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**An Investigation of the Factors Affecting Guest Selection of  
Hotel/Motel Accommodation within New Zealand:  
Development of a Management Decision Model**

A thesis

submitted in partial fulfilment

of the requirements for the Degree of

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By

**TIMOTHY LAWRENCE GRANVILLE LOCKYER**

University of Waikato

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## **Abstract**

This research investigates the factors that influence the selection of hotel/motel accommodation in New Zealand. The tourism and hospitality industries are an important part of the New Zealand economy, with tourism producing more overseas income than any other individual industry. It is vitally important for hotel and motel owners and management to understand the factors that affect occupancy in order that they may implement decisions to take best advantage of the assets and obtain the highest return on the investment. A holistic approach or one that looks at the many factors influencing hotel occupancy has been adopted as this encourages an interdisciplinary method to the study of hotel occupancy, and broadens the investigation. This gives the research a particular focus on the problem of occupancy because the analysis includes an extensive spectrum of factors.

The specific objective is to investigate the factors that influence occupancy and to produce the findings in the form of a management decision model. The data for this research was gathered from three sources: first a small group of researchers and industry stakeholders participated in-depth interviews, which comprised open questions asked to determine from their perspective the factors that have the greatest affect on occupancy. The main findings from these interviews were used to develop a survey conducted among hotel decision-makers; management was specifically chosen for this, as it was believed that there would be a broader knowledge and experience base. The final set of data was collected from a survey of potential guests.

In developing the management decision model, a number of tools were employed including neural networks and linear structural equation modelling. These analyses gave a rich result to the findings and this was applied to the development of stochastic<sup>1</sup> management decision models (Goel & Richter-Dyn, 1974; Bekker &

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<sup>1</sup> The way in which the variables within the model relate and impact on each other.

Saayman, 1999), using the main findings from the interviews with researchers and industry stakeholders as a reference point.

The contribution of this research included evidence of: 1). The significant “Gap” between the factors influencing occupancy relating to researchers and industry stakeholders and hotel decision-makers on the one hand and potential guests on the other; 2). The structure and factors involved within a hotel occupancy decision model; 3). The demographic influences on the factors within the management decision model.

## **Research Question**

*Can the factors influencing Hotel/Motel accommodation selection in New Zealand be used in the development of an applicable management decision model: what factors are relevant?*

## **The objectives of this research are**

- *To investigate the factors that have an impact on New Zealand hotel/motel guest room occupancy.*
- *To evaluate the results of the investigation and compare and contrast to previous research.*
- *To apply the results of the investigation to the development of an applicable decision model of hotel/motel occupancy.*



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# CHAPTER 1 INTRODUCTION

This chapter introduces the research by outlining the process and the objectives of the research to be achieved.

*The following is an outline of this Chapter:*

- 
- 1.1 Background to the Research
  - 1.2 Research Question
  - 1.3 Justification for the Research
  - 1.4 Outline of the Research
  - 1.5 Definitions
- 

## 1.1 Background to the Research

The ability for a business to recognise and respond to the environment in which it is operating is important for success. As in many businesses hotel managers frequently come across decision situations that involve uncertain outcomes. As Umbreit (1986) points out, the hotel industry has a reputation for short term cost consciousness. This criticism can probably be explained by considering the intangible short-lived nature of the product sold by hotels. Hotel operations combine both a product and a service; although the product is not entirely service based, it exhibits many of the basic characteristics common to other service industries (Jones, 1989). Unlike physical production, where the environment of the factory does not immediately concern the purchaser, the consumer of the hotel product is influenced by the service facilities (Mullins, 1993). The guest staying in a hotel leaves with no tangible product (Wachtel, 1984); the guest's satisfaction will be influenced by the location, furnishing, decoration and ambience of the hotel. The customer becomes part of the service process, where the services are created and consumed simultaneously (Medlik, 1989).

The planning process is also made more difficult because of the perishable nature of the product offered. The revenue gained from the letting of the hotel room that may stay unsold on any one night cannot be recouped later, it is lost forever

(Mullins, 1993). For hotels, in times of fluctuating demand for accommodation the long investment period to add additional rooms results in an inability to satisfy higher than normal demand. Hotel management then must decide the best use of a limited number of rooms (Bitran & Mondschein, 1995).

The need to maximise profit and to sell each available room each day requires a good understanding of the factors that affect occupancy, and their relationship to each other (Jones & Hamilton, 1992). This understanding gives management the opportunity to take appropriate action to achieve the desired result.

The factors affecting occupancy can be classified as internal and external. There are some factors that management has the ability to directly influence such as staff training, levels of staffing, facilities offered, management of demand and ambience, while others such as government policies, international economic conditions and the environment are not in the direct control of management but need also to be understood and considered so that the appropriate action can be taken. Also, the guests staying in a hotel come from different groups such as international and domestic tourists, international and local business people, special function groups; each of these have somewhat different needs and expectations for their accommodation.

Within a hotel the sale of rooms is not the only profit centre; many other areas are directly affected by the sale of rooms, such as restaurants, special function and reception areas, and retail outlets (Edwards & Ingram, 1995). These facilities can add considerable income to a hotel operation. Therefore the occupancy of a hotel has a flow-on effect upon the overall financial viability of the operation.

This research will explore the literature to establish a theoretical basis; analyse the factors involved in the selection of hotel accommodation which will involve a multi disciplinary, holistic approach, considering both internal and external factors influencing occupancy. This will be undertaken by the use of qualitative and quantitative research and will be carried out through the gathering of three data

sets: the first comprising an in-depth interview with researchers and industry stakeholders; the findings from this will be used in the development of a survey of industry decision-makers, which in turn will be used to develop a survey of potential guests. This cumulative approach, where each study builds on the one before it, considers three perspectives and will therefore enhance the overall validity of the research. The results will be used to develop a management decision model of the factors affecting hotel occupancy in New Zealand, and to illustrate the applicability of the findings to management.

## **1.2 Research Question**

***The question addressed in this research is:***

- *Can the factors influencing Hotel/Motel accommodation selection in New Zealand be used in the development of an applicable management decision model: what factors are relevant?*

The research will adopt a holistic approach and proposes to:

- Identify Factors that affect room occupancy.
- Collect data from three principal perspectives in the hotel industry: researchers and industry stakeholders, hotel decision makers and potential guests.
- Determine relationships between these factors.
- Analyse and compare data gathered from the different groups.
- Use factors in development of a management decision model.
- Illustrate the application of such management decision models.

## **1.3 Justification for the Research**

Many authors have written about factors affecting the optimisation of hotel occupancy, but these views have tended to be from specific disciplinary

frameworks such as “Total Quality Management” (Hall, 1990), “Guest Expectations” (Parasuraman, Zeithaml, & Berry, 1985), “Yield Management” (Kimes, 1989), or the “Effects of Government Policy” (Mullins, 1993). This segmented approach has, to a large extent, been based upon individual academic disciplines, but little research has been undertaken using a multi disciplinary approach where the individual academic disciplines (Marketing, Human Resources, Economics etc.) come together to aid an understanding of hotel occupancy (see Chapter 2). As a result the relationship between the different factors affecting hotel occupancy is not well understood therefore the research will bring these factors together. From this understanding a management decision model will be developed which incorporates relevant factors that have an affect upon occupancy. This model will simulate the ‘real world’ environment and give management a practical application of how the factors influence occupancy.

## **1.4 Outline of the Research**

The following is a brief outline of each chapter of this research.

### ***Chapter 1***

Chapter one gives the reader an overview of the research, accomplished through four sections. Section 1.1 gives a general background to this research by introducing the decision process of the hotel industry, the influence of the guest and satisfaction on purchase decisions, and the desire to maximise room occupancy and the factors affecting it. Section 1.2 details the research problem, and lists some of the factors involved in that problem. Section 1.3 details justification for the research, and the multi-disciplinary nature and holistic approach of the research. (Section 1.4 is this section.) Section 1.5 contains important definitions used in the research.

## ***Chapter 2***

Chapter 2 discusses significant prior research. This begins by taking an overview of the tourism and hotel industry and indicating its importance within New Zealand and international economies, followed by a discussion of the significance of hotel occupancy, and its impact on the profitability of a hotel. A holistic approach to hotel occupancy is then discussed, giving examples of the development of a model. Previously published models with their utility, the development of decision models, details of the development of various types and purposes of models are then discussed.

## ***Chapter 3***

Chapter 3 discusses the research methodology in detail. This includes a discussion of the characteristics of the hotel industry, the procedure and justification for the research methods used and ethical considerations. Justification for an interdisciplinary approach to the investigation is given along with a discussion of the three methods of data collection used, and an explanation of how each set of data was analysed.

## ***Chapter 4***

Chapter 4 describes the initial analysis of the data collected through the three sources: 1). Research and industry stakeholders, 2). Hotel decision-makers and 3). Potential hotel/motel guests. The data are evaluated generally in sequential order. Brief comments are made on salient points during the analysis, but no overall conclusions are reached.

## ***Chapter 5***

Chapter 5 brings together the various factors affecting hotel/motel occupancy as developed from Chapter 4. The factors are drawn together for the development and discussion of a decision-making model. The data from the open questions in the in-depth interviews are used as a basis for the order in which the data are discussed. The data from each of the investigations are organised into a set of

models, bringing the salient points from each of the investigations together. Each of the models and the attached data are discussed in light of significant prior research highlighting significance and differences from previous research. The overall objective of this chapter is to answer the research question.

### **Chapter 6:**

Chapter 6 is the conclusion detailing the significant findings of the research. The chapter also contains information on the direction of future research resulting from this research. Section 6.1 describes an overview of the research chapters. Section 6.2 gives a summary of the findings and introduces a meta model. Section 6.3 discusses research limitations. Section 6.4 presents implications for further research. Section 6.5 contains the final conclusions of the research.

## **1.5 Definitions**

The following are definitions of relevant terms used in this research:

<i>Disconfirmation:</i>	Disprove, invalidate.
<i>Element:</i>	Any of the parts that make up a whole.
<i>Factor:</i>	A circumstance or influence that contributes towards a result.
<i>Exogenous:</i>	Originating outside an organism, relating to external factors which influence an organism.
<i>Gestalt:</i>	A system of thought that regards all mental phenomena as being arranged in patterns or structures.
<i>Hedonic:</i>	The Greek god of pleasure. (Hedonic scales ask "is it a good example of its type, or is it made well?")
<i>Hospitality Industry:</i>	Any business whose main objective is the sale of Food, Beverage and accommodation to those away from home.
<i>Kurtosis:</i>	A measure of the extent to which observations cluster around a central point.
<i>Meta Discipline:</i>	A subject which can discourse about the content of other subject areas.
<i>Rack rate:</i>	The standard rate or price of a hotel room.
<i>Skewness:</i>	A measure of the asymmetry of a distribution.
<i>Stochastic Model:</i>	Models that depend on inputs that are influenced by chance or estimated with uncertainty
<i>Tourist:</i>	"A temporary visitor staying at least 24 hours in the country (or region) visited and the purpose of whose journey can be classified as – a. leisure, b. business, c. family, d. missions, e. meeting." (World Tourism Organisation, 1996)

## **CHAPTER 2 SIGNIFICANT PRIOR RESEARCH**

### **2.0 Introduction**

The objective of this chapter is to identify research issues and to build a theoretical foundation upon which the research is based by reviewing the relevant literature. This is achieved by discussing the tourism industry internationally and in New Zealand and its importance within the economy, focusing on the accommodation industry and its place within tourism as a whole, the importance of occupancy within the accommodation industry and the identification of factors influencing occupancy. The interdisciplinary nature of the research is taken in account along with the concepts of the development of hotel occupancy models. Previously published models are explored and used as a reference for further development.

*The following is an outline of this chapter*

---

2.0.	Introduction
2.1.	International and New Zealand Tourism
2.2.	Hotel Occupancy and its Importance and Influence on Profitability
2.3.	A Holistic Approach to Hotel Occupancy
2.4.	Internal & External Factors Affecting Hotel Occupancy
2.5.	The Development of A Model
2.6.	Previously Published Models
2.7.	Summary
2.8.	Direction for this Research

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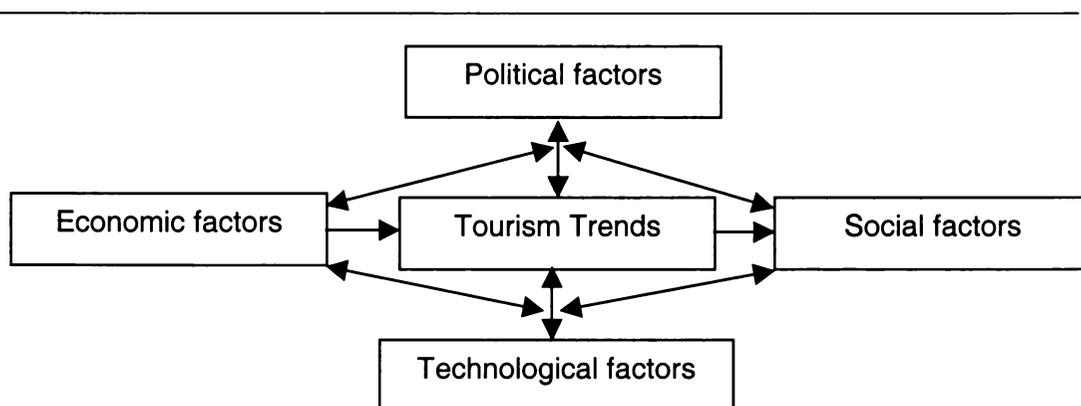
### **2.1 International and New Zealand Tourism**

To be able to understand the factors that influence occupancy within hotels it is first helpful to understand some of the salient characteristics of both the tourism industry and (more specifically) the products offered by hotels. This section introduces the tourism industry's worldwide development growth and characteristics, and the impact that tourism has had on New Zealand and specifically the hotel industry in order to place this research in context. It attempts

to comprehend the importance of tourism and the accommodation industries as a whole, as a basis for further discussion.

### ***International Tourism***

Tourism is an expanding industry with global tourism growth between 1995 and 1996 of 7.6 percent (%) resulting in over US\$ 423 billion in receipts (World Tourism Organization, 1997), and having increasing economic impact in many countries (Leiper, 1990). Tourism in 1997 was the third largest economic activity in the world, surpassed only by oil and motor vehicles (Sinclair, 1998). In 1998 it was estimated that over 800 million tourists crossed frontiers, which gave New Zealand a 0.22% share of international tourists. In 1998, New Zealand's share of international tourist movement was down .8% from the previous year (1,484,512 year ending December 1998), but by March year ending 1999 it was up 11.5% on the previous year (Griffith, 1999).



