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**Factors influencing location selection decisions for tourism budget  
accommodation: An empirical investigation of motels within New  
Zealand**

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A thesis  
submitted in partial fulfilment  
of the requirements for the Degree of  
Doctor of Philosophy

at  
Lincoln University  
by  
Md Shoaib Akhtar

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Lincoln University  
2021

Abstract of a thesis submitted in partial fulfilment of the  
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Factors influencing location selection decisions for tourism budget  
accommodation: An empirical investigation of motels within New Zealand

by

Md Shoaib Akhtar

Location selection of a business is a crucial decision-making element in the motel sector because a flawed decision can be very difficult or even impossible to rectify. There is a notable gap in the literature on location selection for the tourism accommodation sector with almost all work focusing on hotel location. While work within New Zealand is particularly rare, research on factors influencing motel location is virtually non-existent. This study explores factors influencing location selection and determines the importance of each of these factors to the motel owners. This study also analyses the nexus between theory and practice to develop a model for location selection specific to New Zealand.

The study uses a qualitative lead mixed method approach. Data were collected using in-depth interviews with sector experts and face-to-face surveys with New Zealand motel owners. The study uses a combination of thematic analysis, the Analytic Hierarchy Process (AHP) of the multi-criteria decision making, and cluster analysis to examine the dimensions of motel location selection. The first phase of this study reviews the literature on tourist accommodation location selection and identifies a range of factors: financial, non-cash benefits, agglomeration, connectivity, location and visibility, the business environment and government policy factors. These factors are refined and contextualized using in-depth interviews with sector experts and thematic analysis. These factors are organized into criteria and sub-criteria and arranged in a hierarchy. The resultant hierarchy provides an initial framework for location selection in the New Zealand motel sector.

The second phase of the study surveys motel owners/operators with experience in selecting a motel location and examines the factors influencing decision-making using the Analytical Hierarchy Process (AHP). The AHP result reveals some common patterns. Cluster analysis is used to explore underlying meaningful clusters of similar groups of respondents underpinning motel investment decisions. The

cluster analysis identifies four clusters of owners: lifestyle, balanced lifestyle, location-based profit-centric, and pure profit-centric owners.

The findings demonstrate significant discrepancies between the theory and practice of location selection for the New Zealand motel sector. The importance of factors varies from that reported in the global literature. The influence of factors varies among motel owners. The AHP findings reveal that financial criteria are the most influential for motel location selection followed by location and visibility, non-cash benefits, the business environment, agglomeration, connectivity and government policies. This study rigorously assesses the location selection process and develops a model to assist stakeholders in understanding the process. Although this study is the first of its kind, the model shows potential utility in the field of motel location selection. The study suggests further research on motel location selection to enhance the model.

**Keywords:** Motel, investment, location selection, tourist accommodation, hotel, AHP, thematic analysis, cluster analysis, MCDM, location theory, location factors, lifestyle, motel investment.

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# Table of Contents

## Contents

<b>Abstract .....</b>	<b>ii</b>
<b>Acknowledgements .....</b>	<b>iv</b>
<b>Table of Contents .....</b>	<b>v</b>
<b>List of Tables .....</b>	<b>viii</b>
<b>List of Figures .....</b>	<b>ix</b>
<b>Chapter 1 Introduction .....</b>	<b>10</b>
1.1 Introduction .....	10
1.2 Research context.....	12
1.3 Background of the research.....	13
1.4 The theoretical point of view.....	13
1.5 The practical point of view.....	16
1.6 Problem statement .....	18
1.7 Research aims, objectives and research questions .....	20
1.7.1 Objectives.....	20
1.7.2 Research Questions.....	20
1.8 Conceptual framework .....	20
1.8.1 Theoretical base.....	21
1.8.2 Disciplinary focus .....	23
1.9 Theoretical contributions and practical implementation.....	23
1.9.1 Theoretical contributions.....	23
1.9.2 Practical implications .....	24
1.10 Thesis structure.....	24
<b>Chapter 2 Literature review .....</b>	<b>26</b>
2.1 Introduction .....	26
2.2 The Influence of location on the tourist accommodation sector .....	27
2.2.1 The determinants of tourist accommodation sector performance.....	27
2.2.2 The determinants of hotel/motel location .....	29
2.3 Theoretical background of tourist accommodation location research .....	30
2.3.1 Location theory (theoretical perspective) .....	31
2.3.2 Empirical models.....	36
2.3.3 Other recent theoretical contributions.....	40
2.4 The theoretical framework .....	43
2.4.2 Insights from the theoretical framework for future research .....	50

2.5	Sector-specific research for motel location decisions .....	51
2.6	Conclusion.....	55
<b>Chapter 3 Methodology .....</b>		<b>58</b>
3.1	Introduction .....	58
3.2	The research paradigm .....	59
3.2.1	Ontology.....	60
3.2.2	Epistemology.....	60
3.2.3	Methodology.....	61
3.3	The study's design.....	62
3.3.1	Design of the research .....	62
3.3.2	Research approach (mixed method approach).....	63
3.4	Validity and reliability .....	64
3.5	Ethical Considerations.....	65
3.6	Research method .....	66
3.6.1	Data collection and the methods used in the first phase of the study.....	66
3.6.2	Data collection and methods used in the second phase of the research.....	71
3.7	Conclusion.....	84
<b>Chapter 4 Analysis and results .....</b>		<b>86</b>
4.1	Introduction .....	86
4.2	Results from the first phase of data collection .....	86
4.2.1	Results from the pre-testing .....	86
4.2.2	Results from the in-depth interviews with the sector experts .....	86
4.3	Results from the second phase of data collection.....	94
4.3.1	Results from the pre-testing .....	94
4.3.2	Results from the face-to-face survey of the motel owners .....	94
4.4	Results from the AHP and cluster analysis.....	101
4.5	Detailed results from the AHP analysis.....	101
4.5.2	Criteria and sub-criteria influencing location selection .....	103
4.5.3	Financial criteria.....	104
4.5.4	Location and visibility.....	107
4.5.5	Non-cash benefits .....	109
4.5.6	Business environment.....	113
4.5.7	Agglomeration.....	115
4.5.8	Connectivity .....	116
4.5.9	Government policy.....	118
4.6	Cluster analysis .....	122
4.6.1	Two cluster analysis .....	123
4.6.2	Four cluster analysis.....	124
4.6.3	Three cluster analysis.....	130
4.6.4	Three-cluster to four-cluster transition .....	134
4.6.5	Cluster Summary.....	136
4.7	Conclusion.....	137
<b>Chapter 5 Discussion.....</b>		<b>138</b>
5.1	Introduction .....	138
5.2	Key findings.....	138
5.3	Interpretation .....	139

5.3.1	The study's first phase .....	140
5.3.2	The second phase of the research .....	142
5.3.3	Discussion of the AHP analysis results .....	142
5.3.4	Cluster analysis findings .....	151
5.4	Location selection model .....	152
5.5	Contributions .....	154
5.6	Limitations .....	155
<b>Chapter 6 Conclusions .....</b>		<b>156</b>
6.1	Introduction .....	156
6.2	Reflections .....	157
6.3	Future research directions .....	159
6.4	Concluding remarks .....	160
<b>References .....</b>		<b>162</b>
<b>Appendix A Face-to-face survey instrument .....</b>		<b>171</b>
<b>Appendix B Motels of New Zealand .....</b>		<b>180</b>
<b>Appendix C Consistency Ratio (CR) of 20 respondents after second iteration.....</b>		<b>181</b>



## List of Tables

Table: 1 Criteria and factors in location selection identified from the location-focused literature	46
Table: 2 A summary of focus and methodology of recent literature on location selection	48
Table: 3 Interviewed experts of the first phase	69
Table: 4 The online platforms used to prepare the motel list of the upper South Island	74
Table: 5 Sample selection	75
Table: 6 Sample selection criteria	76
Table: 7 The 1-9 fundamental scale developed by Saaty for pair-wise comparison	81
Table: 8 Questions asked by a broker of their clients	89
Table: 9 Questions asked of the clients of expert #2	90
Table: 10 Suggestions about location from expert #5	90
Table: 11 The four rules of hierarchy construction	92
Table: 12 Motel respondents' characteristics and backgrounds	99
Table: 13 Motel profile	100
Table: 14 Financial sub-criteria' weight from the AHP model	104
Table: 15 Financial sub-criteria weighted by respondent	105
Table: 16 Location and visibility sub-criteria' weights for motel location selection	107
Table: 17 Sub-criteria weights of respondents for location and visibility	107
Table: 18 Respondents' non-cash benefit sub-criteria weights	110
Table: 19 Respondents non-cash benefit sub-criteria weights	110
Table: 20 Respondents' former professional background and employment status	111
Table: 21 Respondents' business environment sub-criteria weights	113
Table: 22 Respondents' business environment sub-criteria weights	114
Table: 23 Respondents' agglomeration sub-criteria' weights	115
Table: 24 Respondents' sub-criteria weights of agglomeration	115
Table: 25 Respondents' connectivity sub-criteria weights	117
Table: 26 Respondents' connectivity sub-criteria weights	117
Table: 27 Respondents' government policy sub-criteria weights	119
Table: 28 Respondents' government policy sub-criteria weights	119
Table: 29 Respondents' criteria weights	121
Table: 30 Criterion weights for all 20 respondents	122
Table: 31 Criterion means results of a two-cluster analysis	123
Table: 32 Criteria means of the four-cluster analysis of respondents	125
Table: 33 Criteria means of the three cluster analysis	130
Table: 34 Cluster formation of 20 moteliers	136

## List of Figures

Figure: 1 Understanding the research background and context .....	18
Figure: 2 The simplification of the research problem .....	19
Figure: 3 The links among the problem, objectives, and research questions.....	21
Figure: 4 The conceptual framework .....	22
Figure: 5 The theoretical base of this study .....	23
Figure: 6 The author's classification of location theory literature; concept from Yang et al (2013)	30
Figure: 7 The process of choosing factors for analysis.....	47
Figure: 8 Derivation of research paradigm for this study .....	62
Figure: 9 Proposed research design to develop a model for location selection for NZ motels.....	63
Figure: 10 A diagrammatic representation of the first phase of the study .....	67
Figure: 11 Topics addressed to motel sector experts .....	68
Figure: 12 A diagrammatic representation of the second phase of the study .....	72
Figure: 13 Motel dispersion in the study area (author's compilation) .....	74
Figure: 14 The Steps of Analytic Hierarchy Process .....	83
Figure: 15 The K-mean cluster analysis algorithm .....	84
Figure: 16 The hierarchy of the factors influencing motel location selection in New Zealand .....	93
Figure: 17 Response rate of motel owners to different modes of approach .....	95
Figure: 18 The number of units in the respondents' motels .....	96
Figure: 19 Owners' location perception (identifying as destination/gateway/transit) .....	96
Figure: 20 Respondents' age of motel business and age of the property .....	97
Figure: 21 Motel experience of the respondent motel owners.....	98
Figure: 22 Study area and respondents' locations.....	100
Figure: 23 AHP results from the software run .....	103
Figure: 24 Respondents' sub-criteria weights across all sub-criteria.....	120
Figure: 25 The two cluster combination of the respondents.....	124
Figure: 26 Membership degree of the pure lifestyle cluster .....	126
Figure: 27 Membership degree of the balanced lifestyle cluster .....	127
Figure: 28 Membership degree of the location-based profit-centric cluster .....	128
Figure: 29 Membership degree of the pure profit centric cluster .....	129
Figure: 30 Membership degree of the balanced moteliers .....	131
Figure: 31 Membership degree of the ambitious moteliers .....	132
Figure: 32 Membership degree of the location based motelier cluster .....	133
Figure: 33 The transition of moteliers in the three to four cluster .....	135
Figure: 34 Motel location selection model .....	153

# Chapter 1

## Introduction

### 1.1 Introduction

Decision-making for motel location selection is fixed in nature. Deciding where to buy or build a motel has long-term implications. A flawed decision can be very difficult or even impossible to rectify. Motel locational analysis is a crucial decision-making element in ensuring the profitability and sustainability of the motel. This thesis investigates owners' and operators' decision-making criteria for the selection of motel location in the provision of motels within New Zealand. The application of location theories has been explored using mixed methods. Influential factors for motel location selection, and their significance, have been explored using thematic analysis, the analytic hierarchy process (AHP) of the multi-criteria decision-making (MCDM) methods, and cluster analysis. The methods were used to explore actual motel location decision-making, to investigate the nexus between theory and practice, and to develop a model for motel location selection. To establish the context, definitions of motel and the motel sector of New Zealand are first introduced.

#### Defining a motel

Broadly speaking, the tourism accommodation sector mainly consists of four types of commercial accommodation: (a) hotels, (b) motels, (c) backpackers and (d) holiday parks. According to the Ministry of Tourism NZ (2010, p. 1) "motels are businesses that provide short-term accommodation in self-contained units, usually with cooking, bathroom and toilet facilities. Motels are designed to cater for motoring visitors with parking facilities outside or close to each unit. The motel sector also includes apartments, flats, chalets, villas and cottages". Unlike hotels, the majority of the motels are small (between 5 and 29 units). They also provide a very limited set of services typically lodging and parking services (Ministry of Tourism NZ, 2010). In New Zealand, motels have an average of 15 rooms (Stat NZ, 2019).

Conceptually, motels are highway-oriented facilities, offering travellers inexpensive, no-frills accommodation. While motels are spartan compared with most hotels, they are competitive because of their convenient highway locations, ample parking and low rates (Rushmore & Baum, 2002). Compact facilities and fewer guest services contribute to operating efficiencies and lower expenses for motels. A site off an interchange or a short distance from a prime location creates additional opportunities for a motel to reduce its price/room tariff. To maintain their competitive edge, budget

motels offer minimum landscaping, decoration, and facilities. Motel size, construction cost land value and operating costs used to be radically different from hotels in the middle of last century when the concept of motel flourished in the United States of America. A decade later, motels began to offer more amenities and motor hotels combined the services and facilities of hotels with the convenience of motels (Rushmore & Baum, 2002). Budget motels are more vulnerable to increased expenses and decreased occupancies from an investment perspective. Due to its lower price structure, a budget motel requires a higher breakeven occupancy level.

### **The motel sector of New Zealand**

The New Zealand motel sector supplies one-fifth of the guest night capacity. It hosts approximately one third of the total guest nights of New Zealand (Stat NZ, 2019). Guests include local and international tourists, business visitors visiting friends and relatives (VFR) and other types of guest (Ministry of Tourism NZ, 2010). There are more than 1800 motels spread across New Zealand (Stat NZ, 2019). Motels in New Zealand were the most popular form of accommodation during the last decade, however, motels tended to be small in scale (Christoffel, 2010). Of the 531 motel members of AccommodationNZ, the average size of a motel is around 17–20 units (Ministry of Business Innovation & Employment, 2016). Lockyer and Roberts (2009) found that the average size of motels in New Zealand was approximately 12 rooms. In small cities, towns and remote places, commercial accommodation largely consists of motels because hotels struggle with volume and economies of scale (Ministry of Business Innovation & Employment, 2016). In Canterbury, motels host the largest portion of guests in New Zealand (Ministry of Tourism NZ, 2010). The same report indicates that in New Zealand, motel visitors are moderately satisfied, slight less than hotel visitors and more than holiday parks and backpackers. Motels are generally clustered in regional centres, city-suburbs, towns and major attractions; however, isolated motels are also common in New Zealand. Rural areas tend to have a higher proportion of motels (Ministry of Business Innovation & Employment, 2016). In New Zealand, motels are mainly found close to state highways, by major arterial roads and/or near main transport routes in and out of towns and cities (Christoffel, 2010). The same report found that motel clusters often develop on these routes and individual motels vie with one another to attract guests by erecting large neon signs and advertising attractive features such as Sky TV and spa pools. Unlike big chain hotels, in New Zealand, motels are general locally owned and not operated by professional executives. The first motel opened in New Zealand in the 1950s. A motor vehicle boom and low staffing requirements because of fewer services offered made motel investment attractive in New Zealand (Christoffel, 2010). Having provided a brief discussion of motels and the status of motels in New Zealand, there is now a brief discussion of the research context.

## **1.2 Research context**

This section discusses the research topic, research period and specific geographic area where the research was conducted. Explaining the research context allows us to understand the research topic from a contextual perspective. While this research is about the location selection of motels within New Zealand, field data are drawn from the northern half of the South Island of New Zealand.

### **Motel location**

Motels are a unique form of tourist accommodation. They are generally small, with a specific structural pattern (parking space near a room) and limited-service line. As motels offer limited services, location plays a crucial role in differentiating an individual motel from its competitors and gaining a competitive advantage. This study focuses on motel location selection because the present location decision-making process appears ambiguous and capricious. Deciding where to build/buy a motel is an important decision. It is almost impossible or extremely costly to reverse a flawed decision, and this crucial decision is being made by the owners or operators who often have very little previous experience and relevant education.

Entry into the New Zealand motel sector is comparatively easy and requires a small to moderate investment (depending on the size of the motel and its quality). Anyone interested in this sector can buy a motel due to a very low entry barrier (other than money). Decisions on motel location selection appear to be based on personal experience and the owner's/operator's perceptions. This is concerning in terms of a business sustainability and profitability. Generally, motel owners make all the decisions, from investment and location selection to strategy setting and those relating to the day-to-day operations and management. This study investigates how motel locations are chosen. More specifically, it asks, what is the logic behind selecting a specific location?

### **Research area: Why the north half of the South Island?**

This study divided the whole of New Zealand into four major regions: the north and south halves of the North Island, and the north and south halves the South Island. Due to time and budget constraints, it was not possible to investigate the whole of New Zealand. This study randomly selected the north half of the South Island. The north half of the South Island has about 430 motels. Of all the regions in New Zealand, Canterbury has the highest number of motels and Canterbury accounts for about 15 percent of the motel stock (Ministry of Tourism NZ, 2010). Accommodation in greater Canterbury, Nelson-Tasman and West Coast largely consists of motels. Motels in this region demonstrate a historical or traditional mix. Unlike regions like Auckland and Queenstown, motels are not a new

phenomenon in the region. The north half of the South Island is a good representation of New Zealand in terms of the total number of motels and the state of the countrywide motel sector.

### **Research period**

The research was designed and data were collected before April 2020, before the emergence of the COVID-19 pandemic. Due to the COVID pandemic, data validation was delayed but it did not affect data collection. Data collection was completed before the official lockdown began (25 March 2020). COVID-19 could affect the collected data if the data were collected during or after the COVID-19 pandemic. In this case, the data represent respondents' pre-COVID thoughts.

So far, a motel has been defined, the motel sector of New Zealand examined, the importance of motel location discussed, the geographic context of the research (research area), and the research period delimited. The next section provides the background for the research. A detailed discussion is provided in the literature review chapter.

## **1.3 Background of the research**

This study addresses the decision-making process in selecting a motel location. An ideal location provides a motel with a competitive advantage: an ideal location is positively related to motel performance and sustainability. An ideal location is basically the most suitable site under certain budget, knowledge and other constraints. The decision about the location has far-reaching consequences that can lead directly a motel's success or gradual death if the other factors remain same. The importance of a motel's location can be identified from both practical and theoretical views. Practical views report real life problems whereas the theoretical view provides the background from a purely theoretical viewpoint. Both viewpoints are discussed in the subsequent sections.

## **1.4 The theoretical point of view**

Bull (1994, p. 10) pointed out that "the three most important attributes that a hotel or motel can offer are *location, location, and location*". There is a growing body of literature that recognizes the importance of location for the tourist accommodation sector (Adam & Amuquandoh, 2014; Chou, Hsu, & Chen, 2008; Juan & Lin, 2013; Kundakçı, Adali, & Ayşegül, 2014; Song & Ko, 2017; Yang, Tang, Luo, & Law, 2015; Yang, Wong, & Wang, 2012). Surprisingly, these scientific literatures are based on the hotel; other forms of tourist accommodation and literature regarding the motel location decision-making process is sparse. To the best of the author's knowledge, no previous research has investigated the decision-making process around selecting the location of a motel and the issues associated with it.

## **Influence of an ideal location**

Because of the lack of literature on motel location, this study develops a theoretical background from the hotel sector literature. Hotel location selection focusses on the determination of a geographic site on which to locate a hotel's operation (Kundakçı et al., 2014). The selection of a hotel's location has strategic importance for the hotel's management (Kundakçı et al., 2014) and has substantive long-term consequences for the success of the business (Baum & Mezias, 1992). An ideal location is associated with strong accommodation demand (Lockyer, 2005) higher customer satisfaction (Sim, Mak, & Jones, 2006) and higher revenue per available room (Sainaghi, 2011). Location is an important factor for a hotel establishment to secure long-term business prosperity since it strongly underpins tourist demand for hotel selection decisions (Cró & Martins, 2018). Theoretical perspectives of tourist accommodation are discussed below.

## **Theoretical perspectives**

Early location theories for the agricultural sector (Thünen, 1826), manufacturing (Weber, 1929) and service sectors (Hotelling, 1929) are slowly losing their appeal because of rapid changes in technology and contemporary business. According to Thünen (1826) distance was the most important factor for determining agricultural land rent. In his work on industrial location, Weber (1929) argued that transport, the workforce cost, and the availability of raw materials were the most important factors to consider. The examination of service sectors by Hotelling (1929) focused only on distance between the retailer and customers. According to Jirásková (2015), location factors for business services are largely influenced by modern technologies, especially by transport and the development of online services that have moderated the importance of location factors. At present, none of the above theories have practical application for the hotel sector. First, distance/spatial proximity to the customer has been moderated by the internet which enables online booking systems. Today, hotel transactions commonly take place online and, unlike the manufacturing sector, the effect, significance and availability of raw material, labour and transport costs differ in the service sector from those experienced in manufacturing. The advances in technology, opening up of economies by trade and globalization has resulted in a different business environment than in the past.

Theories from different disciplines have consistently been used to explain different perspectives on hotel location. In the tourist-historic city model (the THC model), Ashworth (1990) identified different locational zones and explained what type of hotels can be found in each of these zones. Egan and Nield (2000) derived a monocentric model from a partial equilibrium bid rent approach and have explained the spatial hierarchy of hotels in terms of the distance to the city centre. The mono-centric model highlights a centripetal force from upscale hotel locations and a centrifugal force on downscale

ones. This means upscale hotels will be found in the centre and the downscale hotels will be found away from the centre. However, the monocentric model investigates business location using several oversimplified assumptions; some of them, such as a city having a single centre, have been deemed too unrealistic for general hotel location cases (Shoval, 2006).

Another research theme focuses on the agglomeration processes in hotel location. The agglomeration effect refers to benefits that any one hotel can receive from clustering. Freedman and Kosová (2011) study on agglomeration revealed that agglomeration benefits only certain types of hotel under certain conditions. For example, they found that only downscale hotels benefit from agglomeration effects. Upscale hotels are negatively affected if there is agglomeration with downscale hotels. What this means is that it is not always possible to achieve an advantage on hotel profitability by opening a hotel in a concentrated hotel zone. Moreover, many hotels are located in isolated areas; agglomeration theory may not be applicable to this phenomenon.

Apart from theoretical models, empirical and operational models have been developed to find the best hotel location. The 'checklist method' is an operational model that refers to a systematic evaluation of possible locations based on pre-specified criteria in the form of a checklist (Yang, Luo, & Law, 2014). However, though the checklist is usually derived from the experience of experts, it has generally not been subjected to rigorous empirical validation. A major criticism of this method comes from its subjectivity and lack of transferability and generality (Yang et al., 2014). Empirical models such as the hotel success model and individual evaluation model were introduced to reduce subjectivity and bias. Though the hotel success model identifies the success factors of pre-existing hotels to use for new entrants, the individual evaluation model investigates hotel location using individual evaluation, like hotel investors and potential hotel guests. In general, the first method uses regression as an analytical tool and the second one uses AHP or the Delphi method. Individual evaluation models cover a wide range of factors obtained from existing literature and available experts. They are easily understandable and cover both operational and empirical issues to form a theoretical base. However, there is a gap in the tourist accommodation sector literature; these models have not been applied to the motel sector.

The focus of locational research in the tourist accommodation sector has remained largely limited to the hotel sector. High-end luxury hotels have drawn attention, with research considering issues such as international tourist hotel location selection (Chou et al., 2008) determinants of multinational hotel groups' locational investment choices (Zhang, Guillet, & Gao, 2012), selecting resort locations (Juan &



Lin, 2013), location factors for attracting international hotels (Assaf, Josiassen, & Agbola, 2015), the clustering benefit of upscale hotels (Urtasun & Gutiérrez, 2017), location decision strategies of a hotel chain network (Song & Ko, 2017).

Other studies focus on hotels in general, such as hotel location in cities (Urtasun & Gutiérrez, 2006), the impact of location on profitability (Lado-Sestayo, Otero-González, Vivel-Búa, & Martorell-Cunill, 2016), hotel location selection and evaluation (Yang et al., 2015; Yang et al., 2012) location as a determinant of the development of hotels (Sidorkiewicz & Puciato, 2017), determination of thermal hotel locations (Emir & Saraçlı, 2014), intraurban hotel locations (Egan & Nield, 2000), factors influencing location decisions (Puciato et al., 2017), the geography of hotels in cities (Shoval, McKercher, Ng, & Birenboim, 2011). Only one study on motel location, Bull (1994), explains the ways to extract the maximum marketing advantage out of a hotel/motel's location. Bull outlines a method for determining the value, or implicit price, of a hotel or motel's location at market rates. Of note here is an important distinction for the study on New Zealand motels- which by definition derive from the concept of motor hotels indicating a more mobile client, and one more commonly attuned to the leisure (attractions) than the business sector. As such destination is interpreted broadly to refer to a client's focal point of activity.

From a theoretical point of view, location theories constantly change, evolve and reveal new factors (Jirásková, 2015). Location factors of the service industry are largely influenced by modern technology (mainly transport and internet) and the opening up of economies due to the globalization of trade and services. Proximity to customers was once one of the most important factors for the service sector; it is less important today (Zaheer, Lamin, & Subramani, 2009). For the tourism accommodation sector, proximity works differently because local residents are not the buyers of the accommodation service and most tourists book their accommodation online. As the tourism accommodation sector is quite different in nature, the available location theories need to be updated. There is a strong need for more realistic models for this sector. They are discussed in further detail in the literature review in Chapter 2.

## **1.5 The practical point of view**

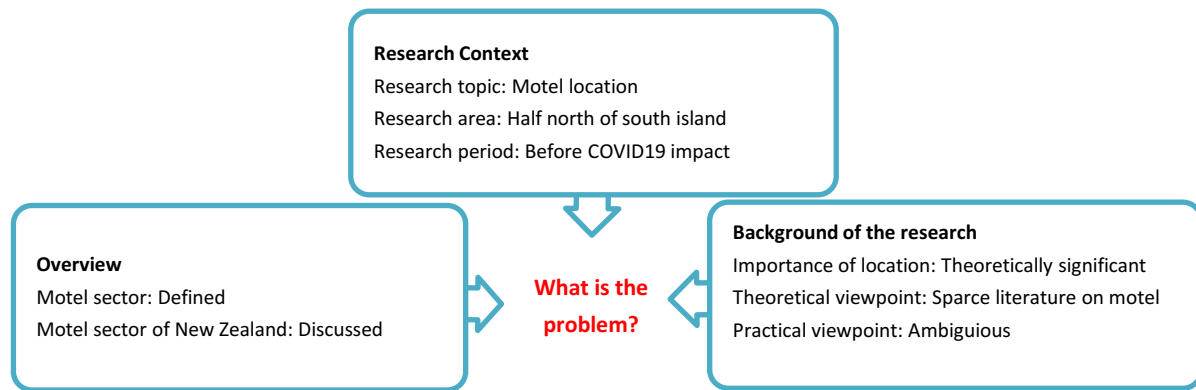
At the heart of this study are several questions: Do motel owners select their location purposefully? What factors do they consider when deciding on location? There is scant evidence in the literature about how motel location decisions are made. However, a striking revelation is provided by Rowson (2012) who found that there was a common perception among small hotel owners that few skills were

required to operate a hotel and that most of it was just “common sense”. It appears that location selection decisions are also being made with that same “common sense”.

Compared with upscale and luxury hotels, motel properties are generally cheaper to develop and do not require a large staff to maintain operations. These features make motels an attractive small business. An easy lease purchase process and low entry barriers have made motel investment easier. It is common for owners to select a location without understanding the reasons that may cause it to weaken over time. Being in a weak location or having a location that is weakening over time can cause a serious threat to a motel’s sustainability. Many locations that initially seem “good” may become a bad investment decision unless owners truly know what they are doing.

Owners (lessee or property owners) must first check the spatial and agglomeration attributes while selecting a business location. However, not all agglomeration results in a positive result. To succeed in the business, to prepare for the unforeseeable, and to be agile enough to respond to new opportunities, it is crucial to understand location factors, examine their significance, and explore how the range of location factors that underpin business success work. Entering the motel business without a thorough understanding may result in sub-optimal performance. Ideal location selection for motels is more challenging now due to the diversification of motels. While low quality, dingy and very low standard motels still exist, today there are also remodelled or newer and much higher standard motels. Timothy and Teye (2009) found that though motels are different from hotels, some of the higher-end motels offer a range of services and the differences between those motels and hotels are hard to distinguish. According to Cheng and Chen (2018), motels are now integrating some of the characteristics of hotels, such as leisure, entertainment, and food and beverages, into their services. Many motel operators provide innovative services such as conference rooms, to attract customers. The motel sector highly depends on a complex web of locational factors such as proximity to other required services for the guests (destination, economic centre, shopping mall, cafés, and restaurants). However, it appears motel location selection has been overlooked in practice.

The above background reveals the significance of motel location selection from a theoretical and practical viewpoint. Figure 1 summarises the issues discussed so far.



**Figure: 1 Understanding the research background and context**

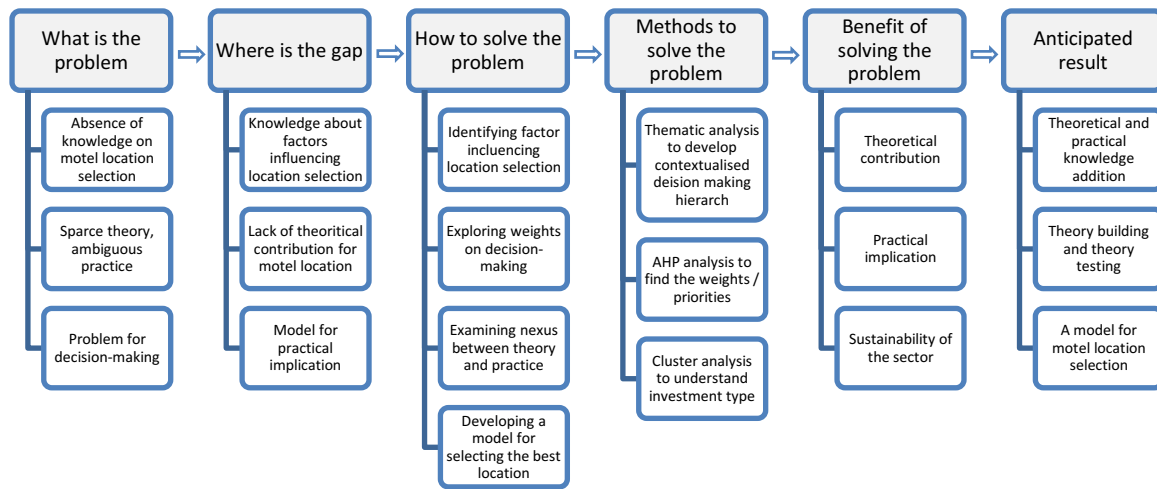
The next section outlines the problem statement and discusses the problems identified for this study. Here, ‘tourist accommodation sector’ indicates any kind of tourist accommodation (hotel, motel, resort, hostel).

## 1.6 Problem statement

Yang et al. (2012) found location selection is one of the most important factors for both the establishment of a new hotel and an existing hotel’s strategic and management decisions. The impact and significance of different sub factors within the location factors change over time, with the size, grade and type of hotels (Cró & Martins, 2018). For example, though factors such as agglomeration positively affect small hotels, they negatively affect large hotels (Chung & Kalnins, 2001; Claus & Claus, 1971; Cró & Martins, 2018). As a result, it is very important to study specific types of tourist accommodation for locational decisions relevant to that type of accommodation. It is not advisable to depend on hotel studies for holiday parks, backpackers, motels, or even certain types of hotels. Despite, being a major market shareholder accounting for 32% of New Zealand’s total guest nights (Ministry of Tourism NZ, 2010), there are no studies that investigate motel location selection in the context of New Zealand. As the success or failure of a motel appears largely dependent on motel location selection, it is crucial to examine how location factors work in the motel sector.

As the present theories (location theories), and sector specific studies (tourism accommodation sector studies explored in literature review) are unable to answer key factors influencing motel location selection decision, the weight and significance of the factors, and how to utilize location attributes, this study seeks to answer those questions. This study develops a model for motel location selection. The problem can be organised and explained as in Figure: 2. The problem needs to be examined

carefully to find the best possible solution. Figure 2 simplifies and presents the problem in a systematic way.



**Figure: 2 The simplification of the research problem**

A motel struggles and faces a slow death if it is not in an ideal location. An ideal location is not the best location, rather it is a location where the benefits are maximum, and the costs are minimum. Drawing on the tourist accommodation sector location literature, finding such a location requires in-depth knowledge about motel location selection. At present, there is a scarcity of motel location theories and there is vagueness in practice. This is a serious problem for someone who is interested in investing in the industry. Most motel investors are individual small business owners, and it is not possible for them to run a research and development project to select the ideal location. A motel is a unique type of accommodation; thus, it needs sector specific research for how to select the best location. As noted, there is a notable gap in the literature on motel location. Other sources of information (such as internet open sources) are unreliable and non-scientific. The literature gap makes the problem worse. This problem needs to be solved to help motel owners and operators make better decisions regarding location and to fill a knowledge gap about this sector.

It is extremely important to examine critically the problem to ensure the best solution. It is not advisable to merely identify the factors from the hotel location literature. The factors need to be refined for the motel sector, contextualized for New Zealand, and filtered for the research. In-depth interviews with motel sector experts and interpretation via thematic analysis can be used in the circumstance (Alhojailan, 2012; Guest, 2012). By exploring the weights of the factors, it is possible to understand the priorities and significance of the factors. Multicriteria decision-making techniques (MCDM) are one way to analyse this kind of decision-making problem (Saaty, 2008; Vargas, 1990).

Cluster analysis is a proven technique for exploring underlying patterns in a data set (Wilks, 2011). The MCDM findings can be grouped using cluster analysis to come to a more generalized conclusion.

The research develops a model for motel location selection based on the findings of the analysis and interviews. The techniques applied in this study will filter and logically explain the qualitative findings of the research. This study uses a qualitative lead mixed methods approach.

## **1.7 Research aims, objectives and research questions**

The aims of this study are to explore the decision-making process of current motel owners around motel location selection and develop a descriptive model for motel location selection. To address the problem and the research gap, the objective and research questions are as follows:

### **1.7.1 Objectives**

The objectives of the study are:

1. To examine the tourist accommodation sector location theories and assess their application to the motel sector.
2. To explore the factors influencing location selection and to determine their weight/significance.
3. To analyse the nexus between theory and practice to develop a model for location selection specific to New Zealand.

This study explores four questions to examine the objective.

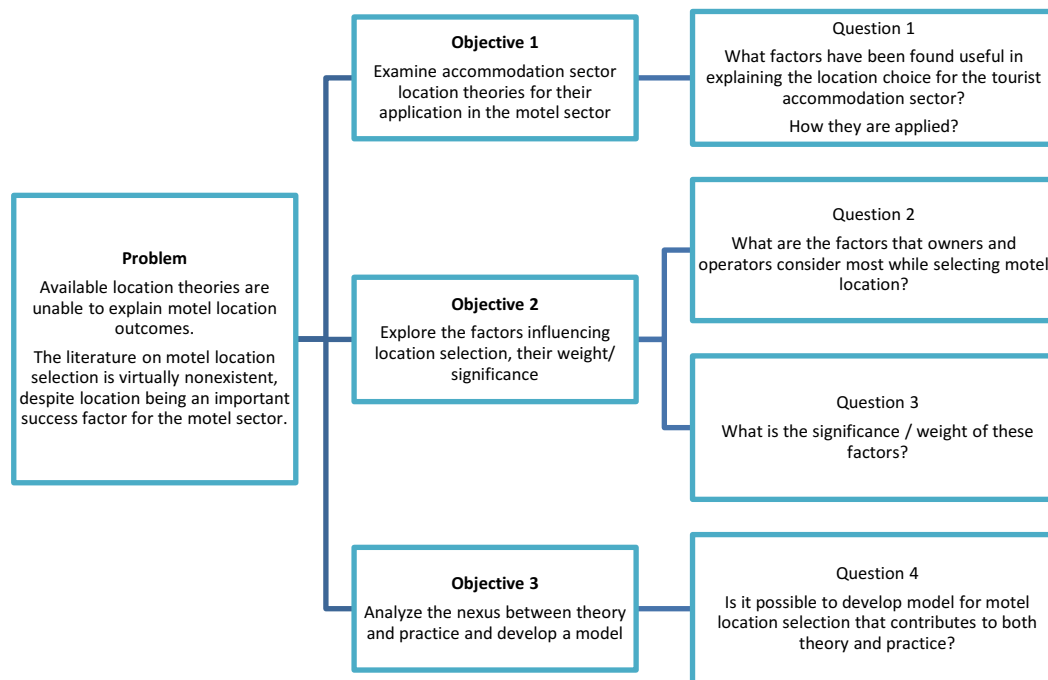
### **1.7.2 Research Questions**

To support the research objectives, this study brings together four research questions:

1. What factors have been found useful in explaining the location choice for motel investment?
2. What are the factors that owners and operators consider most when selecting a location?
3. What is the significance/weight of each of these factors?
4. Is it possible to develop model for motel location selection that contributes to both theory and practice?

## **1.8 Conceptual framework**

Figure: 3 displays the relationship between the problem, objectives, and research questions.



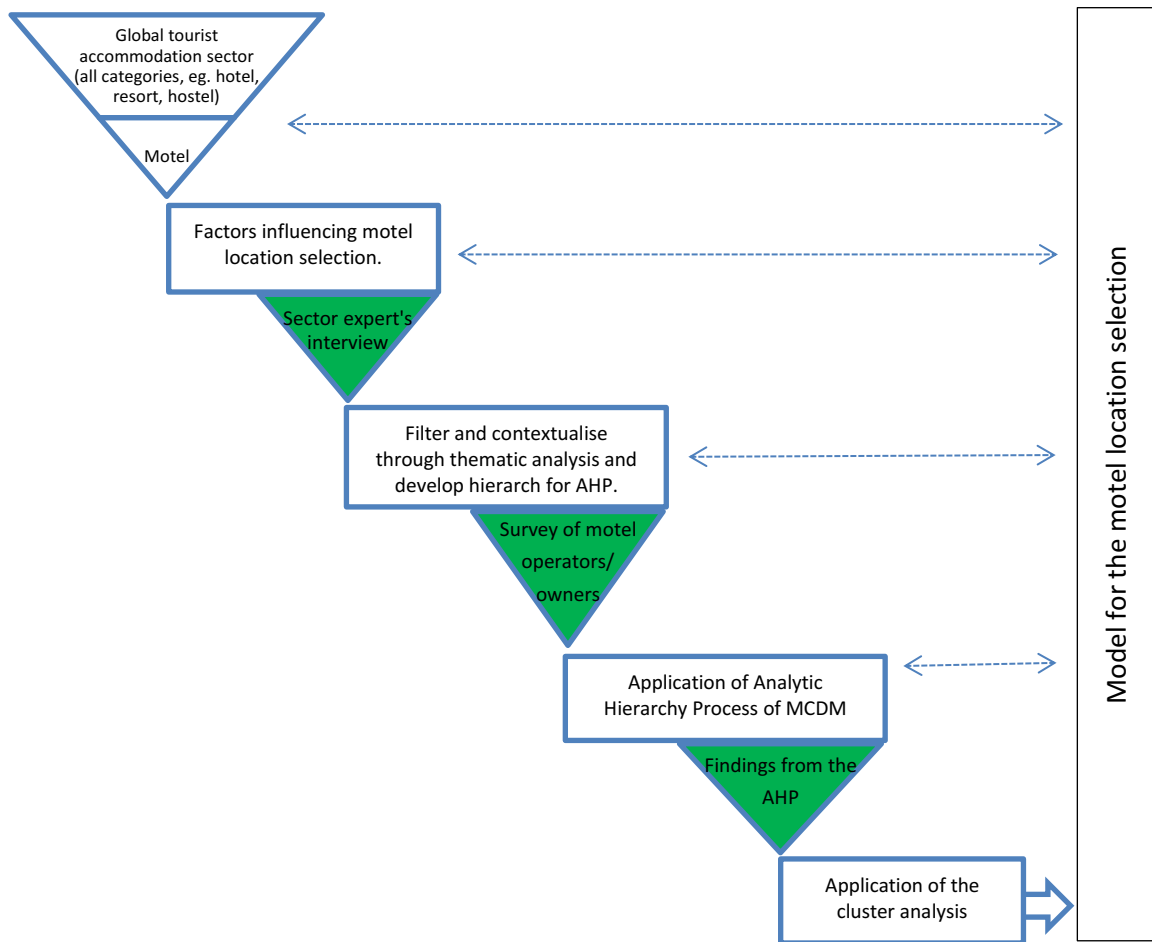
**Figure: 3 The links among the problem, objectives, and research questions**

Objective one is better explained by the answer to the first research question. As there is limited literature on motels, and hotels are the closest alternative, hotel location literature was used as a starting point for this study. Thematic analysis for the in-depth interviews is used as a refining tool. Research questions two and three jointly answer objective 2. Factor weights/significance are obtained from the motel owners' survey using MCDM analysis. Objective 3 is explained by research question 4. The proposed model is based on the findings of the whole study. Figure: 4 shows the flow of the research based on its conceptual framework.

Figure 4 explains the conceptual framework of this study, the point of data input, which occurs after interviews with sector expert interviews, after the motel owners' survey and AHP analysis. The model development is where all the data and analysis results have been integrated. The dotted lines refer to indirect points of integration.

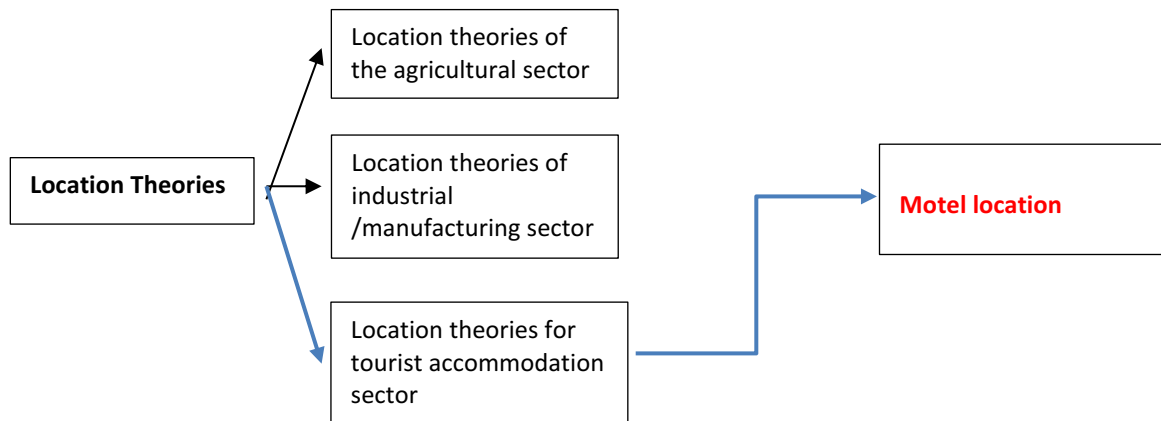
### 1.8.1 Theoretical base

Location theories form the foundation of this study. From the point of view of location theories, theories specific to particular sectors were the first to emerge: agricultural location (Thünen, 1826), industrial location (Weber, 1929) and service sector location (Hotelling, 1929). Central place theory of Christaller (1966) is regarded as the most important services location theory. It seeks to explain the



**Figure: 4 The conceptual framework**

spatial organization of the economy as a whole. The tourist historic city (THC) model (Ashworth, 1990) explains that different zones of a city are often associated with different types of hotel. While the THC model was popular in the 1990s, the agglomeration model of relative hotel locations became popular after 2000 (Yang, Luo, & Law, 2014). A shift from qualitative to quantitative analysis has also been observed in the past decade, with regression, AHP and GIS becoming more popular. Recent studies have seen the emergence of programming from different disciplines of knowledge, but the basic theoretical focus has remained location theory. Although this study uses AHP of MCDM, location theories for the tourist accommodation sector, with a specific focus on the motel sector, form the theoretical basis. Figure: 5 shows the theoretical base of this study.



**Figure: 5 The theoretical base of this study**

Theoretical base of this study is the location theories for tourist accommodation sector, especially the motel sector.

### **1.8.2 Disciplinary focus**

Accommodation location research has resulted in a relatively separate body of literature that is scattered across a diverse mix of academic disciplines. Yang et al. (2014) found evidence that tourist accommodation location is discussed in tourism and hospitality management, geography, economics, marketing, finance, and urban planning. Theoretical contributions from all the sectors are important. It is crucial to view the same problem from different dimensions and apply the best fit for the real-world context. As the focus of this study is the locational analysis of the motel sector, the main disciplinary focus is tourism and hospitality management.

