher Educator*, 54(4), 397-419.
- Mu, L. and Ma, J. (2007). Game theory analysis of price decision in real estate industry. *International Journal of Nonlinear Science*, 3(2), 155-160.
- Murphy, L. (2011). The global financial crisis and the Australian and New Zealand housing markets. *Journal of Housing and the Built Environment*, 26(3), 335.
- Mushinada, V. N. C. (2020). Are individual investors irrational or adaptive to market dynamics? *Journal of Behavioral and Experimental Finance*, 25, 100243.
- Nanda, A., Xu, Y., and Zhang, F. (2021). How would the COVID-19 pandemic reshape retail real estate and high streets through acceleration of E-commerce and digitalization? *Journal of Urban Management*, 10 (2), 110-124.
- Naoum, S.G. (2013) *Dissertation Research and Writing for Construction Students*. 3rd ed. London: Routledge.
- National Academy of Sciences (2006). *Facing Hazards and Disasters: Understanding human dimensions*. Washington, DC: National Academy Press.
- Nelson, T. and Nelson, S. (2003). Regional models for portfolio diversification. *Journal of Real Estate Portfolio Management*, 9(1), 71-88.
- Newell, B. R., Lagnado, D. A. and Shanks, D. R. (2015). *Straight Choices: The psychology of decision making*. Psychology Press.
- Newell, G. and Najib Razali, M. (2009). The impact of the global financial crisis on commercial property investment in Asia. *Pacific Rim Property Research Journal*, 15(4), 430-452.
- Newell, G., and Seabrook, R. (2006). Factors influencing hotel investment decision making. *Journal of Property Investment and Finance*, 24 (4), 279-294.
- Nga, J. K., and Yien, L. K. (2013). The influence of personality trait and demographics on financial decision making among Generation Y. *Young Consumers*. 14(3), 230-243.
- Noble, H. and Smith, J. (2014) Qualitative data analysis: a practical example. *Evidence-based Nursing*, 17(1), 2.
- North, D. C. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge University Press.

- Nsibandé, M. and Boshoff, D. G. B. (2017). An investigation into the investment decision-making practices of South African institutional investors: A focus on retail property. *Property Management*, 35(1), 67-88.
- Nyu, V., and Nilssen, F. (2020). Strategies for Coping with Global Disruptions: Diversify, Transform, Disengage, or Bypass?. *Rutgers Business Review*, 5(3), 384-404.
- Öhman, P., Söderberg, B., and Westerdahl, S. (2013). Property investor behaviour: Qualitative analysis of a very large transaction. *Journal of Property Investment & Finance*, 31(6), 522-544.
- Omisore, I., Yusuf, M. and Christopher, N. (2011). The modern portfolio theory as an investment decision tool. *Journal of Accounting and Taxation*, 4(2), 19-28.
- Parker, D. (2012). *Global real estate investment trusts: People, process and management*. John Wiley & Sons.
- Parker, D. (2014). Property investment decision making by Australian REITs. *Journal of Property Investment and Finance*, 32(5), 456-473.
- Parker, D. (2016). Property investment decision making by Australian unlisted property funds. *Property Management* 34(5), 381-395.
- Patton, M. (2002). *Qualitative Research and Evaluation Methods*, 3rd edition. Thousand Oaks, CA: Sage publications.
- PCNZ. (2021). Property Industry Impact Report *Urban Economics*. Available through [Home - Property Council New Zealand \(propertynz.co.nz\)](http://Home-Property Council New Zealand (propertynz.co.nz))
- Potter, S. H., Becker, J. S., Johnston, D. M. and Rossiter, K. P. (2015). An overview of the impacts of the 2010-2011 Canterbury earthquakes. *International Journal of Disaster Risk Reduction*, 14, 6-14.
- Pottinger, G., Dixon, T., and Marston, A. (2002). Occupational futures? Divesting real estate and corporate PFI. *Property Management*. 20(1), 31-48.
- Pyhrr, S.A, Cooper, J.R. and Wofford, L.E. (1989), *Real Estate Investment: Strategy, Analysis and Decision*, John Wiley & Sons, Canada
- Rabari, C. and Storper, M. (2014). The digital skin of cities: urban theory and research in the age of the sensed and metered city, ubiquitous computing and big data. *Cambridge Journal of Regions, Economy and Society*, 8(1), 27-42.
- Ratchatakulpat, T., Miller, P., and Marchant, T. (2009). Residential real estate purchase decisions in Australia: is it more than location?. *International Real Estate Review*, 12(3), 237-294.
- Ratcliffe, J. (2000). Scenario building: a suitable method for strategic property planning?. *Property management*, 18(2), 127-144.
- Reicher, S.D. (1987) *Crowd Behaviour as Social Action*. In: Turner, J.C., Hogg, M.A., Oakes, P.J., Reicher, S.D. and Wetherell, M.S., Eds., *Rediscovering the Social Group: A Self-Categorization Theory*, Blackwell, Oxford, 171-202.
- Riddiough, T., and Steiner, E. (2020). Financial flexibility and manager–shareholder conflict: evidence from REITs. *Real Estate Economics*, 48(1), 200-239.
- Roberts, C. and Henneberry, J. (2007). Exploring office investment decision-making in different European contexts. *Journal of Property Investment and Finance*, 25(3), 289-305.