**Figure 2-1 Factors Affecting Tourism Growth**

(Hall, 1997, p.2)

The growth in international tourism consists of a complex relationship between a number of factors (New Zealand Tourism Board, 1994a). Hall (1997) states that tourism trends and developments are influenced by four factors, illustrated in Figure 2-1.

Each of the factors from Figure 2-1 interact. Changes in the economy of a country have several effects: they influence the development of tourist facilities and infrastructure; they influence the spending patterns as well as the ability of the residents to travel overseas. Social factors influence the shape of the tourism market by the affect they have on consumption and demand; the interaction between the tourist and the host community causes substantial impact on society.

Economic growth, along with the growth in demand, has a technological effect on development. While the development of wide-body jets has allowed for the transportation of larger numbers of tourists over longer distances with a reduction in cost per passenger, growth in other forms of transportation such as road and rail and lower unit costs has made many more destinations available to the tourist. The introduction of technology in the tourism resale industry has meant the availability of a greater amount of information to prospective customers along with easier ticket purchasing and booking.

Political factors have influenced the development of tourism, as governments have changed their legislation to permit tourism development. The desire of many governments to generate overseas earnings through inbound tourists has influenced a commitment to opening up their country. In turn this has encouraged the community to travel. Myanmar (Burma) is an example of a country where consideration of political acceptability has influenced the decision to promote tourism (Hobson & Leung, 1997). The government promoted travel outside the country and thus made it possible for a larger number of its people to travel internationally.

The effects of economic, political, social and technological factors are cumulative and interrelated. They combine to determine the appeal of a destination, the ability of tourists to get to the destination along with sustainability of the environment (Hall, 1997). Most models of tourism demand have attempted to explain changes by measuring tourism receipts (expenditure) or arrivals

(departures), at the aggregate, cross country points (Sinclair, 1998). Archer (1980) lists four of the most important variables influencing demand for travel. An abridged list is presented in Table 2-1; this has a close similarity to other suggested models (Johnson and Ashworth, 1990; Sheldon, 1990; Sinclair, 1991).

---

**Table 2-1 Variables Influencing Demand for Tourism**

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1. The income of the potential tourist.
  2. The cost of travel.
  3. Consumer price indexes of the tourist-generating and tourist-receiving countries.
  4. Currency exchange rate between the tourist-receiving and tourist-generating countries.
- 

Archer, 1980, p.6

As world tourism has grown, so also has New Zealand tourism, which has shown a steady rise over an extended period.

### ***New Zealand Tourism***

The number of international visitors coming to New Zealand in the twelve months ending December 1996 was: on holiday 848,551, a change of +6% for the year ending December 1996; visiting friends and relatives 346,723, a change of +13%; and business 163,753, a change of +8% (New Zealand Tourist Board/Statistics, year ending December 1996).

New Zealand international tourism is the largest single earner of overseas funds. At the start of the decade foreign exchange earnings by New Zealand equalled NZ\$2.5 billion. This is estimated to increase to NZ\$9 billion by the year 2000 (Burdon, 1995) representing 180,000 to 200,000 full time equivalent jobs (New Zealand Tourism Board, 1996a). For an increase of NZ\$1 million tourism gross expenditure, 23 full time equivalent jobs are created and NZ\$2.43 million in household income is generated in the economy (Lim, 1991).

The main benefit from tourism as viewed by a community is the additional jobs created, but some negative social impacts can arise from the seasonal and menial

nature of much of the work (Lawson, Merrett & Williams, 1996; Pearce, Gianna, & Glenn, 1991). Tourism results in a change to the host culture (Milman & Pizam, 1988), though its influence is almost impossible to disassociate from other influences such as television, (Marsh & Henshall, 1987). Tourism impacts on the natural environment are related to social impacts through the quality of environment provided for host communities (Maddox, 1985).

Table 2-2 illustrates the international visitor arrivals to New Zealand for the year ending July 1994 to 1996. There are several factors influencing the growth in tourism, which includes the external view of New Zealand as a place to visit, and to a greater extent the availability of transportation to New Zealand, as well as the changes in international tourist disposable income (New Zealand Tourism and Publicity Department, 1981).

**Table 2-2 International Visitor Arrivals to New Zealand, 1994-96 (year ending July)**

Arrivals	1996 (000)	% change	1995 (000)	% change	1994 (000)
Australia	418.9	5	339.3	8	370.8
The Americas	187.0	-5	196.6	2.9	191.2
Europe	259.4	2.8	252.4	4.8	240.8
Japan	162.4	9.4	148.4	3.8	143.0
Asia	313.0	13.8	275.0	30.5	210.7
Other	133.2	27.2	104.8	12.8	92.9
Middle East	6.8	7.2	6.4	18.8	5.4
Africa	12.5	12.5	11.1	-11.5	12.6
Pacific Islands	57.5	1.2	56.8	9.8	51.8
New Zealand	11.4	24.7	9.1	21.6	7.5
Other	45.0	111.3	21.3	36.4	15.6
<b>Total</b>	<b>1474.1</b>	<b>7.1</b>	<b>1376.5</b>	<b>10.2</b>	<b>1249.3</b>

New Zealand Tourism Board, 1996b

The reasons why international visitors come to New Zealand depend a great deal on their country of origin. The reason for Australian visitors in 1997 was 34% on holiday, 35% visiting friends and relatives (VFR), 21% business and 10% other;

this is contrasted by South Korea with 86% on holiday, 6% VFR, 2% business and 6% other.

Much of the research into the full impact of tourism on the New Zealand economy is difficult to estimate, because of lack of a clear framework in which to work (Duncan, Clough, & Lim, 1992). This difficulty comes partly from the large number of different definitions of tourism. It is suggested that tourism can best be seen as a complex set of inter-related and inseparable activities - travel, accommodation, sight-seeing, entertainment, and other services (Jackson, 1986). But, as indicated by the New Zealand Tourism Board (1997), it is important to generate synergy between individual supplier and operator activity.

One of the largest growing markets over the extended period has been from Asia. The factors which Asian visitors reported as the most significant reasons to visit New Zealand were the scenic beauty and the relaxing and peaceful quality of the countryside (Taupo Visitor Industry Study, 1996).

The development of financial instability in several Asian countries since the end of 1997 has had a marked impact on New Zealand tourism. The number of tourists especially from South Korea and Thailand dropped sharply in 1998. Air New Zealand and Qantas suspended a number of flights to and from Korea. The Korean market, which was 120,000 in 1997, is estimated to have reduced in 1998 by 75 % (Boland, 1998). Mr Peter Laurensen, the Tourism Board's Regional Manager for Asia, indicated that income from South Korea would fall from \$233 million in 1997 to less than \$75 million in 1998. This has had a flow-on effect with other Asian countries. For instance, the number of Thai tourists in January 1998 decreased by nearly 60 % (Boland, 1998).

An integral part of the tourist experience for many is the accommodation in which they stay. Tourists come to New Zealand for a number of different reasons. Table 2-3 classifies the international tourists into their purpose of visiting New

Zealand under the categories of holiday, visiting friends and relatives, and business.

As illustrated a large number of visitors to New Zealand come under the category of those visiting friends and relatives. However, if these visitors stay with those they are visiting, the impact on accommodation requirements is limited. In 1987 accommodation and meals earned NZ\$350 million in foreign exchange, or almost 18% of total foreign exchange earnings for tourism in New Zealand (\$1,950 million). By the year 2000, extrapolating the same percentage to the estimated earnings shows that accommodation and meals may be worth NZ\$1,615 million (Directions in Foreign Exchange Earnings, 1987).

**Table 2-3 New Zealand Visitor Arrivals by Purpose, year ending July 1996**

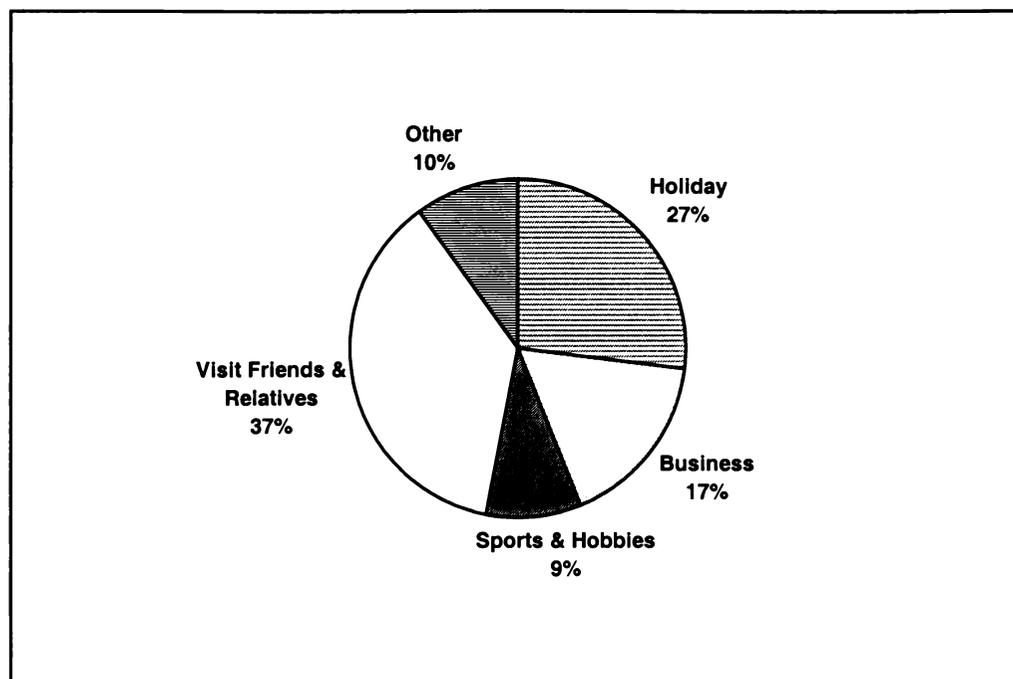
Country/Region Of residence	Holiday	VFR	Business
Australia	142,668	148,544	86,146
The Americas	116,291	29,384	20,017
Japan	142,523	5,491	6,181
Asia	231,983	34,108	18,237
Europe	147,974	72,279	19,250
Other	41,120	40,093	8,892
<b>Total</b>	<b>822,559</b>	<b>329,899</b>	<b>158,723</b>

New Zealand Tourism Board, 1996b

Hotels are an integral component of the tourism experience. Although many tourists use the accommodation as simply a place to stay overnight, it also plays an important part in the tourist expectation and satisfaction of their overall experience (Oliver, 1993; Cadotte & Turgeon, 1988).

The rapid growth of tourism impacts on the hotel and resort industry (Chon, 1996). Given the background of continuing growth, appropriate accommodation is vital (New Zealand Tourist and Publicity Department, 1985). Within New Zealand this demand is also very seasonal, with high levels of demand between October and March. This coincides with the peak demand for accommodation by domestic

travellers (Harraway, 1998) and along with growth in tourism puts a lot of pressure on hotels in some regions for available accommodation.



**Figure 2-2 Why Domestic Visitors Travel Within New Zealand**

(New Zealand Tourism and Publicity Department, 1990)

A survey conducted by the New Zealand Tourism and Publicity Department (1990) shows the reasons why New Zealanders travel within New Zealand. As Figure 2-2 illustrates the reasons for domestic tourism are varied. While some tourism operators claim that visiting friends and relatives is not a profitable segment of the tourism industry (Harraway, 1998) resulting in a minimal impact on hotels, other groups such as business travellers have a very significant impact on accommodation in hotels. Research indicates just as high a level of expenditure in non-accommodation sectors. There are strong indications that the growth will continue and even accelerate in the future. Despite the recent (1987) "Asian Crisis" where the visitor arrivals dropped 13 % (Walsh, 1998), the overall

predictions are for strong on-going growth of up to 10 percent per year (Espiner, 1999).

The next section further discusses the accommodation sector of tourism, and in particular the importance of the levels of occupancy, how this impacts on the profitability of an accommodation establishment and its importance to viable operation. It also discusses the importance of this study in better understanding the expectations and satisfaction of those staying in accommodation.

## **2.2 Hotel Occupancy and its Importance and Influence on Profitability**

The previous section discussed overall international and New Zealand tourism, its impacts and influences. This section discusses hotel occupancy and specifically its importance in profitability within the accommodation industry.

The travel and tourism industry comprises a number of components. Table 2-4 outlines an abridged list.

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**Table 2-4 Components of the Tourism Industry**

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- Lodging Operations - hotels, motels, resorts, home stay.
  - Transportation Services – Ships, Aeroplanes, Buses, Trains.
  - Food and Beverage Operations – Restaurants, Snack Bars, Function Facilities, Bars/Taverns.
  - Retail Stores – Gift Shops, Souvenir Shops, Shopping Malls.
  - Activities – Recreation, Entertainment, Meetings, Sports Events, Art Festivals.
- 

Steadmon & Kasavana 1988, p.5

As illustrated in Table 2-4 hotels are part of a wider industry, that of tourism, travel and retail. The objective of a hotel is to “provide necessary or desired products and services” (Steadmon & Kasavana, 1988, p.3) to their guests. While hotel accommodation is an important component of international tourism, international

tourists are not the sole users of hotel accommodation. There are also domestic business users, domestic tourists and others on long and short-term stay. The needs and expectations of each of these groups varies. For example the international tourist might be simply looking for a room after a long day on a tour bus, while a businessperson might be looking for accommodation in which to have meetings, entertain and conduct business. International visitors stay in a number of different types of accommodation with 36% in private homes, this is because of the high number of Australians visiting friends and relatives in New Zealand (Harraway, 1998).

The hotel industry is a very diverse industry; the size and scale varies from hotels with thousands of accommodation rooms to those with just four. "The term 'hotel' covers boarding-houses, inns, guesthouses, bed and breakfast establishments, unclassified hotels, in addition to 1,2,3,4 and 5 star hotels" (Buttle, 1986). Within New Zealand the size of hotels generally is much smaller than those internationally, with the largest hotel being the Sky City hotel (344 rooms) that opened in March 1996.

It is not always clear what a hotel is (Steadmon & Kasavana, 1988), therefore although the word hotel is used, this may include other parts of the accommodation industry. For this research the word 'hotel' will be used to denote a commercially run establishment providing lodging, not the New Zealand common-use definition of a public house. The word 'motel' will be used to denote roadside accommodation catering for motorists.