## **1.9 Theoretical contributions and practical implementation**

This study anticipates making significant theoretical contributions that have practical implications for the motel sector, like those discussed below.

### **1.9.1 Theoretical contributions**

This study contributes to the existing literature on location theory and the motel sector in several ways. First, this study transfers the theoretical concept of location into an empirical model to use for motel location selection. Second, the combined use of thematic analysis, AHP and cluster analysis applied in this study contributes to literature from a methodology perspective. It enriches the methodologies used to select the location of tourist accommodation. Third, this study explores the factors influencing motel location selection, reveals the weight of those factors, and develops an empirical model that will be practically applicable. Fourth, this study assesses factors such as financial



factors that have not been used in location selection, and non-cash benefits, and government policies, that have been overlooked by previous authors. This study incorporates both qualitative and quantitative factors into the decision-making process. The existing literature does not offer a comprehensive understanding of motel location selection. This study provides a starting point for the examination of motel location selection decisions in New Zealand.

### **1.9.2 Practical implications**

This study's motel location selection model has practical implications. Motels in New Zealand are typically small and lack budgets for research. It is not easy for new entrants to obtain information to understand the sector properly. Existing and potential investors may also find it difficult to obtain information to help with decision-making. It is not feasible for individual motels to conduct research as the majority are small business. This study provides a model of location selection based on both theoretical and empirical data and information from market practitioners such as investors and operators and motel sector experts. In this sense, it can serve as a guideline for anyone interested in the sector. Second, the structured framework and identification of factors and their influence will introduce a new dimension to location decision-making in this sector. It will help both existing investors and new investors to think in an innovative way. Third, the clustering of motels provides a visual illustration of different factor preferences. Finally, as this study is the first of this kind, it may be useful to policy makers to provide necessary support and to academics for further research.

### **1.10 Thesis structure**

To achieve the study's aims and objectives, the thesis is divided into six chapters and is structured in the following manner.

Chapter 2 provides a systematic review of the tourist accommodation sector literature. As research on motel location selection is sparse, the discussion is based on hotel location selection. It includes an interrogation of the academic literature on location theory and its application to the tourist accommodation sector. Key issues discussed include the influence of location, location theory, the application of location theory and recent developments in tourist accommodation sector location selection. Scholars agree that location is important; thus, the chapter considers the determinants for motel location. Location theory is discussed in three stages. Location theory from its beginning till 1970s, from the 70s to 2000 and the last two decades. The chapter introduces the theoretical framework and discusses key issues, gaps and the significance of motel location research through the lens of location selection literature.

Chapter 3 describes the study's research approach. It provides details of the rationale behind the selection of the research strategy, data collection techniques and analysis procedures. This study uses a qualitative lead mixed method approach. First, the chapter discusses the ontological and epistemological underpinnings and associated methods and techniques. The chapter also provides justification for the research approach (a mixed methods approach), and the methods used (thematic analysis, AHP analysis, and cluster analysis). The chapter also details the methods for data gathering and analysis. Following that, it discusses the validity and reliability of this study. Taken together, this chapter explains why the research approach used in the study is in keeping with methodological techniques identified within the academic literature.

Chapter 4 presents and discusses the research findings. Results from the first phase of data collection are reported first. A hierarchy of factors affecting motel location selection was developed after reviewing the literature and interviews with industry experts. The chapter then presents findings from the AHP analysis. This section reveals the influential factors for location selection and ranks them according to their priority. In this chapter, cluster analysis is used to cluster and organise the AHP findings into meaningful groups.

Chapter 5 integrates findings from the qualitative approach and the quantitative analysis. This chapter critically examines the findings. The underlying meanings, insights and significance of the findings are discussed in this chapter.

The concluding chapter (Chapter 6) presents the main conclusions from this study. It highlights the contributions of this study, outlines its limitations, and provides recommendations for future research.

## Chapter 2

### Literature review

#### 2.1 Introduction

This chapter critically reviews the literature on the tourist accommodation sector to understand the state of knowledge on motel location selection. It discusses in detail the core concepts of the relevant seminal and current research. The discussion is mainly based on research papers and follows a general to specific flow of ideas. This chapter connotes a systematic account of documented literature by scholars and researchers needed to explain this study. In short, this chapter contains a critical analysis and integration of information from a number of sources, as well as a consideration of gaps in the literature of location selection and possibilities for future research.

The first section presents information about how the tourism accommodation sector scholars understand the concept of location. The influence of location in the tourism accommodation sector is discussed with two questions in mind: (i) What are the important determinants of tourist accommodation sector performance? and (ii) What are the determinants of tourist accommodation (hotel/motel) location? Both dimensions inform the importance of location in the tourist accommodation sector. The second section discusses the literature on location selection from a classical location theory point of view. The third section explores the application of the concepts of location theories over the period in the tourist accommodation sector. Location theories are organised into different phases: (i) early location theories; (ii) modern location theories; and (iii) recent developments. Early location theories include the theories developed during 1930s to 1960s; modern location theories cover the 1970s to 2000 and modern location theories cover the literature from last two decades. The major location theories related to the tourist accommodation sector are discussed in each section. The third section discusses the theoretical framework of this study. The subsections discuss how the determinants of the motel location are explored, how the analysis is conducted and how the results are interpreted. The discussion constructs a fundamental base for understanding the theoretical framework of the study. The fourth section critically discusses the insights from the theoretical framework in terms of future research. This section also justifies the need for motel sector-specific research.

## **2.2 The Influence of location on the tourist accommodation sector**

Location-selection has been crucial since the development of the motel (Motor-Hotel) in 1950s. Typically, motels used to be situated beside a highway or an arterial road to serve the needs of motorists (Rushmore & Baum, 2002). With the development of the motel sector, motels became a close competitor of the low and mid-end hotels with improved, quality services. According to Rushmore and Baum (2002) the first motels in the 1950s were very different from hotels in terms of their size, construction costs, land value, operating ratios and management requirements. The distinctions between hotels and motels have lessened because of various factors, including more total units, franchising, amenities (television, air-conditioning, carpeting, tiled baths, telephones, swimming pools, restaurants, lounges, meeting and banquet rooms, and gift shops), extra services (24-hour telephone switchboard and front desk attendants, the acceptance of credit cards and morning wake-up calls), and improved high-rise buildings. With the development of motel services, location has become a crucial attribute and appears to be an influential factor for hotels (Lado-Sestayo, Vivel-Búa, & Otero-González, 2016). Researchers have acknowledged the importance of motel location and started investigations decades ago (Bull, 1994; Kimes & Fitzsimmons, 1990). In investigations of the effect of location on the tourist accommodation sector, the term budget hotel includes both budget hotels and motels. In this discussion, the literature about both hotels and motels have been discussed to gain a better understanding of the state of knowledge. The determinants of the tourist accommodation sector's performance, and the determinants of tourist accommodation (hotel/motel) location, are discussed below. The literature related to the determinants of tourist accommodation sector's performance reports that having good location is associated with better performance (Yang et al., 2014). Interestingly, Lockyer (2005) found that location, price, facility and cleanliness are influential factor when people make hotel accommodation purchase decision. It also reveals the importance of being in a good location. The literature related to determinants of hotel/motel location provides a list of desirable location characteristics.

### **2.2.1 The determinants of tourist accommodation sector performance**

Several researchers have argued that location is a key determinant of performance in the tourist accommodation sector. Baum and Mezias (1992) examined the impact of localized competition on rates of failure in the Manhattan hotel industry. They found that an ideal location is associated with a lower rate of failure. Bull (1994, p. 10) is known for his claim that the three most important attributes that a hotel or motel can offer are "location, location, and location." His study considered how a hotel or motel location can be priced. Bégin (2000) found that new hotels avoid building in the old part of a town because it is challenging to perform well in such areas. Lockyer (2005) argued that location

influences tourist accommodation consumers' decision-making; in short, a good location provides the hotel/motel owner with a competitive advantage. Newell and Seabrook (2006) found that location influences investment decision-making to a great extent in the hotel sector (location is the second most important factor after financial factors). Chou et al. (2008) argued that hotels consider location a key determinant of success. Recent research on the determinants of tourist accommodation sector performance have maintained the legacy of findings of previous studies. They include the following studies:

Zhang, Ye, and Law (2011) investigated which attribute/s is/are crucial for charging a premium price; which attribute/s will result in a discount; and which attribute/s does/do not affect the price. This study on the determinants of hotel room price revealed that room quality and location are important determinants for the hotel industry, but attributes that can influence room rates differ greatly among hotel segments. A contemporary study by Sainaghi (2011) confirmed the relevance of location as a price determinant of individual hotels. During the same year, (Shoval et al., 2011) examined the impact of hotel location on subsequent tourist behaviour and indicated the influence of location. Adam and Amuquandoh (2014) reported that location is a crucial determinant of the room rate, hotel performance and profitability.

Though the above-discussed studies were conducted in different parts of the world (USA, New Zealand, Spain, China, and Ghana), the results of all the studies confirm the importance of location. In their examination of the impact of location on profitability of Spanish hotels, Lado-Sestayo, Vivel-Búa, et al. (2016) reported that the location significantly affected the probability of survival. Lado-Sestayo, Vivel-Búa, and Otero-González (2017) revealed that hotel attributes are the main determinant of performance. They argued that location is the second most important determinant.

Hotel characteristics, hotel location, the competitive environment and the characteristics of the tourist destination are the main determinants of profitability (Lado-Sestayo et al. (2017). Campa-Planas, Alvarez-Ferrer, and Gonzales-Bustos (2018) argued that an ideal location enables a company to be successful in the hotel sector. The above studies answered critical questions about location and revealed that location is a crucial determinant of hotel/motel performance. However, these studies did not investigate the determinant of location in any great detail. The literature on location is discussed in the following sections.

### **2.2.2 The determinants of hotel/motel location**

Selecting a good site plays a crucial role in a hotel's success. As competition intensifies, it becomes even more important (Kimes & Fitzsimmons, 1990). The importance of motel location selection identified in the research indicates the importance of finding the determinants of hotel/motel location. Several studies have critically examined hotel/motel location determinants and found a set of factors that influence location choice. Yang and Lee (1997) critically analysed location factors and developed a model for facility location selection utilizing AHP. While this study was not sector-specific, the concept was later utilized by many researchers in sector-specific studies. Chen (2006) conducted a study on convention site selection, where site determinants were examined through the lens of AHP. Chou et al. (2008) developed a fuzzy multi-criteria decision-making (FMCDM) model for hotel location selection and identified the determinants that influence hotel location selection. Two separate studies (Bunruamkaew & Murayama, 2011; Mobaraki, Abdollahzadeh, & Kamelifar, 2014) on site suitability evaluation for ecotourism have been conducted. Emir and Saraçlı (2014) attempted to find the determinants of thermal hotel locations.

From 2012 to 2018 several studies (Adam & Amuquandoh, 2014; Aksoy & Yetkin, 2017; Cheng, 2018; Luo & Yang, 2016; Yang et al., 2015; Yang et al., 2012) have contributed to the literature on hotel location selection. These studies have identified the determinants of an ideal location for a hotel, resort, thermal pool and hostel and their weights in choosing a location. Luo and Yang (2016) focused on budget hotels, which are closest to motels in terms of characteristics. Although none of the above-discussed studies focused on motel location selection, these studies can be used to build a theoretical base for the research on motel location selection. The determinants identified by these studies are discussed later in this chapter.

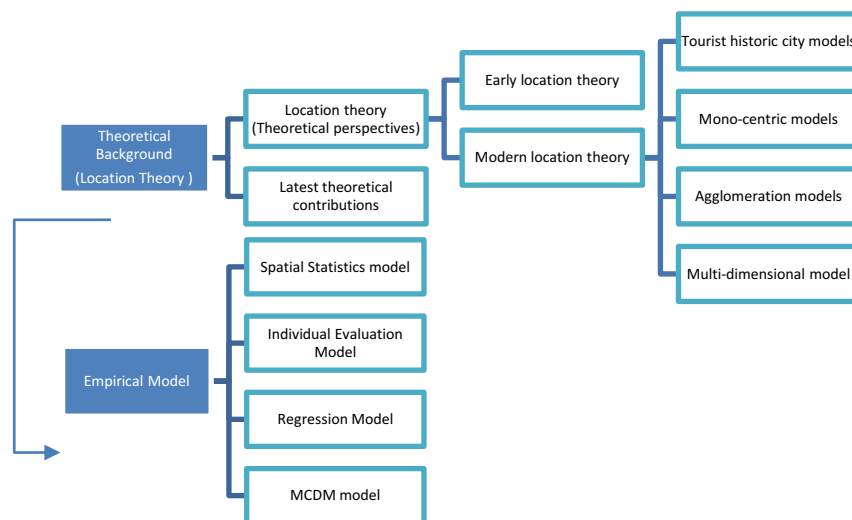
So far in this chapter, it has been argued that location is a crucial determinant of tourist accommodation sector performance. There is a consensus among the researchers about the importance of location. A number of studies have attempted to find the determinants of the tourist accommodation sector location. The recent studies have successfully identified the determinants of location and have made a significant contribution to the literature on location selection. The next section discusses the literature on location selection from a classical location theory point of view. The application of location theories in the tourist accommodation sector is explored in the next subsection.

## 2.3 Theoretical background of tourist accommodation location research

Location theory provides the basis and context for studying how and why location decisions are made. Unfortunately, it appears that not much work has been done to investigate how people make decisions about where to buy/build a motel. Almost exclusively, tourist accommodation location research is based on the hotel sector. Song and Ko (2017) found that research on the hotel sector has tended to focus on investigating real situations. Empirical and operational models are preferred to theoretical ones. Recently, operational models have gained interest because of the intensely of the competitive environment. Various empirical efforts (Bull, 1994; Shu, 2006; Yang et al., 2012; Zhang et al., 2012) have been made to identify factors that are important for location decision-making. This section discusses the theoretical background of the location selection in the tourist accommodation sector. The discussion covers theories of location and various models of location selection developed over the last 100 years. Finally, the chapter outlines the latest developments in the theory of location selection.

**A large body of literature has been devoted to understanding tourist accommodation location patterns and mechanisms using different perspectives of location theory. To ensure a systematic review of the location theory literature, this section has been designed as shown in**

Figure: 6.



**Figure: 6 The author's classification of location theory literature; concept from Yang et al (2013)**

The subsequent discussions are designed as per the above chart. The theoretical perspective of early location theories (from the 1930s to the early 1970s), modern location theories and recent developments (the last two decades) are discussed in the subsequent sections.

### **2.3.1 Location theory (theoretical perspective)**

Location theory deals with the question of what economic activities are located where and why. Early location theories (Thünen, 1826; Weber, 1929) are the foundation of location theory. They have been expanded and refined by researchers in different disciplines such as geography, economics and urban planning. Location theory can be applied at a broad level, such as a country or a region, or a narrow one, like a city block or an individual site. The concept of location theory has been applied widely in the tourism sector to select the best location for tourism sector firms such as hotels.

#### **Early location theories**

Discussions on location theory are not complete unless they include an overview of the early location theories. Later literature on location selection pays particular attention to the theory of the land market (Alonso, 1960; Thünen, 1826), the agglomeration effect (Weber, 1929) and the Central Place theory (Christaller, 1966). The use of these concepts underpins the literature on location theory. The root concept of location theory is discussed below, starting with Thünen (1826) and finishing with Smith (1971).

Thünen (1826) developed a seminal model of land use that showed how market processes could determine how land in different locations would be used. The model explains four rings of economic (agricultural) activities. The model also explains that locational rent/land value depends on the yield of the land use, distance, and transport costs. Although this early model is simple, the concept has been used in more recent modern location models such as the theory of the urban land market (Alonso, 1960) and the monocentric model of intraurban hotel location (Egan & Nield, 2000). These models are discussed later in this chapter.

Weber (1929) explained the theory of industrial location. The basis of his theory is the study of general factors that explain why certain industries are located in particular geographic regions. According to his theory, raw materials, the cost of transport and labour costs are the primary factors influence the



location choice (Weber, 1929). He also discussed the advantages or cheapening of the cost of production because of the concentration of a particular industry in a certain locale. The cost of production can be minimised through the centralization of many industries in a particular area. Sharing of equipment, specialization, large scale businesses and selling helps cheapen the cost of production. He called these agglomerative factors. Weber (1929) concept of agglomeration became very popular in later studies of hotel location. There is a series of papers that focus mainly on the agglomeration of hotel location or underline hotel co-location (Chung & Kalnins, 2001). The concept of agglomeration is discussed in further detail later.

After Thünen (1826) agriculture-based location theory and Weber (1929) industrial theory, Hotelling (1929) focused on service sector based location theory. The service sector behaves slightly differently from the manufacturing sector because of its inherent characteristics. According to (Hotelling, 1929) theory, firms do not exercise variations in product characteristics; firms compete and price their product in only one-dimension: geographic location. Christaller (1933) explained the central place theory and concluded that people gather together in cities to share goods and ideas. He argued that communities or central places exist purely for economic reasons. He divided the zones into five categories: hamlet, village, town, city and the regional capital. The theory consists of two basic concepts: 1) threshold - the minimum population that is required to bring the provision of certain goods or services; and 2) the range of goods and services - the average maximum distance people will travel to purchase goods and services.

Losch (1954) refined central place theory. Losch (1954) disregarded spatial variations in production costs by holding them constant. He argued that an optimal location occurs where the largest possible market area is monopolized. In his attempt to find the maximum profit location he concluded that maximum profit location may not be the one that costs the least. It will be the where the revenue is highest. Christaller (1933) central place theory, initially refined by Losch (1954), is a foundation of the tourist historic city (Ashworth, 1990). More recently, central place models have provided a foundation for a geographic information system (GIS)-based analysis of the spatial patterns of marketing and retailing. They have also been used for the empirical testing of the hierarchy of central places (Malczewski, 2009).

Hoover (1948) gave considerable attention to the impact of supply and demand on location analysis. He related supply and demand to the location of individual firms, general industrial arrangements over the landscape and the problems of communities and regions. Hoover (1948) added the long-haul

advantage and explained that loading and unloading costs are amortized over miles, particularly in the case of long-haul. He also considered the impact of changes such as recession, high inflation and technology innovation. He demonstrated why some regions do well and others distress. Renner (1947), in his work identified six factors for the location of industries: capital, transport, raw materials, market, power (energy supply) and labour. Though each of these factors has a direct impact on industrial location, each factor has a different effect. Unlike other location theories, this one is simple and free from mathematical concepts. The concept of Renner (1947) and Hoover (1948) provide a strong foundation for further studies on factors influencing location selection.

Pred (1967) published his theory entitled *behaviour and location* in which he devised a behavioural matrix to illustrate locational dimensions. According to Pred (1967), decision-makers are not entirely rational since they do not have access to all the information they need to make an optimal decision. To remedy this situation, he developed a representation based upon a behavioural matrix where one axis represents the available information and the other, the capacity to use the acquired information. Pred (1967) contribution represents a new dimension in the literature on location theories in the sense that he focused on behavioural aspects. Smith (1971) found that firms are seldom found at the exact least-cost location because entrepreneurs never have perfect knowledge of costs and expected revenue. Additionally, people do not always act in economically rational ways. The concepts from Pred (1967) and Smith (1971) are crucial for the tourist accommodation sector.

Further development of location theory and its application to the tourist accommodation sector is discussed in the next sub-section. The early location theories form a strong theoretical base for modern location theories. Interestingly, the application of modern location theories in the tourist accommodation sector is noticed.

### **The three main modern location theories**

This section reviews the modern location theories that have been used widely in hotel location research. These theories have their roots in early location theories from economics, spatial geography and of urban planning and area development. The subsequent sections discuss two major previously documented theoretical models, the tourist-historic city model and the monocentric model and consider their contributions and limitations. The section then considers the agglomeration models. The concept of agglomeration has been widely used in the tourism sector to examine the 'cluster' effect.

#### **2.3.1..1 Tourist-historic city model**

Ashworth (1990) proposed a tourist-historic city model and provided a comprehensive typology of hotel locations within a historical city, including the city gate, the railway station/the approach road, the main access roads, nice locations, transition zones and the urban periphery on the motorway, and airport transport interchanges. According to his model, these different zones are associated with different types of hotel. The THC model explains the expansion of a city and the spatial distribution of hotels within that city. Ashworth (1990) book, *Tourist Historic City*, is about cities; it is neither a history of cities nor an account of urban tourism. The THC model has been applied by several scholars to investigate hotel location and spatial distribution in tourist historic cities (Aliagaoglu & Ugur, 2008; Bégin, 2000; Shoval, 2006; Shoval & Cohen-Hattab, 2001). Most tourist historic cities have been found to exhibit a hotel distribution pattern postulated by the THC model. Ashworth (1990) tested the model in Western Europe, Bégin (2000) tested it in China, Shoval and Cohen-Hattab (2001) in Israel and Aliagaoglu and Ugur (2008) in Turkey. The value of the THC model lies in its simplicity and briefness to consider major location hotspots for hotels and the general spatial arrangement within a city (Yang et al., 2014). However, the THC model has some limitations. First, the model is not applicable to non-tourist-historic cities (Aliagaoglu & Ugur, 2008). Second, though it is possible to identify a potential location for a hotel using the THC model, it is not possible to understand the reasons behind the hotel's selection of that particular location. The THC model provides a simplified solid theoretical foundation of hotel location according to hotel classifications. The identified pattern provides us with insight into hotel clustering, discussed later in this section.

### **2.3.1..2 The monocentric model**

The monocentric model is derived from Thünen (1826) and Alonso (1960) location models. It is assumed that an urban area is monocentric with a single central point of sprawl. Egan and Nield (2000) explained the hierarchy of hotels in terms of distance to the city using a monocentric model. They used the partial equilibrium bid rent approach. According to this model, revenue falls when hotels are located further away from the city centre. Location preference of hotels of different levels could be predicted by the shape of the bid-rent curve associated with them. As a result, the model highlights a centripetal force on the upscale hotel location; in contrast, a centrifugal force acts upon the downscale ones. The monocentric model relies on some oversimplified assumptions, including the assumption that the city is monocentric. As a result of these assumptions, it cannot be used to investigate the complexity of the hotel location problem (Shoval, 2006).

The tourist historic city and monocentric models are both closely related to the previous location theories. Though these models can successfully identify potential locations, hotspots, patterns and spatial distribution of hotel locations, they do not explain the exact reason behind these distributions.

In short, these models are taxonomic rather than explanatory. Later theories of location have attempted to explain the reasons behind distributions by improving, modifying, or at least applying the concepts of these theories, often using analysing tools such as regression, GIS and MCDM. I now turn to the agglomeration model, one of the most crucial model types from the literature of location theory.

### **2.3.1..3    *The agglomeration model***

The concept of agglomeration entered the hotel location literature from industrial location theory (Weber, 1929) discussed earlier. Over time, researchers have attempted to determine whether a hotel suffers or benefits from agglomeration or being in a cluster. Chung and Kalnins (2001) attempted to identify who benefits from agglomeration and who contributes. Enz, Canina, and Liu (2008) examined which hotels benefit from being located next to competitors. The studies were very specific, based on the hotel and lodging industry. Chung and Kalnins (2001) found that the revenue performance of a small hotel increases if it is located close to (a) large hotel/s. Kalnins and Chung (2004) found that economy and unbranded hotels choose to co-locate with upscale hotels, but owners of upscale hotels avoid markets with hotels without similar resources. Lower end hotels are more likely to receive positive spill over effects by co-locating in a cluster with upscale hotels (Canina, Enz, & Harrison, 2005). They have argued that a price premium is associated with a location close to more upscale luxury hotels. Arturs and Wilbur (2004) found that owners of upscale hotels avoid markets with hotels without similar resources. While examining the role of co-location, Enz et al. (2008) revealed that hotels that co-locate in the same geographic cluster with the highest quality segmented firms (luxury hotels) accrue a price premium compared with competitors in markets with more lower-segmented competitors. The strongest price premiums were obtained by midscale hotels without food and beverage in clusters with a large proportion of luxury and upscale hotels. Motels are the closest in characteristics to midscale hotels that do not offer food and beverages. It would be interesting to explore the positioning of the motel sector in the tourist accommodation sector.

Freedman and Kosová (2011) confirmed that the net gains of clustering are not experienced uniformly across establishments in different segments. Lee and Jang (2012) found that hotels see higher premiums in the peak season, because of stronger demand, and steeper discounts in shoulder seasons, as a result of competition with nearby hotels. The agglomeration effect is heterogenous to different types of hotels (Peiró-Signes, Segarra-Oña, Miret-Pastor, & Verma, 2014). The most notable contribution of the agglomeration model is that it acknowledges agglomeration in explaining the choice of relative locations for hotels (Yang et al., 2014). It can be applied at intra-metropolitan, intra-regional and inter-regional scales. However, this model provides limited information about choosing

an absolute location within an area (Yang et al., 2014). Recently, Luo and Yang (2016) found that budget hotels prefer locations that offer advantages associated with urbanization economies. Independent hotels benefit from the presence of branded ones (Yang & Mao, 2017).

Hotel location counts, but co-location counts even more by adding an important dimension. The existing component of agglomeration is crucial to understand the possible effects of agglomeration. Previous studies have reported that not all hotels benefit from agglomeration. A series of studies on agglomeration concluded that the agglomeration effect is heterogenous to different types of hotels, therefore the application of agglomeration should be considered with care when applied to any specific type of hotel. Understanding the concept of agglomeration and its effects are vital for this study. An ideal location of a specific type of tourist accommodation may not be an ideal location for a motel. Moreover, being in a cluster, or remaining isolated, may not result in a positive effect; one must understand the cluster and market segments of that tourist accommodation entity.

#### **2.3.1.4 Multi-dimensional model**

Multi-dimensional models have been generated to explain hotel's market entry choice for both product and geographic location (Yang et al., 2014). Urtasun and Gutiérrez (2006) applied multi-dimensional model to investigate hotel location in Madrid and Luo and Yang (2013) used in China.

### **2.3.2 Empirical models**

Theoretical models help us understand location selection in the tourist accommodation sector. However, these theoretical models raise numerous additional questions. Both early and modern location theories reveal taxonomic results. The need for a model able to select a specific location or choose from alternatives has resulted in the emergence of various empirical models. Moreover, due to the specific nature of the tourist accommodation sector, an empirical model evolved to answer unanswered questions. To understand better the driving forces behind the hotel location decision, substantial research efforts have spurred a wealth of empirical models (Yang et al., 2014).

Scholars have applied various empirical methods to explore the criteria for evaluating the best location. To understand the driving forces behind the location decision, most studies apply mathematical analysis tools, e.g., the simultaneous equation model (SEM) (Urtasun & Gutiérrez, 2006), regression analysis (Zhang et al., 2012), the order logit model (Yang et al., 2012), spatial statistics (Luo & Yang, 2013), and combination of regression and GIS (Yang et al., 2015). Apart from these sophisticated empirical models, scholars have also used multiple methods and multi-criteria decision-making (MCDM) models. The contributions of the spatial statistics model, the individual

evaluation model, the regression model and multi-criteria decision models are discussed in the subsequent sections.

### **2.3.2..1    *The spatial statistical model***

Previous studies have used a set of statistical methods to investigate the dependence and relationship of observations over space. Wall, Dudycha, and Hutchinson (1985) used point pattern analysis to understand the spatial distribution of locations. Their study used several statistical techniques to examine the changing spatial distributions of landscape features. Interestingly, they found motel spatial patterns are influenced as much by closures as by new construction. Since much of the motel business is casual, they have strict location requirements, and they are concentrated in areas with high traffic density. They benefit from the proximity of similar establishments as this creates greater combined visibility. Unlike motels, they found that large hotels have greater location flexibility. Sund (2006) used the Lorenz curve to study the inequality of hotel distribution. The study also used historical data to test whether they fit the model or not.

### **2.3.2..2    *The individual evaluation model***

To understand superior locations for hotels, some models have tried to include a variety of factors at a comprehensive level. Individual evaluation models use insight and evaluation from individuals such as hotel investors, experts and guests. Johnson and Vanetti (2005) surveyed leading hotel chains to identify the location advantages of international chains and Newell and Seabrook (2006) applied the AHP model to determine the importance of location attributes from 15 experts. Juan and Lin (2011) Juan and Lin (2011) applied a modified Delphi method for the same purpose. A panel of 24 experts with various backgrounds, including academia, government and business, provided input on location factor selection. Adam and Amuquandoh (2014) surveyed hotel owners and highlighted several location factors.

### **2.3.2..3    *The regression model***

A large number of existing studies in the location literature have used different types of regression as an analysis tool. Kalnins and Chung (2004) applied the conditional logit model to identify hotel location factors because this model can incorporate a large number of location options covered in the dataset. Freedman and Kosová (2011) and Helmers (2010) applied linear regression to build a zoning regression model to measure hotel intensity within a particular zone. (Yang et al., 2012) used an order logit model, and Yang et al. (2015) used the concept of linear regression, projection pursuit regression, an artificial neural network, support vector regression and boosted regression to develop a location evaluation model. Though the projection pursuit regression was found to be superior in predicting hotels, revenue per available room (RevPAR) and labour productivity, simple linear regression

outperformed others in predicting occupancy rates. A closer look at the use of regression in the literature of location selection, however, reveals a number of gaps and shortcomings, especially in including qualitative data in the model. The trend of using multiple methods has been observed by scholars like Cró and Martins (2018) who applied a binary logit model and GIS to explore the determinants of hotel and hostel locations.

#### **2.3.2..4 Multi-criteria decision-making (MCDM)**

Various MCDM methods have been developed and used in the literature on location selection. The main advantage of the MCDM method is its capacity to process a range of factors related to decision-making. Among the MCDM tools, AHP is often used. Since AHP uses multi-criteria, it can be used to explore the weight of factors. It can also process both qualitative and quantitative data together. It is also simple to understand. The application of AHP developed by (Saaty, 1980, 1994, 2008) was explored in the location selection literature. The AHP model has been used to identify the weights of location factors (Newell & Seabrook, 2006), factors influencing tourists' choice of destination (Hsu, Tsai, & Wu, 2009) prioritize tourism sites (Bunruamkaew & Murayama, 2011), and determine location factors for a thermal hotel (Emir & Saraçlı, 2014).

Newell and Seabrook (2006) surveyed major hotel investors and hotel owners/operators in Australia to assess the importance of 25 sub-factors in five categories: financial, location, economic, diversification and the relationship factors, influencing hotel decision-making. They found the main factors influencing hotel investment decision-making were the financial (weight 37.0 per cent) and location (29.9 per cent) factors. These were followed by economic (14.5 per cent), diversification (12.0 per cent) and relationship (6.6 per cent) factors. The AHP results indicated three levels of importance: (i) financial and location, (ii) economic and diversification, and (iii) relationships. Among the 25 sub-factors under the five-factors/categories, the top 10 factors were: forecast ROI, site attributes, gross operating profit, current hotel supply, the volatility of demand, historical rates of return, Rev Par as a return measure, segment diversification, the number of domestic visitors, and alignment with stakeholders.

The relative weights of importance assigned to each hotel investment decision-making factor and subfactor were assessed using the multi-criteria decision-making procedure of the analytic hierarchy process (AHP). An overall AHP analysis was performed, with separate AHP analyses conducted to assess hotel investors compared with hotel owners/operators. They found that there were differences between hotel investors and hotel owners/operators. Though hotel location site attributes and the age of the target hotel were more important for hotel owners and operators, they were less important

for hotel investors. They found that the unsystematic risk was less important for hotel owners and operators, but more important for hotel investors. The authors stated that their study should assist hotel investors in prioritizing the key factors and sub-factors in their hotel investment decision-making.

Ho, Newell, and Walker (2005) used the analytical hierarchy process to determine weights of key factors influencing the quality of CBD office buildings. They developed an office building quality index (BQI), and assessed its relationship with net rent. Hardie and Newell (2011) used the AHP to develop a value tree of contributing factors to technical innovation from the literature and tested by surveying established technical innovators. They found supportive clients and performance-based building standards for innovative practice in construction was important. Significant differences were observed between small and medium-sized companies and between product and process innovators.

Chou et al. (2008) developed a fuzzy multi-criteria decision-making (FMCDM) model for hotel location selection. The study used four perspectives for selecting location: geographical conditions, traffic conditions, hotel characteristics and operation management. It also focused on eight factors: the surrounding environment, resources, access, convenience, internal development, external development, human resources and operating conditions. They selected 21 criteria related to the selection of international tourist hotel locations from a literature review and practical investigations. The methods of fuzzy set theory, linguistic value, hierarchical structure analysis, and the fuzzy analytic hierarchy process were used to consolidate the decision-makers' assessments of the criteria weightings. Using the AHP method, the authors combine fuzzy sets theory with linguistic value concepts to create a model that can help decision-makers deal with complex issues under the fuzzy environment. They developed a framework to assist decision-makers for a dispassionate and objective location selection.

identified the factors that influence tourists' choice of destination and evaluates tourists' preferences for particular destinations. A 4-level AHP model, consisting of 22 attributes on the fourth level was tested. The results indicated that visiting friends/relatives and personal safety appear to be the two most important factors for inbound tourists to Taiwan.

Bunruamkaew and Murayama (2011) identified and prioritized a potential ecotourism site in Surat Thani Province, Thailand, using Geographic Information Systems (GIS) and AHP. AHP was effectively used to calculate the details of the factors and class weights. They linked local resources and important criteria to identify location.



Emir and Saraçlı (2014) determined the importance of various factors on thermal hotel locations using AHP. They considered one of the most famous thermal cities, Afyonkarahisar, Turkey. According to the AHP results, environmental factors were most important in determining the location of the thermal hotel. The other factors (in order of importance) were: construction features, cost of investment, location of the construction, competitive factors and demographic structures.

Kundakçı, Adalı, and Işık (2015) argued that the selection of a tourist hotel location is a multicriteria decision, meaning that location selection decisions are critical. They considered the selection of tourist hotel locations in Denizli, Turkey. They found that AHP method helpful in selecting the best location for a new tourist hotel investment.

To date, various empirical models have been developed and introduced to select hotel locations. Newer models have been introduced, such as the hotel success model (Canina et al., 2005). The model shows that, by investigating the factors that influence the performance of pre-existing hotels, one can identify and predict potential locations for new entrants. The use of different types of regression is pervasive in hotel location choice (Yang et al., 2014). However, the method possesses several drawbacks, including poor prediction accuracy, a failure to consider nonlinearity, and an inability to incorporate spatial heterogeneity and dependency (Yang et al., 2015). The individual evaluation model appears to be one of the more practical ways to select hotel locations. Individual evaluation models provide a bridge between theoretical and practical models. MCDM models consider a wider range of possible location factors and have better applicability.

### **2.3.3 Other recent theoretical contributions**

The research on location selection in the tourist accommodation sector is scattered throughout a diverse mix of academic disciplines, leading to substantial heterogeneity in the methodologies used in hotel location research (Yang et al., 2014). The latest theoretical contributions include, but are not limited to, multiple methods, hybrid methods and modified versions of any previously used method or analytical tool. Operational models are also noticeable in recent theoretical contributions. Current literature on hotel location selection also uses the application of the concept of location theories in computer-based models that can process complex data. At present, the use of GIS and regression analysis is noticeable in the literature, but these both require a strong database, which is either expensive or, in most cases, unavailable. For example, Yang et al. (2015) developed an application HoLSAT (Hotel Location Selection and Analysing Toolset). However, because of extensive data requirements, it is not applicable for most destinations. Authors in this discipline have also shown

interest in using AHP. The use of AHP, in association with other methods, is noticeable. Some of the latest theoretical contributions are discussed in the following paragraphs.

Yang et al. (2012) investigated the potential factors contributing to hotel location choice using an ordered logit model that incorporates both hotel and location characteristics. They found that star ratings, years after opening, service diversification, ownership, the agglomeration effect, public service infrastructure, road accessibility, subway accessibility, and accessibility to tourism sites were important determinants. Interestingly, they found that downscale hotels do not actively seek the benefits of agglomeration effects, whereas upscale ones are more sensitive to accessibility. According to the study, though road accessibility was important for hotel location choice in the early periods, it no longer is today. High-level hotels do not consider the agglomeration effect, but value accessibility when choosing their location. The study was based in Beijing, China.

Yang et al. (2014) reviewed the literature on theoretical, empirical and operational models in hotel location research. They discussed four types of theoretical hotel location models: the THC model, the monocentric model, the agglomeration model and the multi-dimensional model. They discussed six empirical models: the spatial statistical model, the zoning regression model, the discrete choice model, the simultaneous equation model (SEM), the individual equation model, and the hotel success model. They presented three major operational hotel location models for practitioners: the checklist method, statistical prediction and GIS.

According to Yang et al. (2014), the factors that have been analysed in different models are mainly connectivity, economy, competitor and return. Connectivity, given a variety of names, has been used in different kinds of literature including transport infrastructure, mobility, highways, remoteness from tourist zones, access to an international airport, and connection to the attractions. Economy is a significant factor for location research. Research has considered both the local and national economy. The research also considered economic factors such as agglomeration, population, local income, local consumption, producer service, tourist demand, demand factor, land use type, hotel market source, safety, culture, and GDP. Competitors, room rates, hotel density, hotel chains, market share of hotels, and occupancy factors were all included in the analysis to explain competition and return.

Yang et al. (2014) advocated future studies on agglomeration in hotel location and the development of more sophisticated spatial models and decision-making systems to take advantage of an abundance of available geo-coded data. According to them, it is paramount to consider the limitations of various

models. Before embarking on practical hotel location selection projects, one should keep in mind that all location models are not a panacea; in other words, they cannot act as a substitute for intelligent decision-making. Managerial insights and judgements are very important in interpreting the results of various location models and translating them into meaningful and refined location strategies (Ghosh & McLafferty, 1987). Since no single model or method is consistently superior in all situations, they recommend using multiple methods and checking the robustness of the results when considering location projects, especially those which are particularly complex.

For the purpose of hotel location evaluation, Yang et al. (2015) developed an application called HoLSAT as noted. They combined machine learning tools and web based GIS. The application basically combines regression and GIS in the same system. HoLSAT can generate, help researchers to understand, compare, visualize and export hotel location evaluation results. The adaptive programming framework and flexible algorithm designs enable HoLSAT to incorporate other research areas into the system. However, as the system needs a hotel dataset, it can analyse only locations with available data.

However, Yang et al. (2015) could not incorporate some policies, such as land-use policy restrictions, in their application. They did not consider the dynamic nature of hotel performance and changing location attributes. As a result, their app is unable to forecast the long-term business success of hotel entrants. It could be argued that their hotel location evaluation application HoLSAT is in its initial stage. However, the app represents major progress in the field.

Puciato et al. (2017) analysed factors influencing hotel location decisions in Poland, focusing on hotel size. According to them, hotel location factors for all hotel enterprises can be divided into three groups: the availability and production cost factors; market potential; and stimulating instruments adopted by local authorities to attract potential investors. The availability and cost of production factors consist of access to qualified personnel, labour costs, availability of investment land and land prices. The market potential group consists of economic development level, internationalization of the economy, urbanization, communication availability, tourism demand volume, local demand volume, tourist assets, supply volume, competition in the sector and profitability of the hotel industry. Fiscal incentives, planning and administrative incentives and information instruments are described under the incentives category.

Their results clearly indicate that there are differences in the location factors for independent hotels, dependent on their size. Factors determining the location of small hotels differ from those influencing the location of a group of medium and large hotel enterprises. A very important contribution of the research is the important factors that influence the location of small hotels. The authors found that communication availability, planning and administrative incentives and tourist assets were the most influential factors for small hotels. In contrast, tourist assets and land prices were most important for medium and large hotel enterprises.

To understand potential factors contributing to the choice of location for hotels and hostels in Lisbon, Portugal, Cró and Martins (2018) used a logit model that incorporated both lodging and location characteristics. The authors investigated whether location strategies and decisions are influenced by lodging characteristics. They found that only lower grade hotels and hostels tend to benefit from clustering. They also found that high-grade luxury hotels tend to be located in newly gentrified urban areas that are seen as safer and where the crime rate is low.

This literature is crucial for understanding and using the concept of location selection. The following section summarizes the major findings of location selection literature from theoretical, empirical, and operational points of view.

The literature suggests that there is a relationship between location selection and the success of a hotel. Yang et al. (2012) found that hotels of different sizes, star ratings, service quality, and catering to different market segments can have different location logic. An operational model, such as Yang et al. (2015), provides a list of location factors that are based on an operational point of view. Other studies, such as Chen et al. (2014) and Aksoy and Yetkin (2017) revealed decision-making for hotel location from a different dimension. While some studies emphasize accessibility and transport, Li, Fang, Huang, and Goh (2015) found that accessibility might not be an important determinant for the hotels located in cities with efficient transport facilities. Agglomeration effects work differently for different hotel types and segments. Chung and Kalnins (2001) and Li et al. (2015) both showed that the influence of location factors vary over time and the spatial structure changes accordingly. Shoval (2006) argued that relaxed laws and regulations are among the reasons why it is possible to find luxury hotels in city centres. Though theoretical models have attempted to develop more generalized theories, empirical studies on hotel location selection have focused more on identifying the best location using analytical tools. The individual evaluation model uses insights and evaluation from experts and key stakeholders to select the best location. For this study, the question remains: Is it possible to use hotel location selection literature for the motel sector within New Zealand?

## 2.4 The theoretical framework

The literature revealed that location is a crucial determinant of the tourist accommodation sector's performance. Almost all studies reported the importance of an ideal location for the success of a tourist accommodation entity. This chapter then attempted to find the determinants of location. Several studies from different disciplines, perspectives and segments of the tourist accommodation sector reported the determinants of the location of a tourist accommodation entity. After that, the chapter provided a systematic review of the location theory literature to investigate the theoretical foundation. The theoretical foundation pointed out the important theoretical aspects of location reported in the previous section. This section discusses the theoretical framework of relevant studies. A critical discussion of the theoretical framework is very important to develop a conceptual framework for this study.

The discussion is divided into three major subsections: (i) How the determinants are explored in the literature; (ii) How the analysis was conducted; and (iii) How the information was interpreted. How the determinants were explored is examined in later sections.

### How the determinants were explored

This study sorted the determinants of location selection using a substantive review of the literature. The literature based on MCDM was the most helpful in providing the determinants of location selection as MCDM uses a set of determinants to analyse and rank the data. Literature from the individual evaluation model and checklist models were also helpful because of the structure of their research. Research on agglomeration identified important factors directly related to the cluster effect, spatial location, and connectivity. Determinants from most of the classical location theory literature were used in modern literature. First, this study grouped the main determinants identified and discussed by different authors. The determinants can be divided into the following groups:

- Site attributes
- Level of development
- Agglomeration
- Transport and communication
- Competition
- Demography of the area
- Government policy
- Hotel attributes and management

Previous studies have indicated that the above determinants are closely related to selecting a hotel location. Various authors (Lin & Juan, 2010; Newell & Seabrook, 2006; Yang et al., 2015) have attempted to develop models that consist of the above factors; these studies represent a

comprehensive view rather than just a specific focus. Two models, the checklist and individual evaluation models, lead the research in this area. The checklist method refers to the systematic evaluation of possible locations based on a set of pre-specified criteria in the form of a checklist. The checklist is usually derived from the opinions of experts. However, they often suffer from a lack of rigorous empirical validation. These checklists also do not transfer well as they do not consider localized factors in different environments. However, the checklist model includes a comprehensive range of factors that influence the location selection. In an attempt to measure location selection factors for international resort parks, (Lin & Juan, 2010) explored six dimensions, as per Porter's diamond model. The six factors are: factor endowments, demand conditions, firm strategy structure and rivalry, related and supporting industries, government and chance. Under these six dimensions, they identified 26 factors and developed a checklist for location selection. Juan and Lin (2013) examined a comprehensive and objective three-stage method for selecting resort locations in Taiwan that maximize the competitive advantage using an individual evaluation model. Unlike the checklist method, the factors and criteria used in the individual evaluation model were obtained from an exhaustive literature review and interviews with 16 experts. The major criticism of the checklist method that it lacks rigorous empirical validation was overcome in the individual evaluation model using an exhaustive review of the literature. (Juan & Lin, 2013) used AHP as an analytical tool for their model. One possible reason behind selecting AHP was the type of data needed. Location selection involves analysing multi-criteria, multi factors and subfactors; AHP is able to analyse these, even if the data are qualitative or a mix of both qualitative and quantitative.

Previous studies on hotel location focused on the area's level of development. Several studies investigated characteristics of the area and related factors. A large and growing body of literature has investigated agglomeration and how it relates to the location selection decision. Much current literature on location selection pays attention to market conditions, demography, and communication. More recent attention has focused on GIS and government policies. To date, research has tended to focus on a specific dimension rather than provide a complete and comprehensive focus. Together, all these studies form a solid base for this study.

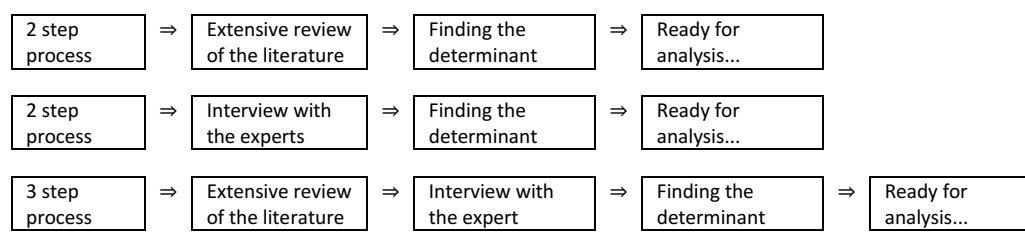
It is crucial to know and understand each of the identified determinants. Different researchers have grouped each of the factors according to their own study's perspectives. In short, the objective of the research and methods applied influence the factor grouping, naming and the inclusion or exclusion of the factors in their research. In this study, all criteria and factors identified from location focused literature were listed in their most relevant group. The determinants are presented in Table: 1.