- Robinson, O. J., Vytal, K., Cornwell, B. R. and Grillon, C. (2013). The impact of anxiety upon cognition: perspectives from human threat of shock studies. *Frontiers in Human Neuroscience*, 7, 203.
- Rosen, O. (2015). The changing face of real estate and how it leverages technology. *Corporate Real Estate Journal*, 4(3), 230-238.
- Rotimi, J. O. B., and Wilkinson, S. (2014). Improving environmental management legislation to facilitate post-disaster reconstruction. *International Journal of Disaster Resilience in the Built Environment*. 5(1).
- Roulac, S.E. (1994). *The evolution of real estate decisions*. In *Appraisal, Market Analysis and Public Policy in Real Estate*, (eds. De Lisle, R. and Sa-Aadu, J.), Kluwer Academic Publishers, Norwell, MA.
- Rowlett, R. D. (2006). *Mergers and Acquisitions: A phenomenological case study*. Doctoral dissertation, University of Phoenix.
- Ruef, M. and Scott, W. R. (1998). A multidimensional model of organizational legitimacy: Hospital survival in changing institutional environments. *Administrative Science Quarterly*, 43, 877-904.
- Rzeszutek, M., Szyszka, A., and Czerwonka, M. (2015). Investors' expertise, personality traits and susceptibility to behavioral biases in the decision making process. *Contemporary Economics*, 9(3), 237-352.
- Sah, V., Gallimore, P. and Clements, J.S. (2010). Experience and real estate investment decision making: a process tracing investigation. *Journal of Property Research*, 27(3), 207-219.
- Sah, V. (2011). Asset acquisition criteria: A process tracing investigation into real estate investment decision making. *Journal of Property Investment and Finance*, 29(1), 7-18.
- Salomon, R. and Wu, Z. (2012). Institutional distance and local isomorphism strategy. *Journal of International Business Studies*, 43(4), 343-367.
- Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H. and Jinks, C. (2018). Saturation in qualitative research: exploring its conceptualization and operationalization. *Quality and Quantity*, 52(4), 1893-1907.
- Saunders, M., Lewis, P. and Thornhill, A. (2009). *Research methods for business students* (5th edition). London: Pearson Education.
- Saunders, M., Lewis, P. and Thornhill, A. (2016). *Research methods for business students* (Seventh). Nueva York: Pearson Education.
- Savin-Baden, M. and Major, C.H. (2013) *Qualitative Research: The Essential Guide to Theory and Practice*. London: Routledge.
- Sayce, S., Ellison, L. and Parnell, P. (2007). Understanding investment drivers for U.K. sustainable property. *Building Research and Information*, 35(6), 629-643.
- Scanlon, K. and Elsinga, M. (2014). Policy changes affecting housing and mortgage markets: how governments in the U.K. and the Netherlands responded to the GFC. *Journal of Housing and the Built Environment*, 29(2), 335-360.
- Scott, W. R. (2008). Approaching adulthood: the maturing of institutional theory. *Theory and society*, 37(5), 427.