### ***2.2.1 Characteristics of the Hotel Industry***

The characteristics that can be identified, which of themselves are not unique to hotel management, outline a particular environment in which hotels operate. These characteristics include physiological and psychological, along with a host of other considerations, as suggested by Nailon (1982) and illustrated in Table 2-5.

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**Table 2-5 Hotel Industry Characteristics**

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- The activities are concerned with satisfying basic physiological needs (shelter, hunger, thirst, etc) of customers.
- These needs are accompanied by more complex psychological ones, which also need to be satisfied, eg identity, status, security.
- Satisfactions obtained by customers are individual and contain only a few factors common to all customers.
- Satisfactions are transient; satisfaction of elementary needs leads to more complex ones emerging during the interaction with the business.
- There is an immediacy about customer needs whose satisfactions cannot be deferred or regressive, antagonistic and hostile behaviour may result.
- The customer becomes part of the product, because as a user he/she influences other customers.
- A large part of the product includes the customer and is therefore uncontrollable and predictable to only a limited extent.
- Interactions with the customer are usually of a short duration.
- Many staff/customer interactions are unsupervised and tend towards a personal relationship.
- Expectations of the customer about employees' behaviour sometimes generates stress and ambiguity of authority (tipping).
- The product is transient; a meal or bed unsold cannot be stored until a later occasion.

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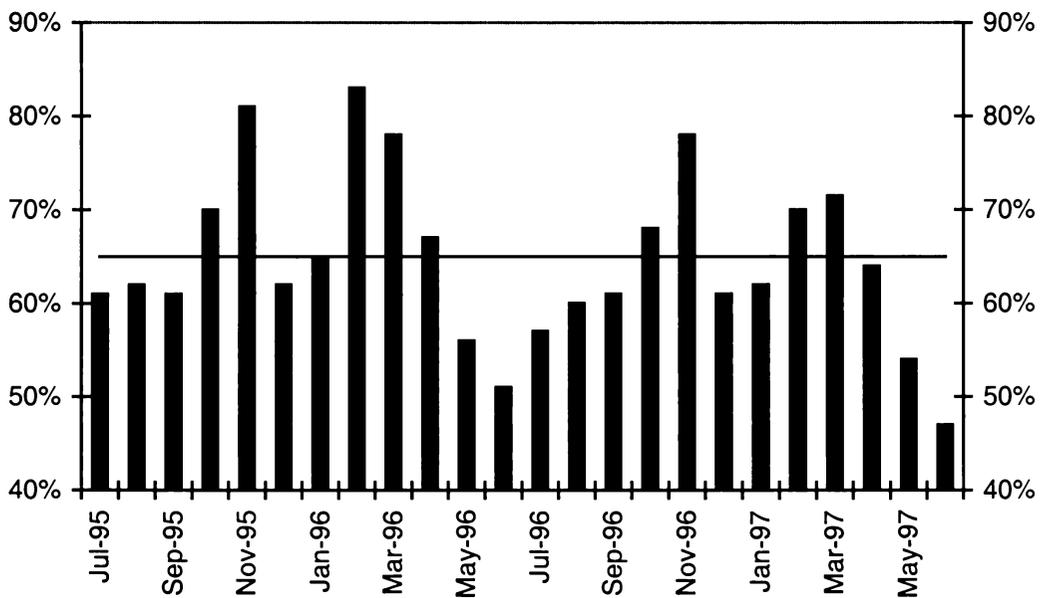
Nailon, 1982, pp.139-140

Table 2-5 paints a picture of the characteristics of an industry that is heavily reliant on the interaction between the guest and the employees of a hotel, and of a product that is difficult to quantify and measure (Hope & Mühlemann, 1997; King, 1986). The major characteristic, which is common in almost all situations, is that the product offered by hotels makes them part of the service sector (Buttle, 1986).

The occupancy of the rooms contributes the majority of revenue and profit of a hotel. Because the marginal cost of selling a room is relatively low and room sales lead to other sales in the hotel's other facilities such as restaurants and bars, it is important that the number of occupied rooms is maximised (Chin, Barney & O'Sullivan, 1995). Hotels enjoying profitability are those with the right mix of product, quality, price and service (Sheridan, 1995).

What is important to a hotel is the return on the investment. The development of a hotel involves a large investment in fixed costs (McEvoy, 1997). The evaluation of the use of this investment comes through the return on the hotel's facilities. There

is a close relationship between operating efficiency of a hotel and the return on investment as expressed in its financial statements (McEvoy, 1997). Occupancy rate is a way of measuring the success or failure in the utilisation of hotel rooms. This is defined as the number of rooms occupied on any particular night divided by the number of rooms available to be let (Brymer, 1988). The number of rooms available is used as often not all the rooms in an establishment are available through refurbishment, maintenance and lack of ability to clean the room in time. The result of this is the occupancy percentage for that particular night. Figure 2-3 shows the occupancy for New Zealand hotel rooms July 1996 to May 1997 (Ernst & Young, 1997). Over this period the average occupancy of the hotels surveyed was 65%. The results indicated significant seasonal swings. The picture is not as clear as this figure indicates, for example in Auckland during this period the 344 room Sky City hotel opened in March 1996.



**Figure 2-3 NZ Hotel Average Occupancy July 1996 – May 1997**

(Ernst & Young, 1997, p.6)

This, among other factors, contributed to a decline of hotel occupancy in Auckland from 80% to 76% (Ernst & Young, 1997) with continued concerns of overbuilding of accommodation (Whitford, 1998). In comparison to the New Zealand hotel industry, in the United States of America in 1993 there was an average occupancy across the whole market of 64% (Rice, 1993).

While occupancy rate is one of the measures of hotel success there are a number of other ways to measure performance. These include the number of occupied rooms, the average room rate, and comparing actual to budgeted revenue (Orkin, 1988). Management takes different approaches to optimising the return. Reduced to essentials, hotels are in the business of generating revenue from space. Management's principal function is to produce the best possible return on the space available (Jeffrey & Hubbard, 1994). The need to fill the space at the right price, "... has possibly caused managers to forget that what they perceive (as the right price) ... may not be seen in the same light by their customers" (Huyton, Evans & Ingold, 1997).

### ***2.2.2 Characteristics of Products and Services Offered by Hotels***

Hotels are part of what is referred to as the service industry; the word service is widely used to denote an industry sector that "do[es] things for you. They don't make things" (Silvestro and Johnston, 1990 p.206). Service includes organisations which meet the needs of society, such as "health service", "banking", "entertainment" and "civil services" (Johns, 1999). As a result of increasing affluence and leisure time, a large majority of western countries have become service economies (Kotler, Bowen, & Makens, 1996). Services have specific characteristics which are important when analysing these types of industries, Table 2-6 lists four major features of a service.

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**Table 2-6 Four Major Features of a Service**

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- Intangibility
  - Inseparability
  - Variability
  - Perishability
- 

Kotler, Brown & Makens, 1996, p.82

### ***Intangibility***

Services are frequently described as intangible as their output is viewed as an activity, rather than a tangible object (Johns, 1999). Unlike physical products, the service components in a hotel cannot be seen, tasted, felt, heard, or smelt before they are purchased. As a result the customer can neither properly evaluate nor sample prior to purchase (Blois, 1983). In researching the factors that affect hotel occupancy this intangibility makes the exercise more complex.

As illustrated by Kotler, Bowen, & Makens, (1996, p.82) “Members of a hotel sales force cannot take a hotel room with them on a sales call, in fact do not sell a room; instead they sell the right to use a room for a specific period of time.” On completion of their stay in a hotel the guest has nothing to show for that purchase, but a receipt. When they leave they are not entirely empty-handed – they take with them the memories of the experience, which can be shared with other people (Lewis & Chambers, 1989). In an attempt to reduce the amount of uncertainty that is felt by guests over the intangibility, they look for tangible evidence that will provide information on which there can be built greater confidence in the purchase decision (Saleh & Ryan, 1992). A lot of the effort on behalf on the hotel goes into such areas as the front desk and reception, as these are often the first points of contact.

### ***Inseparability***

In many hotel transactions the service provider and the guest must be present for the transaction to take place (Kotler, Bowen & Makens, 1996). The customer employee contact is also part of the product. Although the food in a restaurant might be outstanding, if the person serving the food does not have a good attitude or gives inappropriate service the customer will not be satisfied with the experience. Inseparability also means that the customer is also part of the product. For example one group of customers can have a significant impact on another group by being loud and boisterous or in some other way impacting on other customers. There is a requirement also for employees to understand cultural differences and the way in which this impacts on the customer employee interaction (Morrison, 1989).

### ***Variability***

Service offered may be subject to high levels of variability. The quality has a lot to do with who, where and when the service is provided. The fluctuating demand in hotels makes it difficult on many occasions, such as peak periods, to control the quality of service that would be expected at other times (Kotler, Bowen, & Makens, 1996). Staff training usually seeks to reduce this level of variability as far as possible (Mullins, 1992), but often the variability is caused by factors which are not controllable.

### ***Perishability***

The service industry covers firms and employees whose major final output is some intangible or ephemeral commodity or where the final output is not a material good (Gershuny & Miles, 1983). Christopher, McDonald & Wills (1980) state that service industries are distinct because the product is one that produces a series of benefits, but the benefits cannot be stored (other than in the memory). For example, if a hotel room is not sold on any particular night it cannot be stored in inventory and sold the following night. The revenue from the sale of that room

is lost forever and as a result the product offered by a hotel is considered to be perishable (Mullins, 1993).

Each of the above indicates the characteristics in which the hotel industry operates and each have an impact on the factors that affect occupancy. The level of occupancy is important because a hotel comprises space in the form of guest rooms and other areas. The development of these areas has a cost. Those investing in the development of a hotel have an expectation of the highest possible return on their investment. One way of maximising this return is to have the highest occupancy within the hotel, at the highest possible price per occupied area (Coltman, 1994).

## **2.3 A Holistic Approach to Hotel Occupancy**

This section considers the academic disciplines that have influenced the study of hotel occupancy, argues that the traditional tactical and departmental approach is not appropriate because of the narrow focus of each of the departments, and that to understand the factors an interdisciplinary view needs to be taken. Because of the makeup of the hotel the interrelationships and communication between each of the departments is important to the overall operation of the hotel. In following this evaluation, a selection of predominant factors from the literature are discussed.

### ***2.3.1 Interdisciplinary Nature of the Hotel Industry***

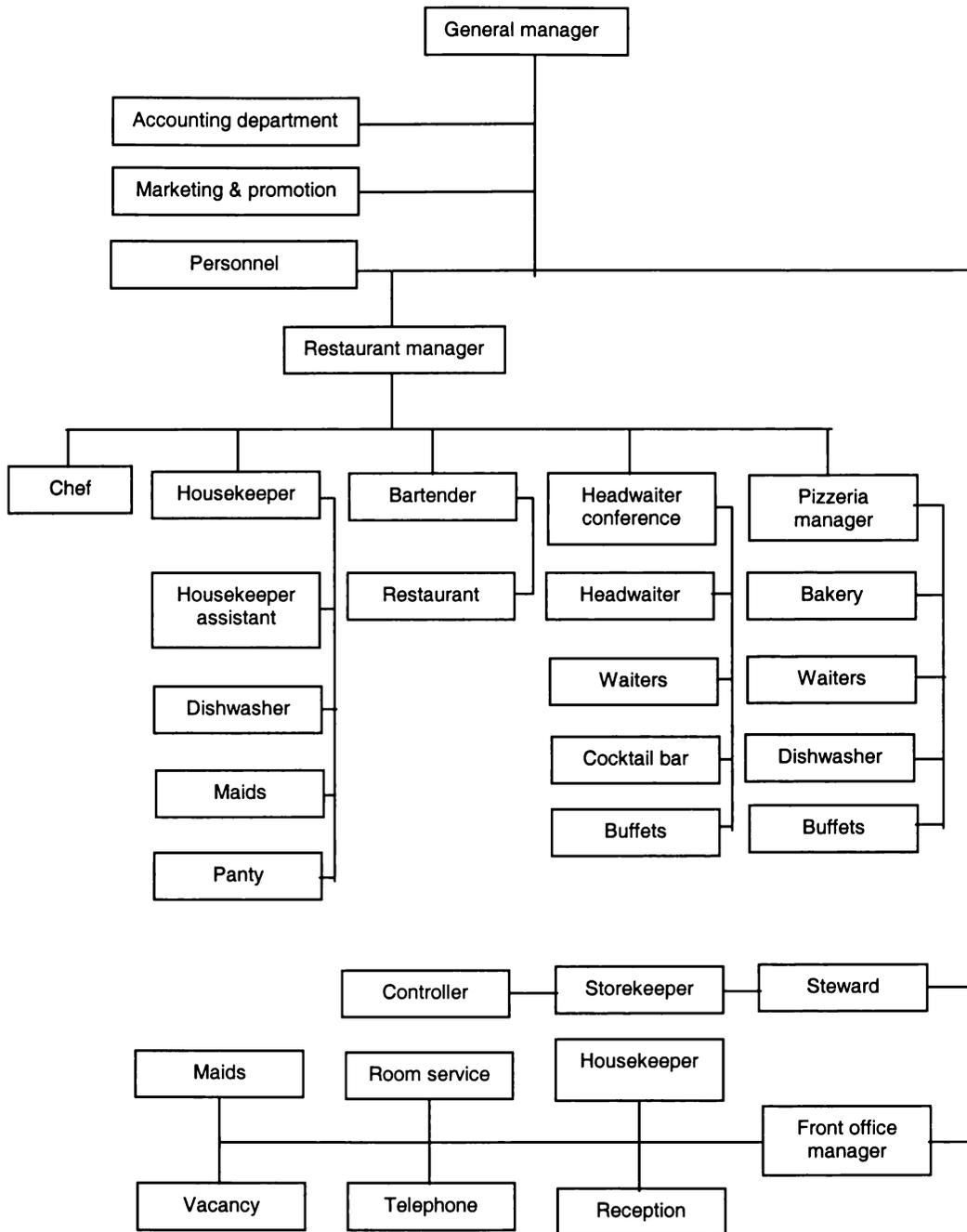
The traditional focus of hotel operations and management has been tactical and departmental. As argued by Hum (1997) most of the literature is dedicated to describing either the general management of the overall hotel or the specific techniques and tools for a particular department such as marketing, human resource management and corporate strategy along with the operational areas such as food and beverage, and housekeeping. This reductionist view, whereby the organisation is seen as the mechanical sum of departments or functional areas (Gull, 1995), is illustrated by what can be considered a long-established

hotel structure in Figure 2-4. The reductionist view of a hotel is also a result of research in specific disciplines (Jones, 1993). Each different discipline or school of thought has its own root metaphor for the understanding of reality (Morgan, 1980). As stated by Gull (1995, p.17)

“The properties of an organisation are not reducible to the properties of the individual departments or functional areas. An understanding of the organisation cannot come from an in-depth analysis of each functional area; such an approach will only lead to misunderstanding and errors in judgement.”