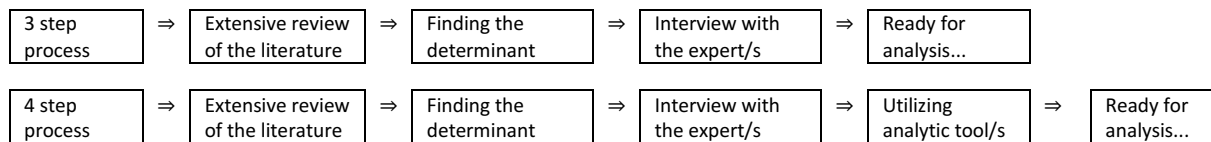
**Table: 1 Criteria and factors in location selection identified from the location-focused literature**

Criterion	Factor
Geographic locational attribute	Site attributes, tourist spots, valley/sea, natural amenities, remoteness, perceptions of the region, availability of resources, ecology.
Level of development	Approach roads, main access road, nice location, transition zone or urban periphery on motorway, airport transport interchanges, CBD, manufacturing and dwelling zone, agricultural zone, public service infrastructure, land-use type.
Hotel Attribute	Quality, diversification, revenue, star rating, number of rooms, service, cleanliness.
Agglomeration	Market share of different type of tourist accommodation, sectoral diversity, amenities, related supporting industries, proximity to luxury hotels, distance to suppliers, existing cluster.
Connectivity	Access to the road, access to transport infrastructure, highways, the convenience of transport, proximity to the airport, bus stands, connection to area attractions, traffic conditions
Competition	Room rate, market demand, the volatility of demand, current hotel supply, hotel density, tourist arrivals in that region, total tourist flow, tourism receipt.
Demography	Population, income, employment and labour market, safety and security, social culture, crime rate, culture.
Operation management	Land cost, construction costs, sufficient human resources, labour experience, property prices, return on property (bid-rent)
Government policy	Policies, legislation, laws and regulations, conservation status, planning and policy, zoning restrictions, environment policies.

The most surprising finding from the above table was the lack of financial factors such as operating profit. Previous studies tried to identify locations without considering financial aspects such as the cost to acquire, the return on investment, the historical rate of return, the amount available for investment, the payback period, and capital gains. Though Newell and Seabrook (2006) identified financial factors in their study, their objective was to identify factors influencing hotel investment decisions; location was reported as one of the important determinants of hotel investment.

It was also important to check how the studies finalised which factor to use in the research from a range of factors included in the location selection literature. The following process was identified from the literature (Figure: 7).





**Figure: 7 The process of choosing factors for analysis**

From the above models identified from different studies, it appears that finding the determinant from an extensive review of the literature is not sufficient to confirm the validity and reliability of the research. The context of global studies may not be the same for specific studies. Global studies may miss a crucial determinant because of differences in the context. Interviewing local experts is a good way to select more appropriate determinants. However, securing information provided by the experts needs great care. Using analytical tools to explore factors from experts is a great way to increase the validity, reliability and acceptance of the research. The literature suggests using an analytical tool such as thematic analysis, content analysis, grounded theory, or factor analysis.

Based on the literature review, using thematic analysis to interpret the in-depth interviews of experts and contextualising makes the determinants' results better and ensures validity and reliability. Ryan and Bernard (2003) thematic analysis may be conducted in a variety of ways. The method is sufficiently flexible to allow for inductive, latent, interpretive qualities desired here. Walters (2016) added that the most frequent use of thematic analysis in tourism research has been its application to the interpretation of written documents, such as interview transcripts. The next chapter discusses thematic analysis in greater detail. Now, I investigate how the analyses were conducted. This subsection critically explores and explains the ways that the studies analysed location determinants using the lens of location theory literature.

### **Previous analysis and interpretation techniques**

It is crucial to understand clearly how analyses were conducted and results were interpreted to ensure theoretical, methodological and analytical soundness. This study identified the most relevant studies in the literature on tourist accommodation. It is evident from the review that MCDM, regression and hybrid models (regression and GIS together, MCDM and GIS, regression and Delphy) lead the literature. Some studies use two-step analysis where, in the first step, determinants are identified and, in the second step, analytical tools are applied. The use of mixed methods is also evident where both qualitative and quantitative methods are applied to reap the benefits of both methods. Table: 2 summarises the findings related to how the analyses were conducted.



**Table: 2 A summary of focus and methodology of recent literature on location selection**

Study	Focus	How was the analysis undertaken?
Cró and Martins (2018)	To understand the potential factors contributing to the choice of location for hotels and hostels in Lisbon, Portugal.	Logit model incorporating both lodging and location characteristics.
Aksoy and Yetkin (2017)	To identify criteria which are influential in the choice of a location for a tourist hotel.	Multiple criteria decisions making (MCDM) method, and preference selection index (PSI).
Puciato et al. (2017)	Factors influencing the location of a hotel, based on the size of the hotel.	The deductive method for literature analysis and the diagnostic survey method (using a questionnaire technique). Logit regression model used for quantitative analysis.
Song and Ko (2017)	Location selection strategy for a hotel chain network.	Two mathematical models for opening new hotels and closing existing hotels to a manage hotel chain network are developed using demand estimation and existing hotel information.
Urtasun and Gutiérrez (2017)	Exploring clustering patterns of urban hotels, and, estimating clustering effects on performance for upscale urban hotels	Geographic Information System (GIS) techniques.
Luo and Yang (2016)	To investigate the role of agglomeration economies, which include both urbanized economies and localized economies, in particular, how these affect hotel location choices within a metropolitan setting.	A mixed logit model of hotel location selection used.
Lado-Sestayo, Otero-González, et al. (2016)	To explore the impact of market structure on hotel profitability using variables relating to the hotel and tourist destinations	Dynamic panel data models used to explain the impact of location on profitability.
Kundakçı et al. (2015)	To select the best location for a new tourist hotel investment.	AHP (Analytic Hierarchy Process).
Yang et al. (2015)	To evaluate potential sites for proposed hotel properties.	Used regression and GIS to design an automated web GIS application: Hotel Location Selection and Analyzing Toolset (HoLSAT).
Emir and Saraçlı (2014)	To determine the importance of various factors on thermal hotel location	AHP method to determine the best location among all alternative locations.
Adam and Amuquandoh (2014)	Identifying and assessing differences in the extent to which location factors were considered by hotel owners based on certain hotel characteristics.	Behavioural thought on industrial location decisions was used as a framework to identify and assess hotel owners' location decisions and Chi-Square was used as analytic tool.

<b>Study</b>	<b>Focus</b>	<b>How was the analysis undertaken?</b>
Juan and Lin (2013)	Selecting resort locations	First Delphi method applied to identify evaluation criteria and then AHP was used.
Luo and Yang (2013)	To investigate the spatial pattern of hotel distribution in Chinese cities and the factors shaping this pattern.	Authors used exploratory spatial data analysis (ESDA) tools.
Yang et al. (2012)	To investigate potential factors contributing to the choice of hotel location.	Used an ordered logit model which incorporated both hotel and location characteristics.
Zhang et al. (2012)	To analyse the factors that determine the location strategies of MHGs and to assess what factors determine MHG's investment strategies regarding choice of location.	Descriptive statistics used to analyse historical data from secondary sources.
Bunruamkaew and Murayama (2011)	To identify and prioritize potential ecotourism sites	Geographic Information System (GIS) and Analytical Hierarchy Process (AHP)
Lin and Juan (2010)	Determining the optimality of an international resort park location.	Analysed Porter's (The Competitive Advantage of Nations, 1990) Diamond model, using the modified Delphi model.
Hsu et al. (2009)	Identify the factors that influence tourists' choice of destination and evaluate the tourists' preferences for particular destinations.	Authors proposed and tested a 4-level AHP model.
Chou et al. (2008)	To present a fuzzy multi-criteria decision-making (FMCDM) model for international tourist hotel location selection.	Fussy Multi-criteria Decision-making
Newell and Seabrook (2006)	To assess the importance of a range of financial, location, economic, diversification and relationship factors influencing hotel investment decision-making.	The authors used AHP multi-criteria decision-making methodology to assess the weights attached to each of the factors influencing hotel investment decision-making.
Chen (2006)	To establish the most salient determinants in selecting or organizing a destination for conventions.	Used an analytical hierarchy process (AHP) approach.
Shoval (2006)	Argued that a hotel located in the centre of the city will charge more for a room than a hotel of the same category that is situated on the periphery.	Land use model by Yokeno, Thunen and Alonso.

Now turning to the tourist accommodation sector's location research and the interpretation of the results. MCDM methods have been widely used and interpreted. Some studies used determinants from global literature, analysed and interpreted for a specific study area. It appears that contextualising the determinants could contribute an extra mile to the literature. Linear regression models are common in this field of study. The limitations associated with simple linear regression results in several common drawbacks, including poor prediction accuracy because of a problem associated with over-fitting, an inability to adequately incorporate interactions, non-linearity among variables, and a failure to consider spatial dependency and spatial heterogeneity (Yang et al., 2015). Some research uses GIS and machine-based complex calculation methods where interpretation plays a vital role. However, sometimes interpretation depends on the context rather than the determinant value derived from the model. The discussion chapter provides further information about the issues associated with interpreting the results.

The above discussion on the theoretical framework provides an overview of how the determinants of the location have been explored in prior literature and how the determinants are analysed and interpreted. These studies were conducted from different perspectives and in different contexts. Each study is unique. The studies also provide future research directions and limitations. The following section briefly summarises these insights to develop a theoretical framework for future research.

#### **2.4.2 Insights from the theoretical framework for future research**

Almost all studies justified their attempts and provided ideas for future research. Newell and Seabrook (2006) reported that the resulting hotel investment decision-making model should assist hotel investors in prioritizing the key factors and sub-factors in their hotel investment decision-making. Due to the uncertainty of information, and the vagueness of human feelings and recognition, it was difficult for Chou et al. (2008) to evaluate and convey the exact feelings and recognition of objects. They used the fuzzy AHP analysis model of the MCDM.

Lai, Lee, and Pan (2013) concluded that, with some adjustment, their method could also be used to deal with the selected problem of similar issues. Adam and Mensah (2014) advised testing their model in other locations to check its applicability. Lado-Sestayo et al. (2017) opined that using their research in other markets could provide further interesting evidence. Some authors have pointed out the weaknesses of their studies, such as having a small sample size, the scope of the study, or the unavailability of data. Studies also indicated the need for research where it was not possible to cover. After a systematic review of location literature, Yang et al. (2014) recommended the integration of various location models for a better result. Other authors reported the need for deeper integration of

different areas of expertise to analyse tourist accommodation location. In all the cases, the researchers advised either to use their model in a similar context or to make adjustments.

Previous studies also suggest that owners demonstrate remarkable variability in site selection, even when confronted with similar sets of options. For example, Yang et al. (2012) pinpointed location preference heterogeneity across hotels operated under different ownership types, designated with different star ratings, established in different years and offering different services. Previous studies have also revealed that hotels of different classes cater to different potential markets and, therefore, have different location strategies (Egan & Nield, 2000; Li et al., 2015). Adam and Amuquandoh (2014) found that owners of different classes of hotels rate location factors differently depending on ownership type, age and size.

Insight from the theoretical framework suggests that integrating advances from industrial and service location models presents substantial opportunities for additional tourist accommodation sector location research. To the best of my knowledge, no research has investigated the motel location selection decision from the perspective of owners or operators in New Zealand. The next sub-section explains why it is not advisable to use hotel location research for the motel sector.

## **2.5 Sector-specific research for motel location decisions**

Very little attention has been paid to motel location selection. A thorough review of the literature on the motels of New Zealand found that there were no studies on this topic. Motels play a significant role in New Zealand's tourism, they host one-third of the country's total tourists (Ministry of Tourism NZ, 2010). New Zealand's regional tourism highly depends on the motel sector. It is crucial to recognize the contribution of the motel sector in New Zealand. As a motel is a special type of tourist accommodation (discussed in the previous chapter), it is necessary to consider it apart from hotels especially given motels general focus on the leisure traveller and historical connection with motor car travel.

This study examines the application of location theories in the motel sector, explores factors influencing hotel location selection, determines their importance, analyses the nexus between theory and practice and develops a model for motel location selection in New Zealand. A number of methods have been applied to hotel location selection; these form the initial base or starting point for this study. The following discussion examines the possibility of using hotel literature for motel research.

Motels have been overlooked so there is a knowledge gap of what works for them. It is crucial to understand the reasons behind the distribution of motels, the relationship between motel locations and connectivity, the local economy, government policies and regulations, and the need of a specific model for motels.

#### **2.5.1..1 Motel distribution**

Yang et al. (2012) investigated hotels in urban areas and found they are not randomly distributed; instead, they are highly clustered. Fang, Li, and Li (2019) confirmed previous findings and added that hotels tend to build in the same place to acquire positive spill over effects from their neighbours. A closer look at the distribution of motels in New Zealand reveals that motels are clustered in the main gateway cities, such as Auckland, Wellington and Christchurch. They are also found in popular tourist destinations such as Rotorua, Northland, Waikato, Nelson, the West Coast and Queenstown. Motels are also prominent in more remote places like Fiordland or transit destinations such as Te Anau and Tekapo (Ministry of Business Innovation & Employment, 2016). Like hotels, the distribution of motels is not random but purposeful. However, without further investigation, a decision about motel distribution, particularly relying on hotel studies is not advisable. As discussed earlier, as choosing an ideal location is directly related to demand, room rate, profitability and customer satisfaction, it is crucial to find out how the selection process of a motel location works and how the decisions are made.

#### **2.5.1..2 Connectivity**

Many studies reported connectivity or access to main roads, transport infrastructure, highways, the convenience of transport, proximity to airport and connection to area attractions, as influential factors. Many empirical studies examine the importance of transport and tourist attractions in determining hotel location choice (Li et al., 2015; Shoval, 2006). Yang et al. (2012) examined factors influencing hotel location choice in Beijing. They identified road accessibility, metro accessibility and accessibility to tourist sites as important determinants. They found that upper-grade hotels place a greater emphasis on these determinants than lower grade hotels. In contrast, Li et al. (2015) found that transport facilities around hotels, measured using the number of urban rail transit stations and extent of traffic land area, were not significant factors in hotel location choice. Yang et al. (2015) found that road accessibility was important for hotel location choice a few decades ago but is less so today. Given inconsistent findings in the literature, the influence of transport and tourist attraction accessibility on hotel location choice needs further investigation. Likewise, a better understanding of the influence of connectivity in motel location choice in New Zealand is needed. However, this is challenging because most recent studies are based on hotels in megacities like Beijing and Hong Kong where transport and traffic situation are vastly different from New Zealand. Furthermore, such hotels

are likely to attract a different market segment. This situation raises the question of how accessibility and connectivity are being evaluated by New Zealand motel owners.

#### **2.5.1.3 Local economy:**

Scholars have argued that public attributes, including environmental quality, public safety, and public infrastructure availability, influence tourists' utility function on the demand side and tourism agents' production functions on the supply side. Hotels are thus more likely to choose locations that host a productive economic environment (Fang et al., 2019). Fang and colleagues found that land-use type is the most direct representation of local structure in a particular urban environment and it can influence hotel location choice in different ways. If there is a competition effect, the accommodation industry competes with residents for many spaces and services. It also competes with other industries for resources such as land and labour. Conversely, the complementary effect can also be observed; it can be seen in the example of a hotel in a location devoted primarily to shopping. Studies have found that budget hotels cluster near old towns and peripheries because of the bid-rent relationship. In the case of New Zealand's motel sector, over half of the motels are in regional areas, with no nearby cities, businesses, industries or even local communities.

#### **2.5.1.4 Government regulations**

Many empirical studies examine the importance of hotel location choice and overlook government regulations. These authors found it challenging to quantify government policies in quantitative models, meaning that they are often excluded. Yang et al. (2015) developed an empirical model and found the exclusion of factors measuring government influence made the model incomprehensive. Studies in China show that hotel location patterns are related to local government policies. Under certain policy interventions and restrictions, only a limited number of alternatives are available for new hotel entrants. Conversely, along with some policy support, new entrants obtain extra benefits when choosing to locate themselves in particular areas.

Yang et al. (2012) reached the conclusion that location decision-making is not only a result of market forces, but also entangled with other factors such as government policies. However, they could not establish this proposition because their model could not include government policies. In the current body of hotel location literature, little is known about the impact of various government policies on location. The direct impact of policies such as tax holidays, accelerated depreciation, corporate tax rates, the impact of foreign investment, land use policies and area development plans, have been observed in different economies. A closer examination of this area is necessary to provide a more comprehensive picture of hotel location choice. Sudden mushrooming, because of government policy

changes in the accommodation sector, has been observed in different economies. It would be interesting to find out the impact of government policies on motel location selection in New Zealand.

#### **2.5.1..5 Ownership**

The relationship between ownership type and motel location selection has been overlooked. Turner and Guiding (2014) investigated hotels in Australia and New Zealand. They found six main types of hotel ownership. They are: (1) real estate investment trusts; (2) institutional investors; (3) developers; (4) high net worth investors; (5) specialist hotel management companies; and (6) strata-titled owners. They found significant differences between the various types of owner in terms of expectations, management contracts, and business strategies. Though the study provides insight into the hotel sector, because of differences in ownership type and investment size, it is not recommended to use the study's outcomes for the motel sector. Ownership type is crucial because a set of factors such as investment size, leverage, source of fund, and business strategies, directly depend on ownership. The type of hotel ownership tends to shape a hotel's ability to pay the rent for a location and its ability to generate positive externalities to proximate hotels (Luo & Yang, 2016). Budget hotel owners are less able to afford and sustain (because of their high fixed cost structure) any sudden change (Egan & Nield, 2000).

#### **2.5.1..6 Agglomeration**

Findings related to agglomeration in the accommodation sector as a whole are inconsistent. As discussed in the literature review, different combinations of hotel type result in different agglomeration effects. These are also because of differences in size, star rating, market segment, positioning, ownership, level of development, economic structure, and geographic location. Though investigating agglomeration for the motel sector can be challenging, it is important for identifying optimal location sites.

#### **2.5.1..7 Factor refinement:**

Previous studies have attempted to develop the best location selection models for the hotel sector using a range of techniques: empirical and operational models or quantitative methods. The authors have attempted to explain the set of factors that influence hotel location selection. Though some studies mirror the findings of prior research, others appear inconsistent. The main limitations of previous studies, which mean that they are not applicable to the motel sector, can be divided into two broad categories:

1. Limitations related to sector-specific characteristics.
2. Limitations related to missing or overlooked factors.

First, as the motel sector in New Zealand has some distinct characteristics (identified above), motel location selection cannot be recommended by relying solely on the global hotel location model. It would be a fundamental mistake and a threat to the integrity and acceptability of the decision. A study on the motel sector of New Zealand can contribute to filling this knowledge gap. Second, factors such as government policies and regulations, ownership type and the local economy are frequently overlooked. Some of the factors considered in previous studies, like connectivity, need in-depth investigation. Assessing the agglomeration effect for the motel sector is a challenge; any study should be very specific since factors such as type, size, ownership, star rating, and neighbouring businesses impact the outcome.

Though previous studies have defined location selection as a set of factors that do not include government policies and regulations, in the real world, government policies and regulations work as catalyst to location selection (Fang et al., 2019; Li et al., 2015; Yang et al., 2012). This study provides a more realistic model. It uses a comprehensive set of factors including the missing, overlooked and refined or more specific factors as input. This study offers the first comprehensive model for motel location selection. Motels are a large sector and, unfortunately, how motel location selection works within New Zealand is not clear. This raises questions about why the motel sector is overlooked and how location decisions being made.

## **2.6 Conclusion**

This chapter has reviewed the literature on motel location selection. Although the thesis is about motel location selection, the starting point of the discussion was hotel location because of the unavailability of literature on motel location selection. Though a considerable amount of literature has been published showing the importance of location selection for the tourist accommodation sector, most scientific papers focus on hotels. A number of researchers have reported that location is an important determinant of hotel performance. An ideal location is positively associated with higher revenue, demand, performance, customer satisfaction, sustainability and a lower failure rate.

Several attempts have been made to explore the determinants of hotel location. Evidence suggests that a group of factors affect the location choice of a hotel. What the exact list of factors is remains to be agreed. Scholars have examined a variety of contexts. The multi-disciplinary nature of hotel location has resulted in a relatively separate body of literature. Because of the applied method of much of the research, investigators reported hotel location determinants in the form of a list, hierarchy, or set of variables.



This chapter reviewed the application of location theory in the hotel location selection literature. Previous studies have widely used location theories in hotel location selection. Classical and early location theories were mainly taxonomic. That research pool shows where a certain type of hotel should exist and why. Early location theories formed the fundamental base for modern location theories. A number of researchers have applied location theories and models such as the monocentric model and the tourism historic city (THC) model. A large body of research has examined the agglomeration effect on hotel location and reported that both location and co-location count in the hotel sector. Hotels agglomerate to receive the benefits associated with being situated in a cluster. However, not all hotels benefit from agglomeration; gains and losses from agglomeration depend on the composition (type and component) of agglomeration.

Recent evidence suggests that empirical and operational models are effective in selecting a specific hotel location. In the past two decades, researchers have developed some sophisticated empirical and operational models. A number of studies have involved different types of regression analysis and multi-criteria decision-making models. Recent studies have reported the use of multi-models and computer-based hybrid models. Multi-criteria decision-making models, specifically AHP, outperformed others and drew the attention of researchers.

After reporting the theoretical foundation, this chapter has discussed the theoretical framework. It discussed how location determinants have been explored in prior literature. The detailed discussion revealed a set of criteria (location determinants in broader categories) and sub-criteria (location determinants under the broader categories) and explained how the determinants were derived in different research studies. The discussion also detailed how the methods were applied and the results interpreted. The process of determinant selection, methodology application and results interpretation provide insight into the context of the individual studies and their results.

This chapter has examined hotel location literature because there is no similar body of work for motels. A discussion on the need for motel location selection research revealed that hotel location selection research cannot be applied directly to motel location selection research because of differences between hotels and motels. As a result, refinement, reshaping, and contextualization is crucial if someone wants to use hotel location research. It is also apparent that utilizing hotel location research as a starting point of motel location research is the best available option.

Finally, it can be concluded that this chapter investigated the literature, reported an extensive theoretical background, the latest theoretical developments, the theoretical framework, and highlighted key issues, and gaps. The following chapter presents the study's methodology.

# Chapter 3

## Methodology

### 3.1 Introduction

This chapter describes and discusses the research approach and data gathering procedures used in this study. This chapter's research approach was driven by the study topic: decision-making for the location selection of motels within New Zealand. Location selection was examined in the context of location theories. Thus, this chapter describes the approach adopted within this study and provides justification for selecting the particular research strategy, data collection method and the particular analysis techniques. The design chosen must be appropriate for the research question posed; this is referred to as the dictatorship of the research question (not the paradigm or method) (Tashakkori, Teddlie, & Teddlie, 1998).

This chapter begins by discussing the research paradigm. The ontological and epistemological underpinnings and associated methods and techniques are discussed after that. Paradigm selection is essential because by selecting a specific paradigm, a researcher does not dwell in his own philosophical know-how and can obtain a better stance in relation to other alternatives (Rahi, 2017). The selection of a specific research approach was influenced by the study's research questions and objectives. Teddlie and Tashakkori (2009) argued that the detent in the paradigm wars has been positive for research development in many fields because most researchers now use whatever method is appropriate for their studies, instead of relying exclusively on one method.

This chapter provides a detailed discussion of the methodology used and its appropriateness for this study. The chapter contains three major sections:

- a) The research paradigm,
- b) research design, and
- c) research method.

The research paradigm section discusses the ontology, epistemology and methodology. The research paradigm section justifies why an interpretive-inductive approach is the best fit for this study. It then addresses the validity, reliability and ethical considerations. The research design section also clarifies why a qualitative lead mixed method approach was the best fit for this study. The research method section details with the data collection and analysis methods. This section explains the methods used in the first phase of data collection and then discusses the methods used in the second phase. The

chapter ends with a summary. The first discusses the research paradigm, which is crucial for understanding and addressing a problem.

### **3.2 The research paradigm**

A paradigm is a way of understanding and studying the reality of the world. A paradigm is a theoretical framework with assumptions about ontology, epistemology and methodology (Kivunja & Kuyini, 2017; Morgan, 2007). It is a basic belief system (Guba, Lincoln, & Denzin, 1994). The paradigm in this study guided the research design which is based on the research questions.

According to Kuhn (2012), paradigms are universally recognised scientific achievements that, for a time, provide model problems and solutions to a community of practitioners. Kuhn (2012) argued in his seminal paper about 60 years ago that once a paradigm is chosen, it is advisable for the researcher to remain within that paradigm. The relevant research strategy must be processual, contextual, comparative, emic, and pluralistic and eclectic (i.e., based on a choice from a variety of theories and their cumulative insights) (Cohen, 1979; Dann, 2016). Guba and Lincoln (1994) defined a paradigm as the basic belief system or world view that guides investigators based on ontological, epistemological and methodological assumptions. The term paradigm is used to explain philosophical assumptions about the nature of knowledge and how researchers can measure that knowledge (Guba & Lincoln, 1994; Morgan, 2007).

According to Cohen (1979), there is no single approach to the study of tourism and the tourist. There is no universally accepted paradigm, and there is still much discussion and argument about which paradigm and, consequently, which methodology is best for conducting research (Patton, 1990; Yin, 2009). When investigating a diverse, complex, changing contemporary society, no single paradigm meets all researchers' needs and all research questions. Therefore, researchers need to adopt the most appropriate research paradigm and methodology to conduct research based on the research questions (Tashakkori et al., 1998). According to (Yin, 2009) the most appropriate methodology for undertaking research lies in the research question's nature. This study uses these concepts and develops a research paradigm that best fits the research objectives and questions. Generating rich information was a crucial part of this study. To do so, a balance between staying under a universally recognized research structure and flexibility to travel beyond that static structure for quality information were equally important. Using a combination of research approaches from different disciplines was crucial to extract information from the data. Paradigm selection and modification resulted in an interpretive-inductive research paradigm. Guba and Lincoln (1994) and (Yin, 2009)

suggested guidelines about how to select the most appropriate research paradigm. They recommend considering the problem, the research goals and the research question(s). The guidelines support an interpretive-inductive approach for this study. The next sub-sections on ontology, epistemology and methodology justify why the interpretive-inductive approach is the best fit for this study.

### **3.2.1 Ontology**

Ontology refers to the nature of our beliefs about reality (Skinner, Edwards, & Smith, 2020). An ontological question leads a researcher to inquire what kind of reality exists; a singular, verifiable reality/truth or socially constructed, multiple realities. From an ontological perspective, the interpretive social sciences paradigm asserts that there are multiple explanations or realities to explain a phenomenon (Jennings, 2010). Motel location selection is shaped by human experience, understanding and social context. Participants' interpretations are subjective, and they make sense of the world from their perceptions. It is impossible to abstract participants' decision-making from their social settings. Decision-making is a multiple reality phenomenon. As a result, this study uses an interpretive-inductive approach.

### **3.2.2 Epistemology**

Epistemology refers to the branch of philosophy that studies the nature of knowledge and the process by which knowledge is acquired and validated (Gall, Borg, & Gall, 1996). Patton (2005) argued that an epistemological question leads a researcher to debate the possibility and desirability of objectivity, subjectivity, causality, validity, generalisability. An ontological belief system guides a researcher to certain epistemological assumptions to design and understand research. If a singular verifiable truth is assumed, "then the posture of the knower must be one of objective detachment or value freedom to be able to discover 'how things really are and 'how things really work' (Guba & Lincoln, 1994, p. 108). Belief in socially constructed multiple realities informs a researcher that people should not be studied like objects of the natural sciences.

Within the epistemological basis of the interpretive social sciences paradigm, the relationship between the researcher and subject is 'inter-subjective' (Jennings, 2010). Understanding the phenomena from the subject's context by getting involved with the subject is crucial. This study accepts the epistemology that reality needs to be interpreted. The next section discusses the application of the interpretive-inductive approach and the associated research method.

### 3.2.3 Methodology

Methodology is an articulated, theoretically informed approach to the production of data. It guides a researcher in what type of data are required and which data collection tools will be most appropriate for the research (Kothari, 2004). The methodological question leads the researcher decide how the research will be conducted. The interpretive social sciences paradigm generally uses qualitative research methods. Numerous authors in the academic literature note a preference for qualitative research methods, e.g., Tashakkori et al. (1998) suggested quantifying qualitative data as an innovative approach to knowledge creation. According to Bryman (2006), a way to diversify the method is to integrate qualitative and quantitative approaches. A technique that can effectively quantify qualitative knowledge and process quantitative information and intangible dimensions, such as subjective preferences, is also used in interpretive-inductive research.

The above discussion of research paradigms (ontology, epistemology, and methodology) illustrates that the most suitable research paradigm is based on the research question. Gaining insight into this study is crucial as the purpose of the study is to develop a comprehensive model for decision-making in motel location selection. For a sound methodological base, ontological and epistemological underpinnings are crucial. The theoretical element of this study is derived from a literature review of the tourism accommodation sector. Some global studies on hotel location selection are available but this study focuses on motels. As a result, the hotel literature needs refinement to suit motels, and we must filter and reshape the factors before using them in our model. In mixed methods, semi-structured interviews allow researchers to develop detailed knowledge of a topic. A mixed methods approach makes it easy to examine and understand a complex phenomenon (Johnson, 2007). This study applied a qualitative concept in its first phase - the researcher interviewed experts to develop a decision-making hierarchy. It later used mixed methods (quantitative followed by qualitative method) to survey and examine motel owners' location selection process.

Figure: 8 shows how the research paradigm was selected based on the underlying ontology and epistemology.

Ontology	Single reality	Positivism	Deductive
	Multiple reality		Inductive
Epistemology	Constantly interpreted	Constructivism (interpretive)	Inductive
	Knowledge can be measured	Pragmatism	Abductive
	Reality needs to be interpreted		
	Should be examined using best tools		

### **Figure: 8 Derivation of research paradigm for this study**

Based on the above discussion, a mixed methods approach was deemed the most appropriate for this study because of the research goals and questions. The appropriateness of the mixed method approach is discussed in the research design section. The methods for data gathering and analysis are discussed in the methods section following information about the research design.

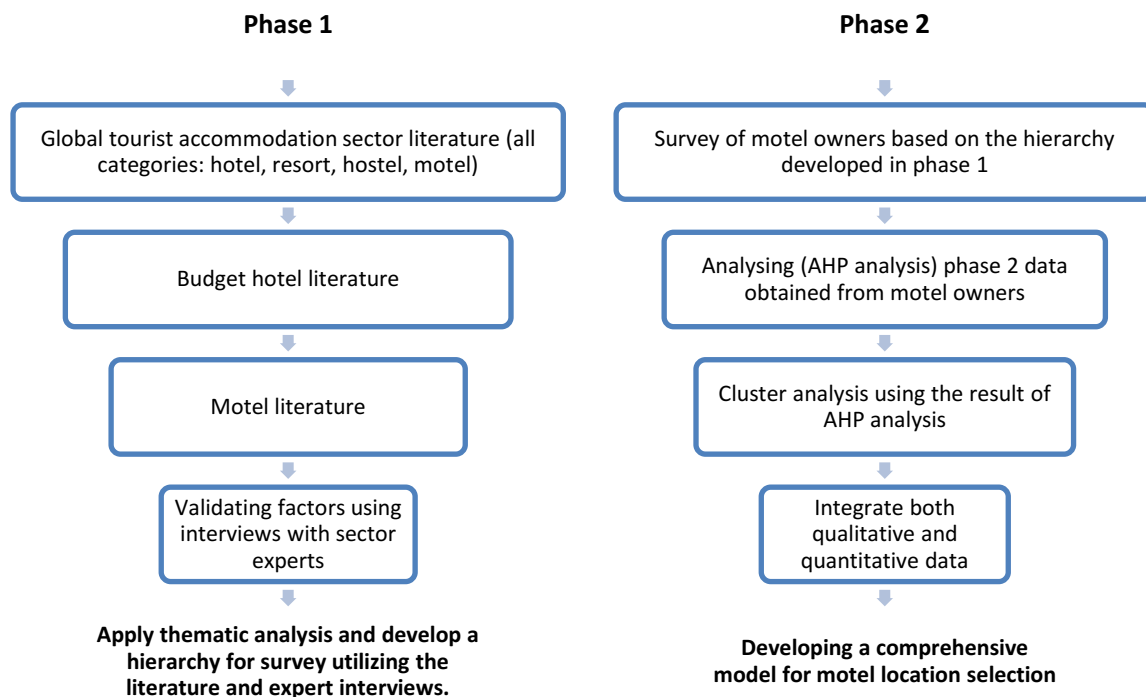
## **3.3 The study's design**

This section describes and discusses the study' design. The first sub-section describes the design and the reasons behind selecting this particular design from a range of possibilities. After that, the section provides information about the validity, reliability and ethical considerations.

### **3.3.1 Design of the research**

The research design is a structure developed to answer the research question in a logical and defensible manner. Research design ensures that the obtained data answer the research questions effectively. This study examines factors influencing location selection, determines the importance (weight) of each of these factors, and develops a location selection decision-making model by analysing the factors and insights obtained from the respondents. The literature review showed that there is no comprehensive study on the motel industry. So, it is crucial to design the research so that it can identify the factors from the literature, filter and develop a model, apply the model in the motel sector in New Zealand and answer the research question. This study used an interpretive-inductive approach to formulate the best-fit design.

The study's research design (Figure: 9) can be divided into two major phases: (a) a review of the literature to determine existing knowledge about this topic and validation in the New Zealand context; and (b) the application of the validated information in the motel industry and examining the collected data from the motel owners. This study uses a mixed method approach (comprising both qualitative and quantitative approaches). Multiple analysing tools (such as thematic analysis, AHP, cluster analysis) in different research steps have been applied to answer the research questions systematically. Figure: 9 (designed by the author) shows how each phase of the study has been designed.



**Figure: 9 Proposed research design to develop a model for location selection for NZ motels**

Phase one uses a qualitative approach and applied thematic analysis to develop a hierarchy. In contrast, phase two used a mixed methods approach and used AHP and cluster analysis to examine the gathered data. The methods and analytical tools are discussed in detail in the respective subsections. The next sub-section critiques the research approach (the mixed method approach) and its suitability for this study.

### 3.3.2 Research approach (mixed method approach)

In mixed methods research, the researcher combines elements of qualitative and quantitative research approaches (e.g., the use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration (Johnson, 2007). Mixed methods research combines qualitative and quantitative research components to expand and strengthen a study's conclusions. The use of mixed methods contributes to answering the research questions (Schoonenboom & Johnson, 2017).

This study uses a qualitatively driven interpretive-inductive mixed method research approach. The qualitative and quantitative methods have been used sequentially in different phases. The first phase uses a qualitative approach. The second phase uses a qualitative-lead quantitative method. The second phase depends on the results of the first phase. The point of integration of qualitative and quantitative components was in the second phase of this study. According to Guest (2013), where two



or more research components are mixed or connected somehow is a point of integration. Morse and Niehaus (2009) identified two possible points of integration: the results point of integration and the analytical point of integration. Teddlie and Tashakkori (2009) argued that in research there could be multiple points of integration. The methods used in this study were selected based on the research question. The subsequent sections discuss the contributions of the qualitative and quantitative methods.

One of the core strengths of qualitative research methods is that there are many varieties among different approaches; this can be in terms of the underlying epistemological and ontological traditions, the data and materials that can be analysed (e.g., the text, numbers, pictures, graphs, audio files, movies and objects), the content that is assessed (e.g., narratives of people's lives or experiences), or the way in which the data are treated and coded (Köhler, Smith, & Bhakoo, 2018). Qualitative research encourages researchers to engage in bricolage and adapt the methods to their study, sample or context in which they collect data (Denzin & Lincoln, 2017; Gehman et al., 2018). Quantification of qualitative data is an innovative approach to knowledge creation (Simmons, 1985; Teddlie & Tashakkori, 2009)

A quantitative approach helps to establish statistical evidence and relationship between variables. It helps researchers focus on a fact or a set of information. Although quantitative methods are unable to provide in-depth explanations available through qualitative methods, quantitative methods can be used to test hypotheses and determine the reliability and validity of variables' measurements (Malhotra, 2004; Zikmund & Babin, 2007). This study used a qualitative lead mixed methods approach to use the advantages of both qualitative and quantitative methods. While discussing the integration of formal and informal research methods, Simmons (1985) pointed out that one research style can be used to cross-check and support others by compensating for their relative weaknesses. Ultimately, mixed methods research is about heightened knowledge and validity (Schoonenboom and Johnson (2017).

### **3.4 Validity and reliability**

Validity and reliability are crucial in qualitative or mixed method studies. Validity is about the accuracy of a measure. Reliability refers to the consistency of a measure (Simmons, 1985). Traditional measures of reliability and validity are sometimes less suited to the qualitative tradition. Rather than validity and reliability, Jennings (2010) used terms such as trustworthiness, authenticity, and goodness of fit for qualitative research. High validity produces results that correspond to real properties, characteristics and variations in the social world. Validity can be assessed by checking how well the

results correspond to established theories and other measures of the same concept. Simmons (1985) pointed out that validity has two aspects: internal validity and external validity. Internal validity stresses subjective understanding. It asks how correct (real) the research findings are to the actors themselves. External validity asks how far may one extrapolate findings from one situation to another? In research design, reliability indicates how consistently a method measures something in research. Simmons (1985) argued that the quest for reliability has been principally framed in terms of objectivity; i.e., other researchers would come to the same conclusion if they followed the same procedures. A measurement is considered reliable if the same result can be consistently achieved by using the same methods under the same circumstances. Validity and reliability are closely related.

For the purpose of this study, an intensive approach is used to confirm validity and reliability. To ensure validity, measurement and sampling techniques are based on existing knowledge that can accurately capture real variations. An in-depth review of established theories and findings of previous studies were used to ensure sound conceptualization. Questions were worded precisely. Validation and pre-test/pilot approaches were used to test and ensure validity. Return visits/communication were made to the experts, and the preliminary findings were validated. Informal meetings and electronic communication were undertaken to see if the conclusions represented the experts' views. Experts were also invited to comment on the factors (criteria/sub-criteria/alternatives) of the developed model as they filtered and redirected the factors. While every possible care was taken to ensure the highest level of internal validity, external validity was ensured with the model's inherent dynamic characteristics.

To ensure reliability, research methods were applied consistently, and the research conditions were standardized. Questions were phrased the same way each time and all participants were given the same information and interviewed under the same conditions. Precise research design and step-by-step procedures mean that if other researchers follow the same procedures, they will come to the same conclusion; these practices ensure reliability.

### **3.5 Ethical Considerations**

Ethical considerations are significant in social science research because they are often intrusive (i.e., they interfere with ordinary activity). As a requirement of Lincoln University, ethics approval was completed before the interviews and the research followed the strict ethical guidelines. Anticipated ethical issues and remedies were considered during the human ethics application, before data collection commenced.

A consent package was prepared following the Lincoln University Human Ethics Committee guidelines consisting of: (a) a research information sheet; (b) a consent form; (c) interview prompts; and (d) a survey questionnaire. Phase one interviews with the experts were thematic and conceptual, phase two interviews were mainly a semi-structured face-to-face survey. The information sheet introduced participants to the research – it provided information about the aims of the project and what would be required of them. The consent form clarified that the participants had read and understood the consent package and that their involvement was voluntary. They were advised that they could refuse to answer and were free to withdraw from the study if they felt uncomfortable. The interviews were digitally recorded with the interviewee's consent. The highest level of care was taken to protect the participant's identity and ensure their anonymity and confidentiality when reporting their perceptions. This study coded all motel respondents and followed the university confidentiality rules.

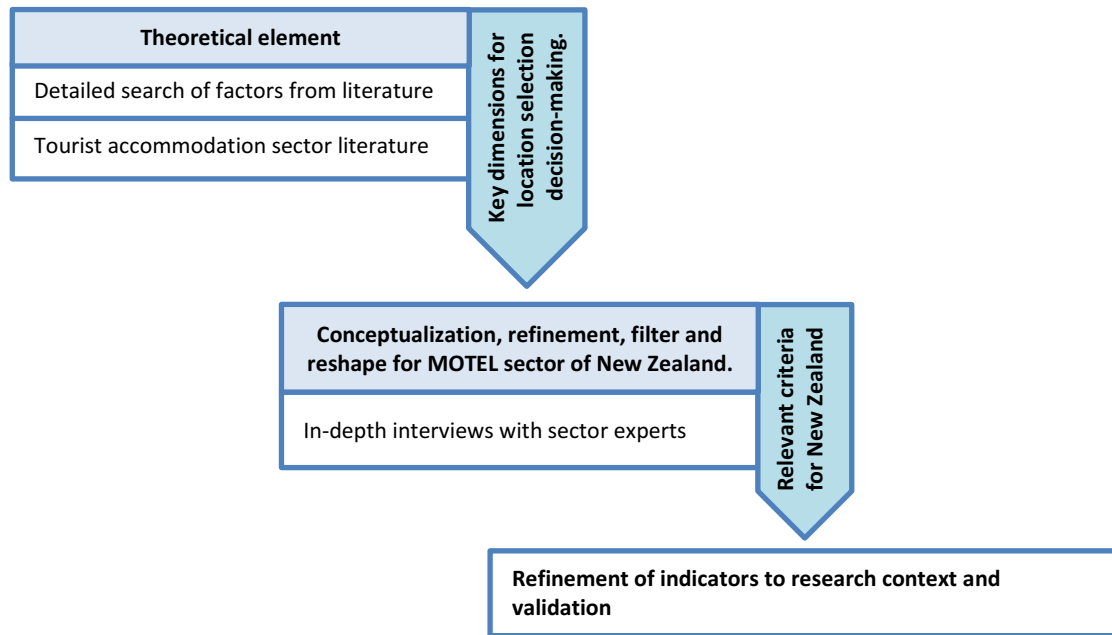
When selecting the research method and analytical tools, a researcher needs to take the research question into account. The research method and the analytical tools should be able to answer the research question. The next section discusses the methods and analytical tools and explains why those methods represent the best fit for this study.

### **3.6 Research method**

This section explains the research method in detail. The section is divided into two sub-sections. The first sub-section describes and discusses the research methods used in the first phase of the study. The research methods used in the second phase of the research are described and discussed in the second sub-section.

#### **3.6.1 Data collection and the methods used in the first phase of the study**

The purpose of the first phase of the study was to develop a theoretical base of factors that influence location selection decision-making. The first phase of the research used a qualitative research method to gain greater insight into the factors. An initial content analysis of the literature was conducted to find factors that potentially influence location selection decision-making. The study used in-depth interviews to filter, redirect, reshape and contextualize the theoretical elements obtained from the literature to develop a reliable, valid survey instrument. Data collection and methods used in the first phase of the study are discussed here in detail. Figure: 10 illustrates the first phase of the study.



**Figure: 10 A diagrammatic representation of the first phase of the study**

### **Purpose**

The literature on location selection for the tourist accommodation sector, especially factors influencing motel location (generally and more specifically) in New Zealand is sparse. From a financial entity perspective, the decision on motel location selection appears to be, in part, non-rational or based on personal experience; in the long run, these methods pose a serious concern for the sustainability of the business. In the absence of robust literature on motel location, the best option to explore factors influencing motel location remains to explore hotel location selection literature and contextualize it for motels using sector experts. Thus, the study's first phase searched, filtered and validated factors influencing motel location selection decisions, for the motel sector of New Zealand.

### **Data sources**

Data required for this phase were collected from both primary and secondary sources. The literature review and document analysis were major sources of secondary data. The literature was reviewed in three steps: a review of the relevant tourism literature, a review of tourist accommodation sector literature, and a literature review for the motel industry. Some reports and other informative documents (such as Tourism New Zealand reports, MBIE reports) were also reviewed, along with scientific literature. The in-depth interviews with tourist accommodation sector experts provided the primary data sources. Interviews provide researchers with rich, detailed qualitative data for understanding participants' experiences, how they describe those experiences, and the meaning they take from those experiences (Rubin & Rubin, 2011). Open-ended interviews were designed to gain insights into the tourist accommodation industry from sector experts.

## Questionnaire design

Designing an in-depth open-ended interview can be tricky and challenging. The purpose of in-depth interviews is not to only to obtain answers to the questions but, rather, to understand the lived experiences of the people and the meanings that they take from those experiences (Seidman, 2013). This study used a small set of broad questions to facilitate conversation. The study followed the four-phase interview protocol refinement framework developed by Castillo-Montoya (2016) for systematically developing and refining an interview protocol. The four-phase process in his study included: (1) ensuring interview questions align with research questions; (2) constructing an inquiry-based conversation; (3) receiving feedback on interview protocols; and (4) piloting the interview protocol. This study used a questionnaire consisting of four broad questions about factors influencing tourist accommodation location selection. The questions were arranged in a logical manner (Figure: 11). This is important because the question sequence can influence respondents' answers (Malhotra & Dash, 2016). Figure: 11 lists the four topics that the sector experts were asked.