- Scott, W. R. (2010). Reflections: The past and future of research on institutions and institutional change. *Journal of change management*, 10(1), 5-21.
- Scott, P. J. and Lizieri, C. (2012). Consumer house price judgements: new evidence of anchoring and arbitrary coherence. *Journal of Property Research*, 29(1), 49-68.
- Seiler, M., Seiler, V., Traub, S. and Harrison, D. (2008). Regret aversion and false reference points in residential real estate. *Journal of Real Estate Research*, 30(4), 461-474.
- Seiler, M., Seiler, V., Traub, S. and Harrison, D. (2008). Familiarity bias and the status quo alternative. *Journal of Housing Research*, 17(2), 139-154.
- Seiler, M. J. and Seiler, V. L. (2010). Mitigating investor risk-seeking behavior in a down real estate market. *Journal of Behavioral Finance*, 11(3), 161-167.
- Seiler, M. J., Seiler, V. L. and Lane, M. A. (2012). Mental accounting and false reference points in real estate investment decision making. *Journal of Behavioral Finance*, 13(1), 17-26.
- Seiler, M. J., Seiler, V. L., Harrison, D. M. and Lane, M. A. (2013). Familiarity bias and perceived future home price movements. *Journal of Behavioral Finance*, 14(1), 9-24.
- Seiler, M. J., Lane, M. A. and Harrison, D. M. (2014). Mimetic herding behavior and the decision to strategically default. *The Journal of Real Estate Finance and Economics*, 49, 621-653.
- Simon, H. A. (1986). Rationality in psychology and economics. *Journal of Business*, 59(4), S209-S224.
- Simon, T., Goldberg, A., and Adini, B. (2015). Socializing in emergencies—A review of the use of social media in emergency situations. *International Journal of Information Management*, 35(5), 609-619.
- Sloman, S. A. (2002). *Two systems of reasoning. Heuristic and biases. The psychology of intuitive judgment* (pp. 379–396). Cambridge: Cambridge University Press.
- Smith, M. and Taffler, R. J. (2000). The chairman's statement-A content analysis of discretionary narrative disclosures. *Accounting, Auditing and Accountability Journal*, 13(5), 624-647.
- Smith, S. J., Munro, M. and Christie, H. (2006). Performing (housing) markets. *Urban studies*, 43(1), 81-98.
- Srivastava, A., and Thomson, S. B. (2009). Framework analysis: a qualitative methodology for applied policy research. *Journal of Administration and Governance*, 72 (2009)
- Statistics NZ, (2021). Gross Domestic Product (GDP) Available through <https://www.stats.govt.nz/indicators/gross-domestic-product-gdp>
- Stringer, T. (2001). What's the best strategy for property investment: direct, listed or both? *Australian Property Journal*, 36(5), 430-433.
- Su, N. and Mattila, A. S. (2020). Does gender bias exist? The impact of gender congruity on consumer's Airbnb booking intention and the mediating role of trust. *International Journal of Hospitality Management*, 89, 102405.
- Suri, H. (2011). Purposeful sampling in qualitative research synthesis. *Qualitative research journal*, 11(2), 63-75.
- Sutrisna, M. (2009). Research methodology in doctoral research: understanding the meaning of conducting qualitative research. In *Proceedings of the Association of Researchers in Construction Management (ARCOM)*. Doctoral Workshop held in Liverpool John Moores University. Conducted by ARCOM Liverpool, UK: ARCOM.