The structure as in Figure 2-4 has flattened in recent years, especially with the introduction of Total Quality Management (TQM) principles and practices. Even with this flattening of the organisation structure there is still clear differentiation between different positions within hotel organisations (Lockyer, 1993). As a result a hotel is often viewed as a group of separate revenue generating operations or departments, and not as a whole operation interacting internally and externally to the environment in which it exists.

In the hotel model described above there is emphasis on the success of individual departments and their ability to return an income on their operation, which is referred to as functional management (Jones and Pizam, 1993). Each department or area of the hotel has its own operational budget, with expected income and expenditure (Coltman, 1994). The operations management approach views every operation as a series of steps or stages (Jones & Lockwood, 1989). In this kind of model emphasis is given to the way in which the manager influences the workforce and the outcome of the operation. Therefore each individual department, such as a restaurant or a bar, has an impact on the success of the hotel. This approach to managing a hotel considers the individual department and does not take into account the influence that each department has on the others and the impact of external factors.



**Figure 2-4 Hotel St Jordan's Organisation 1<sup>st</sup> June 1972**

(Lane & van Hartesvelt, 1983. p.58)

In contrast to this reductionist approach to hotel management, there has been for some time a number of authors who have argued that practice should be interdisciplinary (Benton, 1976; Slattery, 1983; Littlejohn, 1990). This management approach is defined as being “in-between disciplines” (Kilburn, 1990). A hotel is an interdisciplinary environment (Buckley & Chapman, 1996) where different departments show convergence, which is achieved despite diversity (Birts, McAulay, Pitt, Saren & Sims, 1997) and involves consideration of the overall hotel and the factors that impact upon it.

The settings in which hotel management takes place are diverse in terms of geographic location, ownership structure of the organisation, level of service and product provided, and other external and internal factors. As a result hotel research draws on multiple disciplines in management as well as related fields in the behavioural and social sciences. As Lashley (1998, p.295) advocates:

“... traditional research that tends to focus on single independent variables that will supposedly alter a dependent variable, does not recognise the interdependence of inter-functional and inter-factorial influences in hospitality management.”

Because of the diversity of hotels and the influences on them as suggested by Jones and Lockwood (1989). this approach to the current research is most appropriate (Roper & Brookes, 1999). Thus, due to the diverse industry setting of hotels, an interdisciplinary approach to the study of hotel occupancy is called for, so that the research can cover the many factors influencing occupancy, and is not restricted to considering individual discipline-related factors such as marketing and human resource.

This section has discussed the structure and disciplines involved in understanding hotel management. It has emphasised the importance of taking an interdisciplinary approach to the understanding of the relationship of the various

factors influencing occupancy. The next section discusses the internal and external factors impacting upon this interdisciplinary relationship.

## **2.4 Internal & External Factors Affecting Hotel Occupancy**

There are many factors that have an influence on hotel occupancy such as price, staff relations, location, government policy and competition from other hotels. These can be broadly classified as internal factors, those that can be directly controlled by the hotel management; or external factors beyond the control of hotel management. This section considers the main internal and external factors that influence hotel occupancy.

When guests are deciding where to stay, they are influenced by many factors. For example, price may be a deciding issue to one guest, where to another it may be of little importance. Alternatively, location may be important to one while not to another. This extends also to the external factors where government policy on taxation of entertainment may be a deciding factor on selection of accommodation.

### ***Factors Influencing Guest Satisfaction & Selection***

One of the important factors influencing the selection of accommodation is guest satisfaction. Research investigating this was conducted by Barsky and Labagh (1992) in San Francisco. The research involved the distribution of 1,000 questionnaires to hotel guests of which 100 were returned. Of the 100 guests who returned the questionnaire 40 were repeat guests. Table 2-7 lists the nine most important factors influencing customer satisfaction from this research.

**Table 2-7 Factors Affecting Hotel Satisfaction**

Rating		Rating	
1	Employee attitude (service quality)	6	Reception
2	Location	7	Services
3	Rooms	8	Parking
4	Price	9	Food and Beverage
5	Facilities		

Barsky and Labagh, 1992, p.34

As part of the same survey (reported in Table 2-7) the guests were also asked what factors would affect their decision so that they “won’t return” to the hotel, the nine most important factors in order are shown in Table 2-8.

**Table 2-8 Reasons Why Guests “Won’t Return”**

Rating		Rating	
1	Reception	6	Location
2	Services	7	Room
3	Parking	8	Price
4	Employee Attitudes	9	Facilities
5	Food & Beverage		

Barsky and Labagh, 1992, p.36

The data presented in Tables 2-7 and 2-8 came from one specific survey conducted in San Francisco. The results do point to some of the areas that have an influence on the satisfaction and repeat purchase behaviours of guests. “The most frequently cited intentions related to customer satisfaction and service quality are repeat purchases and customer loyalty: in other words, to maintain the business relationship with the customer” (Boshoff,1997, p.117).

The relationship between satisfaction and loyalty has been observed in several studies. Fornell (1992) examined 27 different businesses and found strong correlations between satisfaction and loyalty. He also found that loyal customers are not necessarily satisfied customers, but that satisfied customers tend to be loyal customers. Highly satisfied customers are much more loyal than satisfied customers. Research by Jones (1990) has shown that any drop in total

satisfaction results in a major drop in loyalty. Nightingale (1985) contends that customer satisfaction leads to loyalty. In attempts to increase customer loyalty a number of frequent-guest programmes have been established which have met with a mixed reception by customers.

While the introduction by American Airlines of frequent-flier programmes in May 1981 showed a great deal of acceptance by the market, the introduction of frequent-guest programmes have not met with such success (Toh, Rivers & Withiam, 1991). A study by McCleary and Weaver (1991) indicated that although frequent-guest programmes are expensive to maintain and promote, relatively few guests used them. Their study suggested that frequent-guest programmes were destined to 'linger on' unless the programme was to be dropped by everyone at the same time. Although frequent-guest programmes have not been a resounding success, encouraging other forms of customer loyalty has a very positive effect on the profitability of a business, and bringing back the guest (Knutson, 1988; Papiernik, 1995). Kandampully (1998) suggests that customer loyalty can be increased by ensuring that the "service promise" is maintained, in this way the organisation shows loyalty to the customer and the customer shows loyalty to the organisation (Kandampully, 1997).

In the selection process, customers make repeated decisions as they continually attempt to satisfy their perceived needs, see table 2-9 (Lewis, 1984).

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**Table 2-9 Effect of Perceived Needs**

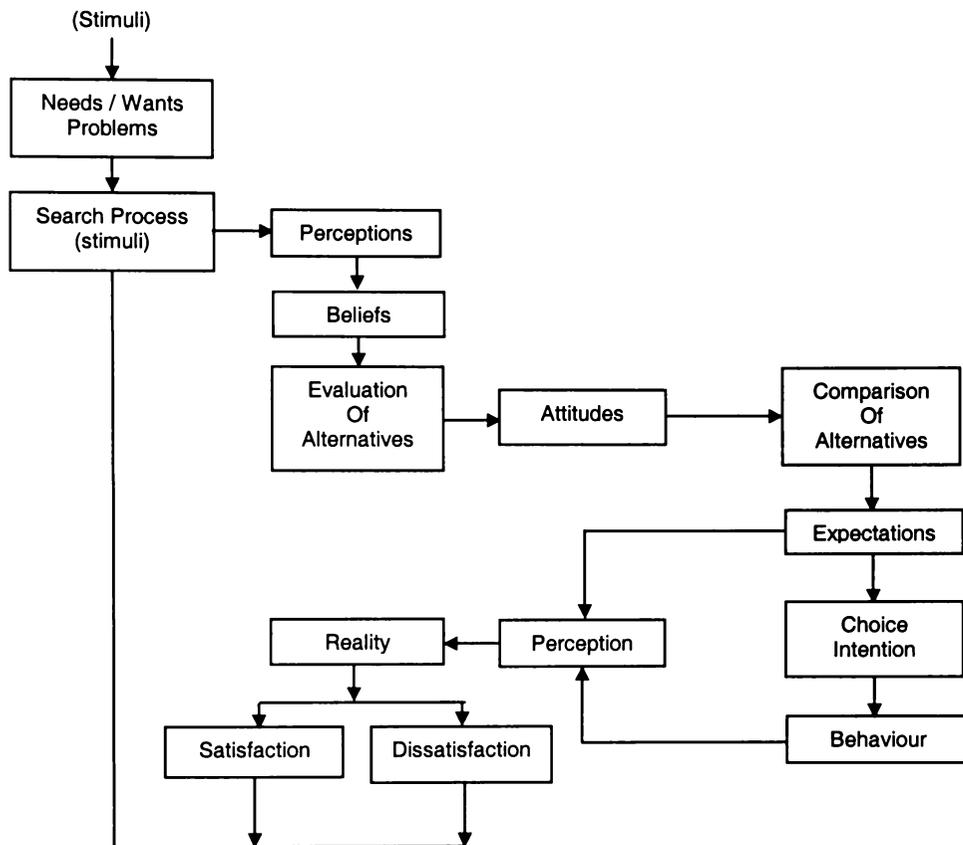
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- Each property will be perceived differently by different persons;
- Some consumers will be dissatisfied with any given property and satisfied with others;
- Perceptions are not constant - they change and can be changed;
- There are many variables (differing for each property) that will have a single, confined effect on consumer perception; and
- Each variable will have a different importance or "weight," but since the variables are interrelated, they are not perceived independently or "unidimensionally" by consumers.

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Lewis, 1984, p.28

A potential customer makes a number of decisions when choosing where to stay. The process that potential customers go through in the selection of a product is important to a hotel. Figure 2-5 shows a model of customer buying decision process developed by Lewis, Chambers and Chacko (1995). The buying decision process model implies that customers pass through all stages with each purchase they make, but some customers skip some of the steps.



**Figure 2-5 The Customer Buying Decision Process**

(Lewis, Chambers and Chacko 1995, p. 23)

In determining the factors in the selection of hotels by business travellers, a survey conducted by Weaver and McCleary (1991) enquired of business travellers the most important attributes and amenities in selection of accommodation. This article also reported the findings of the same survey conducted the year earlier.

Table 2-10 shows the results of this study and lists the top 20 most important factors:

**Table 2-10 Top Twenty Most Important Factors in Hotel Selection by Business Travellers**

Ranking		Percent	1991	1990
1	Cleanliness of Hotel	91.1	1	1
2	Comfortable Mattress and Pillows	89.1	2	2
3	On-Premises Parking	83.7	3	6
4	Good Quality Bath Towels and Washcloths	83.7	3	3
5	Convenient to Business Location	82.9	5	5
6	No Surcharge on long-distance Telephone Calls	81.4	6	4
7	Friendly Service of Hotel Staff	80.9	7	8
8	Well-Maintained Furnishings	80.9	7	9
9	Good Reputation of Hotel	76.9	9	7
10	Free Local Telephone Calls	74.6	10	10
11	Safety and Security	74.0	11	11
12	Wake-up call	66.0	12	12
13	Non-smoking Rooms	64.9	13	16
14	Free Cable TV	62.6	14	13
15	Free Newspaper	59.1	15	17
16	Family Restaurant	58.3	16	18
17	Pre-arranged Check-in	57.7	17	14
18	Low Price	55.1	18	*
19	Amenities in Bathroom	52.9	19	15
20	Free Continental Breakfast	49.4	20	20

Weaver & McCleary, 1991, p.29

\* = Not included in the top twenty most important factors.

A more recent study by Greathouse, Gregoire, Shanklin and Tripp (1996) looked at the factors considered important in hotel accommodation by travellers stopping at visitor information centres. The data for the study was collected from 2,712 travellers who stopped at one of three visitor information centres in the United States of America. Table 2-11 lists the ten top items that are considered important in hotel accommodation from the study, along with their mean and standard deviation.

**Table 2-11 Mean Importance Ratings for Items Considered Important in Hotel Accommodation**

Items	Mean	Std Dev
Cleanliness of rooms	3.91	.35
Value for price	3.72	.55
Friendliness of staff	3.64	.59
Security of hotel/parking	3.63	.63
Adequacy of parking facilities	3.49	.68
Proximity to highway	3.46	.68
Acceptance of credit cards	3.43	.87
Previous experience with another property of this chain	3.37	.77
Knowledgeable staff to answer questions on local restaurants	3.35	.74
Availability of ice for coolers	3.33	.85

Greathouse, Gregoire, Shanklin and Tripp, 1996, p. 132

The two most important factors from the previous two studies are essentially the same.

Callan (1996) took the findings of a number of studies into the factors that affect the selection of accommodation by business travellers, and brought together a number of the previously mentioned studies. The findings of this comparative study is contained in Table 2-12.

Each of the studies discussed gives valuable insight into the factors that influence the selection of hotel accommodation. From the data presented in Tables 2-10, 2-11 and 2-12 there are a number of factors which show a common thread, these include: staff and customer relations, the quality of the room and facilities, location and price.