1. What are the key criteria that are considered most while selecting a location for motel within New Zealand?
2. How do major criteria such as site attributes, level of destination development, agglomeration, transport and communication, market conditions, demography of the area, and government policies affect decision-making in the context of New Zealand?
3. How are locations for motels selected and what available models are being practised in the sector to select motel location?
4. What are your perceptions and understanding of location selection models/criteria/factors and how they might be improved?

**Figure: 11 Topics addressed to motel sector experts**

Before asking the respondents (sector experts) questions, the researchers carried out pre-testing of the questionnaire. This is discussed in the in the subsequent section.

### Pre-test

The questionnaire was pre-tested to identify any ambiguous questions or any difficulties in understanding the questions. Each question was examined to ensure clarity, simplicity and answerability. The choice of the exact terms/words in the questions (Simmons, 1985) was carefully considered to make the questions precise. Pilot interviews were conducted using three representative samples. The backgrounds of those interviewed were: a university teacher, a policy maker and a researcher. Feedback on the questionnaire's suitability was received and some adjustments were made to the wording to ensure that data would be collected correctly. Final feedback indicated that

the questions were well understood. Further pilot studies were considered unnecessary. This version of the questionnaire was used to collect the data.

### Sampling

This subsection discusses the sample size and sample design of the in-depth interviews in detail. Sample size and sample design are important factors that should be considered by researchers (Sekaran, 2005). Determining an acceptable sample size, appropriate to the purpose of the research, was also crucial. There has been considerable debate over what constitutes an acceptable sample size, with no simple, definitive rule to define an appropriate sample size (Flynn & Percy, 2001). In total, six experts were interviewed in the first phase. Although they were selected for their specific experience, role and/or involvement with the motel sector, most of the experts wore multiple ‘hats’ and were able to provide input from a number of perspectives.

**Table: 3 Interviewed experts of the first phase**

Category	Interviewee’s expertise	Role	Interview type/duration
Tourism Property Broker	35 years of experience in New Zealand motels, especially in the South Island.	Principal/founder of the company.	Face-to-face 2 hours (approx.)
Property Broker and Hotel Management	30 years of experience in hotel management and as tourism and hospitality business broker.	Tourism property broker and General Manager of an international chain hotel	Face-to-face 1.5 hours (approx.)
Association	Hospitality New Zealand	National Vice President/Canterbury Branch President	Face-to-face 1 hour (approx..)
Investment Advisor	25 years of experience in senior role in tourism association, policy making and tourism investment	Managing Partner	Telephone 1 hour
Tourism Consultant	Tourism asset management, adviser, consultant, planning and development.	Managing Director	Face-to-face 2.5 hours (approx.)
Property Broker and Real Estate Company	25 years of experience in Business ownership and 11 years in Business brokerage and sales	Business Brokerage and Sales manager	Face-to-face 1.5 hours (approx.)

The selection of experts was based on their specific expertise, experience and involvement with the accommodation sector, in particular the motel sector in New Zealand. Many of these experts were identified via the literature review, which primarily involved a review of research, government reports, industry reviews, media reports and an examination of relevant websites. After the initial selections were made, further study on the experts was undertaken to identify their involvement in the New Zealand motel sector to test whether the most relevant pool of experts had been selected for the purpose of conceptualization with New Zealand. The lens in this study was directed towards a comprehensive understanding about location selection decision-making, and that is why some

additional experts were identified who were not directly engaged with motel sector but had experience via formal roles for the development of tourism accommodation sector. The following table lists the experts according to their basic expertise. Although anonymity of the experts was by coding the experts, it should be acknowledged that individuals may still be identifiable because of their role or position in their respective organizations. Broad identification is sometimes provided to distinguish the perception of experts in a specific field.

### **Survey procedure**

An initial approach to experts was made by telephone with the research explained briefly and participation interest and availability ascertained. An interview date and time was arranged by further phone call or email. The interviews were undertaken from May to July 2019 at the expert's office. This also enabled informal interviews with some other key people from the same office.

It was mentioned earlier that the purpose of the interview was to filter, redirect, reshape and conceptualize the theoretical element obtained from the literature so that a reliable, valid survey instrument could be developed. Interview topics were slightly different according to the type of expert; thus not all interviews were structured the same way. Though the literature review findings were addressed, as is often the case when conducting qualitative interviews, the interviews did not always follow the same question sequence. The question order asked and the emphasis in the interviews varied slightly, according to the area of interest and the expert's area of expertise, specific experience, or knowledge. All interviews were recorded digitally and transcribed in full. The interview data were analysed to develop the hierarchy of the questionnaire of AHP for a face-to-face survey.

The researcher made return visits to or communicated multiple times with the experts to validate preliminary findings. Informal meetings and electronic communication were re-confirmed if the findings represented their views. Experts were also invited to comment on the factors (criteria/sub-criteria/alternatives) of the developed model as they were filtered and redirected by those experts. Every possible care was taken to ensure the highest level of validity and reliability. The internal validity and external validity were ensured using the inherent dynamic characteristics of the model. Ethical approval was completed before the in-depth interview, and the research followed strict ethical guidelines.

### **Data analysis procedures**

The ways in which qualitative data can be collected and analysed are virtually infinite. A variety of techniques can be used to analyse data with their own unique properties. In-depth interviews with

the experts in phase one were thematic and conceptual. This study used applied thematic analysis to examine the data. This is discussed in the next subsection.

### **3.6.1..1 Thematic analysis**

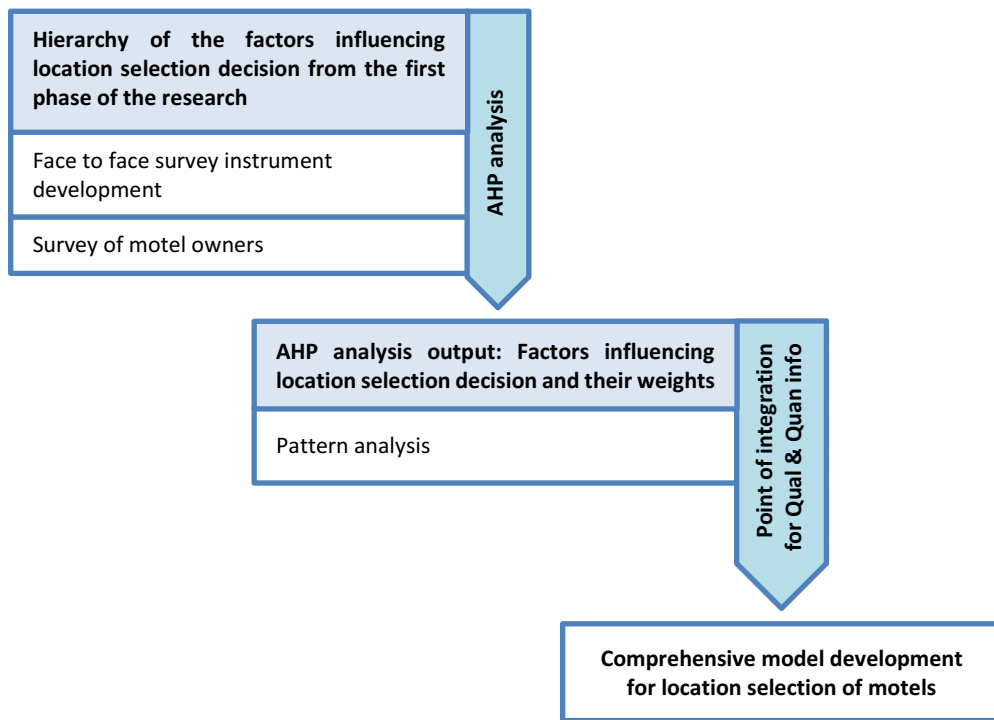
Applied thematic analysis comprises a mix of everything - grounded theory, positivism, interpretivism, and phenomenology - synthesized into one methodological framework. The approach borrows useful techniques from each theoretical and methodological camp and adapts them to an applied research context (Guest, 2012). The first phase's main objective was to develop a hierarchy of factors influencing location selection decision-making in the motel sector. Initially, a hierarchy was developed from the review of available literature. After that, in-depth interviews with sector experts were conducted to filter and validate the results for the New Zealand context. Thematic analysis is the best fit here because it moves beyond counting explicit words and works with themes. This study used applied thematic analysis to develop a hierarchy of factors influencing location selection decision-making. Thematic analysis was used because it is a proven technique that can be used to identify key themes and build theoretical models. Ontologically, it fits well with interpretive research (Guest, 2012).

The second phase of this study developed further mixed methods approach. A researcher-lead face to face survey was conducted to collect data. The study used a quantitative approach to analyse the data. Analytic Hierarchy Process (AHP) was used to analyse the data and produce a hierarchy with weights of the criteria and sub-criteria. Cluster analysis was also carried out to examine and explain the underlying pattern obtained from the AHP analysis. The following section details the data collection and the methods used in the second phase of the research.

### **3.6.2 Data collection and methods used in the second phase of the research**

A quantitative approach was used to consider the research question, design and theoretical base developed in the first phase through applied thematic analysis. The second phase started from the end point of the first phase. After that, a face-to-face survey instrument, a survey of the motel owners and AHP analysis method were used. Finally, cluster analysis was conducted to reveal underlying patterns among respondents based on their rankings. Figure: 12 illustrates the second phase of the study.





**Figure: 12 A diagrammatic representation of the second phase of the study**

Figure: 12 illustrates the flow of this section. A detailed discussion of each step and the reasons behind their adoption are discussed in their respective subsections. The methods and their appropriateness are also discussed in detail. As mentioned earlier, we aim to explore the factors influencing location selection. We analyse the weights of the factors, examine the nexus between theory and practice and develop a model for the New Zealand context. This section described the development of a systematic way to answer the study’s research questions.

### **Data sources**

In this second phase, a face-to-face survey instrument was developed based on the first phase’s hierarchy. The face-to-face survey instrument (questionnaire) was the source of data for the second phase.

### **Questionnaire design**

Questionnaire construction is an initial activity critical to research (Acharya, 2010). Questionnaires serve four functions: they enable data collection from respondents; they lend a structure to interviews; provide a standard means for writing down answers; and help in processing collected data (Sreejesh, Mohapatra, & Anusree, 2013). Questionnaires standardize the data collection process for all respondents. The goal of standardization is that each respondent is exposed to the same question

experience, and the recording of the answer is the same, too, so that any differences in the answers can be correctly interpreted as reflecting differences between respondents rather than differences in the process that produced the same answer (Fowler Jr & Mangione, 1990). This study used AHP to process the collected data. Questionnaires are a commonly used method to collect opinions and views for AHP (Ergu & Kou, 2012). The questionnaire' format is now described.

The first page of the questionnaire (Appendix 1) included brief information about the study, a guideline on how to complete it and information about the measurement scale. Section one was used to collect information about the interviewee. This section had three sets of questions related to the respondent, the motel and the location. Section two was designed to collect pair-wise comparison data about all the criteria and sub-criteria. It followed the standard AHP questionnaire format. The questions and instructions used simple, clear, unbiased wording with easy non-technical notes about some terminology. The third section collected data about business operation issues. These questions were designed to provide useful insight relevant to the study. Malhotra and Dash (2016) argued that most people like to express their opinions. An open-ended question was added in the first section to give respondents the chance to express those opinions.

### **Pre-testing**

Merriam (1998) argued that the best way to tell whether the order of your questions works or not is to try the questionnaire out in a pilot interview. The interviewer conducts the interviews simulating rapport, process, consent, space, recording, and timing to "try out" the research instrument (Baker, 1994). Through piloting, the researcher aims to get a realistic sense of how long the interview will take and whether participants can answer the questions. Pre-testing of the questionnaire was crucial for this study to ensure its practical effectiveness. Wording, question sequence, understandability of the questions, the required introduction about the research, the standard time to answer the questions and respondent's reflection were noted. A minor change in wording was made after the pilot testing.

### **Sampling**

Sampling refers to the selection of a representative subset from a population to estimate characteristics of the whole population. For this study, the representative subset was selected via quota random sampling. The type of analysis and research questions were the primary determinants of sample selection. The following section discusses the study area, sample size and selection criteria.

### **Study area and population**

As mentioned earlier, the research was conducted in the north half of the South Island of New Zealand. At the time of the study, there were 339 motels in the study area. Motels were included irrespective

of their size, ownership style, number of units or any other sorting criteria. The list was prepared using an extensive web search. Keywords such as motel, motor lodge, and motor inn were used to identify motels. Multiple major online platforms were used to prepare the list Table: 4. It is assumed that the business is not an ideal business (motel) if it is not available in at least one of these platforms.

**Table: 4 The online platforms used to prepare the motel list of the upper South Island**

Platform	Type
Tripadvisor.com	Online travel agency and metasearch engine
Booking.com	Travel metasearch engine for lodging reservations
Agoda.com	Online travel agency and metasearch engine
Expedia.com	Online travel agency and metasearch engine
Trivago.com	Online travel agency and metasearch engine
Google.com	Web search engine
Google map	Web mapping search engine
Yellow page	Web site that provides listings for local businesses.
Company website	Online representative of the company.

The 339 motels were spread across the whole study area. Plotting the list on a map shows that most were clustered in major cities, suburbs, towns, the economic centre of the area, by an arterial road/highway, or in a tourist destination. About 88 per cent of the motels fall into major clusters. Figure: 13 shows motel dispersion in the study area (author’s compilation using Microsoft excel power map) and the dots size indicate the number of the motel located there.



**Figure: 13 Motel dispersion in the study area (author’s compilation)**

To obtain a representative sample, a quota was generated and quota random was applied. A snowballing method was used for initial contact to the respondents selected through quota random method. It confirmed that the sample was representative of all geographic regions and the

randomness of the sample at the same time. The population was divided into 10 different geographic regions. Each region was assigned a weight according to the number of motels in the region. The weight indicated what would be the least number (the sample) in a specific geographic area. After obtaining the population, the geographic cluster and required sample size was identified. Particular respondents were identified using the random sampling method. Random.org was used to select a random group of respondents.

After that, online verification of the respondents was undertaken to confirm that the respondents fulfilled all of the eligibility criteria. Finally, an invitation was emailed, asking them to participate in the research. The email was followed by a phone call. Unfortunately, the response rate for the email was quite low. Phone calls, together with emails, had a better response rate. The direct pop-up method (going to the selected motel directly to ask the owners if they are interested to be a respondent of this research) was also applied in and around Christchurch for the sample selected using the quota random method. The snowballing method was used in regions where there was more than one respondent. Table: 5 shows the number of motels in each region within the study area.

**Table: 5 Sample selection**

Geographic region	Total motels	Weight	Min Req Res
Christchurch	135	40%	7
Greymouth	12	4%	1
Hanmer Springs	17	5%	1
Akaroa	5	1%	1
Waimakariri	15	4%	1
Nelson	44	13%	2
Selwyn	5	1%	1
Blenheim	23	7%	1
Kaikoura	21	6%	1
Westport	35	10%	2
Others	26	8%	2

### Sample size selection

There is no magic solution for determining the right sample size for an AHP survey. Good judgement is required. An AHP does not require many interviews. In the AHP literature (Forman & Gass, 2001; Ishizaka & Lusti, 2004; Saaty, 1977, 1980, 1986, 1994, 2008; Saaty & Sagir, 2015; Vargas, 1990), no fixed rules about sample size have been proposed. Generally samples are generated on a case-by-case basis. AHP may be applied to large samples (n=8000) and small (n=3) groups; however, the number of respondents depends on the nature of the problem and the availability of experts. Sometimes, the results are very stable, even with only a few interviews. In a study of factors influencing hotel investment decision-making, Newell and Seabrook (2006) used a sample size of 15 respondents. Emir

and Saraçlı (2014) used the face-to-face questionnaire method to interview the directors of four 5-star thermal hotels to determine the efficiency coefficients of each factor in the hotel location problem. For his study, Chen (2006) designed and delivered a questionnaire to 50 academic-related association directors who had all hosted international conventions in 2003 in Taiwan. He wanted to collect data for pair-wise comparisons. The responses included 35 samples and represented a response rate of 70 percent. For the purpose of their study, Lai and Vinh (2013) selected 18 experts to participate in an AHP survey. Of these, five questionnaires contained inconsistent answers. These inconsistent questionnaires were sent back to the respondents to be completed again: two experts refused to revise and correct their responses. Consequently, their answers were excluded from the analysis. Therefore, the study was based on information provided by 16 experts. For the purpose of this study 20 respondents were selected. The motel owners were selected using the following criteria:

**Table: 6 Sample selection criteria**

<b>Criterion</b>	<b>Details</b>
<b>Motel</b>	The sample will be collected from any form of tourist accommodation which is registered as a motel. Motels will be determined using MBIE's definition of a motel. There were 339 motels in the study area.
<b>Ownership style</b>	The sample will be selected from locally owned and locally operated motels within New Zealand.
<b>Unit / Room</b>	In 2018, the average number of stay-unit per establishment was 16.55. In 2009, it was 15.45. According to a report (Ministry of Tourism NZ, 2010), most motels had between 5-29 units, with 46% between 10-19 units, 19% between 5-9 and 14% between 20-29 units. In terms of size, the sample will be collected mainly from average size motels.
<b>Location</b>	In terms of sampling, motels will be selected from different location clusters: the hub, transit, and gateway.
<b>Dispersion</b>	All of the motels in NZ are organized by region. It should be representative for the main regions.

If any motel, randomly selected, failed to comply with the above criteria, it was excluded from the sample and another random sample was selected. In snowballing, any sample that did not satisfy the criteria was removed from the sample. A representative replacement sample was then drawn from the motel sector of the study area.

### **Survey procedure**

An initial approach to the motel owners was made by email, using the Lincoln University's human ethics committee's approved email script. A research information sheet was also provided, which provided a brief explanation of the research. A survey date and time was arranged via another phone call or email. A face-to-face survey method was adopted to collect data and to ensure that the respondents were given all the necessary information so that they could understand the questions. It

was also helpful for ensuring that the consent form had been explained and signed, all the questions had been answered, and that there was no missing information. The researcher also carried out inconsistency checks at the time of the face-to-face survey. It saved time by ensuring that any minor inconsistencies were dealt with promptly. When major inconsistencies were found after the consistency check, the researcher organized a time to re-visit the respondent to retake the survey. The survey followed the same question sequence. The same researcher conducted all of the surveys. The survey took approximately one hour for each respondent to complete. The respondents were contacted, and a re-visit was scheduled according to their availability to ensure consistency in the AHP.

### **Data analysis**

AHP was used to analyse the data. After that, cluster analysis was performed to organize the information into meaningful clusters. The following section discusses AHP and cluster analysis.

### **Analytic Hierarchy Process (AHP)**

The Analytic Hierarchy Process (AHP) is a problem-solving framework (Saaty, 1986) and a theory of measurement (Saaty, 1990, 1994). It is considered a decision analysis technique that can be used to evaluate complex multi-attribute alternatives among one or more decision-makers. AHP relies on the innate human propensity to compare (Emrouznejad & Marra, 2017). It can be used to organize and analyse complex decisions and is based on mathematics and psychology (Saaty, 2008). AHP has been applied extensively, especially to large-scale problems involving multiple criteria. It is also helpful where the evaluation of options is mostly subjective.

Amongst the multi-criteria decision-making procedures available, AHP has been shown to be superior. Decision situations to which the AHP can be applied include, but are not limited to, choice, ranking prioritization, resource allocation, benchmarking, quality management and conflict resolution (Forman & Gass, 2001). Importantly, AHP allows both the scoring and weighting of factors. Using this concept, Newell and Seabrook (2006) surveyed major hotel investors and hotel owners/operators to assess the importance of factors influencing hotel investment. Yang and Lee (1997) claimed that AHP is one of the most preferred approaches in the MCDM field. Mardani et al. (2015) conducted a systematic review of MCDM techniques and their applications in tourism and hospitality. In total, they reviewed 106 papers published from 1994 to 2014 in 53 peer-reviewed journals. Papers were classified into six main application areas: (1) service quality, (2) tourism destination, (3) ecotourism, (4) marketing, (5) location selection and (6) other areas. They found that AHP was most popular method; of the 106 papers, 44 used AHP.

Methodologically, MCDM is the best fit for this study. MCDM is best revealed by the Analytic Hierarchy Process (AHP). Thus, in this study, AHP has been used as an analytical tool. Drawing on the seminal work on (Saaty, 1980, 1994, 2008) and consequent contributors (Forman & Gass, 2001; Han, 2016; Saaty & Peniwati, 2013; Vargas, 1990) a summary of AHP's core contributions can be listed as:

**3.6.2..1 The unique features of AHP:**

- a. Both qualitative and quantitative criteria can be evaluated using the AHP method. AHP is suitable for situations in which most of the essential data are subjective.
- b. AHP can recognize human bias and inconsistencies in subjective judgements.

**3.6.2..2 The nexus between AHP and this study:**

- a. Location selection decision involves the consideration of multi-criteria. Theoretically, AHP fits with location selection research. Moreover, amongst the available MCDM, AHP has been shown to be superior to other procedures.
- b. AHP demands that the problem be structured by participants in the decision-making. However, it is not essential that all participants in the planning process agree on every component of the problem.

**3.6.2..3 Theoretical soundness**

- a. The establishment of a hierarchy for AHP is based on theories, previous studies and empirical experiences. It will eventually examine location theories for their application in the tourism accommodation sector, or motels in particular.
- b. AHP can be used to solve complex decision problems using the multi-level hierarchical structure of objectives, criteria, sub-criteria, and options; thus, it covers all essential elements (factors) relevant to the problem. The required input data are easily obtained.
- c. It can derive the relative weights of the criteria in a systematic way that can be explained mathematically. AHP converts individual preferences into ratio-scale weightings.
- d. AHP is theoretically sound, easily implemented, readily understood and practically applicable. As a result, it is possible to develop a model theoretically. Testing the model is also possible with AHP.

AHP was developed as a result of several discoveries (Ishizaka & Labib, 2011). The concept of pair-wise comparisons (called paired comparisons by psychologists) has been used by psychologists for a long time (Köksalan, Wallenius, & Zionts, 2013). Miller (1969) first proposed, described and applied the hierarchic formulation of criteria. In his seminal paper, Saaty (1977), precisely described AHP. Initially, AHP originated from the mathematics discipline (Emrouznejad & Marra, 2017). Research areas such

as business management, supply chain management, engineering, environmental science and technology, computer science, healthcare, ecology, geoscience and social studies use AHP because of its strong mathematical base and applicability in practice. AHP has been shown to be useful in tourism location selection, planning and management (Bunruamkaew & Murayama, 2011; Chen, 2006; Emir & Saraçlı, 2014; Ghamgosar, Haghyghy, Mehrdoust, & Arshad, 2011; Kilinc, Semiz, Katircioglu, & Unusan, 2013; Newell & Seabrook, 2006)

There are many other MCDM models available with their inherent advantages and limitations, such as analytic network process (ANP), Technique for Order Preference by Similarity to Ideal Solution (TOPSIS), elimination and choice translating reality (ELECTRE), multi-criteria optimization and compromise solution (VIKOR/ Vlekriterijumsko KOMPromisno Rangiranje), weighted sum model (WSM), and simple multi-attribute rating technique (SMART).

The ANP is a tool to solve the decision problem if interdependent relationships have substantial impacts in the decision model (Cheng, Li, & Yu, 2005), complex interrelationships among decision levels and attributes (Yüksel & Dagdeviren, 2007) and existing dependencies of higher-level elements on lower level elements (Kadoić, Begičević Ređep, & Divjak, 2017). The decision-making problems in the ANP are modelled as networks, not as hierarchies as with the AHP (Saaty & Vargas, 2006).

The basic concept of TOPSIS method is that the selected alternative should have the shortest distance from the ideal solution and the farthest distance from the negative-ideal solution in a geometrical sense (Triantaphyllou, 2000; Triantaphyllou, Shu, Sanchez, & Ray, 1998). TOPSIS assumes that each attribute has a tendency of monotonically increasing or decreasing utility (Garvey, 2008; Triantaphyllou et al., 1998). Therefore, it is easy to locate the ideal and negative-ideal solutions. The preference order of alternatives derives from the Euclidean distance approach (Ozturk & Batuk, 2011). According to Benayoun, Roy, and Sussman (1966) the ELECTRE method deal with outranking relations by using pairwise comparisons among alternatives under each one of the criteria separately. ELECTRE works well with few criteria with large number of alternatives by eliminating less favourable ones (Lootsma, 1990). VIKOR focuses on ranking and selecting from a set of alternatives in the presence of conflicting criteria, and on proposing one or more compromise solution (Opricovic & Tzeng, 2007). The assumption that governs WSM model is the additive utility assumption and if the additive utility assumption is violated and the result is equivalent to "adding apples and oranges". The SMART is used to support decision makers in choosing several alternatives and will not affect other attributes if there are reduction or addition of attributes (Fitriani, Suzanti, Jauhari, & Khozaimi, 2020). Every MCDM



model has its own advantages and limitations. Drawing on the AHP discussion in the previous sections and then discussion above it was determined AHP fits well the MCDM requirements in this research.

### **Steps in the Analytic Hierarchy Process (AHP)**

In his seminal research, Saaty (1970) provided detailed steps for AHP. According to Saaty (2008), to make a decision one first needs to understand the problem, the need and purpose of the decision, the criteria associated with the decision, the sub-criteria, stakeholders and groups affected and the alternative actions available. Then a researcher must determine the best option; or in the case of resource allocation, the priorities for the options to be able to allocate the appropriate share of resources. Saaty (1977, 1990, 1994, 2008) applied the AHP model and explained the full mathematical details of the AHP analysis. Saaty (1994) expressed the following suggestions to elaborate the design of AHP hierarchy: (1) identify the overall goal; (2) identify the sub-goals of the overall goal; (3) identify criteria that must be satisfied to fulfil the sub-goals of the overall goal; (4) identify sub-criteria under each criterion; (5) identify the actors involved; (6) identify the actors' goals; (7) identify the actors' policies; (8) identify options or outcomes; (9) for yes-no decisions, take the most preferred outcome and compare the benefits and costs of making that decision with those of not making it; and (10) do a benefit/cost analysis using marginal values. Enrique Mu (2017) explained the fundamentals of the AHP process and identified the steps in the AHP method.

#### **a) Problem modelling**

The first step in an AHP analysis is to build a decision model. This simply consists of creating a hierarchy to analyse the decision. AHP always structures the problem as a hierarchy of which the first level is called a goal, the criterion constitutes the second level, and the third level consists of available options. In complex problems, it may be necessary to include additional levels in the hierarchy such as sub-criteria. By structuring the problem in this way, it is possible to understand the decision to be made, the criteria to be used and the options to be evaluated. This step is crucial. This is where, in more complex problems, it is possible to include input from literature, experts and relevant parties, to ensure that all criteria and possible alternatives have been considered. Ishizaka and Lusti (2004); Saaty (1991) all suggest that when setting up a AHP hierarchy with many elements, the decision-maker should attempt to arrange the elements in clusters, so they do not differ in extreme ways.

#### **b) Pair-wise comparison**

Psychologists argue that it is easier and more accurate to express one's opinion on only two alternatives than simultaneously on all the options. This also allows cross-checking between the different pair-wise comparisons. The decision-maker does not need to provide a numerical

judgement; instead, a relative verbal appreciation is sufficient. Comparisons are recorded in a positive reciprocal matrix.

$$A = \begin{bmatrix} 1 & a_{12} & \dots & a_{1n} \\ a_{21} & \dots & a_{ij} & \dots \\ \dots & a_{ji} = 1/a_{ij} & \dots & \dots \\ a_{n1} & \dots & \dots & 1 \end{bmatrix}$$

where:  $a_{ij}$  is the comparison between element  $i$  and  $j$ . If the matrix is perfectly consistent, then the transitivity rule holds for all comparisons which is:

$$a_{ij} = a_{ik} \cdot a_{kj}$$

However, this is seldom the case because our world is inconsistent by nature. As minimal consistency is required to derive meaningful priorities, conducting a consistency test is required.

### c) Judgement scale

One of AHP's strengths is its ability to evaluate quantitative and qualitative criteria and options based on the same preference scale. These can be numerical, verbal or graphical. To derive priorities, the verbal comparisons must be converted into numerical ones. In Saaty's AHP, verbal statements are converted into integers from one to nine. Theoretically, there is no reason to be restricted to these numbers and verbal gradation.

**Table: 7 The 1-9 fundamental scale developed by Saaty for pair-wise comparison**

Intensity of importance	Definition
1	Equal importance
2	Weak
3	Moderate importance
4	Moderate plus
5	Strong importance
6	Strong plus
7	Very strong or demonstrated importance
8	Very, very strong
9	Extreme importance

### d) Priorities derivation

The goal is to find a set of priorities  $p_1 \dots p_n$ , such that  $p_i/p_j$  match the comparisons  $a_{ij}$  in a consistent matrix. When slight inconsistencies are introduced, priorities should vary only slightly. Different methods have been developed to derive priorities. Psychologists used a pair-wise matrix before Saaty used the 'mean of rows'. Although, Saaty has always supported this method, other methods, for example priorities derivation with the geometric mean, have also been used. According to Ishizaka and Lusti (2004) if mathematical evidence testifies clearly for the geometric mean over the eigenvalue method, there is no clear difference between these two methods when simulations are applied.

### **e) Consistency**

A consistency check must be applied; priorities make sense only if derived from consistent or near consistent matrices. Some inconsistency is expected and allowed for in AHP analysis. Saaty proposed a consistency index (CI), which is related to the eigenvalue method:

$$CI = \frac{\lambda_{\max} - n}{n - 1}$$

where: n is the dimension of the matrix,  $\lambda_{\max}$  is the maximal eigenvalue. The consistency ratio, the ratio of CI and RI, is given by:

$$CR = CI/RI$$

If the CR is less than 10%, then the matrix is considered to have acceptable consistency. Bana e Costa and Vansnick (2008) showed that the consistency index has been criticized because it allows contradictory judgement in matrices. Ishizaka and Lusti (2004) claimed that techniques based on the transitivity rule have been developed to discover contradictory judgements and correct them.

### **f) Sensitivity analysis**

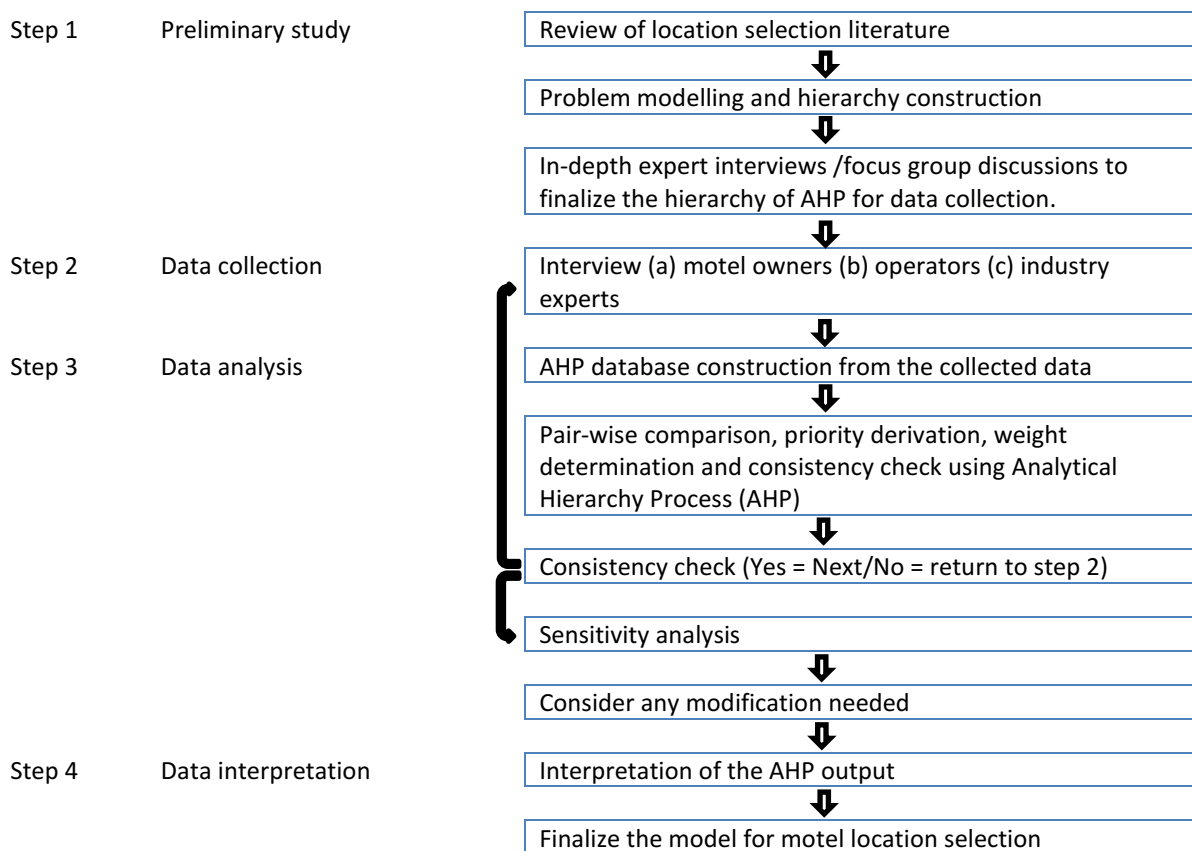
After deriving local priorities for the alternatives and model synthesis, the last step of the decision process is sensitivity analysis, where the input data are slightly modified to observe the impact on the results. If the ranking does not change, then the results are said to be robust; otherwise, it is sensitive. In AHP, sensitivity analysis can be done at three levels: weights, local priorities and comparisons.

### **g) Final decision**

Once the above steps have been completed, it is now possible to make a decision. It is necessary to compare and analyse differences between the priorities and sensitivity results. The AHP methodology allows us to determine which option is most consistent with the criteria and the level of importance given them. When using the AHP model, interpretation of the results plays a vital role in the decision-making.

Software is available for the AHP method. Several supporting software packages have been developed: Expert Choice, Decision Lens, HIPRE 3+, Right- Choice DSS, Criterium, EasyMind, Questfox, ChoiceResult, AHPPProject, 123AHP, and a template in Excel can be easily generated. The software incorporates intuitive graphical user interfaces, automatic priority and inconsistency calculations. It also provides several ways to process a sensitivity analysis (Ishizaka & Labib, 2011).

AHP has been used in various settings to assist decision-making, including for product development in big companies like IBM, Ford, and Xerox with large sample sizes. It has also been used in military decisions where the sample size is small and the availability of experts is very limited and country wise confidential (Saaty, 2008). AHP is regarded superior among other MCDM models. Figure 14 provides a schematic diagram of AHP.

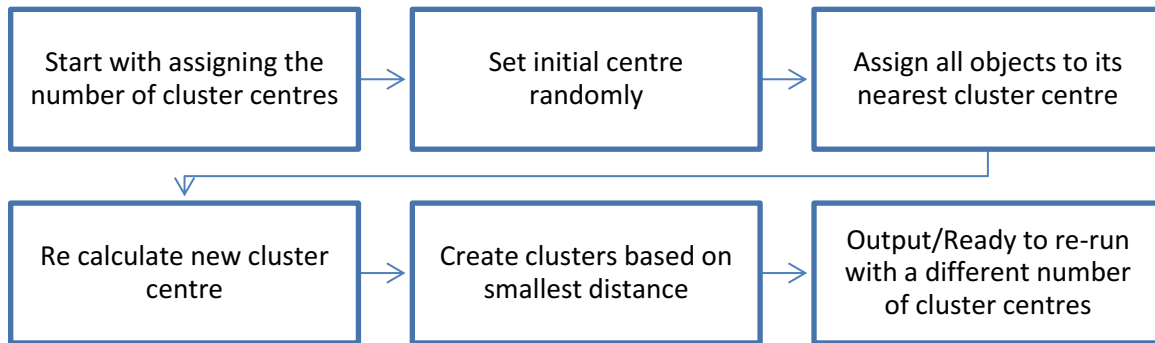


**Figure: 14 The Steps of Analytic Hierarchy Process**

The previous section discussed the AHP method. The next subsection discusses cluster analysis. This study used a fuzzy k-means method to perform cluster analysis.

### **Cluster analysis (fuzzy k-means)**

Cluster analysis is a crucial tool in various scientific areas, including pattern recognition, information retrieval, microarrays, and data mining. It belongs to family of exploratory data methods that can be used to discover structures in data (Govaert & Nadif, 2013). AHP analysis can determine the weights and priorities of the criteria and sub-criteria of the AHP decision hierarchy. It is anticipated that the priority for criteria or sub-criteria may not be the same for each respondent. This study used k-means cluster analysis to group similar findings from AHP into meaningful clusters. K-means cluster analysis identifies sets of clusters where each cluster is distinct from others and broadly similar within the cluster. K-mean is a clustering algorithm that clusters together data with similar features with the help of Euclidean distance (Figure: 15). The main reason for conducting k-mean cluster analysis was to discover underlying patterns, similarities, or dissimilarities between respondents.



**Figure: 15 The K-mean cluster analysis algorithm**

In this study, the starting point was two-clusters. No specified number of clusters was decided prior to the analysis. Two, three, four, and five-cluster analyses were rerun, to ensure that the number of clusters was appropriate. The sum of squared error (SSE) was used to select the most appropriate number of clusters. A high SSE suggests that clusters have a reasonable degree of difference and not good segmentation. A zero SSE indicates a perfect match. In real life, a zero SSE is very unlikely to happen. For this study, a lower SSE has been used rather than the lowest. Generally, SSE results lower with an increase in the number of segments. A lower SSE with a lower number of segments is called a balancing point. SSE per segment was also considered carefully using the same logic. This study conducted cluster analysis to assist in the interpretation of the patterns within the AHP output.

### 3.7 Conclusion

The purpose of this chapter has been to describe and discuss the research framing, data gathering procedures and analysis methods utilized in this study. This chapter has discussed the research paradigm, the rationale behind selecting the research design, data collection techniques and analysis procedures. This study used a mixed methods and two-phase research approach. The first phase used a qualitative approach and developed a hierarchy of factors influencing location selection. The second phase used a quantitative lead mixed approach and examined the hierarchy to developed a model for location selection.

A two-phase mixed method approach is widely accepted in interpretive-inductive study like this. Thematic analysis was used to develop and contextualize a hierarchy of location selection decision-making. Thematic analysis is a proven technique for interview interpretation because it moves beyond counting explicit words and works with themes. In this study, the selection of AHP to examine the survey data was based on its ability to answer research questions and its suitability for the study's data type. The use of AHP as a MCDM tool is widely identified in the literature. This study used k-mean

cluster analysis to cluster the respondents according to their decision-making factor preferences. Cluster analysis provided great insight into motel owners' preferences and thus sorted the AHP results into meaningful clusters.

Taken together, the approaches used in this study are in line with the methodological techniques identified in the literature. As such, the findings reported from this study are based on a robust, defensible methodological position. The following chapter discusses collected data and their descriptive statistics from both the first and second phases of the study.

## Chapter 4

### Analysis and results

#### 4.1 Introduction

This chapter presents the findings from the first and second phases of the study's data collection. As discussed earlier (Section 3.6), data collection was carried out in two phases. In the first phase, the in-depth interviews were conducted to filter, reshape, and contextualize the theoretical elements obtained from the literature review to develop a reliable, valid survey instrument. In phase two, data were collected via face-to-face surveys. This chapter also presents the findings resulting from phase two data collection. After that, the findings of the AHP and cluster analysis are discussed.

#### 4.2 Results from the first phase of data collection

Pre-testing was carried out before the in-depth interviews with experts. Six in-depth interviews of experts were carried out from May 2019 to July 2019. Although the study area was the north half of the South Island, the experts' location was not limited to study area as experts' physical location is not relevant to their knowledge about a specific place or a sector; experts living in the North Island were interviewed for their expertise on the motel sector. All experts had over 25 years of relevant experience. They were in top-level management/leadership teams of their respective companies. The interviews were scheduled for one hour, but, on average, the experts spent about two hours. Five interviews were conducted face-to-face; one interview was conducted over the telephone. All the interviews were conducted by the author.

##### 4.2.1 Results from the pre-testing

Pre-testing was crucial to assess the required time, clarity of the questions, obstacles, and the suitability of questions for the participants. Pre-testing confirmed that one hour was required for the in-depth interviews. One question was rephrased after the pre-testing. The pre-testing also provided practical experience and insight about how to keep the in-depth interview on track.

##### 4.2.2 Results from the in-depth interviews with the sector experts

The in-depth interview provided much detail about motel location selection. Some experts took longer than the anticipated time limit. As the purpose of the in-depth interview was to obtain insight from the sector experts, the interviewer continued the interviews. The interviews revealed a set of factors

that should be considered when selecting a motel location in New Zealand (Akhtar, Simmons, & Kambuta, 2020). The addressed topic areas and findings are presented sequentially in the following discussion.

#### Topic 1: Key criteria that are considered most when selecting a location for motel within New Zealand

Several financial criteria identified by the experts have relatively high importance for location selection. Profit remains the primary decision maker for all motel investors. The amount available for investment appeared to be an influential decision-factor when selecting a motel location. Capital gain was important, but mainly for freehold business owners. Though the historical rate of return has a significant influence on financial statements and deciding the lease amount, the experts found motel investors have limited understanding about such issues when they buy a motel. Experts noted that, for some investors, motels are a lifestyle business. Because of a very low entry barrier, people enter the business from various backgrounds with very limited knowledge about the sector.

All the experts agreed that first-time investors basically buy a motel so that they can be self-employed or can offer their family members work. Family status (family members and their age) influence much while selecting a location. Experts argued regarding living space of the owners in the motel. They could not come to a consensus. Experts from a broker background emphasized the importance of the living space that comes with the motel property but an expert, with an investment adviser and tourism consultant background, explained that the living space comes with a high cost. Experts advised being very selective about agglomeration. The effect of agglomeration depends on the market mix of the surrounding businesses, which confirms location theory presented in Chapter 2.

While talking about connectivity, experts emphasized how well a motel is connected to other places with a specific type of connectivity. Car connectivity was the most important to the experts. Though being located in a place with a bus connection is a bonus, a train connection was not important and a metro connection was not applicable for New Zealand. Being in a visible place on a major arterial road or state highway is an advantage. There is a fundamental difference between experts' perceptions regarding physical visibility. Some experts argued that online visibility is more important than physical visibility. One expert believed that isolated remote motels may face a long slow death in the current motel business model. According to the experts, government policies are not crucial to motel investors. One possible reason may be the lack of incentives from the government for the sector. Investors find it difficult to factor in the business environment, such as seasonality, visitor type, spending patterns and competition. Experts opined that online visibility is as vital as offline visibility. Experts also explained business operation is so crucial for a motel because the quality of services



depends on it. Unfortunately, neither online visibility nor business operation is related to location selection and, as these factors can be controlled without changing the location, it was not discussed further.

Topic 2: How major criteria such as site attributes, level of destination development, agglomeration, transport and communication, market conditions, demography of the area and government policies affect decision-making in the context of New Zealand.

Geographic location attributes had a moderate influence on location selection. Experts argued that motel investors, other than those who are passionate lifestyle motel owners, do not care about geographic location attributes. Instead, they prefer a precinct as per their level of understanding. This is evident in the cluster of motels in different places (discussed in detail in subsequent chapters). They highly depend on what motel brokers inform them about a place. The level of development of the area is always related to the price of a motel property. This finding conforms the bid-rent theory.

Access to different types of transport and roads has always been a critical factor for selecting a motel location. However, the concept of connectivity (i.e., how well connected the location is) was found to be not so important for New Zealand because of the lack of a strong network of scheduled transport. Multiple transport systems can have an impact on travel time and comfort the expert said. Experts found that demographic factors such as population, income, safety, security, and social culture were not influential factors, because New Zealand has a reputation as a safe country. Motel owners generally own and operate the motels themselves, so they do not put a lot of importance on the availability of labour.

Investors highly depend on the information that brokers provide about things such as room rate, market demand and tourist type. Sometimes it is misleading since not all types of tourist stay overnight in a specific destination, may not stay in a motel, or the demand can be temporary. Government policies had no direct impact on location selection, in general; however, one expert noted that some people are investing for residency purposes. This study did not find any evidence of this factor.

Factors related to the construction and development of the motel property were not crucial to motel investors. The construction and development issue was the single most surprising observation that emerged from the interviews with the experts. Two factors support this fact; first, people are not interested in the construction of a new motel. Second, most motels are leased, and they are older properties.

Topic 3: How the motel location is selected and what are the available models that are being practised in the sector to select a motel’s location?

At present, the experts shared that there is no generalized model available for motel location selection. In the absence of any specific model, experts use their own criteria to understand their clients’ needs to serve them the best that they can. Some experts shared the tools that they use to serve their clients. A tourism property broker (Expert#1) with over 35 years of experience in motels in the South Island informed that he provides his clients with some information so that they have a better understanding of the pros and cons of motel investment (Table: 8). Location selection and investment decisions are closely related; as a result, the information provided to their clients covers both location selection and investment issues. The expert confirmed that they do not have any specific model they use to select the best location.