- Tanrıvermiş, H. (2020). Possible impacts of COVID-19 outbreak on real estate sector and possible changes to adopt: A situation analysis and general assessment on Turkish perspective. *Journal of Urban Management*, 9(3), 263-269.
- Taşan-Kok, T. (2007). Global urban forms and local strategies of property market actors. *Journal of Housing and the Built Environment*, 22(1), 69-90.
- Teicher, H. M. (2018). Practices and pitfalls of competitive resilience: Urban adaptation as real estate firms turn climate risk to competitive advantage. *Urban Climate*, 25, 9-21.
- Thompson, B. (2015). Innovation in property management. *Journal of Property Investment & Finance*, 33(5), 436- 445
- Thornley, M. (2016). Financial stability risks from housing market cycles. *The Reserve Bank of New Zealand Bulletin*, 79(12), 3.
- Tversky, A. and Kahneman, D. (1974). Judgement under uncertainty: heuristics and biases, *Science*, 185(4157), 1124-1131.
- Tversky, A. and Thaler, R. H. (1990). Anomalies: preference reversals. *Journal of Economic Perspectives*, 4(2), 201-211.
- VanderStoep, S.W. and Johnston, D.D. (2009) *Research Methods for Everyday Life: Blending Qualitative and Quantitative Approaches*. San Francisco, Calif: Jossey-Bass.
- Veuger, J. (2018). Trust in a viable real estate economy with disruption and blockchain. *Facilities*, 36(1/2), 103-120.
- Vishwakarma, V. K. (2013). Is there a periodically collapsing bubble in the Indian real estate market? *Journal of Applied Business Research (JABR)*, 29(1), 167-172.
- Walliman, N.S.R. (2011) *Research Methods: The Basics*. London: Routledge
- Wang, P. (2000). Market efficiency and rationality in property investment. *The Journal of Real Estate Finance and Economics*, 21(2), 185-201.
- Waweru, N. M., Mwangi, G. G. and Parkinson, J. M. (2014). Behavioural factors influencing investment decisions in the Kenyan property market. *Afro-Asian Journal of Finance and Accounting*, 4(1), 26-49.
- Weber, R. P. (1990). *Basic content analysis* (No. 49). Sage.
- White, M. (2018). Behavioural real estate finance. In *Routledge Companion to Real Estate Investment* (pp. 251-266). Routledge.
- Wilkinson, S. J., Remøy, H. and Langston, C. (2014). *Sustainable Building Adaptation: innovations in decision-making*. John Wiley and Sons.
- Williamson, O. (1985). Reflections on the New Institutional Economics. *Journal of Institutional and Theoretical Economics*, 141(1), 187-195.
- Wong. L.P. (2008) Data analysis in qualitative research: A brief guide to using NVIVO. *Malaysian Family Physician*, 3(1), 14-20.
- Xu, R. (2017) How Herding Behavior Affects Our lives. *Journal of Finance Research*. 1(1) <https://pdfs.semanticscholar.org/c494/62f02856421b0c86e3f8e00b9c73c813c58c.pdf>
- Yang, M. and Hyland, M. (2012). Re-examining mimetic isomorphism. *Management Decision*, 50(6), 1076-1095.
- Yin, R. K. (2003). *Case Study Research: Design and methods* (3rd edition). London: Sage Publications.
- Yin, R. K. (2014). *Case study research: Design and methods* (5th edition). Thousand Oaks, CA: SAGE Publications, Inc.

- Zhou, J. and Anderson, R. I. (2013). An empirical investigation of herding behavior in the US REIT market. *The Journal of Real Estate Finance and Economics*, 47(1), 83-108.
- Zucker, L. G. (1977). The role of institutionalization in cultural persistence. *American Sociological Review*, 726-743.

APPENDICES

Appendix 1: Portfolio size and occupancy rate of the sampled listed property trusts