**Table 2-12 Business Traveller Attribute Comparison with Findings of Various Authors**

	1	2	3	4	5	6	7	8
Standard of housekeeping or cleanliness	94.14 [6]		93.00 [4]	90.00 [1]	97.00 [1]	96.40 [1]	92.40 [1]	95.60 [1]
Comfort of beds	94.14 [7]		92.43 [5]	88.00 [2]	95.80 [2]	96.00 [2]		84.60 [8]
Availability of parking	90.00 [28]		92.29 [6]	84.00 [6]	86.80 [11]	82.50 [11]		56.60 [31]
Standard of bedroom maintenance	94.14 [8]	**	91.14 [11]	80.00 [10]		88.70 [5]		79.40 [13]
Friendliness of staff, service provided with a smile	91.29 [21]	***	86.43 [31]	82.00 [7]	87.60 [10]	85.50 [7]		86.20 [6]
Security of hotel & surrounding area	86.43 [43]	**	80.86 [53]	80.00 [9]	92.40 [4]		92.40 [2]	88.40 [3]
Room service available	69.71 [94]	***	78.00 [84]	60.00 [25]	66.40 [22]			51.60 [35]
Range of restaurants	73.29 [83]		74.29 [75]	56.00 [18]	88.20 [7]		58.40 [11]	78.80 [14]
Importance of hotel reputation	74.14 [80]	***	62.00 [105]	80.00 [8]	80.20 [17]	82.60 [10]		81.20 [10]
Convenience of location of hotel	63.57 [110]		60.14 [113]	84.00 [4]	91.20 [5]	82.20 [12]	87.40 [4]	79.40 [12]

1. Callan (1996) Leisure Travellers Score % (166 attributes)
2. Callan (1996) Mean Difference between Leisure and Business Travellers \* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .
3. Callan (1996) Business Travellers Score % (166 attributes)
4. Weaver & Oh (1993) (58 attributes)
5. Saleh & Ryan (1992) (29 attributes)
6. McCleary & Weaver (1992) (Top 20 attributes)
7. Mehta & Vera (1990) (12 attributes)
8. Lewis (1987) (44 attributes)

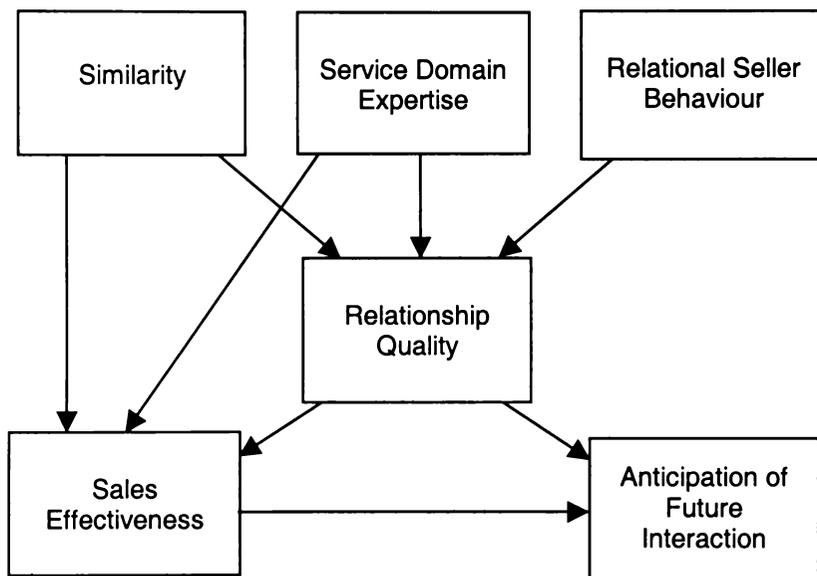
**Note:** Ranking in square brackets [ ]

Adapted from Callan, 1996

For this review of the different factors, the discussion is based on those predominant in the literature. This is not intended to be an exhaustive list but to give an overall 'flavour' of the factors having an influence. To better understand those factors identified as having an impact on occupancy the next section discusses the identified major factors in greater detail beginning with employee guest interaction and its effect on the selection of accommodation.

### ***Employee Guest Interaction as a Factor Affecting Occupancy***

Within the hotel industry the interrelationship between the guest and the employees is important. It is in part the quality of this relationship in what is referred to as the service encounter that makes the sale (Crosby, Evans, and Cowles, 1990). This is the time frame during which consumers directly interact with the service provider (Walker, 1995). The relationship quality model in Figure 2-6 represents an attempt to identify structural characteristics (antecedents and consequences) of enduring sales relationships in service selling. The model is consistent with a number of other authors (Dwyer, Schurr & Oh , 1987; Levitt, 1981; Sheth, 1975). The concept that is emphasised is customer satisfaction as the core of the post-purchase period (Westbrook & Oliver, 1991).



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**Figure 2-6 Structural Characteristics of Enduring Sales Relationships in Service Selling**

(Crosby, Evans & Cowles, 1990, p.69)

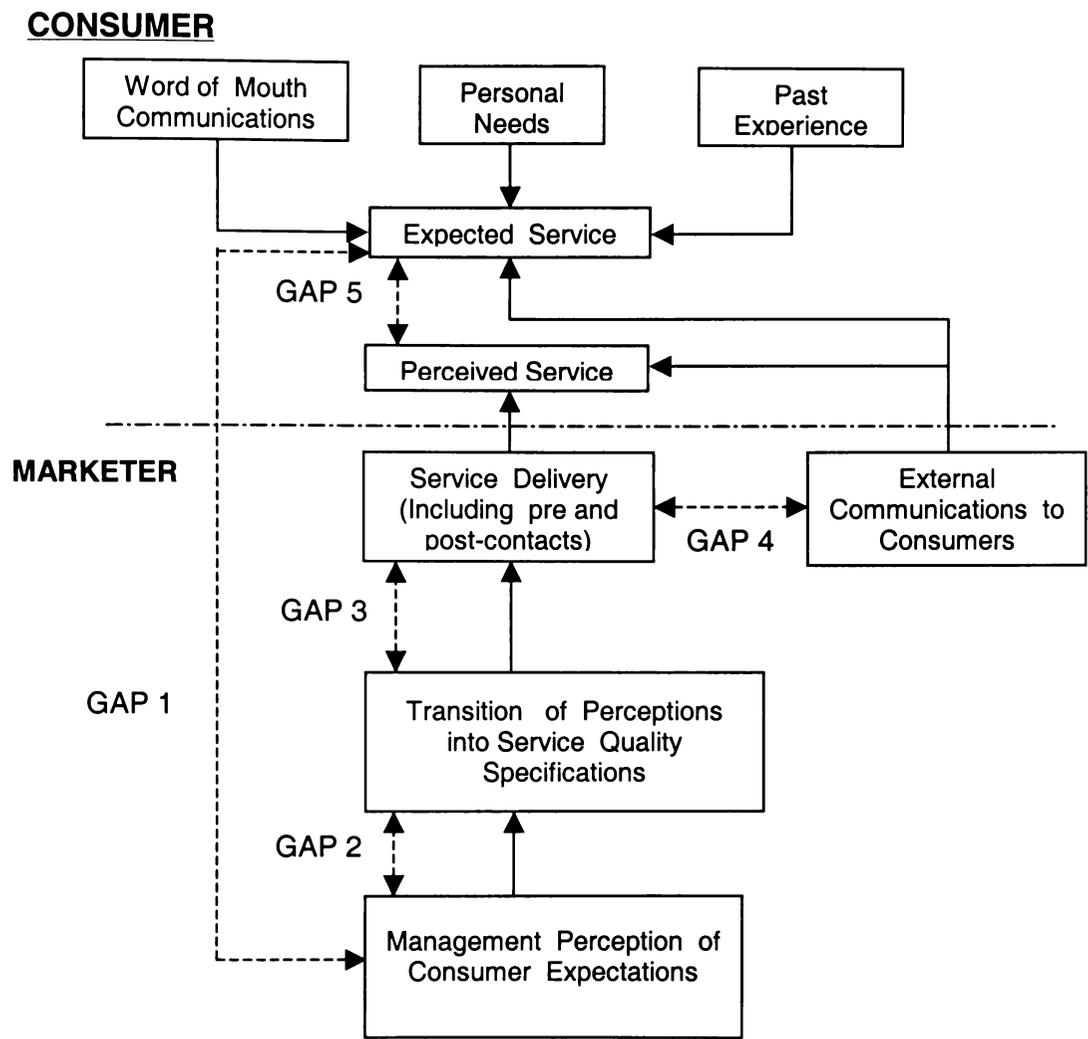
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“Service is usually the result of the interaction between the customer and the service system, including the contact staff, equipment, service environment and facilities. It is this interaction that results in the characteristics of service which make the provision, measurement and control of quality so difficult” (Silvestro, Johnston, Fitzgerald, and Voss, 1989, p.54).

Service quality is generally visualised as the sum of customer perceptions of the service experience (Johns, 1992). Evidence suggests an important linkage between superior service quality and positive business performance (McDougall and Levesque, 1994). Research in addition has shown the impact of culture of the service encounter (Frazer, 1999), and this must therefore be considered in the impact that service might have on the business performance. The success in the long term is not solely reliant on initial numbers of guests attracted to the hotel, but the ability of the hotelier to convert first-time users into repeat users (Saleh and Ryan, 1992). The profitability of a firm increases proportionally with the number of loyal customers; it is reported that up to 60% of sales to new customers in service business overall can be attributed to word of mouth referrals (Reichheld & Sasser, 1990) which is influenced by the level of customer service.

Satisfaction is defined as the post purchase evaluation of a product or service (Hunt 1977). The basic objective of satisfying customers is to improve profitability by expanding the business and in the case of hotels to improving occupancy (Barsky and Labagh, 1992). Customer satisfaction has a close relationship to service quality in a service environment where interpersonal relationships dominate many customer-oriented processes. Consumers form expectations, which act as a standard against which performance will be judged. A comparison of expectations and perceptions will result in either confirmation or disconfirmation (Ruyter & Bloemer, 1999). Customers' expectations are confirmed when product or service perceptions exactly meet expectations. Disconfirmation will be the result of discrepancy between expectations and perceptions. As a result, satisfaction can be perceived in terms of a single occurrence and as an aggregated

impression of a number of events. This is a critical feature for service providers (Oliver, 1996).



**Figure 2-7 Conceptual Model of Service Quality**

(Parasuraman, Berry and Zeithaml, 1991, p. 339)

Since the initial study of customer expectation and satisfaction, conducted by Cardozo (1965) there has been a vast amount of research focused in this area. Figure 2-7 illustrates a conceptual model (Parasuraman, Zeithaml and Berry, 1985) of service quality that indicated customers' perceptions of service quality

performance are influenced by a series of five distinct gaps occurring between the consumer and the marketer.

With reference to the gaps identified in Figure 2-7, the figure reveals 9 dimensions that consumers use in forming expectations about and perceptions of services, dimensions that transcend different types of services. This also reveals five key discrepancies or gaps on the service provider's side that are likely to affect service quality as perceived by consumers. Table 2-13 gives details about these gaps.

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**Table 2-13 Gaps in Conceptual Models of Service Quality**

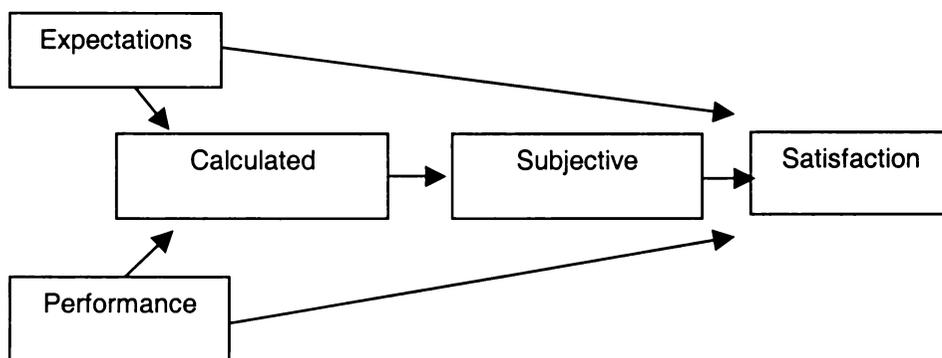
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- **Gap 1:** Difference between customer expectations and management.
  - **Gap 2:** Difference between management perceptions of customer expectations and service quality specifications.
  - **Gap 3:** Difference between service quality specifications and the service actually delivered.
  - **Gap 4:** Difference between service delivery and what is communicated about the service to customers.
  - **Gap 5:** Difference between expected service and perceived service.
- 

Parasuraman, Berry and Zeithaml, 1991, p.240

As discussed, interaction between guests and staff within the hotel industry is an important factor affecting profitability. To determine the level of customer satisfaction relating to the quality of service, one of the tools widely used is that of research based on a style of questionnaire known as 'SERVQUAL' (Parasuraman, Zeithaml & Berry, 1985, 1988, 1994a, 1994b; Saleh & Ryan, 1992; Johns & Tyas, 1996) which uses a 22 item scale that can be regarded as a problem detection method (Randall & Senior, 1994). Service customers are asked to scale first the quality expected from the particular service and then the perceived quality of the actual service performance (Johns and Tyas, 1997). Parasuraman, Zeithaml and Berry (1985) conducted a series of twelve focus groups with users and service providers of four different services – retail banking, credit card, securities brokerage and product repair and maintenance. Results indicated that regardless of the service-type, similar criteria were used in arriving at a judgement about the quality of service. There is a clear indication that by understanding the customer and their expectations, decisions can be made that will have an impact on

occupancy. The high degree of correlation that existed between communication, competence, courtesy, credibility and security was later found and combined under the dimension of assurance, while the highly correlated items of access and understanding were found to fit in the dimension of empathy. These five dimensions – tangibles, reliability, responsiveness, assurance and empathy resulted in a model of service quality referred to as SERVQUAL. A number of authors have expressed shortcomings in relationship to the use of ‘SERVQUAL’ (Parasuraman, Zeithamal, and Berry, 1988; Johns and Tyas, 1997) and whether it measures what it reports to. And also a statement by Ryan (1999, p5.) “... I long ago formed a conclusion that in many instances what the application of such a scale (SERVQUAL) did was simply to assess the consistency of response of the respondent” – certainly throws a measure of doubt on the application of this method.




---

**Figure 2-8 Model of Service Quality**

(Oliver, 1993, p.73)

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Oliver (1993) suggests a model Figure 2-8 of service quality and service satisfaction. In the model, individuals have expectations of services, and the perception of the actual outcomes is thought to generate a comparison of the actual and the expected. He suggests that comparison may be objective or calculated in the early stages, but in the latter stages, it becomes more subjective, and it is this latter subjective comparison that is thought to be the major factor in the assessment. The disconfirmation paradigm postulates that satisfaction is a

function of the size and direction of the difference between expectation and actual product performance (Gundersen, Heide, & Olsson, 1996). This model has a lot of similarities with the Barsky and Labagh (1992) customer satisfaction matrix which permits the evaluation of current guest information and attitudes, and related strengths and weaknesses to customer satisfaction.

Where the expectations and performance outcomes have a direct and an indirect affect on satisfaction, it is important to understand that the purchase decision for a service is quite different from that of a commodity, and that is why the understanding of this process is complex.