**Table: 8 Questions asked by a broker of their clients**

Basic information they made available to their clients for a better understanding of motel investment (not directly about location selection).	
<ul style="list-style-type: none"> <li>• What you get is where you buy.</li> <li>• Motel lease valuation.</li> <li>• Why add back depreciation?</li> <li>• Why a return to management or owner’s salary should not be taken out of the figures before assessing the profit?</li> <li>• Level of return from motel leases.</li> <li>• Logic behind selling a freehold property and buying a lease.</li> <li>• Financial returns of leasehold and freehold.</li> <li>• What are you buying?</li> </ul>	<ul style="list-style-type: none"> <li>• Freehold going concerns and financial returns.</li> <li>• What should be expected form the investment?</li> <li>• Understanding the commercial accommodation lease.</li> <li>• Is depreciation a painful recovery?</li> <li>• Motel land and building investments.</li> <li>• Feasibility of motels</li> <li>• Why motel investment is attractive?</li> <li>• What are the risks?</li> <li>• The current market situation</li> <li>• Management rights and other pros and cons</li> </ul>

Source: Expert #1

Table: 8 provides overall guidelines for any motel investor looking to select an investment and location. The topics mentioned in Table: 8 are discussed in detail with clients, the expert said.

Expert#2 repeated that they did not have any specific model for selecting the best location for their clients. They ask their client some questions so that they can understand the client’s needs. These questions also help them to find location requirements indirectly (Table: 9).

**Table: 9 Questions asked of the clients of expert #2**

Questions Expert#2 asks their buyers to qualify them and gain a better understanding of their needs	
<ul style="list-style-type: none"> <li>• Are you a NZ resident? Or do you need a visa for NZ (this can take months).</li> <li>• What type(s) of property are you interested in?</li> <li>• Accommodation? Hospitality? Leisure?</li> <li>• Are there particular locations in NZ that you prefer?</li> <li>• Do you have hospitality/tourism experience?</li> <li>• Are you in a position to buy now, or will you need to dispose of other assets first?</li> </ul>	<ul style="list-style-type: none"> <li>• Will you need finance?</li> <li>• What is your budget range?</li> <li>• Is this a lifestyle choice, or is serious income potential a requirement?</li> <li>• What is your family situation (this makes a big difference when considering the owner/operators' accommodation!).</li> <li>• When are you thinking of making a move?</li> </ul>

Source: Expert #2

Expert #4 raised concerns about the motel sector's sustainability in the near future due to its traditional business model. He explained that there are no models for motel location selection because the sector is quite diverse. New motel construction and development has slowed. He added that this is a good indicator that this sector needs to be reformed (business strategy) to survive. Expert #4 also added that motel location value is hard to separate from the overall investment value as location value is generally embedded in the investment value.

Expert #5 who is a tourism asset manager, adviser and consultant provided the most striking information regarding the motel sector. He argued that if the motel sector continues its business the traditional way, the sector will face a long slow death. He advised alternative business models for motels. For location selection, his advice was precise (Table: 10):

**Table: 10 Suggestions about location from expert #5**

<ul style="list-style-type: none"> <li>• Decision on motel location could be different depending on place because it would relate to why visitors would be coming there.</li> <li>• Select an affordable site. Land price will drive towards a multi-storeyed style rather than a more traditional style.</li> <li>• Chose a location between an airport and CBD on a major arterial road, with good visibility, a cluster of supporting business and a place which is easy to get to.</li> <li>• Do not chose a suburb with no other motel in the hope that demand may generate; this is a fundamental uncertainty.</li> <li>• After that, the challenge is to be the best motel with the brand, best distribution system, best guest service, facilities, and online presence with good reviews. Having a strategy for motel operation and being part of the agglomeration is crucial.</li> </ul>
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Source: Expert # 5

#### Topic 4: Perceptions and understandings of location selection models/criteria/factors and of how these might be improved.

Experts stated that location selection models are crucial to help investors select the best fit (an ideal location) as per their requirements. A single model may not work for everyone. However, a generalized model with some flexibility to allow for specific needs could solve this problem. Location selection decisions involve many factors and some change over time. The development of information technology contributes a lot to the priority of factors influencing location selection. Motel website and online booking works as the virtual location of a motel, the experts said.

An initial content analysis of the literature identified eight criteria and 61 factors potentially influencing location selection decision-making (discussed in Chapter 2). The interviews with experts revealed that some of the factors are not important or not applicable to the New Zealand motel industry. Factors identified by the experts were slightly different from each other, but there was a group of common factors. Some experts identified the same factor from a different point of view. Experts, who ranged from investment advisors to tourism consultant backgrounds, were concerned about the future of the motel sector. They explained that changing the business model is crucial to compete with the other tourist accommodation. However, experts from a broker background, argued that careful examination of financial reports could help with the selection of a profitable location. In-depth interviews with the experts provided an insight into the factors influencing the location selection decision of the motel sector in New Zealand. They revealed a set of factors that should be considered from the New Zealand perspective. The experts identified 31 influential factors (hierarchy) affecting motel location selection.

The in-depth interviews were used to filter and re-contextualize factors reported to be influential in hotel decision-making as reported in the global literature. The NZ national level experts argued that financial factors, such as return on investment, historical rate of return, payback period, capital gain, and the amount available for investment are the most important among all other factors; they have the greatest impact on location choice. Non-cash benefits, like self-employment, employment for family, living space, flexibility, self-recognition, work/life balance and cultural connectivity appeared crucial but secondary. Experts had mixed opinions regarding the importance of physical location and visibility. Some emphasized online visibility because of the expansion of the internet. Connectivity and accessibility via transport were found to be crucial, but experts argued over whether agglomeration had any effect. According to the experts, the business environment (the level of competition, visitor type, spending patterns and seasonality) have more influence on location selection than government

policies and incentives. Experts demonstrated the need for a new business model, branding and business operations for the long-term sustainability of the sector. Other experts (not property dealers and those from a broker backgrounds) raised concern about the long slow death of isolated traditional motels.

The researcher conducted thematic analysis on all in-depth interviews to extract key points from the interviews. Digitally recorded interviews were transcribed in full. Codes were assigned to describe the content. Themes in the codes across the different interviews were identified and reviewed. Word search and data reduction techniques were also applied to find themes.

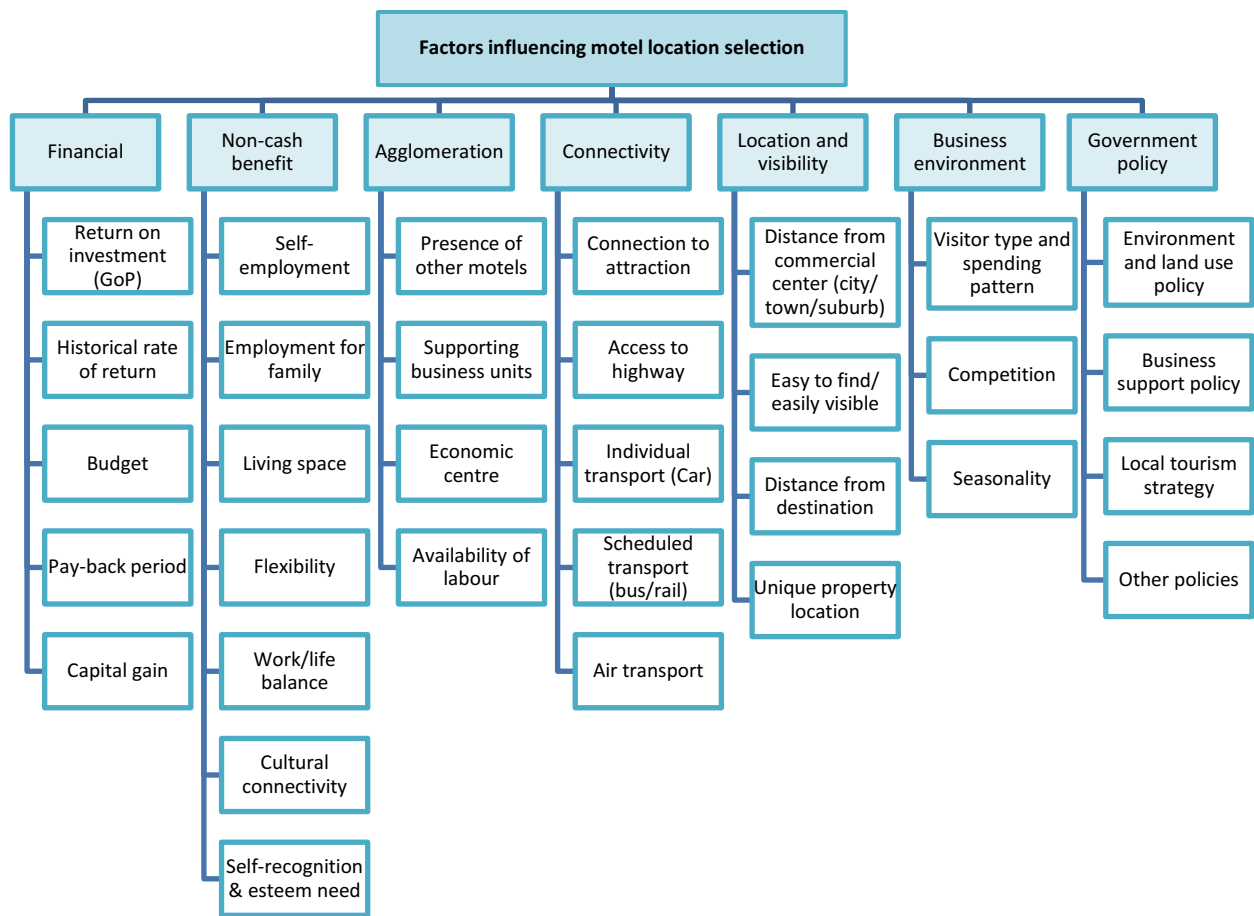
The thematic analysis resulted in a hierarchy consisting of seven criteria and 31 sub-criteria. Of a total of 61 factors identified in the literature review, 31 factors were found to be influential for New Zealand. These 31 factors were called sub-criteria and grouped under seven broader criteria. Business operation issues such as cleanliness, guest services, branding, online visibility, the quality of the property were separated for not being directly related to the location selection decision. An additional dimension was added to the non-cash benefits in reference to cultural connectivity. This offers the potential for cultural differentiation across various cultures (including more recent immigrants). The hierarchy construction also followed four rules proposed by Yang, Li, and Yao (2010) (Table: 11)

**Table: 11 The four rules of hierarchy construction**

Feasibility	The identified indicator should be accessible at the current situation or policy level.
Completeness	The identified indicator list should cover the main aspects of the issue.
Effectiveness	The identified indicator list should ignore issues that have minimal impact.
Multi-attribute decision-making (MADM)	The number of identified mutually exclusive indicators should be reasonable.

Source: Yang et al. (2010)

The hierarchy was carefully designed using the results from the thematic analysis so that it can be used for AHP analysis in the next step of the study. The hierarchy complied with the standard structure of AHP as per (Saaty, 1977, 1980, 1990, 2008) guidelines. The hierarchy is shown in Figure: 16.



**Figure: 16 The hierarchy of the factors influencing motel location selection in New Zealand**

The first row of the hierarchy indicates the goal of the AHP analysis. In this case, the goal is to determine the weights of all the criteria and sub-criteria of factors influencing motel location selection. The second row of the hierarchy indicates the criteria. There are seven criteria in this hierarchy. The factors listed under each criterion are called sub-criteria. There are 31 sub-criteria in this hierarchy, grouped under seven criteria. The word factor has been used as an alternative to sub-criteria. In general, factors in this study are elements of the hierarchy termed sub-criteria and are grouped under a particular criterion.

A face-to-face survey instrument was developed based on the above hierarchy. The survey was completed by motel owners. Findings and results from the pre-test and phase two data collection are presented in the next section.

### **4.3 Results from the second phase of data collection.**

Data collection for the second phase was conducted from October 2019 to March 2020. The response rate was lower than anticipated. Data were collected from people who have experience of selecting a motel's location. Motel owners were the only eligible respondents as they have experienced this process. A total of 21 motel owners were interviewed. One motel owner withdrew from the study and asked that the information she had provided be removed. Some motel owners' spouses joined in the face-to-face interviews. The two discussed and then responded to the questions. In this study, the primary respondent was considered the respondent. All interviews took place in the respondents' offices, at their motel. Pre-testing was also conducted to check the time needed and the clarity of the questions.

#### **4.3.1 Results from the pre-testing**

The pre-testing was carried out during October 2019. Initially, the required time to complete the questionnaire was set to 30 minutes. The time was increased after pre-testing. Some notes were added in the questionnaire to facilitate understanding of what was being asked. Pre-testing provided practical insight about the best approach for the face-to-face survey and how to answer any respondents' questions regarding the questionnaire without affecting their answers.

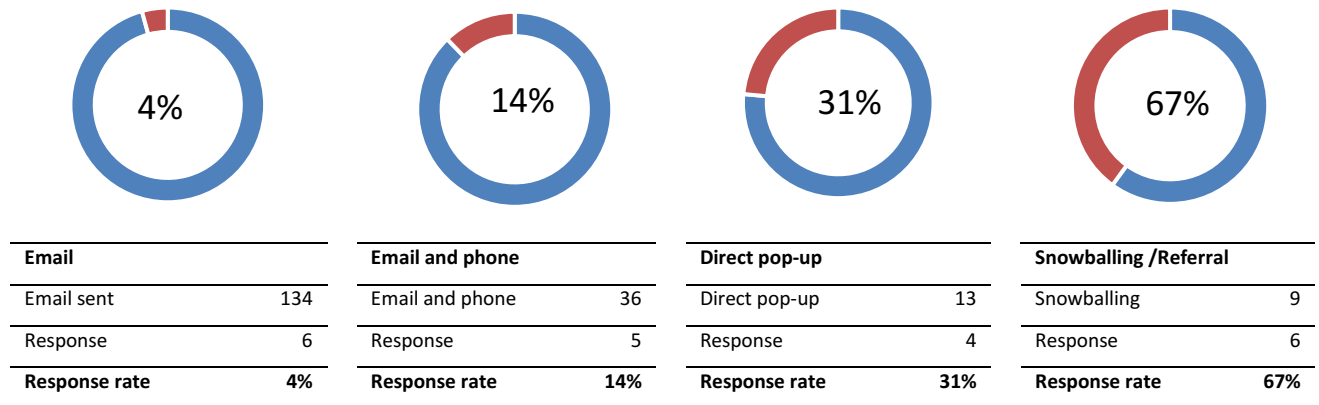
#### **4.3.2 Results from the face-to-face survey of the motel owners**

The questionnaire was divided into major three parts: information about the interviewee, pairwise comparisons of the factors, and questions regarding business operation issues. The survey collected basic information about the respondents to understand their perceptions. This information provides a good insight into their way of thinking. Respondents were given a choice whether to provide this information. All respondents completed this part of the survey. The survey included questions about their role in the motel, their age group, gender, ethnicity, current residence, professional background, educational background and sector-related experience. They were also asked to rank their motel location from 1 to 9, where nine represents the best location. Respondents also provided information about the number of units and the age of the business and the motel property. Participants also provided information about business operation. All 20 respondents completed the questionnaire in full. The results are presented below.

#### **Response rate**

The response rate was lower than initially anticipated (Figure: 17). Data collection was completed from October 2019 to March 2020. This is a busy season for motel owners. Some motel owners could not

complete the survey due to their busy schedule. Another external factor was the outbreak of COVID-19 worldwide.



**Figure: 17 Response rate of motel owners to different modes of approach**

Initially, motel owners were not comfortable with an hour-long face-to-face survey. After the outbreak of COVID 19, motel owners were not interested because of the sudden shock to the market.

### Role of the respondents

All respondents played multiple roles (owners, operators and managers). Some motel owners employed part-time managers for weekends or a particular time of the day to enjoy better flexibility. Many also relied on support from their spouses. In most cases, they work together, and the motel is their main economic activity. All respondents employed a cleaner/s on a part-time basis. As mentioned earlier, the owners in this study included both freehold and lease-hold owners. Three of the 20 respondents owned both the property and the business.

### Respondents' ages

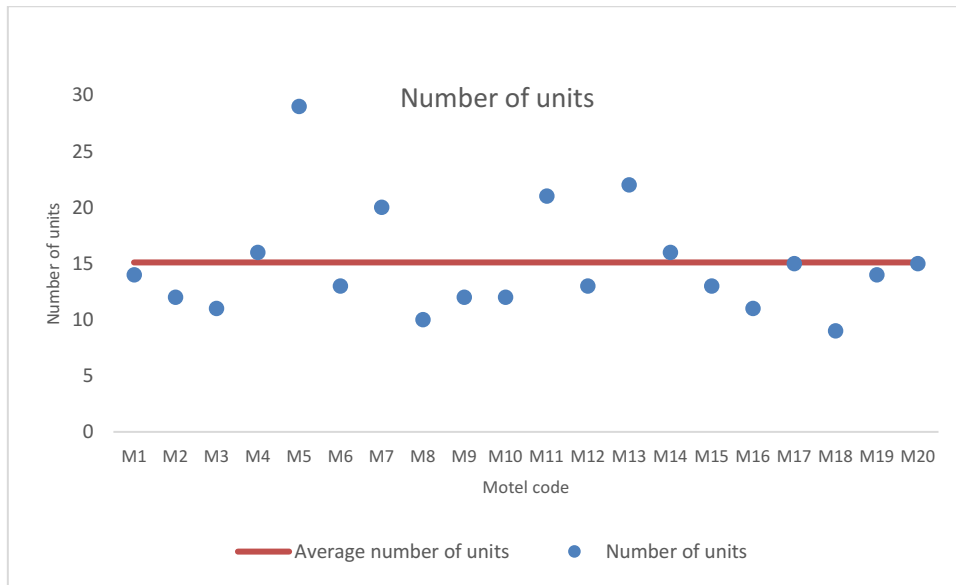
The respondents' ages help us to understand their views and reasons behind their decisions. There were six age groups in the survey instrument; participants ranged from 26 to 51 years of age, with an interval of 5 years. Interestingly, only two respondents were aged between 41-45 years old and there was only one aged between 46-50. The remaining 17 respondents were over 51 years of age. This is important data for analysing other interrelated factors.

### Number of units

The number of units represents the size of the motel. In this survey, the smallest motel had nine units, while the largest one had 29 units (Figure: 18). The average was just over 15 units. The average number



of units is very close to the New Zealand motel sector average number of units of approximately 15 units per motel (Stat NZ, 2019).

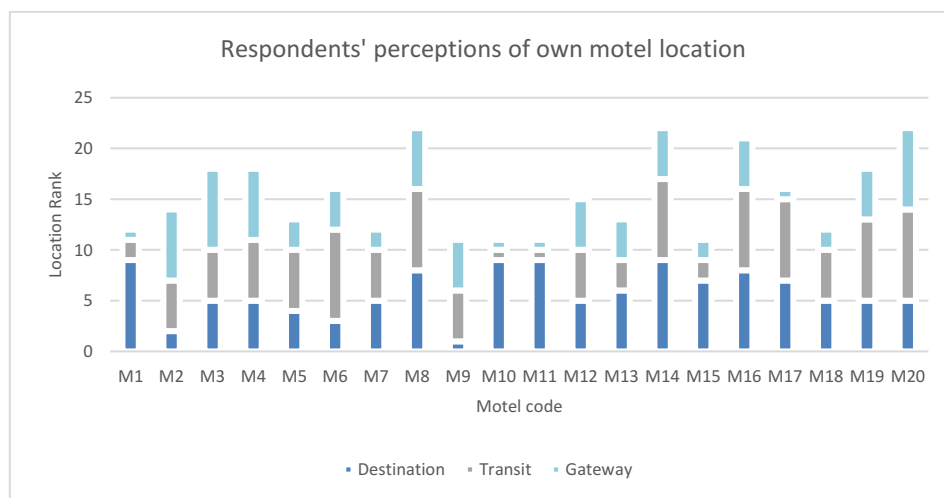


**Figure: 18 The number of units in the respondents' motels**

The sample is a good representative of the population. There were no extreme values in the number of units.

### Location perception

The survey asked respondents three questions about the location of their own motel from their own understanding. They were asked to rank their motel location as a destination, as a transit, and as a gateway. The questions provided a scale of 1 to 9, with nine being the best see Figure: 19.

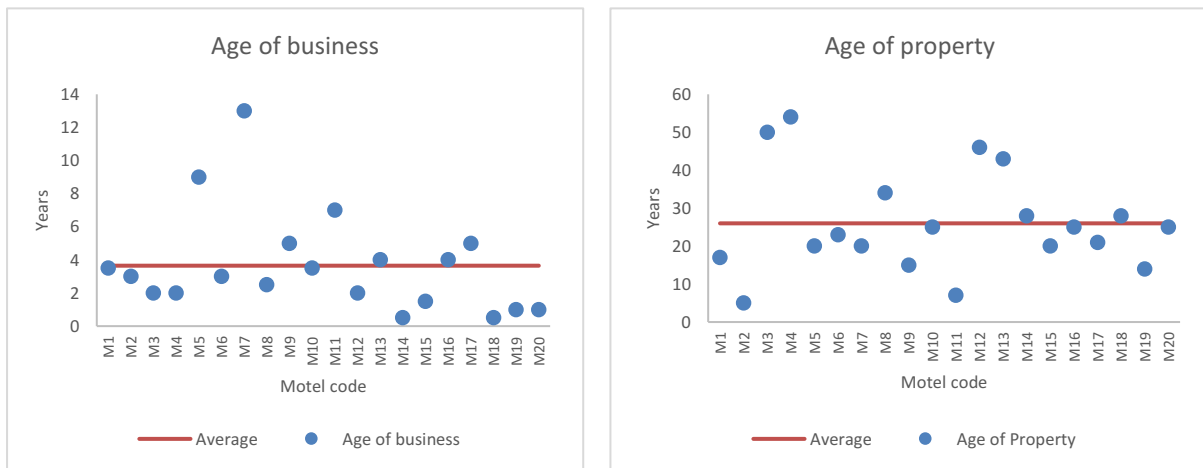


**Figure: 19 Owners' location perception (identifying as destination/gateway/transit)**

The majority of the respondents believe that their motel is in a destination or a gateway.

## Age of the business

The respondents were asked about the age of their business (when they started/acquired the business) and the physical age of their motel property. These two data are vital input for analysing the context of the decision-making. Figure: 20 shows the collected data.

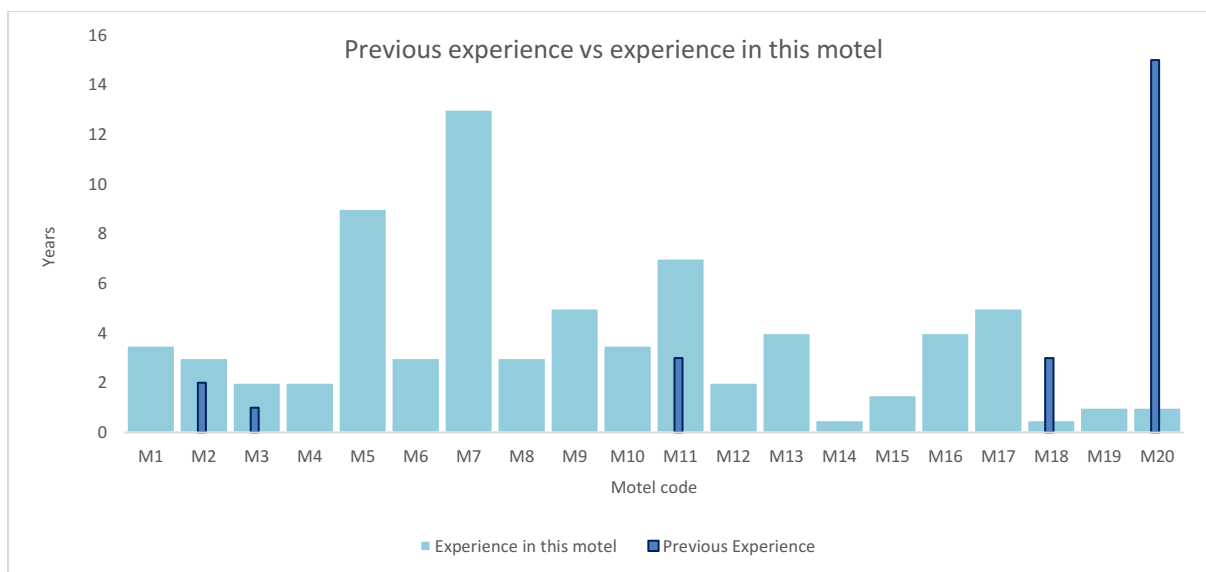


**Figure: 20 Respondents' age of motel business and age of the property**

The average age of the businesses was 3.5 years; the average age of the property was 25 years. These data provide an insight into the sector.

## Respondents experience in the motel sector

The survey collected detailed data about the respondents' experience in the motel sector. Respondents' previous experience in the motel sector and experience as motel owners provide insight into their respective location selection decisions. Figure: 21 shows their previous experience and their experience as a motelier.



**Figure: 21 Motel experience of the respondent motel owners**

It is obvious from the above figure that most respondents entered motel sector without prior experience in the sector.

### Ethnicity of the respondents

The respondents did not claim any relationship between their motel location selection and ethnicity. However, it was interesting that, of the 20 motel owners, home towns of 16 were in the South Island. Three motel owners were immigrants, from China, Australia and Germany; they now are New Zealand residents. One couple was originally from Zimbabwe and moved from Hamilton in the North Island. They answered the survey together. As the main respondent was from Hamilton, for the purpose of this study, they were considered a Kiwi couple from the North Island. This is crucial information about cultural connectivity, a theme which is discussed later at the point of integration sections.

### Professional and educational background

There was a large variety among the respondents in terms of their professional and educational backgrounds. Respondents' demographic backgrounds also provide insight into their way of thinking. Interestingly, only five respondents (25%) had previous work experience in the tourism accommodation sector, and only two respondents (10%) had previously owned a motel. Only four respondents had a professional background in the tourism industry. Of the 20 respondents, 17 belonged to the 51 and over age group. Half of the respondents were male and half were female. Four respondents (20%) took part in the face-to-face surveys with their partner. Table: 12 provides information about the respondents' backgrounds.

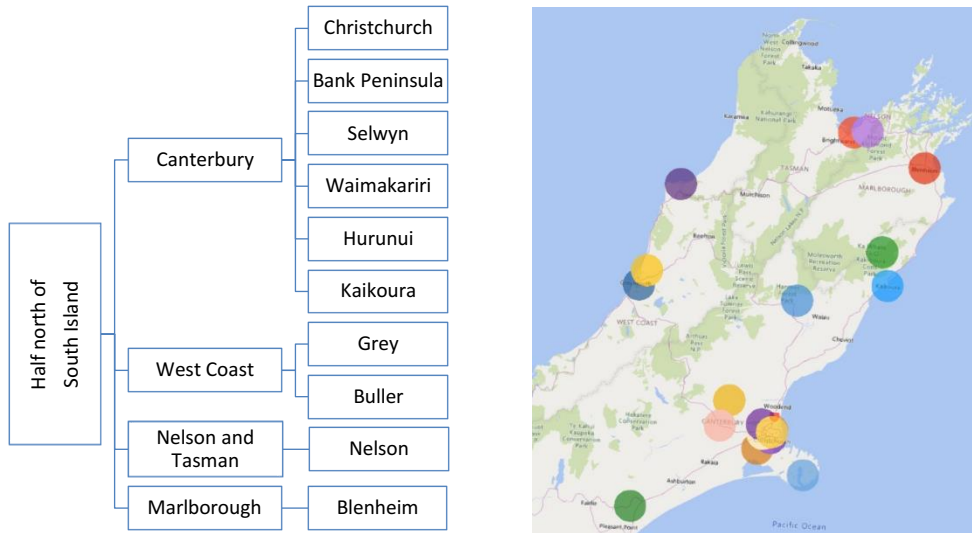
Several participants noted that when they entered the motel business, they had hardly any knowledge about the motel industry. One respondent said that they did not realise the importance of location selection when they made the decision to invest.

**Table: 12 Motel respondents’ characteristics and backgrounds**

<b>Motel</b>	<b>Age group</b>	<b>Gender</b>	<b>Professional background</b>	<b>Education</b>	<b>Prev. owned</b>	<b>Prev. worked</b>
<b>M1</b>	51+	M	Mid-level manager	MBA	0	0
<b>M2</b>	51+	M	Surveyor/hospitality	University	0	1
<b>M3</b>	41+	F	Tourism	Bachelor	1	6
<b>M4</b>	51+	F	Service & trade	12th Year Secondary	0	0
<b>M5</b>	51+	M	Farming	School Cert	0	0
<b>M6</b>	51+	M	Chef	High School	0	0
<b>M7</b>	51+	F	Bank manager	Diploma (Business Studies)	0	0
<b>M8</b>	51+	M	Bakery owner	High School	0	0
<b>M9</b>	41+	F	Administration	Post Grad Diploma	0	0
<b>M10</b>	51+	F	Scientist	NZ CS Biochemist	0	0
<b>M11</b>	51+	M	Motel business	High School	0	3
<b>M12</b>	51+	M	Line mechanic	Intermediate	0	0
<b>M13</b>	51+	M	Sales	Bachelor of Commerce	0	0
<b>M14</b>	51+	F	English teacher	Masters	0	0
<b>M15</b>	51+	M	Risk assurance	BBA	0	0
<b>M16</b>	51+	F	Banking	Sixth Form Certificate	0	0
<b>M17</b>	51+	M	Transport manager	College	0	0
<b>M18</b>	51+	F	Light engineering	Master of Business	0	3
<b>M19</b>	46+	F	Share milker (Dairy)	University Entrance	0	0
<b>M20</b>	51+	F	Motel	Interior Design	4	5

### **Study area and motel profile**

Data for this study was collected from motel owners, who have experience in selecting and purchasing a motel. A total of 21 motel owners were interviewed from the north half of the South Island. One of the motel owner withdrew herself as well as all the information provided for the study. All interviews took place in the respondents’ office, which is their motel. Figure: 22 shows the respondents’ locations.



**Figure: 22 Study area and respondents' locations**

All 20 respondents were assigned a code from M1 to M20 to ensure their anonymity. The sample covered all major tourism locations as well as some isolated motels. Surprisingly, the average age of the motel properties was 25 years, but the average age of the motel business (i.e., the years of current ownership) was only three and a half years. The survey data on the motel properties and business age reveal that the life span of a motel business is shorter than motel properties indicating a relatively high level of turn-over in ownership. Table: 13 displays the respondents' location, the number of units, the age of the motel property and the age of the respondents' business.

**Table: 13 Motel profile**

Motel	Location	Units	Property age	Business age
M1	Hanmer Springs	14	17	3.5
M2	Oxford	12	5	3
M3	Christchurch	11	50	2
M4	Christchurch	16	30	2
M5	Christchurch	29	21	9
M6	Darfield	13	23	3
M7	Westport	20	20	13
M8	Blenheim	10	34	2.5
M9	Christchurch	12	15	5
M10	Akaroa	12	25	3.5
M11	Lincoln	21	7	7
M12	Greymouth	13	46	2
M13	Nelson	22	43	4
M14	Christchurch	16	28	1
M15	Nelson	13	20	1.5
M16	Greymouth	11	25	4

<b>M17</b>	Kaikoura	15	21	5
<b>M18</b>	Kaikoura	9	28	0.5
<b>M19</b>	Geraldine	14	14	1
<b>M20</b>	Christchurch	15	25	1

From the above table, it can see that 25% of the respondents' businesses were one year old or less, 65% them had been in business for fewer than four years, and only one business (5% of this sample) had been in business for over 10 years. One respondent stated that she was planning on leaving the sector.

#### **4.4 Results from the AHP and cluster analysis**

This section provides insight from data collected via face-to-face surveys conducted with 20 motel owners. Technical information about AHP analysis is provided in the second section to enable an understanding of the AHP results. Results relating to all of the seven criteria (financial, non-cash benefits, agglomeration, connectivity, location and visibility, business environment and government policy), along with a discussion of the underlying sub-criteria are presented according to their priority. After analysing the sub-criteria, the criteria weights are discussed, and both the criteria and sub-criteria are ranked. A cluster analysis of these data is undertaken to provide additional insight into the investment behaviour of motel investors/owners. These results are presented in the subsequent sections.

#### **4.5 Detailed results from the AHP analysis**

The AHP survey result represents the consensus assessment of all the surveyed 20 motel owners. Assessment of the criteria and sub-criteria of the theoretical framework for motel location selection was carried out using the AHP model designed by Goepel (2013). This model generates weighting functions. Goepel (2013) designed this model using the multicriteria decision-making procedure of the analytic hierarchy process (AHP) originally developed by Saaty (1980, 1994, 2008). The following section presents the technical indicators so that it is easier to understand the AHP result.

##### **Consistency**

The threshold for acceptable inconsistency ( $\alpha$ ) is set to 10% to fulfil CR limit of Saaty (2008) in the original theory. The number 0.2 indicates that there is a 20% chance that the decision-maker will answer the questions randomly. A 0.1 threshold is usually considered a rule of thumb, especially in managerial research and other practical fields where values around 0.2 are considered acceptable and a CR value of  $\leq 0.2$  is typically considered tolerable (Byun, 2001). The low combined inconsistency

(consistency ratio) among observed factors (0.7%) suggests that the output reported here is the result of a well-structured model.

To reduce the inconsistency this study used methods suggested by Saaty (2003, 2008). The elements in the matrix which influenced excessive values within the inconsistency index most were presented to the individual respondents. Original response data were provided to six individual respondents to consider reviewing inconsistencies. Four respondents reviewed their decisions while two respondents retook the survey. After the second iteration, all the respondent's consistency ratio fell within the limit of ten percent. For consistency ratio (CR) after the second iteration, see appendix C.

### **Weighting functions**

Individual and consolidated weighting functions were generated by examining 32 sub-criteria under the seven criteria from 20 respondents. The consolidated decision matrix combines all participants' input to form an aggregated group result. Following this, a row geometric mean method (RGMM) was applied to obtain priorities from the pairwise comparisons of each individual respondent. These can be used in subsequent analyses to determine patterns within individual choice sets. The consolidated priorities of all 20 respondents were then calculated using the eigenvector method (EVM). Within the full dataset, the calculated consensus (70%) is considered moderate, as per the Shannon alpha and beta entropy test. The consensus indicator ranges from 0% (no agreement between experts) to 100% (full consensus between the experts) (Goepel, 2013). Partial consensus provides an insight into the presence of differences in factor priorities and possible clusters.

### **Average weight across all sub-criteria**

Goepel (2013) AHP model provides the individual weights for all criteria and sub-criteria. In the determination of the sub-criteria's average weight across all sub-criteria, criteria weights are multiplied by sub-criteria of the same group. For instance, if the weight of the financial criterion is 31.6% and the weight of one financial sub-criterion - return on investment (GOP) - is 34.9%, the sub-criteria's average weight across all sub-criteria will be the result of the multiplied value ( $31.6 \times 34.9 = 11.04$ ) or 11.04%. All criteria and sub-criteria weights derived from AHP analysis using the above model are described in the next section.

### **Consolidated pairwise comparison**

The AHP analysis used a multiple respondent approach. The AHP findings represent the 20 respondents' consolidated results. Though the results from the AHP run are presented in Figure: 23, the analysis is presented in the next section.

Criterion	Weight	Relative error	Sub-criteria	Weight	Relative error
Financial	31.60%	6.11%	Return on Investment (GoP)	34.94%	2.95%
			Historical Rate of Return	16.42%	1.20%
			Pay-back Period	15.57%	1.03%
			Capital Gain	17.05%	1.54%
			Budget	16.03%	1.00%
Non cash benefit	13.47%	0.83%	Self-employment	25.41%	4.45%
			Employment for family	6.18%	0.79%
			Living space	12.77%	2.35%
			Flexibility	19.01%	2.69%
			Work/life balance	17.86%	2.59%
			Cultural connectivity	7.17%	0.40%
Agglomeration	10.54%	1.38%	Presence of other motels	14.01%	1.38%
			Supporting business units	28.29%	2.32%
			Economic centre	32.12%	1.89%
			Availability of labour	25.58%	2.29%
Connectivity	9.21%	1.01%	Connection to attraction	28.26%	2.41%
			Access to highway	19.39%	1.12%
			Individual transport (Car)	27.78%	2.52%
			Scheduled transport (bus/rail)	11.77%	0.93%
			Air Transport	12.80%	0.50%
Location and visibility	19.28%	2.64%	Distance from commercial centre	20.34%	1.60%
			Easily visible/property easy to find	30.37%	2.61%
			Distance from destination	31.25%	2.39%
			Unique property location	18.04%	0.36%
Business environment	11.62%	1.31%	Visitor type and spending patterns	50.81%	2.33%
			Competition	23.53%	1.08%
			Seasonality	25.65%	1.18%
Government policy	4.28%	0.89%	Local tourism strategy	38.99%	3.89%
			Environment and land use policy	19.59%	1.53%
			Business support policies (tax policies)	26.13%	1.05%
			Other policies	15.29%	1.65%

**Figure: 23 AHP results from the software run**

#### **4.5.2 Criteria and sub-criteria influencing location selection**

Criteria and sub-criteria weightings generated from individual respondents are not equally influential for the respondents. The consolidated weighting function represents the average weights. Individual weights assigned by individual respondents differ. Differences in criteria and sub-criteria importance show that all respondents do not think alike; thus, individual sets of preferences can provide insight into an individual's decision-making process. The next section describes the AHP analysis findings.



### 4.5.3 Financial criteria

The high factor loading of the financial sub-criterion reveals the respondents' interest in investing in a financially sound/well-performing business. Motel owners place importance on financial attributes, such as the return on investment, capital gain, the historical rate of return, budget and the payback period. Table: 14 presents the financial sub-criteria weights within the group and overall weights across all sub-criteria of the respondents.

**Table: 14 Financial sub-criteria' weight from the AHP model**

Sub-criterion	Sub-criterion average weight within the group	Overall weight across all groups
Return on Investment (GoP)	34.94%	11.04%
Capital Gain	17.05%	5.39%
Historical rate of return	16.42%	5.19%
Budget	16.03%	5.06%
Pay-back period	15.57%	4.92%

The surveyed motel owners agreed that their primary objective in owning a motel was the return on investment or profit from the operation. Return on investment (specifically, the gross profit from operations) had the highest average weight (11%) among all the criteria. Most respondents responded that return on investment is an exceptionally significant key performance indicator for determining among the financial sub-criteria, capital gain is the second most reported sub-criterion among the financial sub-criteria. However, this finding was unanticipated as 85% of respondents in this study were leaseholders. Lease contracts generally do not allow leaseholders to realize capital gains.

Surprisingly, most respondents used the historical rate of return as an indicator of future returns without factoring in drivers of past performance, exogenous issues (such as change in the destination over time), and market/economic conditions. Respondents consider historical rates of return as a reliable indicator to determine lease price and forecast future earnings in the motel industry. As a result, the historical rate of return has been reported as influential in location decision-making. The amount available for investment, called the 'budget' in this study, is a powerful determinant of location selection. Most respondents said that the amount of available investment limits an investors' choice of location. Respondents showed least interest in the payback period compared with other financial sub-criteria. When considered together, return on investment weighs 11%, capital gain, the historical rate of return, the budget and the payback period weigh around 5% across all criteria and sub-criteria. These results indicate that financial sub-criteria are the most influential in motel location

selection decision-making. Table: 15 shows the weights of financial sub-criteria by respondent, weighted by strength of belief.

**Table: 15 Financial sub-criteria weighted by respondent**

Criterion	M9	M13	M16	M5	M1	M11	M19	M20	M15	M12	M8	M3	M10	M6	M18	M17	M7	M14	M2	M4
Return on investment (GoP)	60%	55%	53%	52%	50%	45%	44%	44%	34%	33%	32%	31%	29%	28%	23%	21%	20%	17%	8%	5%
Capital gain	7%	17%	10%	9%	4%	18%	14%	32%	23%	11%	43%	11%	33%	14%	21%	10%	20%	11%	10%	37%
Historical rate of return	10%	8%	19%	18%	16%	6%	14%	11%	13%	8%	4%	27%	8%	10%	34%	14%	20%	24%	40%	31%
Budget	16%	8%	6%	7%	16%	12%	23%	6%	4%	21%	9%	19%	11%	21%	14%	18%	20%	44%	33%	15%
Pay-back period	8%	12%	13%	15%	14%	20%	6%	7%	27%	26%	11%	11%	19%	26%	8%	37%	20%	4%	10%	12%

One can conclude from Table: 15 that respondents are not interested in poor performing businesses. Return on investment (GoP) is the most influential financial sub-criterion for decision-making. The AHP result and interviews reveal that respondents use current performance to measure success over time, which may not be representative of a motel’s actual future prospects. Financial sub-criteria priority combinations and the in-depth interviews reveal additional insights about the respondents’ financial knowledge, emotions and level of confidence when making major decisions. Interestingly, *M2* and *M4* gave very low importance to return from investment (GoP). They were confident about their ability to turn their businesses into profitable ones. *M7* lacked knowledge about financial issues and made her investment decision without any in-depth financial analysis although financial performance was important for her.

The most striking result to emerge from the data was that freehold motel owners (3 of the 20 respondents) said that they were not interested in capital gain as they do not have any intention of selling soon. The words of all three freehold property owners, *M3*, *M10* and *M11* succinctly capture the crux of this reasoning:

*“This property was not well maintained, and that is why we got a good deal. We have family and Christchurch is a better option for us to live than our previous motel near Fox Glacier. We have no intention to sell shortly”. (M3)*

*“I own this property, and I do not have the burden of paying the lease amount. It is a great lifestyle, although it is a full-time commitment”. (M10)*

*“I found this location promising with corporate visitor market and no competitors around. I rolled my house and job into one. It is a great balanced lifestyle to continue”. (M11)*

Leasehold property owners claimed that capital gain helped them exit without additional loss in particular circumstances. Some owners admitted they still lack knowledge and understanding about capital gain.

For most respondents, historical return played a crucial role as a benchmark for future profits. The respondents reviewed historical return data to predict how a motel would perform in the future. *M4* and *M9* revealed that they could not figure out the underlying reason behind the lease price. The statement by *M9* provides a revealing insight into the issue:

*“The post-earthquake market was not a standard scenario and historical data from that period misled us. If I had profound knowledge about using historical return, I would not take decision based on historical return data from sellers and would do some in-depth analysis”.*

Historical rate of return was not crucial to some respondents because they were confident about their ability to successfully operate the motel. They took it as a challenge to own a motel without considering previous records of profit. *M11* was the only exception regarding his/her assessment of historical rates of return. In this case, the historical rate of return was considered of no influence as there were no other motels in that area and *M11* built the motel.

Budget/the amount available for investment (total of equity and debt) proved to be a very significant driver of location selection decision-making. Almost half the respondents said that the motel location that they had chosen was not their first choice. They selected their current property based on budget constraints; budget limited the scope of location selection. There was a typical case among the respondents that they had to restrict their choice according to their budget. The comments of *M9* aptly capture this sentiment:

*“This motel was not my first choice. My first choice was beyond my budget”.*

*M19*'s comment indicates the interplay of the budget constraint issue. Here the budget to buy a motel business was limited to the pay-out from a share-milking contract.

*“Return looked good, and the price was affordable, so took an exit from the share-milking contract and bought this motel with the money we had.”*

The effect of budget is factored into the location selection decision-making. The respondents underrated the significance of budget. Budget constraints acted as a barrier in choosing the desired location for a motel.

Both freehold and leasehold respondents were indifferent regarding the payback period of a motel investment. Respondents explained that though the payback period was crucial, they were not concerned about it.

Having discussed the financial sub-criteria, now turning to the next criterion, location and visibility, to examine its influence and the weights of the underlying sub-criteria.

#### 4.5.4 Location and visibility

AHP analysis result shows a high factor loading on the location and visibility criterion and its underlying sub-criteria. A motel’s location provides inherent advantages, such as the distance from destinations, distance from a key attraction of the area (that attracts visitors) or commercial centres and physical visibility. According to Bull (1994, p. 10) “there may be specific advantages which one location has in terms of distance from an attraction or city centre; trade-offs in access distance between two or more attractions, and inherent advantages from specific neighbourhood characteristics such as quietness or a good view”. Table: 16 presents the sub-criteria weights of location and visibility criteria within the group and overall weights across all sub-criteria.

**Table: 16 Location and visibility sub-criteria’ weights for motel location selection**

Sub-criterion	Sub-criterion average weight within the group	Overall weight across all sub-criteria
Distance from destination	31.25%	6.03%
Easily visible/property easy to find	30.37%	5.86%
Distance from commercial centre	20.34%	3.92%
Unique property location	18.04%	3.48%

Distance from destination, easily visible/property easy to find, distance from the commercial centre and unique property location are the four sub-criteria for the location and visibility criterion that were carried forward into this study. Of note, online presence was excluded; the term visibility indicates only physical visibility. Table: 17 shows the sub-criteria weights of location and visibility.

**Table: 17 Sub-criteria weights of respondents for location and visibility.**

Criterion	M14	M9	M7	M13	M4	M18	M11	M20	M12	M15	M5	M2	M19	M3	M6	M1	M10	M8	M16	M17
Distance from destination	69%	59%	58%	51%	43%	42%	37%	34%	31%	28%	24%	23%	20%	19%	17%	14%	13%	12%	9%	8%
Easily visible/easy to find	14%	13%	20%	23%	38%	14%	30%	10%	31%	5%	37%	49%	28%	20%	49%	38%	16%	49%	28%	30%
Distance from commercial centre	15%	15%	15%	21%	9%	17%	28%	7%	6%	10%	11%	20%	44%	49%	11%	38%	13%	12%	57%	7%
Unique property location	3%	13%	6%	5%	10%	26%	6%	49%	33%	57%	28%	7%	8%	12%	24%	9%	58%	28%	5%	56%

There is a significant positive relationship between distance from destination and choice of motel location. Respondents want to be as close as possible to a destination. Being close to a destination is considered an absolute advantage. There are two primary dimensions that might underscore this: walking distance and driving distance. In both cases, people prefer to be at a distance of 10 minutes or less. Distance from destination works like bid-rent theory in the motel sector. The closer a motel is to a destination, the higher it costs for motel owners to buy.