	T1			T2			T3			T4			T5			T6			T7		
Year	No	%	\$ (m)	No	%	\$ (m)	No	%	\$ (m)	No	%	\$ (m)	No	%	\$ (m)	No	%	\$ (m)	No	%	\$ (m)
2009	63	98	769	NA	NA	NA	22	99	1906	29	96	1549	93	98	968	NA	NA	NA	48	98	1474
2010	58	96	700	NA	NA	NA	16	98	1849	28	97	1474	72	97	863	NA	NA	NA	38	97	1395
2011	50	97	638	15	94	1284	17	97	1985	26	97	1576	74	97	948	NA	NA	NA	37	96	1286
2012	51	98	658	16	94	1350	17	97	2009	23	97	1630	65	94	905	NA	NA	NA	34	96	1310
2013	48	100	667	17	97	1659	14	97	2076	20	96	1931	63	96	977	NA	NA	NA	33	97	1462
2014	46	100	780	17	98	1748	13	97	2130	19	96	2040	66	99	1225	159	95	1105	53	98	1505
2015	41	96	842	15	98	1753	14	98	2276	16	95	2096	68	99	1306	136	98	1200	43	97	1578
2016	60	96	1275	13	98	1739	16	98	2670	10	96	2275	66	99	1367	143	98	1456	53	98	1797
2017	29	97	895	12	100	2079	16	99	2969	9	96	2249	64	98	1442	114	99	1600	41	98	1872
2018	26	97	902	12	99	2562	15	100	3052	10	97	2231	61	99	1513	99	100	1850	37	99	2018
2019	26	97	966	14	99	2893	14	99	3207	10	98	2633	60	98	1667	74	100	1804	33	99	2195

Note: **No** = Number of assets; **%** = Occupancy rate; **\$(m)** = Portfolio Value; **NA**=Reports not available for review

Appendix 2: Participant information sheet



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PARTICIPANT INFORMATION SHEET

Project title: UNDERSTANDING THE ADAPTIVE BEHAVIOUR OF PROPERTY INVESTORS TO MARKET DISRUPTIONS: AN INSTITUTIONAL APPROACH

Name(s) of Researcher(s):

Muhammed Bolomope: PhD Candidate, Department of property, The University of Auckland (m.bolomope@auckland.ac.nz)
Abdul-Rasheed Amidu: Principal Investigator, Department of Property, The University of Auckland (a.amidu@auckland.ac.nz)
Olga Filippova: Co-investigator, Department of Property, The University of Auckland (o.filippova@auckland.ac.nz)
Deborah Levy: Co-investigator, Department of property, The University of Auckland (d.levy@auckland.ac.nz)

Introduction

This research interview is part of a PhD study, investigating how property investors adapt their behaviour and make decisions in response to market disruptions. The study is aimed at understanding the unique perspectives of property investors and the role of the formal (e.g. regulations) and informal (e.g. market expectations) interactions in shaping the property investment environment. The findings of this study will add to the theoretical decision-making framework and will help inform future property investment policies.

How am I involved?

Your invitation to take part in this study is based on your recognition as a major property investor, operating within the New Zealand market. This study seeks to benefit from your wealth of experience in the research area through a face-to-face interview. The interview will explore the areas listed below

Section 1: General information about the participant (property investor)

Section 2: Discussion regarding the known disruptions that have affected New Zealand property market in the past.

Section 3: Evaluation of the behavioural responses of property investors to the identified market disruptions

How long will the interview take?

Each interview is expected to last for about 60mins. You may decline to answer any question posed during the interview and may also end the interview at any time without any reason. With your permission, the interviews will be digitally recorded as an audio file. You may request at any time during the interview to stop the recording. The audio recording will also be complemented with notes taken during the course of the interview. All data collected from the interview will be subsequently transcribed and analysed securely by the research team.

Do I have to take part?

Your involvement is voluntary and you have the right to terminate your participation in the course of the research without any form of justification. However, your participation will be highly appreciated. You also have 14 days to partially or completely withdraw the information you provide during the interview.

What happens to the information I provide?

Shortly after the interview has been completed, I will send you a copy of the transcript to give you an opportunity to confirm the accuracy of our conversation and to add or clarify any points that you wish. The information provided will be used only for the purpose of the research and treated with strict confidentiality and anonymity.

What are the possible benefits of taking part?

The outcome of this research will assist property investors in making informed decisions regarding adaptation to various forms of market disruptions. The research outcome could also assist policymakers in formulating far-reaching policy solutions that will ensure the sustainability of property investment.

What happens next?