Services are normally delivering benefits to consumers during a process that involves the customer as a co-producer (Mattsson, 1994). During the process many different faults may materialise. To increase output quality these faults need to be identified and evaluated. However, as many different factors simultaneously may affect the output quality of the service system, it becomes difficult to relate improvement measures to actual competitiveness.

Guest satisfaction and expectation have a two-fold effect on occupancy, first they affect the repeat purchasing decisions and secondly they affect guest desire to satisfy their expectations. There is no quantifiable relationship between these two (McDougall and Levesque, 1994).

A study conducted by Bolton and Drew (1991) develops a model over an extended period, which considered the effect of service change on customer attitudes about service quality. The authors reported that often businesses undertake surveys of customers to try to judge their satisfaction with the service offered. This study has implications for a hotel which may be striving to improve customer service satisfaction and in return improve occupancy by changing the service given by the staff. Table 2-14 lists the questions evaluated in the study:

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**Table 2-14 Effect of Service Change on Customer Attitudes**

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- How can a company assess the effect of a potential service improvement on customer attitudes?
  - How do customers' perceptions of changes in current service performance affect their evaluations of service quality?
  - To what extent do prior customer attitudes carry over during a period of service changes?
- 

Bolton and Drew, 1991, p.1

The study by Bolton and Drew (1991) which was conducted among telephone company subscribers showed that individual customers' ratings of service quality are sensitive to the effects of changes within the service quality provided. In contrast, average ratings of perceived service quality are very stable and change slowly, so the effect of perceived service changes become noticeable only in the long run (Bolton & Drew, 1991).

Within the hotel industry the interrelationship between the guest and the employees is important. As discussed by Crosby, Evans and Cowles (1990) it is in part the relationship between the salesperson and the guest that plays an important part in sales. Their Relationship Quality Model gives a greater understanding of this association, and is consistent with a number of other authors (eg Dwyer, Schurr & Oh , 1987; Levitt, 1981; Sheth, 1975). The concept that is emphasised is that of keeping customers and making them into better customers. It is often suggested that the objective of employees in the hotel industry is to delight customers with service and responsiveness (Levenstein, 1996).

It is not always clear how to create a sustained good relationship. Nor is it directly evident what kinds of relationships service firms should seek with customers and what kinds of outcomes customers want from service firms (Marns, 1994).

”Service is usually the result of the interaction between the customer and the service systems, including the contact staff, equipment, service environment and facilities. It is the interaction that results in the characteristics of service which make the provision, measurement and

control of quality so difficult” (Silvestro, Johnston, Fitzgerald & Voss, 1989, p. 54).

Well-trained staff can build customer loyalty, which positively affects participation and boosts sales (Schechter, 1994). As part of the staff guest relationship many hotels undertake staff training programmes, clearly this is to improve the relationship between the guest and the staff with whom they interact. Gundersen, Heide and Olsson (1996, p.73) state that “although there is ample literature on total quality and quality processes, few empirical studies give recommendations that can help management identify the key areas of importance to the customer.” It is therefore difficult for management within hotels to know what the guests consider to be important when evaluating the hotel experience.

Satisfaction is defined as the post purchase evaluation of a product or service (Hunt 1977). The basic objective of satisfying customers is to improve profitability by expanding the business and in the case of hotels by improving occupancy (Barsky & Labagh, 1992). By understanding this it becomes possible to consider forecasting customer satisfaction (Oberoi & Hales, 1990). A number of models have been developed which help to explain the relationship between expectation and satisfaction. Research conducted by Boulding, Kalra, Staelin and Zeithaml (1993) proposes a model that gives greater clarity to this relationship. At the core of the model is the assumption that “... current perceptions of the service quality of a firm just after a service contact are a blend of, 1). guest prior expectations of what will and should transpire during the contact and 2). the actual delivered service during the service encounter” (Boulding, Kalra, Staelin and Zeithaml, 1993, p.7).

An alternative model by Barsky and Labagh (1992) is expressed in the Equation 2-1.

---

**Equation 2-1 Customer Satisfaction Importance Model**

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$$S = [(EM_1)(I_1)] + [(EM_2)(I_2)] + \dots + [(EM_n)(I_n)]$$

where

S = Customer Satisfaction

EM = Expectations Met

I = Importance

N = Number of events

---

Barsky and Labagh, 1992, p.32

Equation 2-1 expresses customer satisfaction as a product of whether the customer's expectations are met, and by how important the customer views that component of the service. This gives an overall satisfaction, which is an accumulation of a number of individual service events.

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**Table 2-15 Factors Affecting Satisfaction**

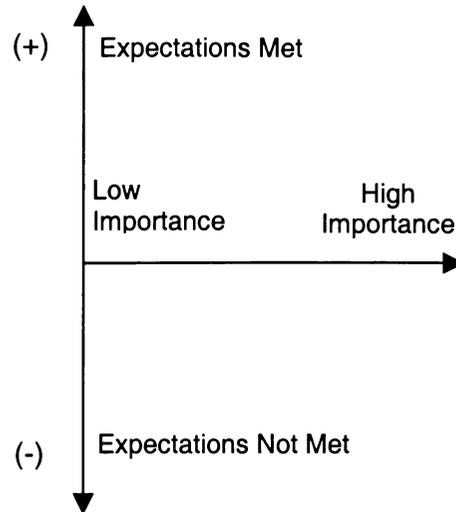
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1. Expectations and other pre-experience standards.
2. Product-service performance.
3. Factors affecting the actual perception of the service (i.e. how an individual perceives the experience of receiving or using the service).

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Barsky and Labagh, 1992, p.32

Therefore the satisfaction with the accommodation in a particular hotel is made up of services such as the way the guest is greeted at the front desk, the décor of the room, the facilities offered, in comparison to their importance to the guest and thus their expectations of each of these service events. This in a large extent is governed by the factors as listed in Table 2-15. This relationship can be graphically represented as in Figure 2-9.



**Figure 2-9 Graphical Representation of the Relationship between Expectations and Importance**

(Modified from Barsky and Labagh, 1992, p.34)

**Summary**

The discussion of the literature indicates the service encounter as an important factor influencing hotel occupancy, the value of the encounter can be visualised as the sum of the customer’s perceptions of the service experience (Johns, 1992). With such perceptions having long-term impact (Saleh and Ryan, 1992), as a result the service encounter has a lasting effect on occupancy. Techniques to measure the difference between what a customer expects and what is actually delivered, such as ‘SERVQUAL’, have highlighted the difficulty of satisfying a guest, particularly regarding such issues as culture. The relationship between service and satisfaction has also been illustrated in a number of different models which show the impact it has and the effect on boosting sales. The next section considers the importance of location on the selection of accommodation.

**Location and its Affect on Hotel Occupancy**

Good locations are important to tourism development. Even excellent marketing cannot overcome the problems inherent in an inferior location (Moutinho and

Paton, 1991). It is commonly asserted that the three most important attributes that a hotel can have is "location, location, location" (Bull, 1994, p.10). The location of the hotel is the only factor of the product that is completely fixed in the short term (Bull, 1994). Location is a complex mixture of attributes, where close location to municipal areas might be seen as one advantage; neighbourhood characteristics such as noise and congestion of the location may be seen as a disadvantage. As location is a fixed attribute, it has to be considered within strategic room rate pricing rather than within yield management pricing strategies (Bull, 1994). In the longer term, attributes of a destination can change as suggested by Butler (1980) who argued that a destination goes through progressive stages of change although many researchers have used, amended, applauded, and criticised this work (Oppermann, 1998). Also as indicated in research by Choy (1992) the predictive capability of the life cycle model is very limited in the context of Pacific Island destinations. The author also states that "At best it could be used as a diagnostic tool after the fact." (Choy, 1992, p. 31).J

The number of hotel rooms as suggested by Culligan (1990) is a function of three factors. These are: 1). the existing base of competitive hotels; 2). additions to the competitive hotel supply; and 3). deletions or effective removal of rooms from the competitive supply (Culligan, 1990).

Hotel development for tourism is often undertaken close to the attraction which the tourist is visiting; cities and towns provide the visitor with a variety of historical associations such as buildings and monuments, castles, cathedrals, and museums, galleries, orchestras and amusements. It has been customary to believe that the primary factor in the development of urban tourism is the accommodation (Arbel & Pizam, 1977). Without the hotel facility for the tourist to stay in, even the most richly attractive city could not become a major tourist destination. However, the development of high-rise hotels in city areas has brought about its own problems with the local population and the tourist.

Research conducted by Arbel and Pizam (1977) endeavoured to determine what distance tourists are prepared to travel to attractions. Table 2-16 shows the result of research carried out among 300 foreign, English speaking tourists who spent at least a one-night stay in Israel in the Tel Aviv metropolitan region. During the collection of the data there was no reference to price made. It was assumed that regular public transport was available at a reasonable cost.

Travel Time (Minutes)	% Willing to Travel
30+	14.9%
20	37.1%
10	33.1%
0	14.9%

Arbel and Pizam, 1977, p.19

Table 2-16 is an example of what is referred to as a distance decay function which shows that where there is up to 20 minutes travelling time there is a high willingness (37.1%) to travel to urban centres from the accommodation in which the tourist is staying, but once this rises to a travel time of 30 minutes or more, the willingness to travel decreases considerably, to 14.9%.

### **Summary**

As the research indicates location is the only factor of the hotel that is fixed in the short term, location can have an important influence on occupancy. Where a hotel is located is also influenced by its surroundings which are in turn influenced by economic and social changes. As a result a prime location may not, over time, remain prime. There is also a close relationship between hotels and attractions without them both being dependent on the other. In addition the decay factor influences the willingness of guests to travel. The next section considers the facilities offered to the guest and the impact on occupancy.

### ***Facilities as a Measure of Hotel Occupancy***

┌ The facilities offered by a hotel have a relationship with the occupancy of that hotel. This section discusses previous research in relationship to facilities and the impact that they have on occupancy. A study conducted by Yucelt and Marcella (1996) among 250 marketing directors in various hotels, motels, inns, casinos, and resorts investigated the expectation of guests in relationship to the facilities offered. The findings indicated that adding additional facilities had an impact with an increase in guest occupancy. The study showed that the entire industry was moving toward higher standards in relation to the type and quality of the facilities offered to guests. It should be mentioned, however, that in some cases the addition of facilities solely to maintain competitiveness in the market maintains occupancy but does not improve occupancy (a good example was the introduction of Sky TV in New Zealand where motels felt they had to install Sky in order to preserve status quo because competitors were also providing Sky).└

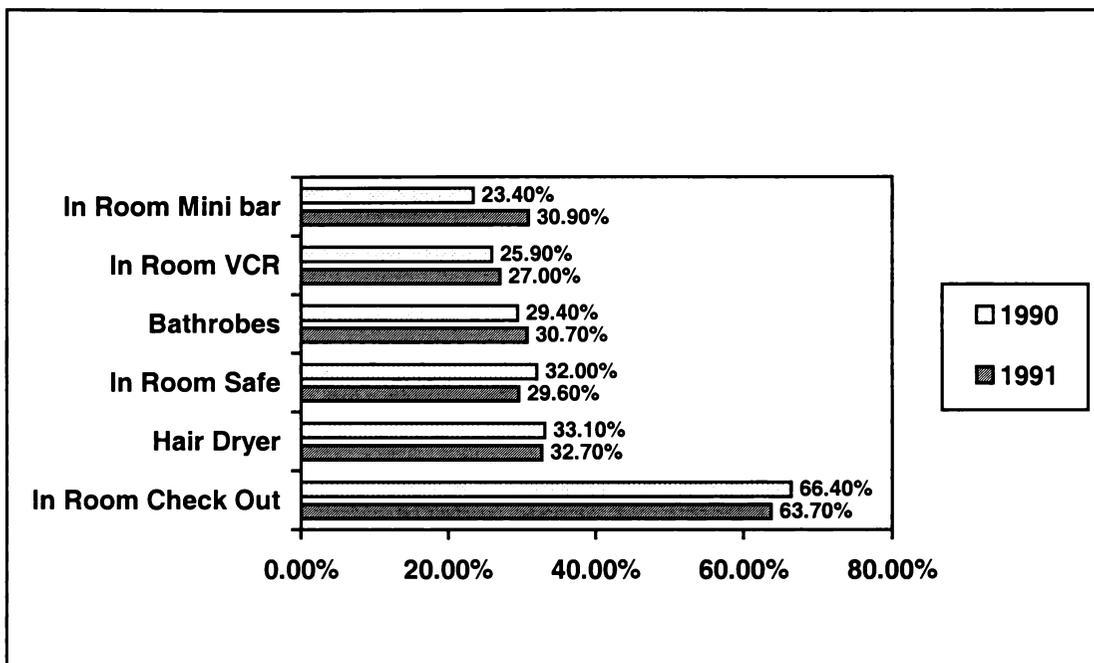
**Table 2-17 Four Top Factors in Hotel Selection by Business Travellers**

Ranking	Percent	1991	1990
1. Cleanliness of Hotel	91.1	1	1
2. Comfortable Mattress and Pillows	89.1	2	2
3. On-Premises Parking	83.7	3	6
4. Good quality Bath Towels and Washcloths	83.7	3	3

Weaver & McCleary, 1991, p.29

In the choice of corporate hotels and the selection criteria, a model by Bell and Morey (1996) examines the trade-offs that corporate travel managers make when evaluating hotel properties for inclusion in their corporation's approved hotel directory. The significance to this study is that travel managers are willing to pay increased room rates to obtain certain additional features. Another pair of surveys conducted by Weaver and McCleary in 1990 and 1991 looked specifically at the facilities that impact on use and selection of hotels for business travellers. The four most important factors in hotel selection are facility related as in Table 2-17. The table shows the different factors overall percentage and ranking for surveys

conducted in the years 1990 and 1991. It is interesting to note that in the survey friendly service staff was rated a low seventh in 1991 and eighth in 1990, while facilities were rated as the top four factors in hotel selection. The type of customer group could have implications here. From the same survey Figure 2-10 shows facilities business travellers use in the guestroom. The high percentage of business travellers who use in-room check out facilities is of particular note.



**Figure 2-10 What Business Travellers Use in the Guestroom**

(Weaver & McCleary, 1991, p.29)

Other research by Barsky and Labagh (1992) rates employee attitude as the number one factor affecting hotel selection with facilities rated number five. Their survey puts facilities as number nine in the reasons why guests won't return, which is a low rating.