The concept of a destination was perceived differently among the respondents. Generally, a destination is a 'place' where motel clients visit. A destination can be a tourist place, a commercial business area, a landmark or even a university or research centre. Some respondents noted that identifying their local destination element(s) was a big challenge. As a motel is a going business concern, emphasis should be given to finding a destination that is not extraordinarily seasonal and designed to serve for the long term. The following feedback from motel owners illustrates the various perceptions of destination and why distance from a destination is crucial:

*"We are only 5 min walk from the destination - thermal pool". (M2)*

*"There are several ski fields and walking trails within 30 min drive. We are at the heart of the area". (M6)*

*"People who come for a meeting or conference choose us because we are within walking distance". (M11)*

*"We are just beside the stadium, right at the destination". (M14)*

*"We are a few minutes' drive from the seal colony; tourists love our location". (M18)*

M7's statement aptly captures the importance of identifying a destination that will serve for a long time:

*"When we bought this motel, there was a coal-mine, and the business visitors used to visit here. Now the mine is not operational, and we are struggling for occupancy".*

Motel owners from Christchurch experienced an occupancy rate uplift after the 2011 earthquake because of the scarcity of accommodation and an increase in (recovery) business visitors. It was a one-off situation that should be ignored when forecasting long-term performance.

There was a big difference in respondents' ways of thinking regarding the visibility of a motel. Some respondents argued that all types of visitors generally book online. Strong online visibility is good enough, and physical visibility is not influential to this pool of respondents. Unlike the pre-internet booking era, physical visibility does not add any significant value for the motel. The second pool of respondents argued that physical visibility is crucial for comparatively higher bookings, good reviews and customer satisfaction. Some respondents explained that motels create a brand value and reputation if the property is easily visible and easy to find. Being close to an economic centre, commercial centre, city centre, town, or suburb proved critical for motel location selection. In this study, motels were clustered near a city or town (settlement). Isolated motels were also located near local towns or suburbs to reap the benefit of the local commercial centre.

With respect to distance from the commercial centre, the AHP analysis findings reveal that motel owners do not want to be in a unique place, away from a commercial centre and close to nature such as a remote beach, beautiful countryside, on the top of a hill or in a scenic area in the middle of nowhere. They argued that the cost of a unique place exceeds the benefit for motels. Almost all respondents selected their location in, or close to, an attraction. One respondent stated that there are many risks involved in being in a unique place; the most significant threat is the market segment. Options for survival becomes very limited if some core element goes wrong.

Together, the above results provide valuable insights into the importance of location and the visibility of the motel sector. These results suggest that there is a strong association between motel location selection and location and visibility. In summary, these results show that motel owners want to stay close to a destination and/or to a commercial centre from where the motel is easily visible. These sub-criteria are more critical for motel owners than having a property in a beautiful unique and isolated place.

Having discussed the sub-criteria of location and visibility, now the third ranked group, the non-cash benefit criterion will be discussed.

#### **4.5.5 Non-cash benefits**

A group of factors influence location decision-making indirectly and provide non-cash benefits. These are clustered under the non-cash benefit criterion. Analysis of the non-cash benefit criterion and sub-criteria is quite challenging because it involves both qualitative and quantitative characteristics. Determining the actual costs and benefits of non-cash benefits depends heavily on individual perception; the benefits are hard to quantify. Because of their subjective nature, it is also challenging for respondents to identify the reasons behind their specific decisions. Table: 18 shows the seven sub-criteria of the non-cash benefit criterion according to their priority weights.

**Table: 18 Respondents’ non-cash benefit sub-criteria weights**

Sub-criterion	Sub-criterion average weight within group	Overall weight across all sub-criteria
Self-employment	25.41%	3.42%
Flexibility	19.01%	2.56%
Work-life balance	17.86%	2.40%
Living space	12.77%	1.72%
Self-recognition & esteem need	11.60%	1.56%
Cultural connectivity	7.17%	0.97%
Employment for family	6.18%	0.83%

The non-cash benefit criterion explores the influence of indirect non-cash form of incentives the motel owners reported in reaching their investment decisions. Previous research suggests that only one in eight small firms in the budget hotel sector has a primary business growth aim (Lashley & Rowson, 2007). When examining Blackpool’s hotel sector, Lashley and Rowson (2010) found that while there is a general desire to survive, hotel owners are more concerned with control and location issues than they are with the business potential for income and profit growth. The sub-criteria of the non-cash benefit criterion also explain the circumstance of respondents entering the business and the reason behind it. For example, non-cash benefit criterion can answer are motel owners entering this sector to ensure employment in the motel? Table: 19 shows the weights of sub-criteria of the non-cash benefit criterion.

**Table: 19 Respondents non-cash benefit sub-criteria weights**

Sub-criterion	M2	M20	M9	M14	M10	M19	M18	M11	M17	M4	M6	M8	M3	M7	M15	M13	M12	M1	M16	M5
Self-employment	43%	38%	37%	36%	32%	31%	30%	29%	29%	27%	22%	21%	20%	18%	18%	17%	14%	13%	12%	5%
Flexibility	11%	35%	19%	9%	14%	12%	19%	19%	18%	3%	12%	18%	19%	34%	22%	24%	19%	13%	16%	20%
Work/life balance	13%	10%	4%	8%	30%	16%	19%	25%	14%	3%	13%	20%	21%	13%	34%	32%	19%	32%	13%	13%
Living space	10%	2%	4%	31%	7%	6%	17%	12%	23%	27%	7%	9%	24%	17%	9%	15%	8%	7%	13%	11%
Self-recognition and esteem need	13%	2%	14%	6%	8%	13%	9%	7%	6%	6%	14%	20%	9%	13%	12%	5%	26%	7%	16%	28%
Cultural connectivity	4%	10%	4%	5%	6%	5%	4%	3%	2%	7%	20%	7%	5%	3%	3%	5%	6%	24%	16%	16%
Employment for family	5%	2%	18%	5%	2%	17%	3%	5%	8%	27%	11%	3%	2%	2%	2%	2%	8%	3%	13%	7%

In the face-to-face survey, all 20 respondents reported working full time in their motel. Some respondents reported that their partners or a family member were also involved in the motel’s operations. A motel business is the main activity for earning a living for the respondents. However, most respondents reported that, overall, the influence of self-employment in location selection decision-making was not significant. Respondents indicated that the main business motive for buying a motel was so that they could be self-employed. Table: 20 presents the respondents’ motivations for buying a motel, their previous occupation and their commitment to their respective motels (Part-time/full-time).

**Table: 20 Respondents' former professional background and employment status**

Respondent	Motivation for this business	Previous occupation	Full time in the motel
M1	Lifestyle (Early retirement)	Mid-level manager	Yes
M2	Lifestyle (Occupation change)	Surveyor	Yes
M3	Mother-daughter partnership	Tourism	Yes
M4	Buying a job (lifestyle)	Service & trade	Yes
M5	Changing occupation	Farming	Yes
M6	Living place and buying job after job loss	Chef	Yes
M7	Lifestyle after early retirement	Bank manager	Yes
M8	Profession change	Bakery owner	Yes
M9	Trying a new business	Administration	Yes
M10	Profession change for an easy life	Scientist	Yes
M11	Main profession and lifestyle	Motel business	Yes
M12	Profession change for an easy life	Line mechanic	Yes
M13	Utilizing opportunity and profession change	Sales	Yes
M14	Buying a job	English teacher	Yes
M15	Buying a job after retirement	Risk assurance	Yes
M16	Buying a job and profession change	Banking	Yes
M17	Profession change	Transport manager	Yes
M18	Profession change	Light engineering	Yes
M19	Profession change to minimise business risk	Share-milker	Yes
M20	Main profession	Motel business	Yes

When respondents were asked in the open-ended question of the survey to indicate the influence of self-employment and employment for the family, most respondents replied that there was a strong relationship between location selection decision and self-employment. Respondents know that the motel is going to be their living and working place, and they have family commitments. Keeping everything in mind, they selected the location. This finding contradicts the AHP findings, despite the fact that the respondents were the same and the interviews took place at the same time. Most respondents said that their family member/s contributed by working at their motel but, surprisingly, the results indicate that family employment was not essential to them.

Possible explanations for the lower weighing of the self-employment variable appear to be:

- The respondents considered that self-employment is free from locational influence; wherever they are going to buy a motel, they will still be self-employed or be able to provide family members with a job.
- Motel owners with more than one motel, or with a part-time/full-time manager, had no interest in self-employment or employment for family members after their first motel. There was only one such motel owner in the sample.



- Motel owners with a partner working elsewhere had no interest in employment for other family members.
- Self-employment and employment for the family is an outcome of location decision; it is not a driver for the respondents.

The sub-criterion self-employment has the highest weight within the group; however, its overall weight across all sub-criteria is not influential. Overall weight across all sub-criteria for employment for family was not influential according to AHP analysis.

Flexibility or work/life balance is insignificant according to Table: 19 for location selection decision-making, but influential for entering the motel business. Respondents argued that their perception of flexibility changed after having made their investment decision. Most respondents changed their profession to enjoy flexibility and to balance their work and personal life. Regarding the work/life balance, some respondents said they enjoyed a great work/life balance. Others said that a motel is a full-time commitment and they could not enjoy a work/life balance. Respondent *M17* provided the crux of his reason for entering the motel business:

*“I was fed up with managing a transport business and driving trucks for a living in Australia, away from home. Motel business is a home and a job together. It was a way out for me, and I became my own boss”.*

Interestingly, there is a big difference between before and after motel purchase perceptions about enjoying flexibility. Regarding living space, motel owners reported that choosing a motel location was a significant decision as the respondents are ultimately selecting a place to live. Some motel owners reported that they picked a broader geographic location first before searching for a specific area for a motel. Interestingly, some respondents argued that living space was not vital to them because it is not a good decision to buy a poorly performing motel with a functional living space. The cost of the living space may become a burden. Given its ranking, the overall weight of living space is insignificant to the respondents. As *M5* reported:

*“I do not see any logic to focus on living space when buying a motel. I think it is the very worst kind of decision. The focus should be on business potential. Otherwise, it will be a penny-wise, pound-foolish situation”.*

*M3*'s comment reflects a different perspective about living space:

*“Christchurch city offers better living standard and public services than West-Coast, so we decided to wind-up our business from the West Coast and bought a motel in Christchurch. Family commitments such as good schooling for our kids influenced our decision to move here. The motel is in a great place for living”.*

Living space was not crucial for respondents who live off-site or those who own more than one motel. The self-recognition and esteem need sub-criterion examines how respondents perceive self-recognition. Most respondents indicated that these too are insignificant sub-criteria. A cultural connectivity criterion was added into the hierarchy to test motel investors' intentions to stay close to their home town. The AHP analysis result indicates cultural connectivity is not an important consideration for location selection decision-making. Respondents' ethnicity/hometown profile also suggests that cultural connectivity was not influential for the motel location selection decision. However, in-depth analysis shows that 15 of the 20 respondents' home towns were in the South Island. Only one respondent's home town was in the North Island. The remainder of the respondents were immigrants. Cultural connectivity data reveal that South Islanders prefer to stay in the South Island.

As discussed above, employment for family remained the least important sub-criterion of the non-cash benefit criteria. Although over half of the respondents' partners contributed time to the motel business, employment for family remained of little significance. The sub-criteria of the non-cash benefit criterion provide insights into this set of critical subjective issues for respondents. Individual priorities indicate each respondent's emotions and way of thinking about the business.

#### 4.5.6 Business environment

AHP analysis examined how the business environment influences location selection and found that the sub-criteria of visitor type and spending patterns are influential on respondents as are seasonality and competition, albeit to a lesser extent. Table: 21 shows the sub-criteria's average weights within the group and overall weight across all sub-criteria.

**Table: 21 Respondents' business environment sub-criteria weights**

Sub-criterion	Sub-criterion average weight within group	Overall weight across all sub-criteria
Visitor type and spending patterns	50.81%	5.91%
Seasonality	25.65%	2.98%
Competition	23.53%	2.74%

High factor loading for sub-criterion visitor type and spending pattern reveals that respondents placed greater emphasis on what kind of visitor is available in a specific location and what their spending pattern is. Seasonality was not a major concern for the respondents, in spite of marked seasonality of the New Zealand tourism sector, as a whole. A minority of respondents were concerned about

competition, in general, and price competition, in particular, from their competitor motels to achieve higher occupancy. It should be noted, however, that the motel owners were concerned about competition from peer-to-peer accommodation providers such as Airbnb. Table: 22 shows the influence of the sub-criteria of the business environment criterion.

**Table: 22 Respondents’ business environment sub-criteria weights**

Sub-criterion	M7	M9	M11	M15	M4	M8	M2	M18	M14	M19	M6	M3	M12	M20	M5	M17	M16	M1	M10	M13
Visitor type & spending pattern	78%	77%	77%	77%	71%	64%	59%	55%	47%	46%	44%	41%	40%	38%	37%	31%	29%	19%	14%	13%
Seasonality	11%	14%	9%	14%	14%	26%	16%	24%	5%	13%	39%	26%	40%	56%	14%	20%	63%	16%	50%	75%
Competition	11%	9%	14%	9%	14%	10%	25%	21%	47%	42%	17%	33%	20%	6%	50%	49%	8%	66%	37%	13%

The visitor type of a motel indicates what type of visitor is likely to stay in that motel and the motel’s market segment. Respondents divided visitors into three broad categories: business, family and holiday-makers/tourists. Business visitors for a motel include all types of visitor travelling for official business purposes. Respondents prefer business visitors because they are the easiest to host, travel all year round and, generally, return for additional visits. Motels with an excellent business visitor client base have more stable occupancy. Family visitors and holiday-makers are usually seasonal and hosting them requires extra care to ensure a memorable experience for them. Some respondents reported that they have more extensive business visitor client bases than tourists. For example, most of M11’s visitors are business visitors. A business visitor focused motel, such as M11, generally offers better services, quality accommodation and charges a premium price.

Inter-motel competition is not a significant concern for most respondents due to differences in market segmentation, property quality, price offers and proximity. Only a small number of respondents expressed concern about competition from their neighbouring motels during the low season or when the occupancy is low. The following two comments reflect both situations:

*“We keep a vacancy signboard even if we are fully booked. We transfer overbooking to our neighbourhood motels. In this way, we care about our neighbour motels and keep our visitors happy”. (M20)*

*“It is concerning that some motel owners drop their price well below market price to keep their room occupied, resulting in dumping. I believe it is not a sustainable way to face low occupancy”. (M5)*

The shared space industry (such as AirBnB) is a significant concern for the respondents. In many cases, shared space providers or peer-to-peer business are not bound by the same rules and regulations as motels, leading them to undercut pricing and avoid restrictions. Some respondents were anxious about the future of their businesses because of intense competition from the shared space industry. Because of weather changes, weekends and different holidays throughout the year, seasonality

affects hotel occupancy immensely. Seasonality acts as both a push and pull factor that impacts when and where tourists travel.

In summary, only one sub-criterion from the business environment (visitor type and spending pattern) has a strong influence on the location selection decision. The other two sub-criteria, seasonality and competition, were less important to the respondents.

#### 4.5.7 Agglomeration

The agglomeration effect refers to benefits that a motel receives from clustering. Sub-criteria of the agglomeration criteria in this study include the presence of other motels, supporting business units, proximity to the economic centre and the availability of labour. Table: 23 shows the weights of the agglomeration sub-criteria within the group and overall weights across all sub-criteria.

**Table: 23 Respondents’ agglomeration sub-criteria’ weights**

Sub-criterion	Sub-criterion average weight within group	Overall weight across all sub-criteria
Economic centre	32.12%	3.38%
Supporting business units	28.29%	2.98%
Availability of labour	25.58%	2.70%
Presence of other motels	14.01%	1.48%

The agglomeration effect is heterogeneous to the respondents. Some respondents reported that new entrants cannibalize the revenues of pre-existing motels, but others reported the opposite. The respondents reported that a premium room rate is associated with being close to an economic centre and supporting business units. Table: 24 presents the sub-criteria weights of the agglomeration criteria for all 20 respondents.

**Table: 24 Respondents’ sub-criteria weights of agglomeration**

Sub-criterion	M11	M15	M14	M19	M2	M3	M4	M20	M18	M16	M13	M9	M1	M7	M10	M6	M12	M8	M5	M17
Economic centre	42%	42%	41%	40%	39%	36%	36%	36%	32%	31%	30%	29%	25%	25%	23%	21%	21%	13%	10%	10%
Supporting business units	30%	6%	41%	37%	28%	36%	42%	15%	55%	16%	7%	51%	25%	25%	13%	49%	28%	16%	18%	12%
Availability of labour	24%	45%	14%	17%	9%	20%	16%	6%	5%	43%	30%	11%	7%	25%	54%	18%	46%	49%	51%	61%
Presence of other motels	4%	7%	3%	7%	23%	8%	5%	43%	9%	10%	32%	8%	44%	25%	9%	11%	5%	22%	21%	17%

Overall, proximity to a location in an economic centre is the most influential sub-criterion of the agglomeration criteria. When selecting a motel for purchase, the proximity of an economic centre is vital for the facilities it offers. As discussed above, motels have three basic kinds of client: business visitors, holiday-makers and family visitors. If a motel is not near an economic centre, it risks losing business visitors. Both holiday-makers and family visitors also prefer to stay close to an economic

centre to enjoy the facilities and the surroundings. Respondents believe that being in, or close to, an economic centre means staying close to a visitor destination.

Respondents reported that supporting business units had a strong influence on motel location selection. They examined the supporting business units around them at the time of location selection. Business units such as cafés and restaurants have a powerful positive influence on motel performance. The respondents also revealed that the presence of supporting business units in walking distance helps them obtain better occupancy and a higher room rate. M4 shared that sometimes proximity to supporting businesses is a disadvantage. M4 said:

*“We are located just beside a fuel station. Sometimes we get bad reviews for being so close and for the noise vehicles make at night”.*

The AHP analysis shows that the availability of labour is insignificant. This result was unexpected. Almost half of the respondents were not worried about the availability of labour. Some motels employ a part-time manager. Almost all the motels have part-time or contracted cleaners. Motel owners generally live on-site and run the motel, so they do not feel that the availability of labour is a significant sub-criterion. Seven respondents said that they considered the availability of labour while selecting a location. One respondent (M1) revealed:

*“It is hard to get the labour in winter. We cannot run the motel in full capacity without labour. As a result, we run the motel in half of its capacity”.*

The single most striking observation was the response related to the presence of other motels. Only one-third of the respondents felt that the presence of other motels had a negative effect overall. Respondents from a significant cluster in Christchurch explained that Christchurch has an oversupply of motels and that motels are cannibalizing each other for survival. In contrast, one respondent from a small cluster explained that the presence of other motels has a few advantages, including tourist (over)flow from other motels.

#### **4.5.8 Connectivity**

Connectivity centres on a specific location’s transport connections. New Zealand’s connectivity largely depends on individual transport (cars), scheduled transport (bus/rail) and air transport networks. Table: 25 shows the weights of the connectivity sub-criteria in the group and overall weights across all sub-criteria.

**Table: 25 Respondents’ connectivity sub-criteria weights**

Sub-criterion	Sub-criterion average weight in group	Overall weights across all sub-criteria
Connection to attraction	28.26%	2.60%
Individual transport (car)	27.78%	2.56%
Access to highway	19.39%	1.79%
Air transport	12.80%	1.18%
Scheduled transport (bus/rail)	11.77%	1.08%

All respondent moteliers had highway access and slightly over half of the motels are situated adjacent to a highway. All the motels are connected by the car transport network. Some motels are connected with the bus network. Only half of the respondents had a rail or air connection. Having a connection to an attraction and individual transport (car) connectivity were influential sub-criteria in the group. Table: 26 presents the sub-criteria weights of connectivity criteria for all 20 respondents.

**Table: 26 Respondents’ connectivity sub-criteria weights**

Sub-criterion	M14	M10	M9	M15	M16	M3	M1	M12	M11	M5	M18	M8	M19	M7	M13	M4	M20	M2	M17	M6
Connection to attraction	57%	53%	52%	50%	44%	35%	33%	32%	30%	29%	29%	24%	22%	20%	15%	13%	13%	8%	8%	6%
Individual transport (car)	14%	20%	12%	15%	19%	21%	37%	12%	29%	41%	21%	15%	38%	24%	48%	19%	32%	28%	27%	44%
Access to highway	7%	11%	8%	15%	25%	19%	20%	6%	5%	11%	34%	35%	26%	24%	26%	23%	9%	28%	24%	23%
Air transport	8%	8%	18%	17%	4%	9%	3%	17%	29%	7%	5%	15%	4%	24%	8%	23%	38%	28%	4%	16%
Scheduled transport (bus/rail)	14%	8%	9%	3%	8%	16%	7%	33%	7%	12%	11%	12%	9%	8%	4%	23%	8%	6%	36%	11%

Respondents reported that location selection decisions depend significantly on connection to an attraction. Here, connection to an attraction means visitors can reach to an attraction easily. A gravel road, the mode of transport, the need for specific transport or difficulty in accessing an attraction all result in poor connectivity. For instance, motel owners prefer to select a location which is 10 km away from a destination but connected by a highway, compared with an attraction 5 km away, which is accessible only via a gravel road or using a specific mode of transport from a motel. Another example would be a motel near a bus stop with an attraction 5 km away. Motel owners prefer this over a motel 3 km away from an attraction with no scheduled transport. Respondents believe that the connection to attractions and availability of different modes of transport lead to higher occupancy levels.

Conceptually, motels (motor + hotel) should locate by a highway. This concept is prevalent in the study area. Slightly over half of the respondents are located beside a state highway. Surprisingly, highway access is moderately influential to some respondents when selecting a motel location. Most respondents explained that their market segment decides the level of importance of their proximity to a highway. Respondents also reported that if the motel is close to a highway, it enjoys good visibility, but the rooms need to be fully sound proofed to mitigate highway motor noise. Respondent *M13* said:

*“I get better room rate and occupancy in the rear side rooms of the motel compared to the roadside rooms because visitors dislike any noise from the road”.*

Among all of the transport modes, individual transport (car) connectivity was critically important to the respondents. There is a scarcity or unavailability of various modes of transport. The car is the most common and convenient form of transport in the whole study area. Scheduled transport networks (bus and rail) are limited in the study area. Intercity buses run in the study area, but buses are not considered crucial by most respondents. Rail connectivity is minimal and is not applicable for some respondents. The comment of respondent *M9* succinctly captures the crux of the transport mode issue.

*“The majority of our clients use a car as a medium of transportation. Scheduled transportation (bus) network or airport is just a bonus for us”.*

Air transport was the least important sub-criterion among all the sub-criteria of the connectivity criteria. This is because there is a lack of air transport networks in the study area. People are reluctant to use other modes of transport, apart from driving their cars, to avoid the hassle of changing modes of transport and saving money.

Having presented all the sub-criteria groups, we now discuss the impact of the government policies criteria in motel location decision-making.

#### **4.5.9 Government policy**

The sub-criteria of government policy are the least influential sub-criteria in the location selection decision-making. In interviews, respondents raised a number of issues closely related to government policy without understanding that they are government policies. For example, respondents reported that the motel sector is not on a level playing field with peer-to-peer accommodation providers. Motels pay a commercial rate on all taxes whereas peer-to-peer accommodation pays a non-commercial rate. This example indicates that a lack of understanding about government policy may be one reason why respondents do not see government policies as relevant. Table: 27 shows the weights of government policy sub-criteria in the group and overall weights across all sub-criteria.

**Table: 27 Respondents’ government policy sub-criteria weights**

Sub-criterion	Sub-criterion average weight in group	Overall weight across all sub-criteria
Local tourism strategy	28.26%	2.60%
Business support policy	27.78%	2.56%
Environment and land use policy	19.39%	1.79%
Other relevant policies	12.80%	1.18%

Local tourism strategy and business support policies are slightly influential; however, the effect of environment and land use policies and other relevant policies are reported as insignificant. Table: 28 shows the influence of the sub-criteria of the government policy criteria.

**Table: 28 Respondents’ government policy sub-criteria weights**

Sub-criterion	M8	M12	M16	M13	M18	M4	M17	M3	M1	M10	M19	M11	M15	M9	M14	M6	M2	M7	M5	M20
Local tourism strategy	64%	58%	57%	55%	51%	49%	47%	45%	42%	39%	37%	36%	36%	33%	32%	30%	25%	11%	10%	6%
Business support policy	11%	12%	19%	18%	25%	7%	33%	13%	30%	9%	23%	40%	22%	33%	32%	43%	25%	12%	39%	64%
Environment and land use policy	14%	18%	18%	5%	12%	39%	15%	10%	24%	43%	28%	11%	10%	11%	32%	12%	25%	65%	13%	6%
Other Policies	11%	12%	5%	22%	12%	6%	5%	32%	4%	9%	12%	13%	31%	24%	4%	15%	25%	12%	39%	24%

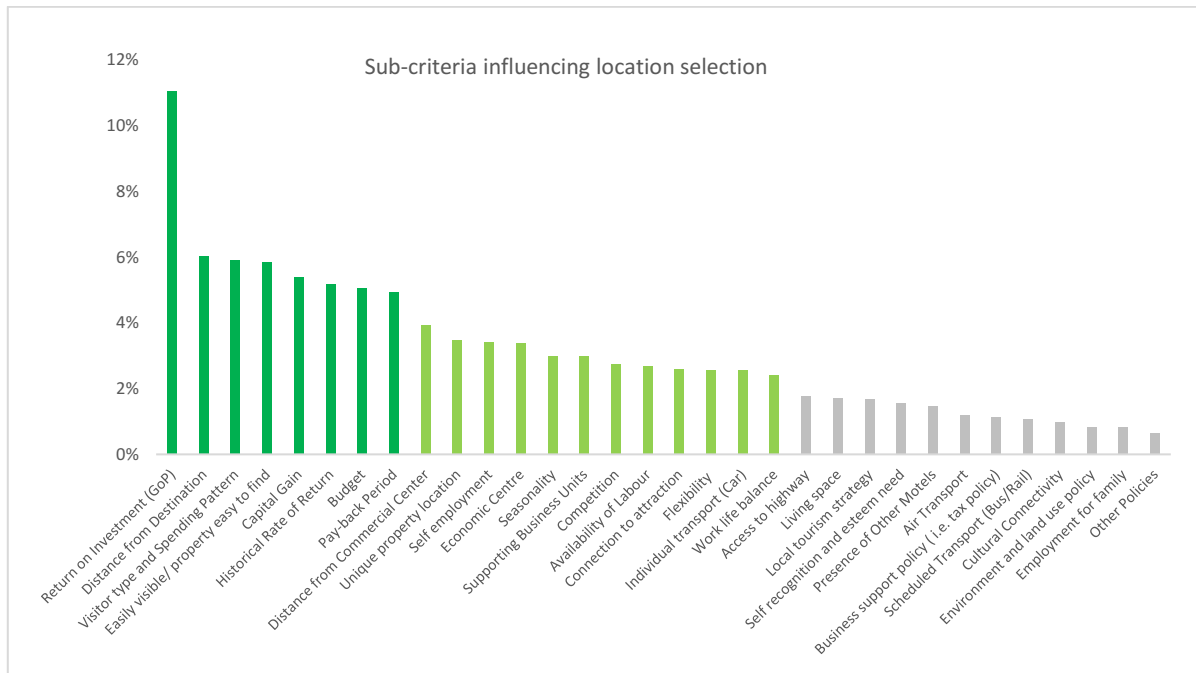
Some respondents revealed that, at one time, expectations about a local tourism strategy were relatively high, but now they are pessimistic. A succinct retort is provided by respondent M1 who observed:

*“The government is busy with the dairy industry, and it appears as if tourism is not the government’s priority. A proper local tourism strategy could change the fate of this destination”.*

Respondent M5 reported that the impact of business support policy is not influential because of the absence of tax holidays, cash incentives or any other significant incentives. Sometimes the language of government is confusing and terms and conditions of services add frustration. Twelve of the 20 respondents said that they do not know about available services. Respondents M4 and M10 reported that the increase in the minimum wage is squeezing their profit margins. Unlike many production-based industries, the environmental footprint of a motel is not considered extreme; therefore, the effect of environmental policies is negligible in the motel sector. Most respondents had no idea about other policies that could impact their business.

In summary, the AHP analysis results indicate that some influential sub-criteria directly affect location selection decision-making in this sector. The highest weighting sub-criterion (11 per cent) is assigned to the sub-criterion return on investment (gross profit from operation) in the financial criteria and the smallest weighting coefficient (0.65%) to the sub-criterion other policies (within the government policies sub-criteria). Figure: 24 shows all sub-criteria and their respective weights.





**Figure: 24 Respondents’ sub-criteria weights across all sub-criteria**

*Block 1: Sub-criteria weight  $\geq 4\%$  is influential (green); Block 2: Sub-criteria weight  $< 4\%$  but  $\geq 2\%$  is less-influential (light green); Block 3: Sub-criteria weight  $< 2\%$  is least influential (grey).*

The sub-criteria have been categorized into influential, less-influential and least-influential based on their respective average weights/priorities. According to the weights of the sub-criteria, one can conclude that profit is the single top priority. Following that, respondents prioritize distance from the destination. Here, destination refers to the place(s) of interest of the target customers. It can be a tourist place for a tourist motel, the CBD for a corporate motel or any specific location for a specialized motel. Visitor type and spending pattern are influential for the motel owners. Surprisingly, even in this era of information technology, offline visibility is a critical factor for motel owners. The analysis further reveals that sub-criteria such as capital gain, the historical rate of return, budget and the payback period are each relatively influential. The three least influential sub-criteria are environment and land use policy, employment for family and other policies.

The criteria weights show that the highest weighted criterion (32%) is associated with the financial criteria, while the lowest coefficient (4%) is associated with the government policy criteria. In order of importance, the criteria are: financial, location and visibility, non-cash benefits, the business environment, agglomeration, connectivity and government policy. Table: 29 shows the criteria influencing decision-making and their respective weights.

**Table: 29 Respondents' criteria weights**

Criteria	Weight
Financial	31.60%
Location and visibility	19.28%
Non-cash benefit	13.47%
Business environment	11.62%
Agglomeration	10.54%
Connectivity	9.21%
Government policy	4.28%

The AHP analysis revealed that the priority of financial criteria differed among the respondents. Respondent *M3* gave financial criteria the highest weight (46%) but *M16* gave it the lowest weight (14%). On average, the financial criteria have the highest weighting, with location and visibility the second most influential criteria among the seven criteria. Respondent *M17* assigned location and visibility the highest weight (39%). In contrast, *M19* assigned it the lowest weight (7%). The influence of the non-cash benefit criteria was an interesting finding to emerge from the AHP analysis. Interestingly, the importance of non-cash benefits to individual respondents varied considerably in the sample. Though the business environment, agglomeration and connectivity criteria were moderately influential, government policy was the least significant among the respondents.

Respondents' priority weights, criteria weight combinations, views, emotions and understanding of criteria influencing location selection decision-making indicate the possibility of the presence of some clusters of similarly-minded owners. The next section discusses the cluster analysis results that provide us with a fuller picture of each criterion's influence.

## 4.6 Cluster analysis

The AHP analysis results reflect the respondents' priorities in relation to different criteria and sub-criteria. Variations in participants' criteria weightings reveal the existence of specific motel owner characteristics. Some respondents are homogenous about the influence of the criteria. The aggregate results (Table: 30) indicate the presence of some meaningful clusters among the respondents. The inter-relationships of all seven criteria were subsequently examined to find significant clusters. A fuzzy K-Means method used Euclidian distances between respondents' answer and hypothetical profiles to iteratively identify clusters that best described the dataset. This process was applied to identify two, three, and four cluster groups.

The criteria weights assigned by the 20 respondents (see Table: 30) show the apparent existence of some clusters.

**Table: 30 Criterion weights for all 20 respondents**

Motel Code	M3	M13	M14	M19	M11	M5	M15	M20	M1	M17	M18	M10	M2	M12	M7	M6	M4	M9	M8	M16
Financial	46.3%	43.5%	41.9%	38.6%	36.5%	35.5%	35.2%	33.7%	30.5%	27.1%	27.1%	27.0%	26.2%	22.5%	20.1%	19.8%	19.3%	17.9%	17.5%	13.6%
Non-cash benefit	18.0%	7.0%	6.1%	17.1%	25.6%	10.0%	7.1%	2.6%	32.7%	9.9%	5.7%	29.7%	35.8%	8.1%	21.5%	3.9%	30.2%	4.3%	31.7%	11.2%
Agglomeration	11.5%	9.0%	15.6%	15.7%	11.8%	18.2%	17.9%	4.5%	7.5%	6.5%	12.8%	5.4%	4.6%	26.0%	3.3%	7.7%	8.4%	2.5%	9.9%	14.3%
Connectivity	8.1%	14.3%	23.0%	6.8%	3.9%	10.4%	12.1%	3.5%	5.5%	5.9%	13.4%	3.2%	6.3%	12.1%	3.5%	6.6%	16.4%	6.1%	12.8%	14.3%
Location and visibility	11.0%	17.2%	7.0%	7.5%	13.4%	9.9%	16.9%	30.0%	7.7%	39.2%	22.8%	20.0%	18.5%	19.2%	24.0%	28.3%	12.6%	28.3%	12.4%	26.2%
Business environment	2.6%	5.7%	4.2%	12.4%	6.2%	11.5%	7.9%	17.0%	14.5%	8.7%	15.3%	11.7%	4.6%	9.4%	24.0%	13.9%	10.1%	21.5%	12.8%	16.5%
Government policies	2.4%	3.4%	2.3%	1.9%	2.7%	4.6%	3.0%	8.8%	1.7%	2.8%	2.9%	3.1%	4.0%	2.7%	3.6%	19.8%	3.2%	19.5%	2.8%	4.0%

It is evident from the above table that there are respondents who think the same things. The table shows these patterns arranged by the strongest financial criteria. Other patterns are also evident; e.g., the second half of the table focusses more on location and visibility. The non-cash benefit criterion has a pattern with a significantly high/low criteria weights.

Cluster analysis is a proven technique to assist in the interpretation of patterns that exist in likeminded respondents. Here, cluster analysis has been used to find the patterns. All criteria weights are used as cluster analysis input. Because of the exploratory nature of this study, no specified number of clusters was decided before analysis. Two, three and four-cluster analyses were conducted to examine how the respondents could best be clustered. Different numbers of clusters were rerun, to ensure that the number of clusters was appropriate and the categorization of clusters was meaningful. The differences among clusters are discussed to provide insights into the critical variables of cluster formation. Under three different cluster analysis runs, there were a total of nine meaningful clusters. The following section first discusses the findings of the two-cluster and four-cluster analyses, thereafter the three-cluster analysis and the transition from three-clusters to four-clusters is presented.

#### 4.6.1 Two cluster analysis

Two cluster analysis uses two centroids to form two separate clusters. Each centroid represents the centre of all points belonging to the same cluster. Each respondent is assigned to only one centroid; 13 respondents to cluster 1 and the remaining seven to cluster 2. As can be seen, both clusters are prominent, with high intra-cluster similarity and low inter-cluster similarity (Table: 31).

**Table: 31 Criterion means results of a two-cluster analysis**

Mean/Centroid	Financial	Non-cash benefit	Agglomeration	Connectivity	Location and visibility	Business environment	Government policy
Cluster 1	0.26	0.27	0.07	0.07	0.18	0.12	0.03
Cluster 2	0.31	0.08	0.13	0.11	0.19	0.11	0.06
Total average	0.29	0.16	0.11	0.09	0.19	0.12	0.05

The row and column values provide ideas about the nature of the clusters. The non-cash benefit criterion plays an influential role in the distinction of the clusters. Agglomeration, financial and connectivity criteria are moderately influential. The government policy criterion is the least influential. Respondents in both clusters are almost indifferent about location and visibility and the business environment.

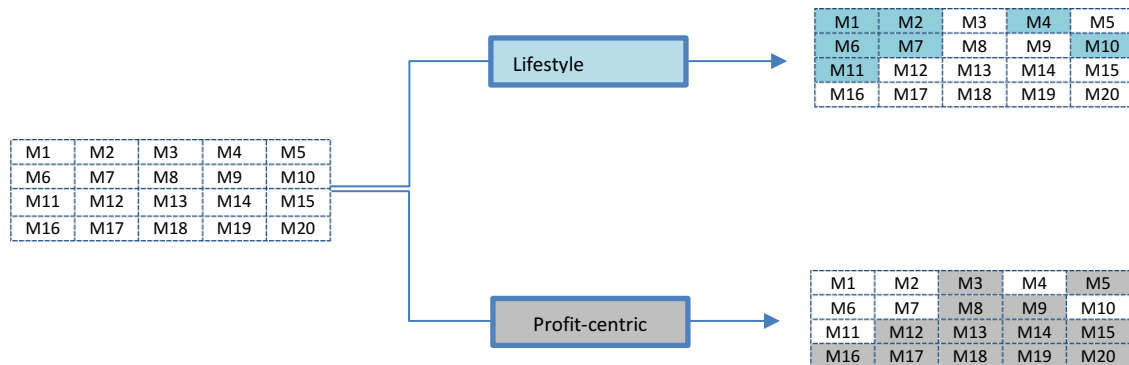
##### **Cluster 1: Lifestyle**

The non-cash benefit criterion is exceptionally influential for members of cluster 1. The criteria means (Table: 31) indicate non-cash benefit is clearly a distinguishing criterion in the understanding of cluster 1. The distance from centroids of agglomeration, connectivity and financial criteria reveals the unique characteristics of cluster 1. Government policy does not have a powerful influence on clusterisation. Location and visibility and the business environment criteria are very close to the total average, meaning a weak degree of distinction from the whole data set. In summary, the criteria combination suggests that cluster 1 is composed of lifestyle moteliers, overly distinguished by non-cash benefit, agglomeration and connectivity criteria. Members of cluster 1 are not entrepreneurial in the true sense of the word. Personal and lifestyle reasons explain their motives well for operating a motel.

##### **Cluster 2: Profit centric**

Cluster 2 consists of respondents who put higher importance on the financial criterion. The strong influence of the financial criterion and the weak impact of non-cash benefits distinguishes cluster 2 from cluster 1. Another distinctive characteristic of cluster 2 is the relatively high importance of agglomeration and connectivity. Location and visibility and the business environment criteria represent a weaker degree of distinction between clusters 1 and 2. A surprisingly low score for non-cash benefits reveals that this group of respondents is not lifestyle business owners. The influence of the financial criterion shows that cluster 2 members mainly entered the motel business for financial

gain. Overall, the criteria combination indicates that cluster 2 is a group of profit centric moteliers, overly distinguished by the influence of financial, agglomeration and connectivity criteria. The unique feature of the moteliers in cluster 2 lies in the fact that non-cash benefit is not influential for cluster members. Figure: 25 shows the membership of clusters 1 and 2.



**Figure: 25 The two cluster combination of the respondents**

The two cluster analysis divides all respondents into two clusters, lifestyle motel owners and profit centric motel owners. Thirty-five per cent of respondents fall in the lifestyle cluster and 65% in the profit centric cluster. The total SSE (an indicator of homogeneity) is moderate: cluster 1's SSE is comparatively low, and cluster 2's SSE is moderate. Together, these results suggest a rerun of another cluster analysis to find a hidden cluster with a lower SSE, which means high intra-cluster similarity and low inter-cluster similarity. A four-cluster analysis was conducted. The results are presented in the following discussion.

#### 4.6.2 Four cluster analysis

A four-cluster analysis was conducted to check how the clusters change with a change in the combination of the criteria. The four-cluster analysis also attempted to find the existence of any meaningful cluster within clusters 1 and 2 from the two-cluster analysis. Financial, non-cash benefit and location and visibility criteria dominated the cluster formation. Some clusters reveal a sharp contrast to other clusters in terms of a specific criterion such as non-cash benefit. The cluster analysis yielded four meaningful clusters, mean scores of the criteria of each cluster, and an overall average. Table: 32 shows the criteria means of the four-cluster analysis.

**Table: 32 Criteria means of the four-cluster analysis of respondents**

Mean/centroid	Financial	Non-cash benefit	Agglomeration	Connectivity	Location and visibility	Business environment	Government policy
Cluster 1	22%	32%	9%	12%	11%	12%	3%
Cluster 2	27%	24%	6%	5%	23%	11%	3%
Cluster 3	24%	4%	5%	5%	29%	17%	16%
Cluster 4	34%	10%	16%	13%	15%	9%	3%
Total average	29%	16%	11%	9%	19%	12%	5%

Table: 32 shows some distinguishing factors for each cluster. Cluster 1 can be distinguished by its non-cash benefit criterion, and clusters 3 and 4 can be distinguished by their location and visibility and financial criteria. Cluster 2 has multiple distinguishing criteria. All four clusters are now discussed.

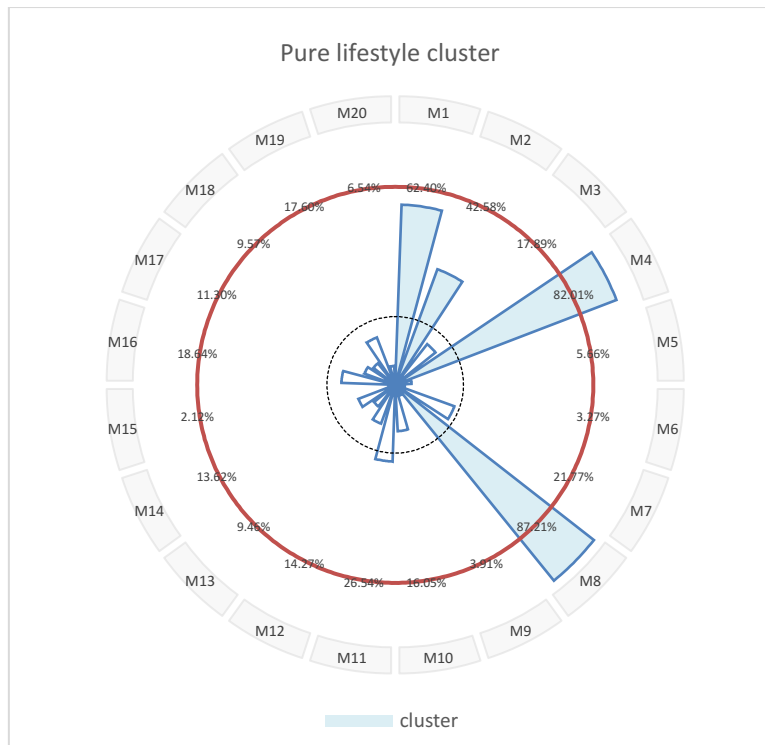
### **Cluster 1: Pure lifestyle motelier**

Some respondents entered the motel sector with the aim of generating and sustaining a certain level of income and to enjoy a particular lifestyle. AHP criterion weights indicate that non-cash benefit is more important than financial criteria to these respondents. The non-cash benefit sub-criteria are the distinguishing criteria of cluster 1. The financial criterion is the second most important criterion. Agglomeration, connectivity and the business environment criteria have an average influence, and the influence of location and visibility were below the total average. Government policies are not important to members of this cluster. The combination of criterion weights indicates that cluster 2 is composed of pure lifestyle motel business owners who are in the motel sector because they like to be in the motel business and they are happy with a certain level of income. Interestingly, for respondents in cluster 1, the motel business is their retirement plan. Respondent M8 succinctly captures this sentiment:

*“I do not exchange time for money. I put a great emphasis on quality of life. I love this lifestyle in smaller but strategic town”(M8)*

This section discusses respondents’ belongingness to cluster 1 of the four cluster analysis. Figure: 26 shows the respondents’ degree of belongingness to cluster 1.

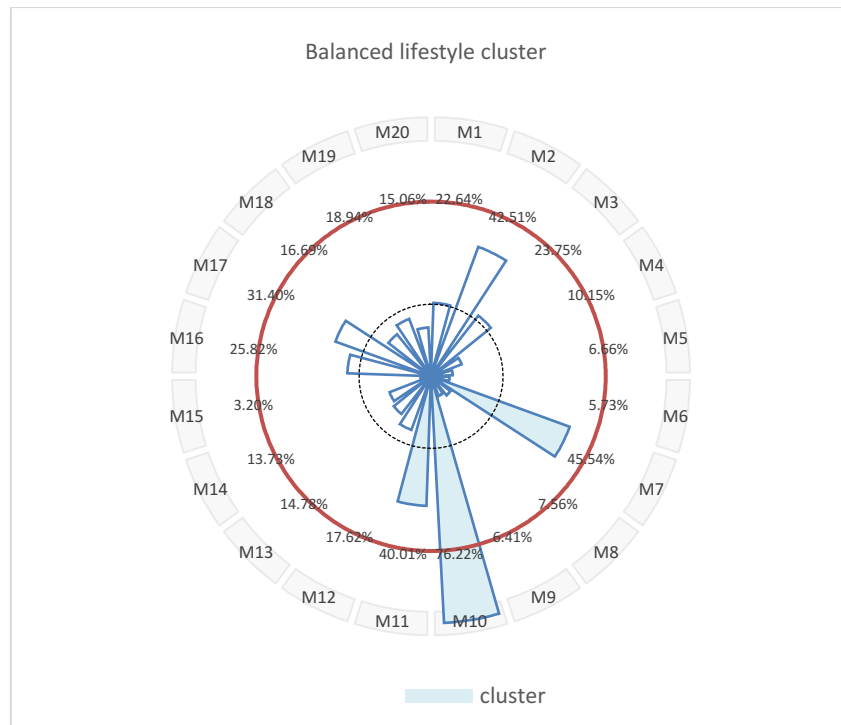
In total, four of the 20 respondents belong to the pure lifestyle motelier cluster. Sixteen respondents have very weak belongingness. The cluster members’ average degree of belongingness is 69%. Respondent M8 is the best representative of cluster 1. Pure lifestyle moteliers have more lifestyle ambitions than classical business entrepreneurial motives. As a result, they have distinct priorities in their location factors.