The research outcome will be compiled in form of a detailed report, which will be submitted to the Department of Property, University of Auckland, in partial fulfilment of the award of Doctor of Philosophy in Property. The research output is also intended for publication through relevant academic journals.

Can I have a copy of the research outcome?

Yes. A copy of the research outcome will be made available to you upon request. You can indicate your interest by ticking the space provided in the consent form.

Data storage/ Retention/ Distribution / Future use

Electronic data will be stored on an external storage device, placed in a locked cabinet at the University of Auckland and kept for 6 years. Electronic data will also be backed up and stored on the University of Auckland server for 6 years. Only participants will be given the opportunity to review or edit their transcripts if they so wish. Storage for the purpose of the research will only be accessible to the researcher. Furthermore, the security of the data will be ensured by identifying participants through the use of coding, separating storage for recorded information from transcripts or other identifiable materials and keeping the information and coding secret.

Anonymity and confidentiality

Your name and personal identifying information will be kept strictly confidential and you will not be identified by name in any of the publications or presentations

Contact details and approval:

If you have questions that you wish to address independently regarding this research, you may contact the research supervisors through:

Principal Investigator:

Dr Abdul-Rasheed Amidu
Department of Property. The University of Auckland Business School
Email: a.amidu@auckland.ac.nz
DDI: 09 923 2986

Co-Investigator:

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Dean of Business and Economics:

Professor Jayne Godfrey
The University of Auckland Business School
Email: jayne.godfrey@auckland.ac.nz
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For any concerns regarding ethical issues, you may contact the Chair, the University of Auckland Human Participants Ethics Committee, at the University of Auckland Research Office, Private Bag 92019, Auckland 1142. Telephone 09 373-7599 ext. 83711. Email: humanethics@auckland.ac.nz

Approved by the University of Auckland Human Participants Ethics Committee on 06-11-2019 for three years. Reference Number 023870.

Appendix 3: Consent form



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CONSENT FORM

THIS FORM WILL BE HELD FOR A PERIOD OF 6 YEARS

Project title: UNDERSTANDING THE ADAPTIVE BEHAVIOUR OF PROPERTY INVESTORS TO MARKET DISRUPTIONS: AN INSTITUTIONAL APPROACH

Name(s) of Researcher(s):

Muhammed Bolomope: PhD Candidate, Department of property, The University of Auckland (m.bolomope@auckland.ac.nz)
Abdul-Rasheed Amidu: Principal Investigator, Department of Property, The University of Auckland (a.amidu@auckland.ac.nz)
Olga Filippova: Co-investigator, Department of Property, The University of Auckland (o.filippova@auckland.ac.nz)
Deborah Levy: Co-investigator, Department of property, The University of Auckland (d.levy@auckland.ac.nz)

I have read the Participant Information Sheet, have understood the nature of the research and why I have been selected. I have had the opportunity to ask questions and have had them answered to my satisfaction.

- I understand the nature of the participation is completely voluntary.
- I agree to take part in this research
- I understand that I am free to withdraw my participation at any time, and to withdraw any data traceable to me up to two months from the date of the interview.
- I understand my identity will remain confidential.
- I agree/do not agree to be audio recorded. (Please circle)
- If I agree to be audio recorded, I understand I can choose to have the digital voice recorder turned off at any time without giving a reason.

- I wish/ do not wish to receive a transcript of my interview for editing. (Please circle)
(If you wish to receive the transcript, it will be available two weeks after the interview. After receiving the file, you will have two weeks to review and amend the transcript and return it to the researcher.)
- I understand that the storage of the original research will be accessible by the researcher only.
- I wish/do not wish to receive a summary of findings, which can be emailed to me at this email address: _____

Name: _____ Signature: _____

Date: _____

Approved by the University of Auckland Human Participants Ethics Committee on 06-11-2019 for three years. Reference Number 023870.