### **Summary**

The literature indicates the importance of facilities, and that there is a growing trend for guests who pay additionally to stay in establishments with a wide selection of facilities. A number of studies have evaluated the specific factors that

have the greatest impact on occupancy and have emphasised the importance of such items as purpose of stay and gender. The next section considers room rate or price as a factor affecting occupancy.

### ***Room Rate Affect on Hotel Occupancy***

Changing room rates is a strategy which management often uses to try to maximise revenue and profit. Depending on the objective of management the room rate can either be increased or decreased. The success of increasing the room rate depends on the elasticity of the market and the availability of an increase in the number of customers (Brewton, 1991). The hotel industry in most situations can be classified as “purely competitive” - the characteristics of such a market are detailed in Table 2-18.

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**Table 2-18 Characteristics of a Purely Competitive Market**

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- The industry has a large number of producers.
  - A homogeneous product.
  - Ease of entry and exit from the industry by firms.
  - Buyers have perfect knowledge of the market.
  - There is no collusion between groups of buyers or sellers.
- 

Melotte, 1995, p.47.

Operators fearful of losing market share use price-cutting to the point that it becomes a ruinous tactic in an effort to induce travel and increase occupancy (Arnold, 1994). This has resulted in a reversal of the concept of economies of scale. While the number of rooms occupied has increased, which has increased the variable total cost, the amount of profit per room has decreased. As a result rate cuts have generated more revenue but not additional profit (Arnold, 1994). Some hotels have increased prices of other facilities with some criticism of those prices, such as \$38 for a modest breakfast in a New York hotel (Marshall, 1995). Because of the Hotels' desire to increase occupancy, and the use of discounts to aid in this, they have educated the travelling public to shop for discounts and bargains (Feiertag, 1992).

The pricing in many hotels is very complex with as many as 10 or 15 room rates for each hotel (Koss, 1992). Table 2-19 illustrates some of the issues to be considered in relation to changes in room prices. Raising prices is not as straightforward a strategy as it might seem. Too rapid or too large a price increase may lead to customer rejection (Brewton, 1991).

---

**Table 2-19 Factors Influencing Room Price Change**

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- The number of items to be increased will depend on the frequency of yearly increases.
  - Managers should resist increasing the price of their best-selling room type once its rate reaches the top end of its dollar range.
  - The more places that hotels have rates listed, the more difficult it is to change prices.
- 

Brewton, 1991, p.21

To assist in the understanding of the factors influencing hotel room price, reference can be made to classical microeconomic theory which looks at the different factors that impact upon the price of accommodation. Equation 2-2 illustrates where  $P$  equals price, at any given establishment (est.)  $i$ , in any given time period  $t$ , in region  $k$ .

**Equation 2-2 Model of Hotel Room Pricing**

$$P_{itk} = f(F_{itk}, V_{itk}, A_{itk}, L_{ik}, M_{ik}, Y_{l(t-1)k}, K_{tk}, N_t)$$

where:

- $P_{itk}$  = average rental rate (\$) of the  $i$  th est. in the  $t$  th time period in the  $k$  th region;
- $F_{itk}$  = fixed cost of the  $i$  th est. in the  $t$  th time period in the  $k$  th region;
- $V_{itk}$  = variable costs of the  $i$  th est. in the  $t$  th time period in the  $k$  th region;
- $A_{itk}$  = advertising expenditures by the  $i$  th est. in the  $t$  th time period in the  $k$  th region;
- $L_{ik}$  = location of the  $i$  th est. in the  $k$  th region;
- $M_{ik}$  = amenities of the  $i$  th est. in the  $k$  th region;
- $Y_{l(t-1)k}$  = percent occupancy rate of the  $i$  th est. in time period  $t-1$  in the  $k$  th region;
- $K_{tk}$  = amount of competition in the  $t$  th time period in the  $k$  th region;
- $N_t$  = season or time.
- est. = establishment

---

Ellerbrock, Hite & Wells, 1984, p.11

In Equation 2-2 there is particular focus on the variable cost. "Profit is maximised by setting price such that the marginal revenue received from renting the last room equals the marginal cost of renting the room" (Ellerbrock, Hite & Wells, 1984, p.12). The marginal costs of any room influences the number of rooms that an operator is willing to make available for rental up to a maximum of those available.

↑ Hotel prices are often set without an understanding of consumer perceptions of price (Zeithaml & Bitner, 1996). The pricing for service industries faces three complicating factors as detailed in Table 2-20.

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**Table 2-20 Pricing for Service Industries**

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- Customers often have inaccurate or limited reference prices for services.
  - Customers use price as a key signal for quality.
  - Monetary price is not the only relevant cost for service customers.
- 

Zeithaml & Bitner, 1996, p. 484

The issues illustrated in 2-20 relate in a large extent to the intangibility of the product as discussed earlier. The first factor listed in the table depends on frequency of use – arguably business users have experience of prices but it could be the demand is price inelastic if a corporation is paying.

Incentives build occupancy – while there is considerable risk in cutting prices in the face of tough competition, that risk can be minimised by using price incentives. These build occupancy without eroding profits because they are aimed at attracting new customers or additional sales from current customers (Brewton, 1991).

A pricing method often suggested is that of \$1 charged for every \$1,000 of development price (Lewis & Shoemaker, 1997). Using this model, a room that cost \$100,000 to develop would have a daily rate of \$100. This is often used as a basic concept and although is considered a "rule of thumb" (Mullen, 1998), has little application. This approach is referred to as "cost-driven pricing". Although giving some indication of the price for a room, cost-driven pricing has also been

criticised as an approach to setting prices (Shaw, 1992). The establishment of a rack price involves a number of issues - most of these involve a price driven costing approach.

In an investigation carried out by Gabor and Granger (1966) the authors asked consumers to state the highest and lowest price at which they would purchase selected inexpensive items (Gijsbrechts, 1993). The results of the enquiry allowed the researchers to determine upper and lower price limits for these products based on revealed preference analysis. As a result of the research Gabor and Granger (1966) suggested that within these limits price may continue to act as a quality indicator but not act as an absolute barrier to purchase. Outside these limits however, price may act as the dominant indicator of quality and may become a barrier. Price also acts as an indication of quality where if the price is reduced the actual or perceived quality of the establishment by the guest can be affected. Therefore, price has an influence on customer expectation and the formation of quality perceptions in a service purchase situation (Lewis & Shoemaker, 1997). When price is used as a dominant indicator of quality, the pricing aspect of the marketing mix can be used to position the product and service offering.

In setting the rack price a reference pricing process may be involved. This is the price of any service that a consumer thinks of as an appropriate price for that item (Lewis and Shoemaker, 1997). This price can comprise "the price last paid, the price most frequently paid, or the average of all prices customers have paid for similar offerings" (Zeithaml & Bitner, 1996, p.486). Pricing for services are more difficult for consumers to identify than for products. Consumers often know how much they paid for a television or a bag of sugar, but for a hotel room this is quite a different issue in the mind of the consumer (Lewis & Shoemaker, 1997). A major reason is the variability across services (size of room, facilities offered, level of service, and other features), where a bag of sugar can be clearly perceived by the consumer. This lack of a clear reference makes it complex for consumers to establish a firm reference point for pricing service purchases.

A study undertaken by Morley (1994) examines the multidimensional nature of the tourism price. The author (Morley, 1994, p.8) records that “Practitioners in tourism marketing have stated to the author that potential tourists facing such a complexity of prices focus their attention on the larger cost items, particularly airfares for long distance touring.” The article reports on an investigation of the effects of some tourism price components on potential tourists’ choice of destination using a multinomial logit model analysis of stated choice frequencies. Three factors investigated in relation to tourists originating from Kuala Lumpur and travelling to Australia indicate airfare has the most significant effect on the choice of tourism. Hotel rate and exchange rates have an impact on choice of destination which, for changes of the order of +/-15%, is smaller than the airfare impact. Research (Morley, 1994) resolved that a tax increase of 5% affecting the hotel room rate by that amount decreases the demand by 2%<sup>2</sup>.

A number of techniques have been used to try and maximise the price that can be charged, one of these is yield management. Yield management comprises a number of tools that are the application of information systems and price strategies to allocate the right capacity to the right customer at the right price at the right time (Smith, Leimkubler, & Darrow, 1992) under more-or-less fixed supply conditions, where revenue producing ability diminishes with time (Jones and Hamilton, 1992). Yield management was developed by the airline industry following airline deregulation in the USA in the 1970’s. It proved an effective tool for maximising both passenger numbers and airline revenue. In hotels, yield management can be defined as a revenue maximisation tool which aims to increase net yield or profit by allocating a predicted number of rooms to distinct

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<sup>2</sup> Note: There is no indication in the research on how linear this result is.

market segments at the maximum achievable price which each segment can withstand.

Yield management is a tool to generate revenue from room sales (Orkin, 1988). This can be expressed as in Equation 2-3.

---

**Equation 2-3 Yield Management Equation**

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$$\text{Yield} = \frac{\text{Gross Revenue Realised}}{\text{Revenue Potential}}$$

Yield management involves adjusting room rates to temper demand fluctuations between peak and off-peak seasons, mid-week and weekend business. Yield management can improve the financial performance and service provision of hotels by basing decisions on the acceptability of the product and the propensity of the guest to spend. A given yield can be obtained by many combinations of occupancy and room rates, not all of which may be equally desirable because service costs, and non-room income may differ for various types of guests.

The dilemma that is faced by hotel management is whether to sell a large number of rooms for one night at low rates (this has the effect of reducing the average room rate, and therefore profit), or by holding out for room sales at published rack rates (demand may be low and as a result guests might go elsewhere looking for a price they are willing to pay). Neither of these situations are desirable: the first because although there is high occupancy, there is also low revenue per room and high variable cost per room; the second has low occupancy and high revenue but also empty rooms. The strategies adopted have a direct relationship with the level of occupancy.

## ***Summary***

The changing of room rates is a strategy widely used in adjusting the level of occupancy within hotels. This variation of price often comes down to the overall strategy of an establishment of high occupancy low price or low occupancy and high price. But the success of such strategies are influenced by many other events which are often not controllable by the hotel such as building programs of competing hotels, special events and weather. The pricing of a room is a complex issue. For some guests, those on long haul flights the cost of a hotel room is less important than those travelling short distances (Morley, 1994). Yield management is a widely used tool to manage the relationship between price and occupancy. Although this can be referred to as a technique, the way in which it is managed and used has an impact on occupancy. The next section discusses the external factors that have an impact on hotel occupancy.

### ***2.2.4. External Factors Affecting Hotel Occupancy***

The last section discussed factors that can be controlled, at least to some extent, by hotel management. There are also a number of factors that have an impact on hotel occupancy and that are beyond control. These include government policies, exchange rate, economic conditions, wars and other civil unrest, and are discussed in this section along with their effects.

#### ***Government Policies***

Government impacts on occupancy are difficult to accurately measure, and they can have wide influences. One such example was where the United States of America foreign policy stated on February 28, 1997 that Colombia was the most violent nation in the world. As a result the hotel occupancy in Columbia, which was running at 70 to 80 %, dropped to 50 to 55 % almost immediately (Luxner, 1997).

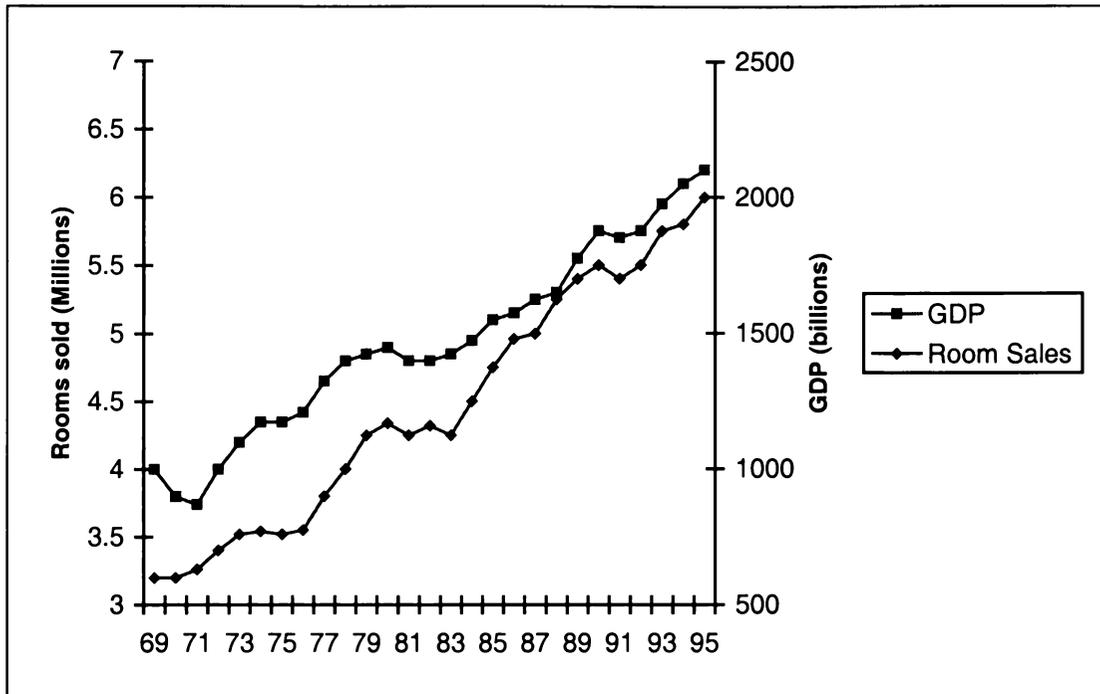
Taxation is an area which has the potential to affect the tourism industry, as it is seen as an additional way to raise taxes for governments and communities (Anonymous, 1993a). Taxes have been increasing sharply on hotel rooms in the United States and elsewhere (Hiemstra & Ismail, 1993). These taxes are often introduced as a way to raise money to promote tourism but the money raised gets diverted away from tourism promotion and into general funds (Seal, 1996). The proceeds from a new transient occupancy tax in San Diego were used to add officers to the police force (Seal, 1993). Local and national governments turn to bed taxes, because voters are often willing to approve taxes seemingly levied on tourists rather than themselves (Bond, 1997). In New York a room tax of 21.25% was imposed in June 1990 (Koss, 1993). According to a survey commissioned by the New York State Hospitality and Tourism Association, in 1992 the tax was estimated to have cost New York \$94.4 million in related revenue. This represented a net tax loss of \$499.6 million (Anonymous, 1993b), resulting in a measurable decrease in occupancy (Hiemstra & Ismail, 1992). In 1994 New York reduced the tax so that there was an 8.25 % sales tax, plus a flat \$2 a night per room city fee (Morton, 1994).