**Figure: 26 Membership degree of the pure lifestyle cluster**

**Cluster 2: Balanced lifestyle motelier**

The criteria weights show that the non-cash benefit criterion has a much higher level of influence in the cluster 2 respondents' location selection. The location and visibility criterion has an above average influence. The financial and business environment criterion has an average influence in cluster 2. Agglomeration, connectivity and government policy have a well below average influence. The weights of non-cash benefit, financial, location and visibility criteria are important and distinguishing in understanding cluster 2. The combination of criteria weights indicates that cluster 2 is a lifestyle type of business with respondents having balanced expectations about profit, location and visibility and the business environment. Two of the three respondents in this cluster are freehold property owners. Geographically, all are situated in remote places (not a transit or gateway location). They have a very specific visitor market.



**Figure: 27 Membership degree of the balanced lifestyle cluster**

M10 appears the best fit as a member of the balanced lifestyle motel owners. M10 selected a location to address a very specific visitor market. According to respondent M10, the location is neither a gateway nor a transit, rather it is a pure destination. Respondent M10’s location selection was highly influenced by the non-cash benefit criteria. M10 revealed:

*“This motel is in a beautiful location, at the heart of this historic township and it is a great place to live. We like the location and previous financial performance indicated a good return on investment. We believe it’s a good balance between financial return and personal expectations and we utilised the opportunity.” (M10)*

M11 serves a very specific market cluster with no competitors located in a 10 km radius. Respondent M11 chose to run a lifestyle business without drastically compromising the financial criterion. The non-cash benefit criterion influenced M7 to select the current location. The cluster graph also shows that M2 has a moderate degree of belongingness to this cluster. M2 is the only notable non-member respondent of cluster 2. The low influence of the financial criterion and an unusually high influence of non-cash benefit dragged M2 into cluster 1.

### **Cluster 3: Location based profit centric motelier**

Cluster 3 represents a group of respondents who believe that being in a location close to a destination or commercial centre with a good visibility is the driver of financial gain. This group of respondents emphasize location over the financial criterion and put an above average emphasis on the business environment; they believe that financial issues are the result if they select the best possible location



to serve their target market. The influence of non-cash benefit, agglomeration and connectivity is extremely low as members of this cluster believe that a good location inherits these characteristics.

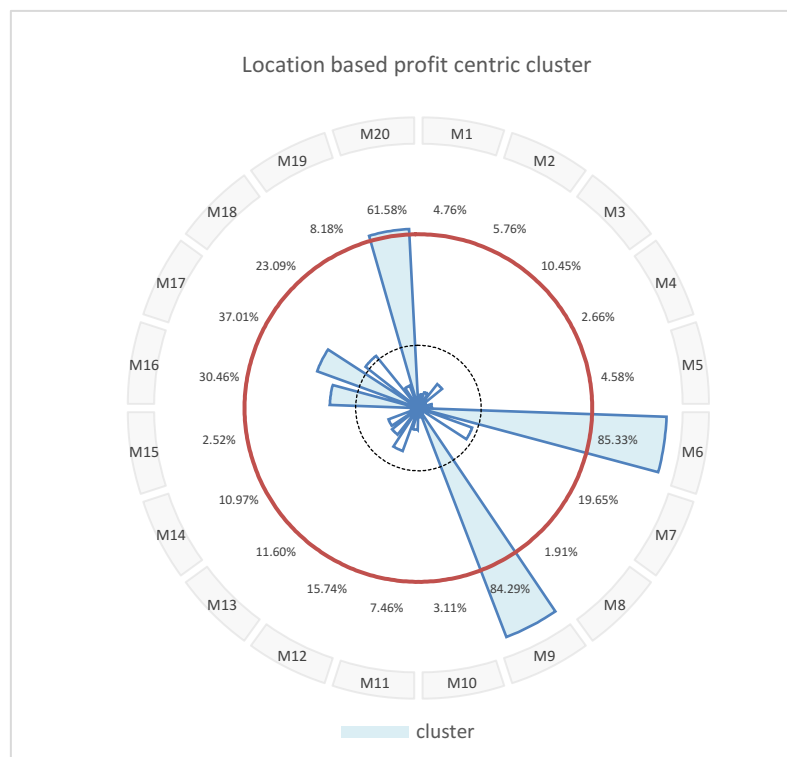
M20 explained why location is more important than any other criterion:

*“The motel business is all about location. You can change your business strategy to improve performance but you cannot change location. Location is the most important criterion.”*

Government policy appeared important to this group of people. Respondent M9 explained the crux of importance of government policy succinctly:

*“Local tourism strategies and business support policies are important indicators of a location’s future potential. The government policies encourage or discourage a particular location selection.”*

Figure: 28 shows cluster belongingness of the five members of this cluster. The importance of location and visibility is the distinguishing criterion of this cluster. Relatively higher influence of the government policy criterion is also noticeable.

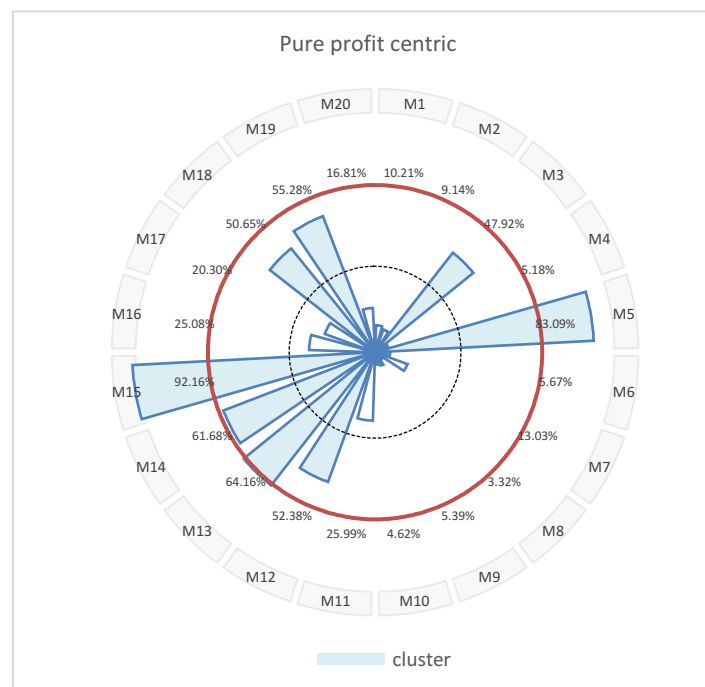


**Figure: 28 Membership degree of the location-based profit-centric cluster**

AHP criteria weights indicate that cluster 3 is a location-based profit-centric motelier. Choosing the best possible location for financial gain is the unique feature of this cluster. In other words, the members of this cluster are location-based profit centric moteliers.

#### Cluster 4: Pure profit centric motelier

AHP criteria weights indicate that the financial criterion significantly influences 40% of those who were interviewed. This group of respondents chose a location with the highest expected financial return in mind. The financial criterion is the distinguishing criterion of this group of moteliers. Generally, profits offset non-cash benefit for this group. Both agglomeration and connectivity are important for them as they believe that there will be higher visitor flow in a well-connected place with clusters of different types of business. Location and visibility, and the business environment have a below average influence on this cluster. The influence of government policies is insignificant in the decision-making. Unlike lifestyle moteliers, the primary objective of this group of people is to earn a profit. Some of the respondents have very high expectations about the financial criterion. Cluster 4 represents a group of respondents who are purely profit centric.



**Figure: 29 Membership degree of the pure profit centric cluster**

Intense financial expectations with a strong expectation of agglomeration and connectivity are the distinguishing criteria of this cluster. For members of this cluster, the motel business is not a lifestyle. Respondents entered this business sector with the expectation of earning a high profit.

Now the three-cluster analysis will be discussed.

### 4.6.3 Three cluster analysis

From the above discussion, it is evident that there are patterns of respondents who hold the same perspective. Two cluster analysis divides the respondents into two major clusters; lifestyle and profit centric. Four cluster analysis was a successful attempt to find the existence of meaningful clusters in the lifestyle and profit centric clusters. Four cluster analysis revealed four meaningful clusters that have been discussed above. A three-cluster analysis was conducted to gain insight into which criteria are persistently and consistently the most common criteria critical in cluster formation process. The aim of the three cluster analysis was to check how cluster changes and criteria combinations work. Due to the exploratory nature of this study, three cluster analysis is crucial to examine the relationships between the two and four clusters. The cluster analysis yielded three meaningful motel clusters with mean scores for the criteria of each cluster. The clusters, criteria mean scores and overall averages are presented in Table: 33.

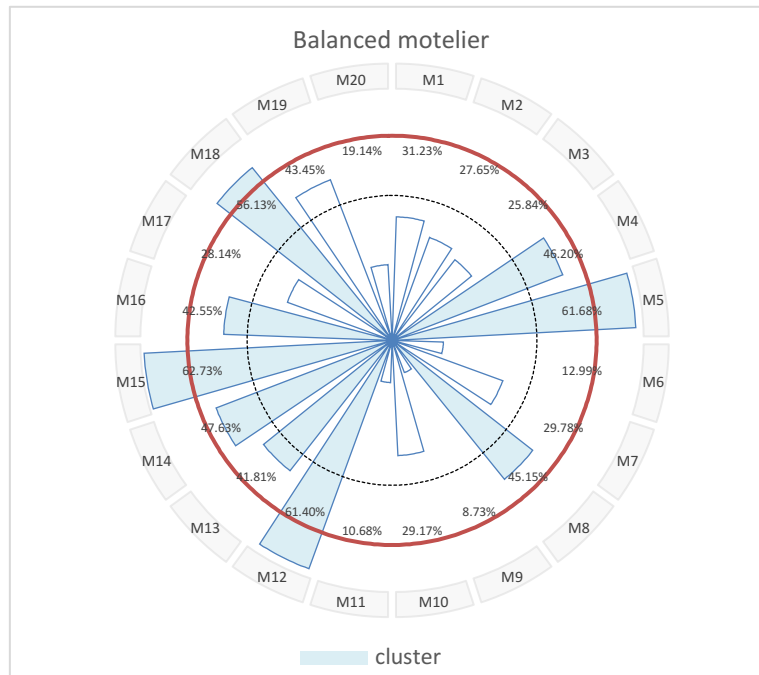
**Table: 33 Criteria means of the three cluster analysis**

Clusters / Cluster	Financial	Non-cash Benefit	Agglomeration	Connectivity	Location & visibility	Business environment	Government policies
Balanced / Moderate	28%	15%	14%	12%	16%	11%	3%
Ambitious	36%	23%	8%	7%	16%	6%	3%
Location based	23%	8%	4%	5%	28%	19%	13%
Average	29%	16%	11%	9%	19%	12%	5%

The cluster formations are critically different from the two and four cluster analyses. The transition from two to four-clusters follows the same logical distribution; in contrast, the three cluster analysis reveals a new way of looking at the same data. All three clusters obtained from the three cluster analysis are now discussed.

#### **Cluster 1: Balanced moteliers**

The unique feature of the motels in this cluster lies in the respondents' balanced expectations that are very close to the overall average. This cluster of people want to own a motel that will generate a moderate financial return and gain greater control of their lifestyle. Members of this cluster prefer to be in a place with great connectivity and agglomeration; as a result, their business location is in, or close to, a city or township. They want to own a business that gives them greater control of their lives. In other words, their primary aim is to improve their quality of life. Their motivation for buying a motel is to secure a decent life. This group places a great deal of faith in hard work. The members are confident that their long-term investment objectives can be achieved by dedication and hard work.

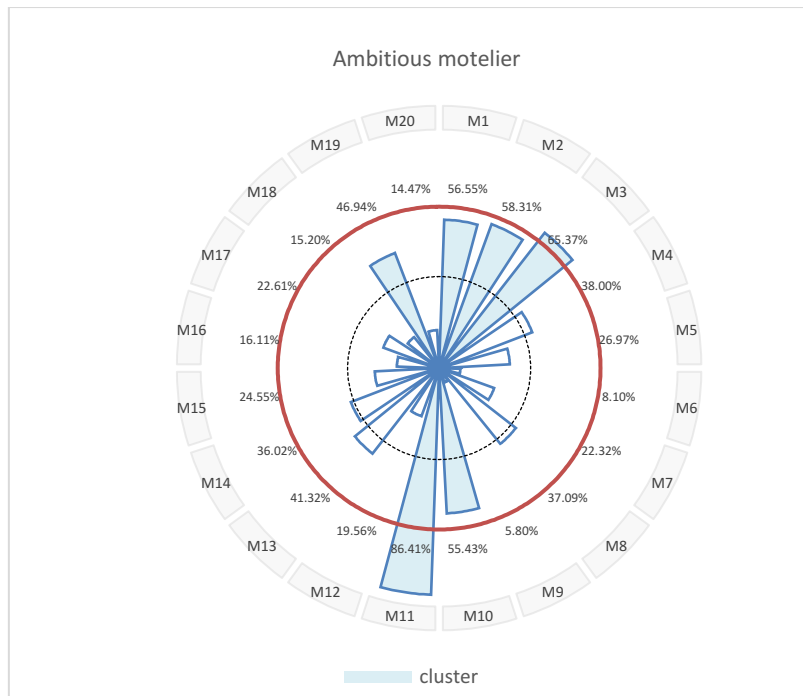


**Figure: 30 Membership degree of the balanced moteliers**

The balanced motelier group is a cluster that consists of respondents who are not influenced by unusually high expectations. This cluster belongs very close to the centre of the total data set (if all criteria are considered).

**Cluster 2: Ambitious moteliers**

A very high expectation of both financial and non-cash benefit criteria is the most distinguishing feature of cluster 2. This group is greatly influenced by both financial criteria and non-cash benefit. Surprisingly, for the members of this cluster, all other criteria have a below average influence. Key motives are associated with improving their quality of life and high profit making. Members of cluster 2 are ambitious regarding their decision-making. They believe that is easy to start a motel business, they do not need specific skills and that it is a great opportunity or is perfect for semi-retirement. The combination of criterion weights indicates that cluster 2 is composed of ambitious moteliers who are in the motel sector because of high profits and a greater quality of life. Members of the ambitious motelier cluster may be lifestyle or a profit centric moteliers. Their main distinguishing feature is the high priority they assign to both financial and non-cash benefit criteria. Figure: 31 shows the cluster belongingness of ambitious moteliers.



**Figure: 31 Membership degree of the ambitious moteliers**

Members of this group expressed their opinion about high expectations. According to respondent M11:

*“I started this business about eight years ago. I poured money in with an expectation of higher return than other alternatives I had.”*

Respondents in this cluster are self-confident. They believe it is an easy business to start and continue that requires no particular skills. They also believe that the motel sector is a better option in terms of financial returns as well as non-cash benefit.

**Cluster 3: Location based moteliers**

The location and visibility criterion is exceptionally influential and the most distinguishing of the members of cluster 3. Logically, cluster 3 is a location-based motelier. This cluster privileges the location and visibility criterion over the financial criterion. Non-cash benefit, agglomeration and connectivity are not influential. The business environment and government policies have above average influence. Cluster 3 – the location-based motelier - is very similar to the location-based profit centric motelier cluster in the four-cluster analysis. Cluster 3 includes all the members of the location-based profit centric moteliers.



**Figure: 32 Membership degree of the location based motelier cluster**

Cluster 3 members prefer to be in a place with great location attributes. They believe that a good location is a pre-requisite for a better financial return. This cluster also considers government policy that impacts the location attributes of a particular location.

In summary, the three cluster analysis identifies underlying patterns that are different from the two and four cluster analysis. Three cluster analysis reveals the following:

- The first cluster gives a moderate emphasis to all criteria influencing the location selection decision. They have moderate financial expectations along with non-cash benefit. Interestingly, agglomeration and connectivity are significant for them. Location and visibility and the business environment are moderately important to this cluster.
- The second cluster expects a very high return on the financial and non-cash benefit criteria. With respect to other criteria, they have below average expectations.
- Finally, the third cluster is a location-based cluster. Members of this cluster focus most on location and visibility and the business environment. They believe that location is a driver of financial success. Their expectations about financial criteria are moderate. They have low expectations of non-cash benefit, agglomeration and connectivity.

The next section discusses the transition from the three-cluster to the four-cluster. This transition provides important insights into the formation of the clusters.

#### **4.6.4 Three-cluster to four-cluster transition**

Cluster analysis is not a simple one-run form of analysis. Data sets can be split into clusters in many different ways. Running cluster analysis multiple times to look at the various results enables insights from different perspectives. This section discusses the transition from three to four clusters. The transition shows the movement of members from three clusters to four.

Figure: 34 shows the transition from three to four clusters. The sign (\*) indicates that the members belong to cluster 1 and (+) indicates that they belong to cluster 2 of the two-cluster analysis.

The diagram shows that:

- Seventy-five per cent of the balanced motelier cluster members from the cluster analysis move into the pure profit centric cluster in the four-cluster analysis.
- Interestingly, members of the ambitious cluster in the three-cluster analysis are spread across different clusters in the four cluster analysis. This result indicates that ambitious members can be present in any type of cluster, i.e., the pure profit centric, balanced lifestyle and pure lifestyle clusters.
- Eighty per cent of the location centric cluster members in the three-cluster analysis have a similar type of pattern and membership in the location-based profit seeker cluster in the four-cluster analysis.
- Overall, the transition from three-clusters to four-clusters does not reveal any obvious pattern; it provides further insights into cluster members' characteristics.

Unlike the three and four cluster analysis, the relationship between the two and four cluster analysis is comparatively straight forward. Each cluster in the two cluster analysis is divided into a further two clusters. There is no inter-cluster migration in the two to four cluster transition.

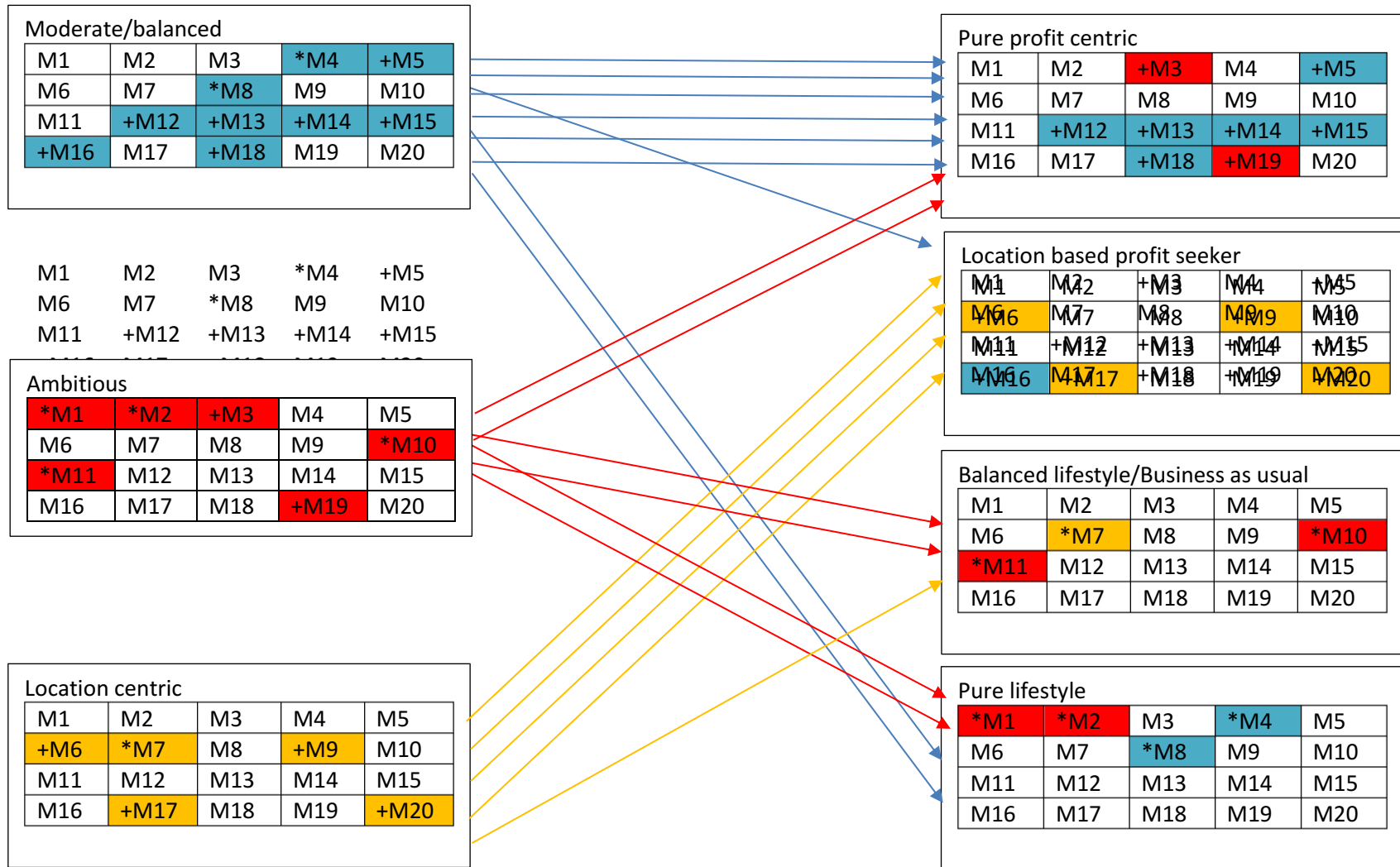


Figure: 33 The transition of moteliers in the three to four cluster

+M6	*M7	M8	+M9	M10
M11	M12	M13	M14	M15
M16	+M17	M18	M19	+M20

M6	M7	*M8	M9	M10
M11	M12	M13	M14	M15
M16	M17	M18	M19	M20



#### 4.6.5 Cluster Summary

The cluster analyses used the Euclidian distance method (K-means). Cluster analysis was used to find the best cluster fit for particular types of respondent by performing iterations. K-means were used to find groups of respondents with similar interests in the criteria influencing location selection decision-making. Here, each object is a respondent, and each variable is a rating of how important the various criteria are to the individual respondent. The sum of squared error (SSE) is used as an indicator of homogeneity. Zero SSE in a cluster of respondents indicates a no error/perfect match, which is very unlikely to happen in the real world. This study applied a clustering approach that has a reasonably low SSE (more homogeneity), not the lowest SSE. The number of respondents allocated to a cluster is balanced and not overly larger than the others in this analysis. The clusters are actionable and meaningful, with lower cluster SSE. Table: 34 shows the cluster formation details such as the number of members, the cluster SSE and the total SSE.

**Table: 34 Cluster formation of 20 moteliers**

Cluster	Cluster	Member	% of total	SSE/Cluster	Total SSE
2 Cluster	Cluster 1	13	65%	0.4	0.6
	Cluster 2	7	35%	0.2	
3 Cluster	Cluster 1	11	55%	0.4	0.5
	Cluster 2	5	25%	0.1	
	Cluster 3	4	20%	0.1	
4 Cluster	Cluster 1	3	15%	0.1	0.4
	Cluster 2	4	20%	0.0	
	Cluster 3	5	25%	0.0	
	Cluster 4	8	40%	0.2	

There have been a number of different proposals in the literature for choosing the suitable number of clusters after multiple runs of K-Means. These include the elbow method, rule of thumb, information criterion approaches, information theoretic approach, choosing k using silhouette and cross-validation methods (Kodinariya & Makwana, 2013). This study used a modified elbow method. This method starts with visual interrogation K=2 and keeps increasing in each step by 1. At some point the value for K the SSE drops dramatically and after that it reaches a plateau when it is increased further. In this study the SSE reaches a plateau after K=4. As a result, four-clusters are chosen. This outcome was confirmed by examining cluster size, whereby no unusually large or very small cluster were formed. Importantly re-examination of survey responses within individual clusters (as evidenced in the quotations provided) provided an important test of internal validity in responses.

Two, three, four and five-cluster analyses were conducted to examine the similarity among the respondents. As can be seen from Table 34, the number of members in each of the cluster is balanced

except for the three-cluster analysis where 55% of respondents fall into the first cluster. The number of clusters is negatively correlated with the SSE scores, indicating that the higher the cluster, the greater the similarity among members. Theoretically, the SSE is zero when the number of clusters equals the number of respondents (no error/perfect match). The two, three and four cluster analyses produced SSEs = 0.6, 0.5 and 0.4, respectively. Individual cluster SSEs are positively correlated with the number of cluster members.

Based on the concept of cluster analysis, the four-cluster analysis presents the most meaningful clusters. Cluster members are balanced in all four clusters. Low cluster SSEs and total SSE indicate theoretically sound clusters. Interestingly, clusters 1 and 2 jointly represent cluster 1 of the two cluster analysis and clusters 3 and 4 jointly represent cluster two of the two cluster analysis. The membership similarity of the two and four cluster analyses indicates that four-cluster analysis is an advanced level clustering of two cluster analysis. The result of five or more cluster shows minimal difference between four and five cluster analysis SSEs meaning four-clusters is the better option. This study tested cluster analysis utilising the results of the AHP analysis because the AHP results revealed a specific pattern.

#### **4.7 Conclusion**

The purpose of this chapter was to present the data from the first and second phases of the data collection and to present the AHP and cluster analysis results. This chapter provided an overview of the data collected in phase one. Analysis of the phase one data was crucial before proceeding to phase two. The second phase used a face-to-face survey. AHP analysis was used, and the output was presented here. This study has also utilized cluster analysis to assess the AHP output and determine underlying patterns. Detailed results of the AHP and cluster analysis were presented in this chapter.

## Chapter 5

### Discussion

#### 5.1 Introduction

This study examines the factors influencing motel location selection and the weights/significance of each factor to motel owners and operators. The study also analyses the nexus between theory and practice. We develop a model for location selection for the New Zealand motel sector. The study examines tourist accommodation sector location theories for their application to the motel sector. The study uses a two-step qualitative lead mixed methods research approach. Thematic analysis was used in the first step and AHP and cluster analysis were used to analyse the data. Prior chapters discussed the research, prior literature, the research methodology and the data analysis results. This chapter evaluates the results and discusses the theoretical contributions and practical implications.

The first section of the chapter summarizes the study's key findings. The second section interprets the results. The third section discusses the theoretical contributions and practical implications. The last section discusses the limitations and provides ideas for future research. This study is a qualitative lead mixed method study. Quantitative methods and analytical tools were used to examine and explain the data in a logical way. The qualitative method explored and refined factors to develop a hierarchy of the factors for decision-making. The quantitative method analysed data to support and explain the qualitative findings. The integration point of the qualitative and quantitative data is crucial to ensure the results are interpreted in a meaningful way and address the core concerns of reliability and validity. This chapter integrates the qualitative and quantitative findings in discussing the results.

#### 5.2 Key findings

The results indicate that all the factors identified from the global literature do not necessarily apply to the New Zealand context. Some factors, such as security, proximity to a metro rail, and government policy are country or area specific. Similarly, all factors that have been tested are not equally important. According to the AHP results, the top 10 influential sub-criteria are return on investment (the gross operating profit); distance from destination; visitor type and spending pattern; an easily visible property/one that is easy to find; capital gain; the historical rate of return; the budget; the pay-back period; the distance from a commercial centre; a unique property location; and self-employment. The 10 least influential sub-criteria are: local tourism strategies; self-recognition and esteem needs; the presence of other motels; air transport; business support policies (such as tax policies); scheduled transport (bus/rail); cultural connectivity; environment and land use policies; employment for family;

and other policies. These sub-criteria were grouped under seven criteria. The identified criteria are grouped and listed by their importance level: financial; location and visibility; non-cash benefit; the business environment; agglomeration; connectivity; and government policy. Though motel owners stated that location selection is crucial, they did not critically analyse this when purchasing their motels. Each owner evaluated the location from their experience and level of understanding. Cluster analysis revealed four meaningful clusters of owners: pure lifestyle; balanced lifestyle; location-based profit-centric; and pure profit-centric. The importance of each factor differs from one cluster of owners to another. The study found no evidence of an existing model of location selection, indicating that this study is the first of its kind. The nexus between theory and practice was found to be ambiguous. Sparse motel location literature and the absence of any standard model for location selection added to this ambiguity. In response, this study developed a model for location selection and identifies future areas of research to improve and generalize the model.

The next section interprets and discusses the results in detail. Quantitative analysis results from Chapter 4 and qualitative findings from the interviews and the open-ended section of the questionnaire are integrated in this chapter to enable the interpretation of all findings in a meaningful way.

### **5.3 Interpretation**

This study used a qualitative lead mixed method approach to explore owners' motel location selection decisions. The collected data were used to develop a model for motel location selection. Data were collected in two phases: in the first phase, data were collected from industry experts using in-depth interviews. In the second phase, data were collected using a face-to-face survey of motel owners. The qualitative data collection included open-ended questions. The other questions were used a specific question format to ensure the data could be used for AHP analysis. Chapter 4 presented the descriptive statistics and the AHP and cluster analysis results. This chapter describes the qualitative and quantitative findings and integrates them using a narrative approach (Fetters, Curry, & Creswell, 2013). Qualitative information and quantitative findings are woven together using a theme-by-theme basis to refine the findings by integration. Quantitative and qualitative data integration dramatically enhance the quality and value of mixed methods research (Bryman, 2006; Creswell & Clark, 2017). Fetters et al. (2013) argued that qualitative data can be used to assess the validity of quantitative findings. They suggested using quantitative data to explain findings from qualitative data and to generate the qualitative sample. If the results are not integrated, then the study will be left with a partial picture of motel location selection, questioning validity and reliability issues (Simmons, 1985). The coherence of qualitative and quantitative findings shows that there is confirmation, expansion and discordance in this study. According to Fetters et al. (2013, p. 2144) "confirmation occurs when the

findings from both types of data confirm the results of the other. Expansion occurs when the findings from the two sources of data diverge and expand insights of the phenomenon of interest by addressing different aspects of a single phenomenon or by describing complementary aspects of a central phenomenon of interest. Discordance occurs if the qualitative and quantitative findings are inconsistent, incongruous, contradict, conflict, or disagree with each other”.

Both confirmation and divergence are discussed through the lens of location theory and the practical application of location theory. From the review of literature, the first gap identified was an absence of research on motel location selection. Hotel literature was used as a starting point. Discussing motel findings using hotel literature is a shortcoming; however, there is no alternative to address this shortcoming. Thematic analysis, AHP analysis and cluster analysis and integration of qualitative and quantitative findings are discussed in the subsequent sections.

### **5.3.1 The study's first phase**

The objective of the first phase of the study was to filter, redirect, contextualize and reshape the theoretical element obtained from the global literature. The first phase developed an AHP hierarchy for the second phase of the research. The integration of both the global literature and New Zealand's sector experts revealed that contextualization is crucial for the validity of research of this kind. Three major observations can be made from the first phase: (i) the influence of location determinants varies from country to country; (ii) there is no available (structured) model for location selection in New Zealand; and (iii) the global literature overlooked and/or completely missed some important determinants.

#### **The influence of location determinants varies from country to country**

This study used the global literature to explore factors affecting motel location selection. After filtering and contextualizing the determinants for New Zealand, it was identified that location determinants and their influence vary from country to country. Some determinants are unimportant for New Zealand but very important for other countries. For instance, the global literature indicates that road density and subway, urbanization, a specific event (i.e., the Olympics) are influential determinants for China (Luo & Yang, 2016; Yang et al., 2015), laws and regulations and the crime rate are influential determinants in Ghana and Taiwan (Adam & Amuquandoh, 2013; Chou et al., 2008; Shoal et al., 2011) and the crime rate, having a subway and parking are important in the US (Li & Du, 2018). Lado-Sestayo, Vivel-Búa, and Otero-González (2020) found important differences in location determinants across different locations. Fang et al. (2019) also confirmed that factors that influence hotel location choices vary across regions. Adam and Amuquandoh (2013) found that the determinants can even vary across

cities within a single country. This study confirms previous findings and validates the need for contextualizing determinants using the first phase of a study.

### **There is no available (structured) model for location selection in New Zealand**

This study found that there is no comprehensive model for motel location selection. Some recent global studies have attempted to develop a model for hotel location selection (Song & Ko, 2017; Yang et al., 2015). However, to the best of the author's knowledge, no study has investigated motel location selection models, either globally or in New Zealand. It was expected that there may be some models being used in the industry, but this was not the case. The interviews with sector experts and motel owners in the second phase confirmed that there is currently no location selection model in existence. This finding indicated a significant gap in the current literature and provided an opportunity to contribute to the motel location selection literature.

### **Global literature has overlooked or completely missed some important determinants**

Some global studies on location selection have overlooked important determinants Chou et al. (2008) developed a fuzzy multi-criteria decision-making model for location selection that overlooked financial factors. Financial factors are arguably the most influential determinant of motel location, but they were not included in the location selection model that they developed (Bunruamkaew & Murayama, 2011; Chou et al., 2008; Yang et al., 2012). The absence of financial factors in a location selection model is a significant weakness. Locations selected using such a model may not be financially viable because of the absence of this factor. This study addressed financial factors and found that financial factors are the most important determinant of location selection. Another critical dimension of location selection is that determinants and their effect can change over time. Kimes and Fitzsimmons (1990) found that though several variables were significant in one year, they were not in other years.

The first phase identified the determinants of motel location in New Zealand, meaning that the objective of the first phase was met. Contextualization using thematic analysis contributes to this study's validity and reliability. Although the scientific literature indicated a gap in the location models, a complete absence of a motel location selection model in practice was a surprising finding.

Previous studies have skipped the conceptualization step and used determinants from the global literature (Chou et al., 2008; Kundakçl et al., 2014) Some studies used experts' panel or investors' group discussions (Lin & Juan, 2010; Newell & Seabrook, 2006) along with the literature to develop AHP hierarchies. This study applied thematic analysis along with in-depth interviews of the experts; this represents an important methodological contribution. It was possible to reveal that though the location determinants vary from country to country, the global literature has overlooked some

important determinants. There is no available model for motel location selection because of the attempt to conceptualize the global studies.

### **5.3.2 The second phase of the research**

The second phase of the study utilized AHP, a component of the multi-criteria decision-making methods, to analyse the data gathered from the face-to-face surveys with the motel owners and operators. Data were gathered using a specific format questionnaire suitable for AHP. This study collected background data about the respondents and their individual motels. Other relevant information was collected via open-ended questions. The questionnaire was designed to capture the full picture of motel location selection. AHP analysis successfully identified the factors affecting motel location selection and their weights in decision-making. This finding successfully addresses the second research objective and answers the second and third research questions. The AHP results identified some notable patterns so cluster analysis was subsequently used to find the existence of meaningful clusters in the AHP output; cluster analysis revealed four meaningful clusters. They were discussed in Chapter 4.

At this point, qualitative findings from the open-ended section of the questionnaire, background data on the owners and motels, and the quantitative analysis results from AHP and cluster analysis have been integrated. The integration of qualitative and quantitative data can dramatically enhance the quality of interpretation. Both the AHP and the cluster analysis findings are integrated with the qualitative findings in subsequent discussion.

### **5.3.3 Discussion of the AHP analysis results**

This section discusses the AHP analysis results. The discussion is based on the weights of the criteria in the AHP hierarchy. The criteria have been discussed in order of their weights identified in Table: 29; financial, location and visibility, non-cash benefits, the business environment, agglomeration, connectivity, and government policy.

#### **Financial criteria**

Motel owners identified that income generation was the primary objective of investing in a motel. The high factor loading of financial criteria in the AHP results confirm that earning a profit is the primary objective of motel investment. This finding confirms the results of previous studies (Day-Yang & Chia-Lee, 2020; Oktay & Sinan, 2014). Day-Yang and Chia-Lee (2020) argued that finance is the most important dimension when considering any investment. Oktay and Sinan (2014) found that investors choose a region(s) where they can achieve maximum profit with minimal investment. Other studies have found that financial factors, especially profit from operations (the room rate), determines hotel

investment choice. Lado-Sestayo, Otero-González, et al. (2016) found that the average profitability of a tourist destination has a positive effect on firm survival. Kimes and Fitzsimmons (1990) defined a good site as an inn with an operating margin of over 35%. This study found that financial criteria account for the highest weight (31.6%) of all location selection criteria and supports the findings of previous studies.

However, some studies did not consider financial criteria when developing their location selection models. Yang et al. (2015) developed a location selection model due to the need for a reliable, unbiased, objective assessment tool. In their location selection model, they considered star rating, number of beds, the years of operation, whether the motel/hotel had a restaurant, road density and subway. Kundakçı et al. (2014) considered geographical conditions, transport and operation management issues. Song and Ko (2017) focused mainly on accessibility for sightseeing, transport and business points, the agglomeration effect and market share. Yang and Mao (2020) focused on transport convenience, the surrounding environment and market conditions. Some studies have totally ignored financial issues in their location selection model (Bunruamkaew & Murayama, 2011; Chou et al., 2008; Yang et al., 2012). Given these findings it could be argued that studies that do not consider financial criteria provide an incomplete picture of motel location selection. Selecting a location without considering financial issues may be a serious threat to the investment. Investment in the location selection will never come to light if the location is selected without considering the budget. The budget/amount available for investment (equity + debt) limits location choice. Owners search for a location that matches their budget (the amount available for investment).

Successful tourist accommodation property investment requires an understanding of the risks and benefits of tourist accommodation properties, and a knowledge of the lodging market (Salakka, 2015). It is also important to understand the changing dynamics of the motel sector. This study found that only three of 20 (15%) motel owners had a professional background in tourism or the motel sector. Eight of 20 (40%) had a university degree in business. Only two (10%) had a degree in tourism. Six of 20 (30%) had a high school education qualification as their highest educational achievement. The respondents' professional and educational backgrounds raise questions about their capacity to understand risk and benefit from an investment point of view. For instance, one respondent, *M10*, was a scientist (biochemist) and suddenly changed her profession. Another respondent, *M19*, a share-milker, entered the motel sector without any educational or professional background. *M19* believes that the motel business does not require any special skills apart from common sense. This was a common belief among most respondents. Financial issues are not always a matter of common sense and require specific knowledge that can make a difference in the outcome of an investment. Respondents' lack of understanding about capital gains and the payback period was concerning. Most



respondents used the historical rate of return as a benchmark to predict future earnings without considering changes in the sector or visitors over time.

The above discussion reveals that financial criteria are major factors to consider in the development of any location selection model because financial issues are directly related to the purchase of the selected motel. At the same time, this study identified concerns about respondents' choice (based on their professional and educational background) to ensure a successful investment.

Motel owners' choices to understand the financial issues appear insufficient due to the lack of educational and professional backgrounds and their perception that the motel sector does not require specialized knowledge about financial issues, but only common sense. A closer examination of the motel owners' capacity to understand financial issues is necessary to provide a more comprehensive picture of motel location choice. It is also crucial to examine the relationship between motel location selection and financial issues. A model that does not include financial factors will provide an incomplete picture. Such a model may result in an unaffordable location, a location that is not financially viable, or lead to the purchase of a motel in a bad location. Researchers must develop innovative location selection models that accommodate financial factors.

### **Location and visibility**

Inadequate understanding of location or market trends that may cause a motel's value to decrease may mean that a motel owner buys a motel in a 'weak' location. It is crucial for owners to select an ideal location. This study found that location and visibility was the second most important criterion among sampled respondents. During the in-depth interviews, experts from an investment advisor background strongly indicated that an ideal location and its visibility is a must for motel survival. They stated that motels in isolated places will struggle to survive, particularly if they use a traditional business model. The survey of the motel owners revealed that location and visibility is important only to some owners (*M6, M9, M20*). They believe that an ideal location will generate demand, provide a competitive advantage and result in profit. This finding is a crucial contribution to the motel literature because it confirms that location provides an extra advantage for financial success. This finding also confirms previous studies that note the importance of motel location Lee and Jang (2011) and Lado-Sestayo et al. (2017).

The question arises: What is an ideal location for a motel? This study has identified that distance from a destination and the visibility of the property are influential for motel location selection. The distance of a motel from a commercial centre is moderately influential. A unique property location was the least influential among the location sub-criteria features. Bull (1994) found a negative relationship between distance from the town centre and room rate (the room rate falls as the distance from the town centre increases), which the findings of this study support. Past research has identified several location-

related attributes. The importance of proximity to a commercial centre and destinations (Chou et al., 2008; Kim, 2010; Lee, Kim, Kim, & Lee, 2010) and this study's findings overlap.

While analysing motel location and choices for visitors in Christchurch, Pearce (1987) found that foreign tourists prefer to stay in motels in the CBD. In contrast, local visitors prefer motels located in the suburbs. These findings indicate that motels, like hotels, need to be careful about their targeted market and location choice. This finding has a strong impact on motel owners, meaning they must select carefully their location based on what type of customers they want to attract and what kind of motel they want to run. This study considered all surveyed motels as one type, but it appears that different motels serve different target groups. Thus, the determinants of an ideal location may vary depending on the target market. Our findings also suggest that location determinants change or weaken/strengthen over time because of the development of the surrounding area, losses or booms related to a particular destination, increased visibility, traffic conditions, general convenience, accessibility to (a) destination(s) and the crime rate in a particular area. These factors should also be considered properly in motel investments. Respondent *M7*'s situation illustrates these issues well. Most of *M7*'s visitors were business visitors who used to visit a nearby coal mine. Following the closure of the mine, *M7* is now struggling for occupancy. Respondent *M4* is a good example of a change of location over time. *M4* entered the motel business in the post-earthquake market when there was a short-term artificial accommodation crisis. *M4* failed to factor this into her calculations. The existing literature does not consider how location changes and does not provide advice on how to select a location that is likely to be profitable in the future. How a location changes is an interesting topic for future research. In this study, motel owners were identified who are suffering as a result of changes from a previous situation. Further research is needed to better understand this issue.

### **Non-cash benefit**

The tourist accommodation literature has argued that non-cash benefit criteria are not purely financial; however, these criteria have an indirect financial effect and influence decision-making. The in-depth interviews with sector experts revealed that non-cash benefit criteria have a strong influence on an individual's ability or motivation to enter the motel business. While they agreed about the influence of non-cash benefit criteria, they disagreed about their ultimate cost and impact. In the surveys, motel owners noted the importance of self-employment, having a place to live, flexibility and work/life balance. This finding supports Rowson (2012) study. The New Zealand motel sector is dominated by small motels managed by owners living at the same property. The AHP results showed self-employment, having a place to live, flexibility and work/life balance were moderately influential when deciding on location. In the open-ended question, respondents explained that they entered the motel business to 'buy a job' and to enjoy a 'flexible life' where they could enjoy a better work/life balance. Many believed that they would gain a place to live for no additional cost. All motel owners

were employed full time running their motels. Most respondents entered the motel business either after retirement (retirement by age/voluntary retirement) or decided to change their profession. The age profile shows that of the 20 motel owners, 17 were over 50 years of age. The motel owners revealed that buying a motel was ultimately buying a job that could be sold later.

This study also explored the influence of employment for family, self-recognition and esteem needs, and cultural connectivity in the location selection decision. The respondents revealed that they wanted to be their own boss while addressing self-recognition. While many had employed family members, employment for the family was found to be the least important sub-criterion. Some of the motels were jointly operated by two members of a family (e.g., *M3* is a mother-daughter management; *M9* is a husband-wife management). In terms of cultural connectivity, it was noticeable that only one owner was originally from the North Island of New Zealand. Three owners were immigrants (two were married to a New Zealander). The remaining 16 owners were from the South Island.

The addition of the non-cash benefit criteria in motel location selection is a major contribution to the theory of location selection. The overall findings are expansionary, meaning that the findings address different aspects of the same issue and expand insights. The owners reported that most of the non-cash benefit sub-criteria were not very influential. However, the answers they provided to the open-ended questions revealed that the non-cash benefit criterion was key to their decisions to pursue a motel on a specific location. It is challenging to examine the exact influence of the non-cash benefit criteria because of their qualitative nature. Further research is needed to comprehend better this criterion. The non-cash benefit criterion also resulted in some unexpected results. The respondents assigned a moderate influence to self-employment, flexibility, and work/life balance. They gave a low importance to living space, self-recognition and esteem need, cultural connectivity, and employment for family. However, once again, in the open-ended questions, the respondents revealed that they had entered the motel sector as a way to provide employment for themselves and, in some cases, their family. They also stated that they wanted to have a flexible life and believed that owning a motel would provide them with a better work-life balance. Respondents showed a strong tendency to stay near their home town (the place where they spent childhood and most of their lives) or at least in the same island of New Zealand. However, they did not recognise this as influential. One possible explanation may be the respondents' assumption that non-cash benefits come with motel purchase as a package.