Appendix 4: Interview Protocol

Schedule for Semi-Structured Interview: UNDERSTANDING THE ADAPTIVE BEHAVIOUR OF PROPERTY INVESTORS TO MARKET DISRUPTIONS		
<p>Preamble: <i>Thank you for choosing to speak with us today. Hope you had the chance to read through the information sheet and you are happy to proceed. May I inform you that although you have decided to be part of this research interview, you have the right to withdraw from the interview session at any point without prior notification or reason.</i></p>		
Main Question	Prompts/Clarification	Request for detailed information
SECTION 1		
Kindly tell us a bit about yourself	Your academic and professional qualifications?	How long have you been operating within the New Zealand property market?
Tell us a little about your Trust, and your role as a decision-maker.	Your investment focus and portfolio spread?	Why do you operate currently in this form?
How do you make investment decisions in your Trust?	Can you describe the main considerations that influence your investment decisions and why?	Can you describe the various aspects of the decision making process as it relates to your LPT?
Have you ever had cause to rethink your decision-making strategy as a Trust?	Why?	
Could you describe significant events that have altered your investment preference as a Trust over the years	To what extent did these events impact your investment portfolio as a Trust?	
SECTION 2		
How will you describe property market disruptions?	Have you experienced any? Give examples.	
Based on your experience, how will you describe the impact of major disruptions on your organization?		Which of the major disruptions (give examples) poses a greater impact? <i>(refer to excerpts from the annual report)</i>

How would you access your organization's response to these disruptions?	Were there anticipatory plans in place?	Do you have a particular experience you'd like to share?
How would you describe the role of other stakeholders in measuring the impact of market disruptions on your organization?	The role of Government (regulatory changes) The role of tenants The role of Insurance companies ...	
Do you think you have efficient strategies to respond to market disruptions as an organization?	Are the strategies in tune with the existing regulations?	Do you have a particular experience you'd like to share?
SECTION 3		
How will you describe the adaptive response of your organization to previous market disruptions?	Why?	<i>(refer to observed pattern in annual report)</i>
Are you satisfied with the aforementioned response pattern in guiding the decision-making process in your organisation regarding future market disruptions?	Why? /What are your concerns?	
How will you access your organization's response to government regulations aimed at managing disruptions?	Are the regulations sufficient and practicable?	Why? What are your concerns?
What will you consider as the limitations of the existing decision-making framework in your organisation?	are these limitations event/location-specific?	Kindly discuss further
How can the situation be improved	Kindly propose a way forward	

Thank you.

Appendix 5: Ethics approval

Office of the Vice-Chancellor
Office of Research Strategy and Integrity (ORSI)



The University of Auckland
Private Bag 92019
Auckland, New Zealand

Level 11, 49 Symonds Street
Telephone: 64 9 373 7599
Extension: 83711
humanethics@auckland.ac.nz

UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE (UAHPEC)

06-Nov-2019

MEMORANDUM TO:

Dr Abdul-Rasheed Amidu
Property

Re: Application for Ethics Approval (Our Ref. 023870): Approved

The Committee considered the application for ethics approval for your study entitled **UNDERSTANDING THE ADAPTIVE BEHAVIOUR OF PROPERTY INVESTORS TO MARKET DISRUPTIONS: AN INSTITUTIONAL APPROACH**.

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 06-Nov-2022.

Completion of the project: In order that up-to-date records are maintained, you must notify the Committee once your project is completed.

Amendments to the project: Should you need to make any changes to the project, please complete an Amendment Request form in InfoEd, giving full details along with revised documentation. If the project changes significantly, you are required to submit a new application to UAHPEC for approval.

Funded projects: If you received funding for this project, please provide this approval letter to your local Faculty Research Project Coordinator (RPC) or Research Project Manager (RPM) so that the approval can be notified via a Service Request to the Research Operations Centre (ROC) for activation of the grant.

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 Ethics Administrators at humanethics@auckland.ac.nz in the first instance.

Additional information:

1. Do not forget to complete the 'approval wording' on the PISs, CFs and/or advertisements and emails, giving the dates of approval and the reference number. This needs to be completed before you use the documents or send them out to your participants.

Please quote Protocol number **023870** 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, Property

Olga Filippova

Prof Deborah Levy

Mr Muhammed Bolomope

Appendix 6: New Zealand Earthquake Prone building Risk Categorization by Region