### **The business environment**

The business environment criterion consist of three sub-criteria: visitor type and spending pattern, seasonality, and competition. This study identified visitor type and spending pattern as a very influential sub-criterion in relation to location selection. Motel owners put great emphasis on what type of visitor is available in a certain location and what their spending pattern is likely to be. Motel

owners reported that they preferred business visitors over any other type of visitor because they are the easiest to host. The motel owners reported paying extra attention to service and cleanliness to attract more business visitors. Three motel owners reported that some tourists use their motel as a transit motel. They revealed that their visitors are happy with their overnight stay and enjoy having a scenic place not far from the airport. Interestingly, these findings echo Lockyer (2005) who reported that guests who are only planning on an overnight stay have a higher level of tolerance in relation to the overall quality of the stay. This group of visitors was termed minimalists by Lockyer (2005). Respondents revealed that motels that had a business visitor client base performed better. Unlike tourists, business visitors are not seasonal and, in most cases, business visitors are returning clients.

The respondents reported that seasonality and competition were moderately influential in terms of their location selection. This finding was inconsistent with some of the common perceptions of Tourism New Zealand and some publications (George Assaf, Josiassen, Woo, Agbola, & Tsionas, 2017; Lado-Sestayo et al., 2017; Lee & Jang, 2012) found that the tourist accommodation sector typically experienced higher premiums during the peak season because of strong demand and, conversely, as a result of competition with nearby tourist accommodations, steeper discounts in the low season(s). George Assaf et al. (2017) argued that the most important performance barrier to a tourist accommodation provider is the competition among them. Lado-Sestayo, Vivel-Búa, et al. (2016) found that location significantly affects the probability of survival. The level of occupancy in a tourist destination is an important determinant of survival (Wilson & Simmons, 2016). A low level of competition reduces the average expected years of survival, whereas the average profitability of a tourist destination has a positive effect on firm survival (Lado-Sestayo, Vivel-Búa, et al., 2016). One possible reason for the findings of this study being inconsistent with previous research could be the client base of the motels (non-seasonal type) and the absence of strong competition.

Further investigation of the business environment criterion is critically important for the following reasons. First, the low priority of seasonality contradicts previous research findings of seasonality in the New Zealand tourist accommodation sector (Wilson & Simmons, 2016). It also raises the question whether the motel sector is free from seasonality. It would be interesting to examine the motel sector's relationship with seasonality. Second, the low influence of competition indicates the need for further research to determine the reason/s for low competition among New Zealand motels. Low competition can be associated with a specific location, motels' specific market segmentation, distance from competitor motels or simply syndication of the motel owners.

### **Agglomeration**

This study found that the agglomeration effect is heterogeneous to motel owners. Some respondents revealed that they gained financially from agglomeration whereas other respondents experienced loss

from agglomeration. This study examined proximity to an economic centre, supporting business units, the availability of labour and the presence of other motels. Although this study confirms the findings of previous studies, it is in a broader sense since all motels were tested as one type of business entity. Previous studies have shown that not all types of tourist accommodation benefit from agglomeration and the effects are heterogeneous with different types, sizes, market segment, location, infrastructure, star rating, brand, competitors, and other elements. From this perspective, this study could not provide a comprehensive analysis of the agglomeration effect in the New Zealand motel sector.

Agglomeration was, however, moderately important to the respondents. One possible reason may be the heterogeneous effect on different motels. Motel owners' hold different perspectives on agglomeration. Some motel owners reported logic contradictory to the basic findings on agglomeration. Agglomeration is a crucial issue for the motel sector and further research on agglomeration of the New Zealand motel sector is highly recommended.

The definition of a motel (provided Chapter 1) indicates that motels have some specific characteristics that differentiate them from other types of tourist accommodation. There is an unofficial classification of motels: highway motel, budget motel and luxury motel. Each serves a different market segment. As a result, understanding the agglomeration effect on motels is challenging. The findings on agglomeration on different types of hotel have been discussed in previous studies; those findings also indicate the need for future research on motel agglomeration.

Canina et al. (2005) suggested that agglomeration within the same geographic cluster with luxury accommodation (the highest quality segmented firms) accrues a price premium compared with competitors with larger proportions of lower-segment competitors. The midscale accommodation providers (without restaurant services) obtain the strongest price premiums. Arturs and Wilbur (2004) concluded the same thing from their study. Luo and Yang (2016) found that budget hotels prefer locations that offer advantages associated with urbanized economies. Mid-scale and budget hotels appear very close to the motel in terms of service characteristics, but further research is needed to determine focal points. (Enz et al., 2008) suggested that accessibility to a major destination, the convenience of transport, safety, star level, and scales have all contributed to the success of a firm. By calibrating the optimal indicators with various scenarios of agglomeration and competition, Canina et al. (2005) demonstrated that performance is more sensitive to agglomeration effects than other competition effects. They explained the positive and negative agglomeration effects and revealed that positive agglomeration effects are mainly caused by benefits associated with differentiation spill over to lower-end firms. Negative externalities of agglomeration are brought about by co-location in a cluster with firms that pursue a low-cost strategic orientation. The most highly differentiated

competitors appear to suffer most from negative spill over, particularly if a high percentage of the other firms in their cluster follow the same low-cost strategies.

For this study on motels, these results show that it is necessary for motel owners to consider the negative aspects and not just the positive ones when analysing agglomeration. Motel owners emphasized proximity to the economic centre (the CBD/local economic hub). However, proximity is not always associated with positive agglomeration. Lee and Jang (2012) found a dual effect on hotel rates in the CBD. Proximity to the CBD allows a firm to enjoy a high room rate in the high-demand season but forces them to discount the room in the low demand season in consideration of the actions of adjacent properties. A higher degree of agglomeration is less profitable, probably because of the greater rivalry that exists as a result of nearby competitors (Marco-Lajara, Claver-Cortés, & Úbeda-García, 2014). An inverted U-shaped relationship is noticed where the benefits of agglomeration decline after a certain level of agglomeration is reached (Lado-Sestayo et al., 2017).

Analysing the effects of agglomeration on the profitability of the motels is important to enable owners to reap the benefits associated with agglomeration. This study raises a crucial question: In analysing agglomeration, what is the position of a motel? More specifically, is a motel a middle-end or low-end form of budget accommodation? Does a motel behave differently from a budget hotel? The agglomeration effect can be examined sensibly only if a motel's position in agglomeration is explored. Further research on the agglomeration effect on motels is crucial to meet today's needs and tomorrow's challenges.

### **Connectivity**

Connectivity criteria emerged as moderately influential. Sub-criteria - connection to attraction and individual transport (car) - were moderately influential. The research found that access to the highway, air transport and scheduled transport (bus/rail) were not influential. There is a precise reason for these findings. New Zealand has many scenic places that are far away from major cities and towns and very limited scheduled transport operates there. As a result, most visitors use cars. People prefer to drive on better-quality roads rather than gravel roads. People also prefer not to use multiple modes of transport while using their individual transport, e.g., using a waterway after a drive, or driving on a gravel road. As a result, connection to an attraction from the motel appeared as important to motel owners. New Zealand's connectivity largely depends on individual transport (car). Air transport and scheduled land transport (bus/rail) network are limited. Transport to an attraction from the bus stop or train station or airport, after using air or scheduled transport, is also often limited or expensive. In short, New Zealand's connectivity depends on individual forms of transport. This is a common phenomenon in the north half of the South Island where the study was conducted. Unsurprisingly, given the New Zealand context, the motel owners identify car connectivity as crucial because most of their visitors use a car as their primary transport mode. Because of the lack of scheduled land transport

(bus/train) and air transport networks, motel owners did not see these two modes of transport as influential. If anything, they explained the presence of a broader transport network as an extra advantage or a bonus for them. All the respondents' motels have highway access and slightly over half of the motels are situated adjacent to a highway. Respondents did not see access to the highway as a major factor maybe because all motels have access to the highway. This finding is very specific to New Zealand and is self-explanatory. This finding is inconsistent with global findings due to differences in transport systems. For example, Lado-Sestayo et al. (2017) found that proximity to transport nodes (a train station) was important due to the high density (strong network) of railways in their research area. They found that distance to the airport was not significant. Lee et al. (2010) found that tourism facilities, especially transport, are important when guests revisit. Aksoy and Yetkin (2017) found that distance to a train station was one of the most important criteria because it is not only a fast, sometimes nostalgic, but is also a joyful way of exploring a city. It is also a very economic means of mobility as is seen in many world metropolises. The distance to the metro station and the tram system was also found to be significant for inner-city mobility. Future research could examine the effect of connectivity on a motel in and outside a city separately to see how the influence of connectivity changes. The current results suggest that air, rail and bus connectivity are less important in New Zealand, but these findings are limited to this study area and context.

### **Government policy**

To address a gap in the previous studies (Yang et al., 2015; Yang et al., 2012) this study tested the influence of government policies on motel location selection. The results shows that government policies are not important to motel owners when selecting a motel location in New Zealand. Sharma, Sneed, and Ravichandran (2007) found that development policies are influential to tourist accommodation owners. Yang et al. (2012) found that government policies are an unexplored determinant and suggested that they have an effect on owners. It appears that government policies such as local tourism strategies, business support policies, environment and land use policies and other relevant policies, generally affect location selection. A positive local tourism strategy indicates the likely growth of future tourism in that area, with the idea that a promising local tourism strategy should create demand for motels. Business support policies (like cash incentives, tax holidays/rebates), easy environmental and land use policies and other relevant policies should logically influence motel location selection decision-making. However, this study found a weak relationship between government policies and motel location selection. One possible reason may be a lack of government incentives and support for expansion of the motel sector. Another reason may relate to motel owners' lack of understanding of government policies as many did not understand government policies. An interesting dimension may be related to the ease of doing business in New Zealand. The importance of government policies in New Zealand is not felt so acutely, unlike in other countries where there are many more government restrictions on the use of land (socialist countries), where access to

government services is not as easy (developing countries), or where the government provides incentives to the tourism sector (some developing and island countries).

#### **5.3.4 Cluster analysis findings**

The AHP analysis provided answers to the first three research questions: factors useful in explaining the location choice for the tourist accommodation sector; factors that owners and operators consider most when selecting a location; and the weights of the factors in the overall decision-making. Before answering the fourth and final research question that relates to the development of a motel location selection model, the findings of AHP revealed some patterns in the results. The patterns indicate critical information about the AHP results. Cluster analysis is a proven technique to examine patterns critically and to find meaningful clusters. This study conducted two, three and four cluster analyses. Four-cluster analysis yielded four meaningful clusters: pure lifestyle motel owners; balanced lifestyle motel owners; location-based profit-centric motel owners; and pure profit-centric motel owners. Cluster analysis can be used to explain the reasons behind the weights of specific criteria from a broader perspective. The clusters are now elaborated.

##### **Pure lifestyle motelier and balanced lifestyle motelier (Clusters 1 and 2)**

The importance of non-cash benefit criteria distinguished the pure lifestyle cluster. The financial criterion is the second most important criterion for this cluster. Pure lifestyle cluster members do not exchange time for money but, instead, focus on quality of life. The respondents informed me that they entered the motel sector because they wanted a lifestyle business and liked the motel sector. Generally, pure lifestyle motel owners choose a motel location where they want to live. In other words, the pure lifestyle motelier has more lifestyle ambitions than classical business entrepreneurial motives. In the sample, most of the *mom-and-pop* motels are pure lifestyle motels. The pure lifestyle motelier cluster clarified a lot of ambiguity about motel location selection. First, it answers why some motel owners select a motel located in a less financially viable location. Second, it answered why some people enter the motel business even when the return is not commercially meaningful. Third, it explains why people appear to enter the motel business without careful financial calculation. As lifestyle moteliers consider the business a lifestyle, they decide to purchase a motel even if it is not the best financial investment option. Some motels generate a profit only good enough to pay the manager (if any manager were employed). This means that the owner's risk premium is very low. If they rely on a hired manager to operate the motel, then they will not generate enough profit for the owner. In this sense, owning a motel is not commercially meaningful. However, lifestyle motel owners accept this type of investment. Some motel owners are emotionally attached to the motel business. Due to the influence of emotions in the decision-making process, unlike large hotels, they put less emphasis on critical financial calculations. Conceptually these findings are consistent with Rowson (2012) even though that study focused on lifestyle entrepreneurs and was not directly related to motel location selection.



Balanced lifestyle moteliers (cluster 2) have a balanced need for lifestyle, profit and a location where they want to live. Balanced lifestyle moteliers have a moderate need for profit and they are more concerned about the motels' financial position than pure lifestyle moteliers.

#### **Pure profit-centric and location-based profit-centric motelier (cluster 3 and 4)**

Pure profit-centric moteliers are distinguished by their expectation of a profit. This cluster chooses a location with the highest expected financial return. They seek out better agglomeration and connectivity. While the non-cash benefits are important to lifestyle moteliers this is not so for pure profit-centric moteliers. This type of motelier generally selects a location in a recognized motel cluster, in a tourist hub or near an economic centre. The pure profit-centric motelier cluster revealed some critical issues regarding motel location selection. First, it explains why some moteliers select a location where there are lots of motels already clustered. Second, it explains why some moteliers do not care about the non-cash benefits. Profit drags pure profit-centric moteliers to a highly clustered location. However, this is a risky strategy: while some moteliers achieve their desired profit, others struggle to survive. Pure profit-centric moteliers try to offset non-cash benefits with financial gain. The pure profit-centric motelier is very different from the pure lifestyle motelier.

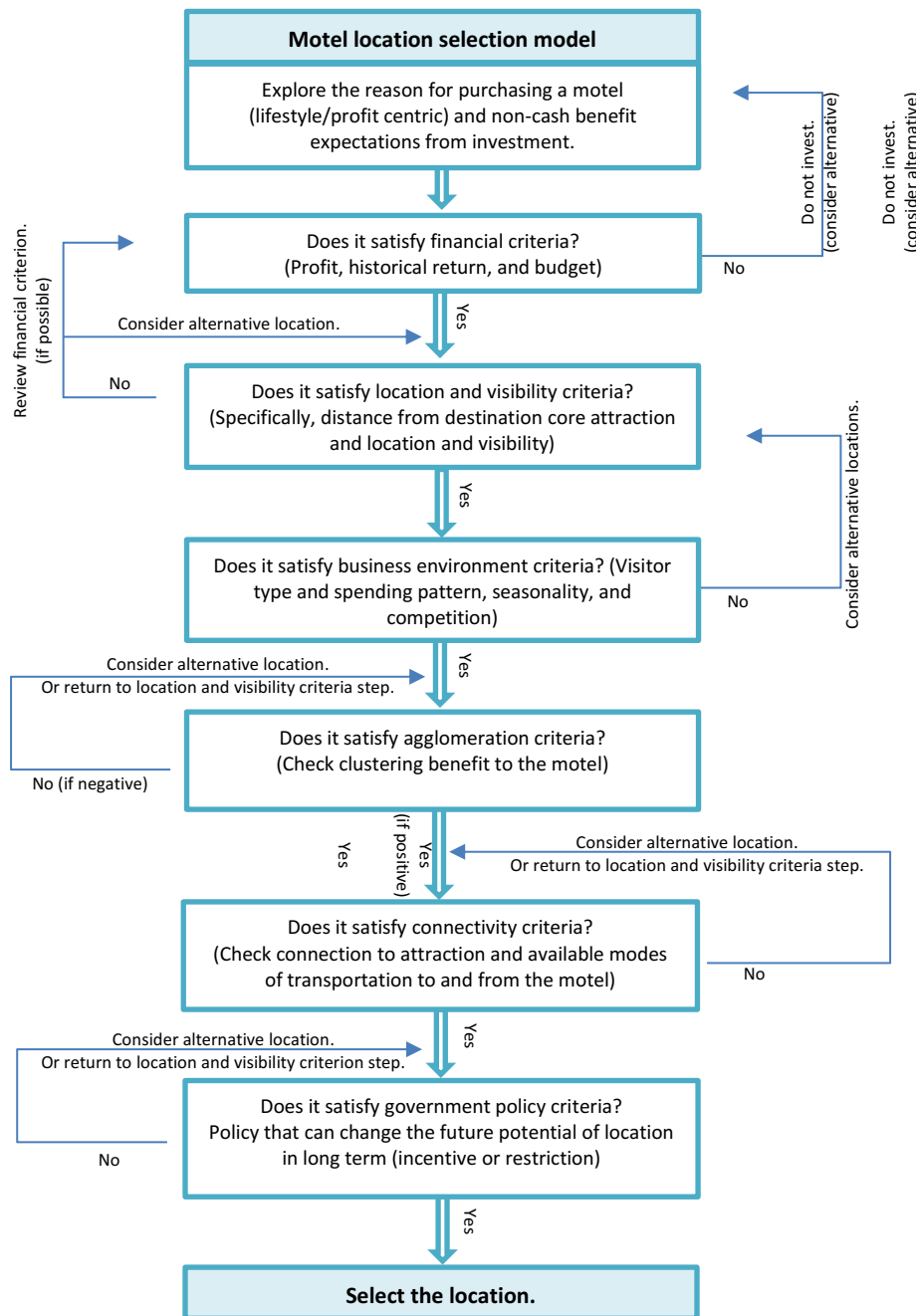
Location-based profit-centric moteliers believe that if they can select an ideal location, the motel will generate the desired profit because of the location advantages. This cluster focuses on selecting the best location and want to reap a location premium. These findings confirm the in-depth interview results of the first phase; some experts emphasized that motel owners should select an ideal location and use proven management strategies to ensure the motel's success.

Cluster analysis revealed a new dimension in the literature of motel location selection. To the best of the researcher's knowledge, no previous study has attempted to organize location selection decisions using cluster analysis. This study has successfully explored the existence of lifestyle motel owners. This finding can explain why people purchase motels that are not commercially viable as they represent a lifestyle choice.

## **5.4 Location selection model**

The final objective of this study was to determine the nexus between theory and practice and to develop a model based on the study's findings. The nexus between the theory and practice of motel location selection is weak. Scarcity of theoretical contributions and practical implications have been identified. This study could not find any previous theoretical framework or practical model available for motel location selection. This study presents a model for motel location selection based on the findings. Figure: 34 presents a motel location selection decision-making model.

Figure: 34 Motel location selection model



**Figure: 34 Motel location selection model**

The above model is a simplified version of a location selection model. The investor must first decide the objective of the investment. The objective includes why the investment is being made and what the expectations are about this investment. They must then decide what type of investment (lifestyle/profit centric or a mix) is being made and sort out self-requirements and expectations. The non-cash benefit should be considered at this stage because the expected non-cash benefits influence other criteria indirectly. Once the objective is determined, the buyer must consider financial factors. A

motel cannot survive without making a certain profit level. An investor also has a certain amount available to invest (equity +debt). Changes in the historical rate of return provide an insight into how the market has been behaving historically. Considering financial criteria is crucial in selecting a location; without the ability to purchase, it is a waste of time. After deciding the amount available for investment and expected profit, the investor needs to select the location. A location with proximity to a destination and good visibility is crucial for the success of a motel. According to the model, an investor must keep checking the location until his/her financial criteria and location criteria match. After selecting the best location from all available options, the next step is to check the business environment of the selected location. Visitor type and spending patterns, competition and seasonality are critically important for the long-term survival of a motel. If the outcome of the business environment criteria results is positive, then the next step is to consider agglomeration in a broader sense. To analyse agglomeration, the first and most important thing is to understand the motel and its location with respect to the agglomeration. The effect of agglomeration varies widely depending on the type of accommodation. While agglomeration may have a positive effect for some forms of accommodation, this does not apply to all. After receiving a positive agglomeration effect forecast, the investor should consider connectivity and the transport network. Before making the final decision, investors should check government incentives or barriers that may significantly affect the location in the future. As this model is very generalized, it can be used for the motel sector globally, with careful consideration of the local context and slight adjustments according to the specific area. It has potential as a decision framework for other aspects of tourism, e.g., hospitality decisions. The conceptualization thematic analysis, the AHP analysis and cluster analysis provide the necessary information for any required adjustments.

## **5.5 Contributions**

This study contributes to knowledge on motel location selection in several ways. First, this study is theoretically important as it has used the theoretical concept of location selection for motel research. The research enriches the methodologies used in tourist accommodation sector location selection by using a qualitative lead mixed research method. This study utilized thematic analysis, AHP analysis of the multi-criteria decision-making, and cluster analysis in a systematic way. This study subsequently transferred the theoretical concept into a practical model to assist investors in their choice of motel location. Although several studies have examined the decision-making of hotel location selection, there is no literature on the same process for the motel sector. Previous theoretical findings and current industry practices were blended to develop the motel location selection model.

An extensive review of the literature provided the theoretical base for this study and an in-depth interview and application of thematic analysis provided a clearer understanding of motel location selection. Previous studies did not focus on motel location selection, so this represents an important

contribution. The concept of refinement and conceptualization is an important contribution for the motel literature. AHP analysis is a proven technique for analysing a decision-making problem involving multi-criteria. Previous studies have used AHP for hotel location selection, but this study added an extra step of cluster analysis to group the AHP findings into meaningful clusters. The cluster analysis successfully revealed various types of motel owner such as lifestyle and profit-centric. This is an addition to the literature on motel location selection. This study also revealed the relationship between the type of motel owner and their preferences for different determinants. Previous studies have drawn conclusions based on the overall AHP results; no studies have clustered the AHP findings to determine the way in which motel owners' preferences vary. One of the most significant contributions of this study is the simplicity of the model. This model does not require owners to purchase or install any specialized software. The model is simple and easy to use. It is perfect for motel owners as a guideline and will assist them in selecting a motel location.

## **5.6 Limitations**

This study has a few limitations that need to be addressed. First, because of the lack of motel location literature, this study utilized tourist accommodation sector literature (especially hotel literature) as a theoretical starting point. The motel location research findings have been discussed and compared with hotel location selection due to the unavailability of motel location literature. Second, location selection and investment in the motel sector are closely related and some respondents could not separate one from another despite the researcher guiding them to focus specifically on motel location selection. Some respondents also informed the researcher that their understanding of motel location was limited when they made their decisions. Third, this study considered all motels as one type of tourist accommodation serving the same market. Unlike hotel categorization, such as high-end or low-end hotel, this study did not divide motels into different categories. It is important to examine the existence of motel categories (if any) to better understand the agglomeration effect. Fourth, unless adjustments are made, the generalizability of this study is limited to New Zealand. However, the research model is generalizable. Finally, the data for this study were collected before the COVID-19 pandemic. As a result, this study presents a pre-pandemic scenario. Location models are not a panacea. Since there are no models for motel location selection, this model is highly recommended despite the above-mentioned limitations. This model is theoretically sound and practically applicable.

# Chapter 6

## Conclusions

### 6.1 Introduction

This study presents a crucial first attempt to understand motel owners' decisions relating to location selection and, in particular, the factors involved in the process. The study has also explored the nexus between theory and practice and developed a model for motel location selection. Location selection in the New Zealand motel sector was examined in the context of location theories. This study chose a qualitatively driven, interpretive-inductive mixed method approach as this was the most appropriate method for the research questions. It also wanted to take advantage of both qualitative and quantitative methods. Data were collected in two phases. Thematic analysis, AHP analysis and cluster analysis were utilized to examine the data. The following conclusions can be drawn from the study's results.

The literature on tourist accommodation location selection identified a broad range of factors influencing location selection. These factors were identified from the location selection literature on hotels, resorts, motels, hostels, and other relevant types of tourist accommodation. It was evident from a review of the studies that not all factors were likely to be influential for the motel sector. This study initially identified 70 influential factors based on a comprehensive, systematic literature review. After conducting in-depth interviews with sector experts, the researcher developed a hierarchy of 31 factors using thematic analysis. The factors were organized into seven groups: financial, non-cash benefit, agglomeration, location and visibility, connectivity, the business environment and government policy. The groups were called criteria and the factors underlying the groups were called sub-criteria. The identification of factors and the hierarchy answer the first research question.

This study used AHP to determine the weights of each factor and to identify the criteria that owners and operators consider most important when selecting a location. AHP used data from a face-to-face survey of 20 motel owners from the north half of the South Island of New Zealand. The AHP findings reveal that the financial criteria/sub-criteria are the most important in choosing a location. After that, location and visibility, non-cash benefit, the business environment, agglomeration, connectivity, and government policy were the next most important determinants.

The top 10 sub-criteria (in terms of weights) were return on investment, distance from destination, visitor type and spending pattern, visibility, capital gain, the historical rate of return, budget, the

payback period, distance from the commercial centre, and having a unique property location. The five least influential sub-criteria were scheduled transport (bus/rail), cultural connectivity, environment and land use policies, employment for family, and other relevant government policies. The AHP result reveals the factors that are important to the motel owners and the weights of each factor, thus answering the second and third research questions.

In addition to AHP analysis, this study utilized cluster analysis to check for any meaningful clusters among the motel owners. The cluster analysis revealed four meaningful, statistically robust clusters: pure lifestyle, balanced lifestyle, location-based profit-centric, and pure profit-centric cluster. The cluster analysis revealed that the influence of a particular criterion varies from one motel owner to another because of the owner's motives for investment: to purchase a motel either as lifestyle or to generate income.

To understand the decision-making process of motel location selection, this study examined the nexus between theory and practice. This study found that there was very little literature on motel location and more surprisingly, that there were no models for motel location selection. Neither the sector experts nor the motel owners knew of any motel location selection model.

This study has examined the critical criteria affecting motel location decisions and developed a model to enable investors to select a good location. Although the development of this model was based on motels in New Zealand, it is possible to generalize the model. The model allows the decision-maker to structure their unique problem, conceptualize it and reflect their priority considerations.

Selecting a motel location is a complex decision that involves the consideration of different factors. Despite some limitations, the developed model represents the first step in the development of a theoretically sound and practically applicable motel location selection model. The next section briefly reflects on the study from a broader perspective.

## **6.2 Reflections**

This study provides a comprehensive understanding of motel location selection. For several decades, the importance of tourist accommodation (especially hotel) location has been addressed from different points of view. Previous research has found links between location and accommodation demand, premium room rates, customer satisfaction, and survival. Previous studies have also emphasized the importance of location selection because purchasing a motel in a bad location is an irreversible decision or, at the very least, is costly to rectify. It is surprising that, despite a plethora of research on the importance of location for tourist accommodation, the motel sector has largely been

ignored. Although the motel sector provides accommodation to one-third of guests in New Zealand every night, very little is known about location selection in the sector. This study has addressed this important research gap.

This study added value in different ways. First, unlike luxury hotels, a motel business is generally small. Investors wanting to buy a motel often do not have money to conduct research into how to choose the best location. This study provides investors with guidelines on motel location selection. Research is now required to enhance knowledge on motel location. Second, knowledge about location selection decision-making will hopefully help investors think carefully about entering the industry. Motel owners need more than just common sense. Knowledge about ideal location selection is important as motel ownership and location selection are major (largely irreversible) decisions. The research objectives and research questions have been answered precisely, which means that influential factors have been identified, their weights have been explored, the nexus between the theory and practice has been examined and a comprehensive model has been developed. All these contribute to knowledge about motel location selection.

Reviewing the literature was a challenge. The absence of motel location research was prominent during the literature review. This study used literature about the whole tourist accommodation sector to identify influential factors. The search resulted in the identification of accommodation specific factors (such as hotel-specific and resort specific factors), area-specific factors (such as proximity to metro and rail for megacities), and region-specific factors (such as the local crime rate). It is not advisable to use these factors without refining and contextualizing them for the specific context, in this case, New Zealand. The first phase of the study was designed to refine the input. The literature review provided insights into methodology used in previous research, current trends and future directions.

Developing a sound methodology for motel location research was a challenge as the main aim was to provide a comprehensive approach to understanding why and how motel owners select their location. This study used a mixed method approach (a qualitative lead mixed method approach) as it offered a systematic process to answer the research questions. The study used a two-step data collection process. Specifically, it used thematic analysis, AHP and cluster analysis. Though the study's focus on a specific area limits the study's generalizability, the methodology and steps used in this study provide a generic model. It is thus possible to use this model for other regions or countries with limited adjustments. Interestingly, the adjustments do not require any methodological changes.

The study's results provide confirmation of previous studies' findings. Some areas need further investigation or need to be expanded. This is mainly because of the specific research area, particular

motel characteristics, and motel owners' individual perceptions. The discussion chapter provided an overview of the results and integrated the qualitative findings with the quantitative findings. The point of integration of the qualitative and quantitative information enhanced the quality of the results by providing possible explanations. In this study, quantitative analysis has been used to support the qualitative research.

### **6.3 Future research directions**

This study successfully developed a comprehensive model and answered its research questions. However, as with any research, some critical questions remain. The lack of research on motel location selection is one major contributor to these questions. Future research exploring motel location selection could contribute to this model by focusing on the study's limitations. This study suggests exploring the following research opportunities.

#### **The position of motels in the hierarchy of the tourist accommodation sector**

It is very important to understand clearly the position of motels in the hierarchy of the broad tourist accommodation sector. It is evident from previous studies that accommodation type, size, star rating, ownership structure, and market segment influence location choice. The same location is not ideal for all types of tourist accommodation. While motels are considered a close alternative to the budget hotel, there are significant differences between them. Future research is needed to explore the position of motels in the tourist accommodation sector. The results will help us understand how agglomeration works and how it affects motels.

#### **Exploring factors influential for motels**

Location selection involves the consideration of numerous factors, even in the same city. Dominant location factors and the extent of their impact may vary from city to city. It is evident from the study's findings that though a lot of factors are significant globally, many are not applicable to New Zealand. This study recommends exploring the constant and variable factors and their influences globally. Location selection index can be developed based on the influence of factors and sub-factors. The index can improve and generalize the model and location decision making. ANOVA test to examine the significance and difference of factors and sub-factors can be interesting. It is crucial for researchers to develop the innovative model since development is crucial for researchers to accommodate the factors explaining motel location choice.

#### **Motel agglomeration**

Further research exploring the agglomeration effect on motels is highly recommended. Previous studies have shown that agglomeration affects different types of accommodation differently. It is crucial to know how investors can benefit from motel agglomeration.



### **Investment in motels**

An individual's motivation for investing in the motel sector can shed light on motel location selection. Motel location selection appeared as one of the decisions of motel investment. An investor's motivation for investing will impact his/her location decisions. If the objective is to own a lifestyle property, then the investor will behave differently from one whose primary objective is to maximize financial return. Non-cash benefit criteria influence motel location choice indirectly. Future research is needed to understand these issues to ensure investors can make the best decisions possible.

### **Chain motels**

Chain and brand motels are common in New Zealand. This study's findings need to be considered carefully in selecting chain motel locations to avoid cannibalizing their own market share. Future research on chain motel location selection, or entering a chain or brand, could be used to enhance the generalizability of the model.

### **The backgrounds of motel owners**

Background information about motels and their owners revealed some striking findings. Eighty-five per cent of the motel owners in the research sample were aged over 50 years old. Many had almost no experience or qualifications in the motel sector. These findings raise questions about motel owners' understanding of motel business issues, their capacity to adopt new changes and entrepreneurial drive. Further research on motel owners' backgrounds can provide important insight into selection decisions.

### **Model testing**

To enhance the efficiency and effectiveness of the model, this study recommends testing this model in a different location. Real-life applications should also help to identify the limitations (if any) and allow the incorporation of new research findings.

## **6.4 Concluding remarks**

This study presents novel insights about and a comprehensive model for motel location selection. The study's results provide crucial information about factors influencing location selection and the importance of each factor. It thus provides a solid base for a motel location selection model. This model is suitable for real life application.

Particular investor risks were identified around poor location choices. Lack of knowledge, over reliance on lifestyle values, unrealistic return expectations, insufficient sector or business experience, and a perception that 'common sense is good enough' for a motel business exposes the motel owners' position to excessive and unmitigated risk. Some motels are not commercially viable when risk premium is considered, or total time spent by the owners in the business is counted. Motel location is

as crucial as financial understanding. Long-term future insight about a location is also crucial, as historical performance reveals the past, not necessarily the future. Agglomeration effects should be investigated carefully for its positive or negative effects. Similar consideration should also apply for connectivity factors. Some locations are strategic, and people stay there, vice-versa. Overall, recognising emotional factors improves location selection decision making. Understanding the market positioning and policy environment is also crucial to avoid future disappointment from motel business and its external business ecosystem. Finally, what if an ideal location (basically the most suitable site under certain budget, knowledge, and other constraints) cannot be found? Alternative investment or no investment is better than a bad investment.

Though this study is comprehensive, there is a notable lack of previous research on motel location selection. The interpretation of the findings is not free from inherent limitations. Because of the sparse motel sector literature, factors influencing location selection were analysed using literature from the whole tourist accommodation sector. Future research on motel location selection should enhance and improve the model. At present, this is the only comprehensive model for motel location selection within New Zealand.

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## Appendix A

### Face-to-face survey instrument

This study is aimed at building a decision hierarchy for the selection of location for motels. The goal is to build a hierarchy of values to understand investment decisions. A series of questions is presented where respondents are asked to choose between two criteria (on a numerical scale). In order to build a decision hierarchy of decisions this study asks a random sample of operators in the sector to rank various factors in a sequential process. These factors have been determined based on my readings of international research and with New Zealand investment brokers and industry leaders.

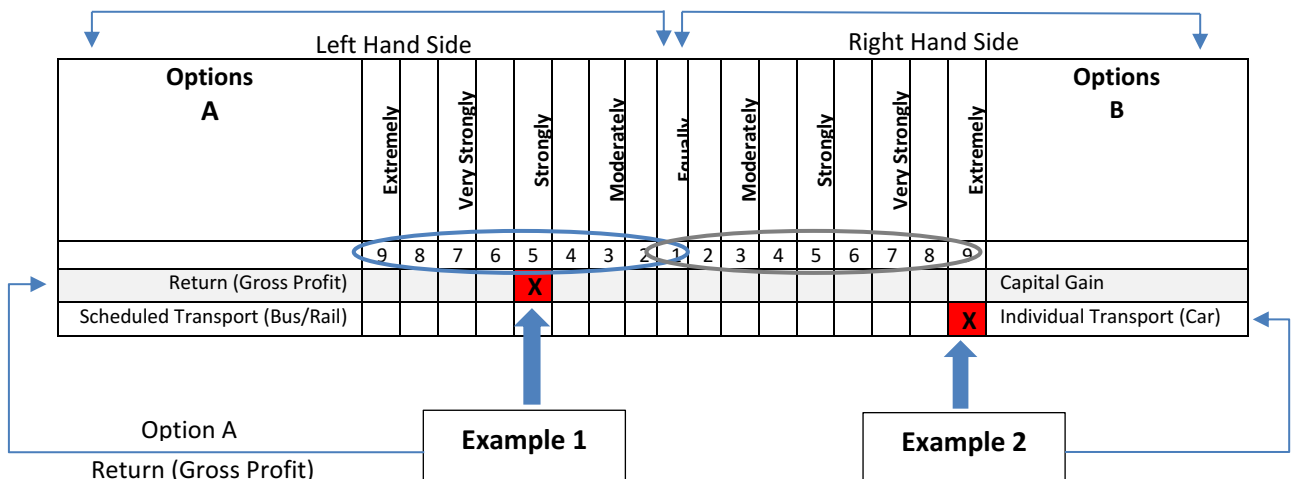
Your scores will not be individually analysed. Responses will be grouped across all participants in the study to provide data for the decision making model.

Explanation of the numeric value / score	Numeric Values
If option A and option B are equally important: Mark/insert	1
If option A is moderately more important than option B: Mark/insert	3
If option A is strongly more important than option B: Mark/insert	5
If option A is very strongly more important than option B: Mark/insert	7
If option A is extremely more important than option B: Mark/insert	9
Use even numbers for intermediates judgements	2,4,6,8

Example:

Given Options A & B, you can judge their relative importance as shown below:

1. If you think the option **'Return (Gross Profit)'** in Option A is strongly more important than **'Capital Gain'** in Option B, then you mark 5 with (X) on the **left hand side**.
2. If you think the option **"Private Transport (Car)"** in Option B is extremely more important than the option **'Public Transport (Bus/Rail)'** in Option A, then you mark 9 with (X) on the **right hand side**.



**Information of the interviewee**

Interview no./code : Informant type : Owner/ operator

Owner / operator	Role (Owner / operator /Manager) :
	Age (grouped) : 25-30, 31-35, 36-40, 41-45, 46-50, 51+
	Gender :
	Ethnicity / Home town :
	Current residence (on-site / other) :
	Professional background (Previous occupation) :
	Education (Highest level achieved) :
	Sector related experience Number motels worked in : Number of motels 'owned' : Number of years in this property :

Motel	Name of motel :
	Number of unit :
	Address / location (GPS) :
	Age of motel (property) :
	Age of the business (Number of years owned) :

Location	How would you define your motel location : Scale (1 to 9)
	Destination (at a destination) :
	Transit (on the way to a destination) :
	Gateway (place to come first to access a destination) :

Special notes (if any):

With respect to Financial Factors																		
Using the scale from 1 to 9 (Where 9 is extremely and 1 is equally important), Please indicate (X) the relative importance of options A (Left column) to options B (Right column)																		
Options A	Extremely		Very		Strongly		Moderately		Equally		Moderately		Strongly		Very		Extremely	Options B
	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Return on Investment (GOP)																		Historical Rate of Return
Return on Investment (GOP)																		Pay-back period
Return on Investment (GOP)																		Capital gain
Return on Investment (GOP)																		Budget
Historical Rate of Return																		Pay-back period
Historical Rate of Return																		Capital gain
Historical Rate of Return																		Budget
Pay-back period																		Capital gain
Pay-back period																		Budget
Capital gain																		Budget

\*Return on Investment => Gross operating Profit (GoP) = Gross Operating Revenue - Gross Operating Expenses.

\*\*Budget = Amount intend to invest / Available for investment

<p align="center"><b>With respect to Non Cash Benefit (Facilities that comes in a non-cash / logistics forms)</b>            Using the scale from 1 to 9 (Where 9 is extremely and 1 is equally important),            Please indicate (X) the relative importance of options A (Left column) to options B (Right column)</p>																		
Options A	Extremely		Very Strongly		Strongly		Moderately		Equally		Moderately		Strongly		Very Strongly		Extremely	Options B
	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Self-employment																		Employment for family
Self-employment																		Living space
Self-employment																		Flexibility
Self-employment																		Work life balance
Self-employment																		Cultural connectivity
Self-employment																		Self-recognition & esteem need
Employment for family																		Living space
Employment for family																		Flexibility
Employment for family																		Work life balance
Employment for family																		Cultural connectivity
Employment for family																		Self-recognition & esteem need
Living space																		Flexibility
Living space																		Work life balance
Living space																		Cultural connectivity
Living space																		Self-recognition & esteem need
Flexibility																		Work life balance
Flexibility																		Cultural connectivity
Flexibility																		Self-recognition & esteem need
Work life balance																		Cultural connectivity
Work life balance																		Self-recognition & esteem need
Cultural connectivity																		Self-recognition & esteem need

With respect to Precinct/ Agglomeration/ Cluster																		
Using the scale from 1 to 9 (Where 9 is extremely and 1 is equally important), Please indicate (X) the relative importance of options A (Left column) to options B (Right column)																		
Options A	Extremely		Very Strongly		Strongly		Moderately		Equally		Moderately		Strongly		Very Strongly		Extremely	Options B
	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Presence of other motels																		Supporting business units
Presence of other motels																		Economic centre
Presence of other motels																		Availability of labour
Supporting business units																		Economic centre
Supporting business units																		Availability of labour
Economic centre																		Availability of labour

\*Presence of other motel includes motels as well as budget hotels, shared apartments, and other accommodation alternative to motels.

\*\*Supporting business units include but is not limited to direct supporting business such as café, restaurant etc. as well as indirect supporting business such as pharmacy, fuel, laundry etc.



**With respect to Connectivity**

Using the scale from 1 to 9 (Where 9 is extremely and 1 is equally important),  
Please indicate (X) the relative importance of options A (Left column) to options B (Right column)

Options A	Extremely		Very Strongly		Strongly		Moderately		Equally		Moderately		Strongly		Very Strongly		Extremely	Options B
	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Connection to attraction																		Access to highway
Connection to attraction																		Individual transport (Car)
Connection to attraction																		Scheduled transport (Bus/Rail)
Connection to attraction																		Air transport
Access to highway																		Individual transport (Car)
Access to highway																		Scheduled transport (Bus/Rail)
Access to highway																		Air transport
Individual transport (Car)																		Scheduled transport (Bus/Rail)
Individual transport (Car)																		Air transport
Scheduled transport (Bus/Rail)																		Air transport

<b>With respect to Location and Visibility</b>																		
Using the scale from 1 to 9 (Where 9 is extremely and 1 is equally important), Please indicate (X) the relative importance of options A (Left column) to options B (Right column)																		
Options A	Extremely		Very Strongly		Strongly		Moderately		Equally		Moderately		Strongly		Very Strongly		Extremely	Options B
	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Distance from commercial centre																		Easily visible / property easy to find
Distance from commercial centre																		Distance from destination
Distance from commercial centre																		Unique property location
Easily visible / property easy to find																		Distance from destination
Easily visible / property easy to find																		Unique property location
Distance from destination																		Unique property location

\*Distance from commercial centre (City/town/suburb)

<b>With respect to Business Environment</b>																		
Using the scale from 1 to 9 (Where 9 is extremely and 1 is equally important), Please indicate (X) the relative importance of options A (Left column) to options B (Right column)																		
Options A	Extremely		Very Strongly		Strongly		Moderately		Equally		Moderately		Strongly		Very Strongly		Extremely	Options B
	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Visitor type & spending pattern																		Competition
Visitor type & spending pattern																		Seasonality
Competition																		Seasonality

<p align="center"><b>With respect to Government Policy</b></p> <p align="center">Using the scale from 1 to 9 (Where 9 is extremely and 1 is equally important), Please indicate (X) the relative importance of options A (Left column) to options B (Right column)</p>																			
Options A	Extremely	8	Very Strongly	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Options B
Local tourism strategy																			Environment and land use policy
Local tourism strategy																			Business support policy (i.e. tax)
Local tourism strategy																			Other policies
Environment and land use policy																			Business support policy (i.e. tax)
Environment and land use policy																			Other policies
Business support policy (i.e. tax)																			Other policies

With respect to Motel Location Section																		
Using the scale from 1 to 9 (Where 9 is extremely and 1 is equally important), Please indicate (X) the relative importance of options A (Left column) to options B (Right column)																		
Options A	Extremely		Very Strongly		Strongly		Moderately		Equally		Moderately		Strongly		Very Strongly		Extremely	Options B
	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Financial factors																		Non cash benefit
Financial factors																		Agglomeration
Financial factors																		Connectivity
Financial factors																		Location and visibility
Financial factors																		Business environment
Financial factors																		Government policy
Non cash benefit																		Agglomeration
Non cash benefit																		Connectivity
Non cash benefit																		Location and visibility
Non cash benefit																		Business operation
Non cash benefit																		Government policy
Agglomeration																		Connectivity
Agglomeration																		Location and visibility
Agglomeration																		Business environment
Agglomeration																		Government policy
Connectivity																		Location and visibility
Connectivity																		Business environment
Connectivity																		Government policy
Location and visibility																		Business environment
Location and visibility																		Government policy
Business environment																		Government policy

Participants response with respect to business operation	
Importance of:	1. Number of units:
	2. Quality of property and chalets:
	3. Cleanliness:
	4. Banding / renaming:

## Appendix B

### Motels of New Zealand



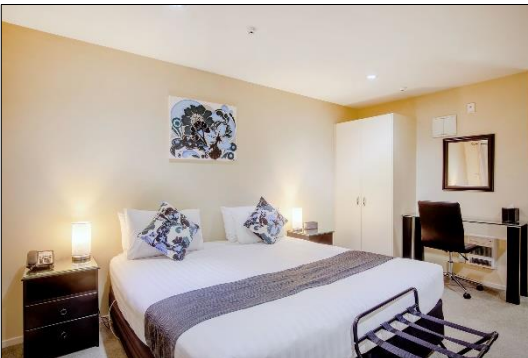
A typical motel in New Zealand.



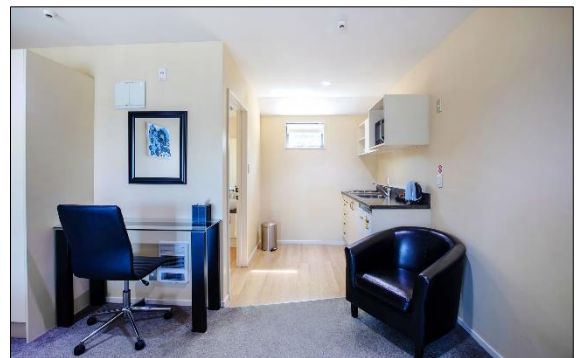
Front view of a motel



Birds eye view of a motel



Inside a motel room- bed view



Inside a motel room- other amenities



A typical motel room with adjacent parking.

*Source: All the photos are from the respondents' sample motels.*

## Appendix C

### Consistency Ratio (CR) of 20 respondents after second iteration

<b>Respondents</b>	<b>Consistency Ratio</b>
M1	8%
M2	7%
M3	9%
M4	10%
M5	8%
M6	8%
M7	1%
M8	6%
M9	7%
M10	8%

<b>Respondents</b>	<b>Consistency Ratio</b>
M11	9%
M12	10%
M13	7%
M14	7%
M15	9%
M16	7%
M17	7%
M18	7%
M19	9%
M20	10%