In contrast to the experience in New York where the level of taxation had an impact on hotel occupancy, a study conducted in Hawaii found that the introduction of a hotel room tax in 1987 did not have a significant negative impact on hotel occupancy. This represents a special case because a 5% increase in room rate represents less than 1.5% of the total cost of a typical vacation in Hawaii (Bonham, Fujii, Im & Mak, 1992).

Within New Zealand a Fringe Benefit Tax was introduced in 1992 as part of an entertainment tax. The new tax, which was estimated to raise \$25 million (New Zealand: Perks topple from table as business meals cease to be fully tax deductible, 1992), targeted the provision of food in any business context irrespective of whether there was conviviality or enjoyment associated with the consumption (Le Quesne, 1993). The 100% fringe benefit tax was payable on all meal allowances and entertainment allowances, including meals and refreshments

provided as part of a training course (New Zealand: Competitiveness Hit by New Tax, 1993). The Inland Revenue Department required full information on food, beverage, recreation and associated transport and accommodation from businesses, which increased the amount of record keeping (New Zealand: New-look lunch tax burdens small business, 1993). The result of the tax was an almost immediate decline in business entertainment, which also had an indirect effect on accommodation. The tax proved so expensive to collect and so unpopular with the business community that it was removed in 1997.

In the United States of America a study comparing the effect of GDP and hotel growth conducted by Wheaton and Rossoff (1998) examined the hotel industry between the years 1969 and 1994. The objective of the study was to see whether the hotel market moved closely with the overall economy, or whether there was a longer run cycle component. Figure 2-11 illustrates the relationship between the United States economy and room night stays. As emphasised by Wheaton and Rossoff (1998) both of these series have a strong common trend, although hotel growth is faster than GDP.



**Figure 2-11 Comparison between Changes in GDP and Room Sales in the USA Hotel Industry**

(Coopers & Lybrand, 1995, p.2)

In considering Figure 2-11 there is no empirical evidence that the same holds true for other countries or regions of the world. The relationship between GDP and hotel occupancy is more prevalent in a market such as the United States, as the economy has a greater affect on travel, both vacation and business.

### ***Exchange Rate***

Witt and Martin (1987a) argue that exchange rates are likely to play a proxy price role, as tourists are more readily able to inform themselves about exchange rates than about detailed prices at their destination.

It is a logical assumption that as changes in the exchange rate will usually directly impact on hotel rates paid in the local currency, it will also impact upon other spending in the destination (Morley, 1994). Research by Chadee and

Mieczkowski (1987) conducted an empirical analysis of the effects of the exchange rate on Canadian tourism. The study found that the Canadian to United States exchange rate had depreciated by about 35%. During this time, the tourism industry in Canada experienced slow growth. As a result the “empirical analysis determined that the exchange rate had a modest impact in attracting U.S. visitors to Canada” (Chadee and Mieczkowski, 1987, p17).

### ***Economic Conditions***

What is referred to as the “Asian Economic Crisis” of late 1997-1998 had a widespread impact on many economies. As reported in February 1998 Singapore’s tourism trade like many others in the region was heavily affected by the regional economic climate, visitor arrivals plummeted by 10 %, making 1998 a poor year for hotels in Singapore; this followed a 17.6% decline for October 1997 (Dhaliwal, 1997).

In Western Australia data from Coopers and Lybrand (1998) showed that the occupancy rate was the lowest for over a decade. This is not only attributed to the “Asian Economic Crisis” but also to an oversupply of rooms and an on-going hotel building programme. A survey by Ali-Knight Williams and O’Neill (1998) conducted with twenty-five Western Australian hotel managers assessed the techniques used to counter the Asian economic downturn. One hotelier noted a 60-70% drop off in their core Indonesian inbound market. As a consequence several had shifted their marketing focus towards Europe and North America, because of the then low Australian dollar. It was found that there was very little long term planning undertaken by management, most working on a day-by-day and week by week basis. Also the downturn produced significant reductions resulting in a “price war” which drove down prices.

The close geographical proximity of Australia and New Zealand to Asia makes them susceptible to its economic crisis (Clausen 1998). In February 1998 it was predicted that New Zealand stood to lose 39% of its tourism revenue from the struggling Asian market if Asia’s financial crisis continued (Courtney, 1998a). This

represented an estimated loss of \$400 to \$653 million. Comparing December 1997 with December 1996, visitor arrivals from Korea to New Zealand dropped 78%, from Thailand 55% and Indonesia 49%. Total visitor arrivals in 1997, totalled 1,497,200, a decline of 31,000 over 1996 (Courtney, 1998b; Hartley, 1998).

### ***Wars and other Civil Unrest***

Wars and other forms of civil disruption have a marked effect on the travel and hotel industries. In May 1991 while the Gulf war was drawing to a close, many hotels were reporting sharp declines in their occupancy (Rajaram, 1991). In Ireland the Shebourne Hotel in Dublin and the Old Grand in Ennis were affected by cancellation of conferences and a lack of business travellers (Hoteliers warn of job losses as Gulf war dissuades tourists, 1991). Closer to New Zealand, Thailand's leisure industry was affected by a sharp fall in occupancy, this resulted in a decline in hotel business of 20-25% in 1991 (Gulf war hits Thai hotel industry, 1991).

Even at the conclusion of the Gulf war, the return to pre-war hotel occupancies in many regions was slow, with growth in Singapore for the first three months at a modest 0.2 % (Mulchand, 1991), while in 1991 125 United Kingdom hotels went into receivership due to decreased international travel. In 1992 UK hotel occupancy was 55% compared with 75% in 1990 (Plenty of room at the hotel UK, 1992). In 1993 London business hotels achieved 74% occupancy (Mead, 1994).

Terrorism and crime are also significant factors affecting the tourist. A great deal has been written suggesting that safety and security are a necessary condition for a prosperous tourism industry (Pizam, Tarlow & Bloom, 1997). The media tends often to highlight crimes against tourists, for instance a series of violent incidents in Florida during 1990 and the resulting publicity is believed to be directly attributable to a drop in tourism for 1994 (Schiebler, Crotts & Hollinger, 1996).

## **Summary**

There are many external factors that affect hotel occupancy which are out of the control of the individual operator. Examples are direct impacts of government in areas such as foreign policy statements and changes to taxation as well as exchange rates are important issues for international tourists along with the general economic condition of a country. Issues such as wars and other civil unrest impact both on economies of countries and on the willingness for tourists to travel internationally which impacts on hotel occupancy.

This section has discussed some of the diverse factors that affect hotel occupancy. Hotel management have the ability to control some of these while others are partly or completely out of their control. The next section describes the process in the development of a model.

## **2.5 The Development of A Model**

Modelling is a way of thinking and reasoning. "The goal of modelling is to come up with a representation that is easy to use in describing systems in a consistent manner" (Fishwick, 1995, p.28). Therefore the major reason to develop a model is to understand the relationships of the various factors and to be able to make some form of prediction about the future. As stated by Kritzman (1993, p.17):

"In order to forecast the future, we build models that define the relationship between a set of inputs and a description of the future. Models that assume a fixed relationship between the inputs and the output are called deterministic; the input leads unambiguously to the answer. Models that depend on inputs that are influenced by chance or estimated with uncertainty are called stochastic. Stochastic models do not yield unambiguous solutions; instead, they provide a distribution of probable answers. In a deterministic model, we assign a single value

to a variable; in a stochastic model, we assign a distribution of probable values to a random variable”.

As such the development of a model is an integral part of problem solving in any discipline (Starfield, Smith & Bleloch, 1990). The term model as used in this research is defined as a representation of the factors influencing hotel occupancy, in terms of logical relationships (Payne, 1982) and is dynamic, with the ability to suggest alternatives along with suggesting future conditions (Rovelstad, 1994). After the development of a model it can be used to predict behaviour (Hull, Mapes & Wheeler, 1976; Models and the Decision-maker, 1975). A model is a representation, and as such does not have to exactly represent the real world situation (Lockyer, 1992), rather just to include sufficient factors to make the model meaningful. But the model also needs to be able to reflect the real world situation (Meier, Newell, & Pazer, 1969; Hull, Mapes & Wheeler, 1976). This involves the collection of data, and the construction of a logical model that shows the important variables and the way in which they are interrelated (Duckworth, 1965). In general terms there are three main types of model construction, as listed in Table 2-21.

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**Table 2-21 Types of Model Construction**

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1. **Descriptive:** This is used to help understand the salient features of the system being modelled. An organisation chart is an example of a descriptive model. It can be used to determine rapidly who reports to whom in a large organisation.
2. **Predictive:** This type of model is constructed to make predictions about the future behaviour of the real system. These types of models will vary considerably with the level of accuracy required. Graphical extrapolation of past data in order to forecast future sales is an example of a simple predictive model.
3. **Analytical:** This type of model can be manipulated in order to determine the best method of achieving specified objectives. The use of analysis includes elements of description and prediction. It also requires an in-depth understanding of the internal relationships between the variables in the model.

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Hull, Mapes, & Wheeler, 1976, pp.10-11

A model may be developed as just one of the types listed in Table 2-21 or any combination thereof. Models are also classified as either deterministic or probabilistic. A deterministic model assumes that the values of all variables are either known exactly or can be predicted exactly. A probabilistic model recognises that the values of some variables are uncertain, such as rainfall or harvest size which are related to nature and for which historical data are available, using concepts from probability theory (Connolly, 1996; Rivett, 1994; Hull, Mapes & Wheeler, 1976).

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**Table 2-22 Factors in a Retail Market Model (Selected)**

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- the optimal mark up on the  $i$ th good
- the base quantity demanded of the  $i$ th good
- the base price of the  $i$ th good
- the number of firms in the market
- the intramarket price sensitivity of demand
- the factor which modifies demand when the private labelling option has been chosen
- the price of the  $i$ th good set by the  $k$ th store
- the price index

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Schellenberger, 1965, p.73

A simple model can be illustrated by considering hotel room price. "The price of a product or service usually affects both sales and profit. The important decision of setting a price involves competitive market aspects and the relationship between

price and quality” (Samson, 1988, p.11). This relationship is demonstrated in a model by Schellenberger (1965) that considered the development of an oligopolistic retail market decision. Table 2-22 shows some of the factors involved in the model.

The model contains a number of assumptions, and although representing a retail operation, it does give an insight into some of the relationships that exist in such a model.

There are many models discussed in the literature for the analysis of various situations. A valid model should behave in a manner similar to the underlying phenomena. Although a necessary validation criterion, this alone may not produce a valid result (Cohen & Cyert, 1961). Therefore a model can be described as a set of logical relationships, either qualitative or quantitative, which links together the factors under investigation. Such a logical relationship can be expressed in the symbolic form where  $\chi$ 's are controllable factors and  $\gamma$ 's are uncontrollable as in Equation 2-4.

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**Equation 2-4 Symbolic Factors of a Decision Model**

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$$f(\chi_1, \chi_2 \dots \chi_m; \gamma_1, \gamma_2 \dots \gamma_m)$$

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Rivett, 1980, p.11

Although the statement in Equation 2-4 implies, or even explicitly states, a mathematical formula, this is not necessarily the case. Neither is it the case that there will be only one such logical statement (Rivett, 1980).

Two kinds of factors may be represented: 1). Those factors that are naturally uncontrollable in the sense that they belong essentially to nature (economy, raw material price, laws, social ethos, etc.), and 2). Those factors that are controllable by an opponent who is not devoted to ones well-being (Rivett, 1980). In the

development of a quantitative model, the process involves the establishment of the numerical relationships between the variables (Hull, Mapes & Wheeler, 1976).

This section has discussed the development of a model and its characteristics. The next section discusses previously published models and their relevance to the current research.

## **2.6 Previously Published Models**

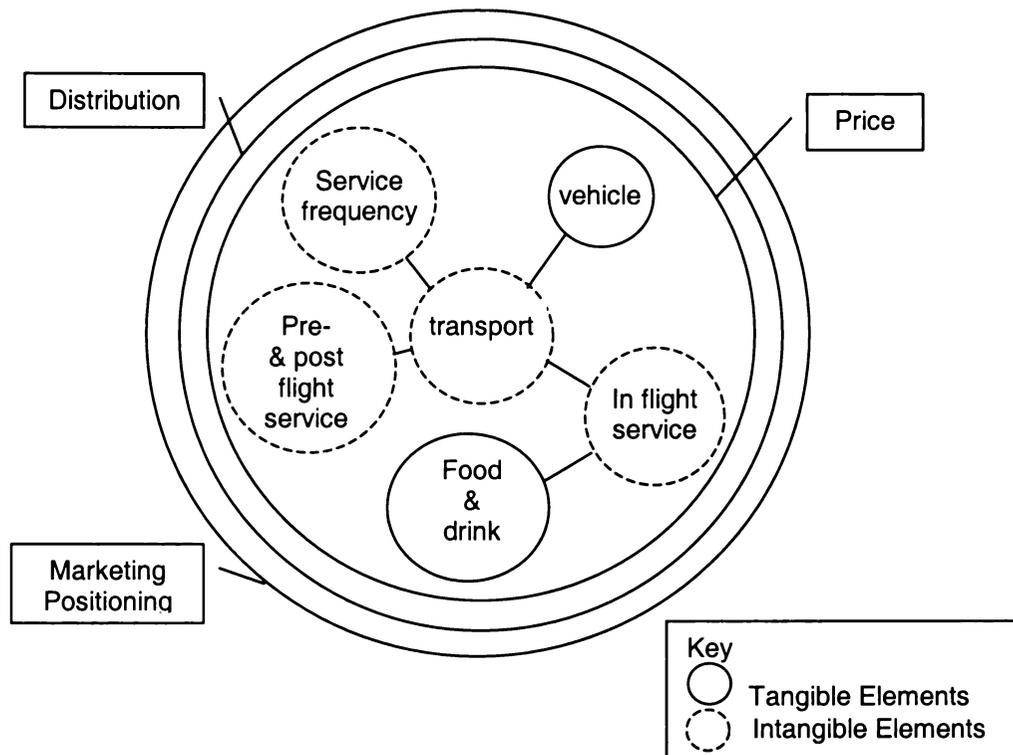
This section gives examples of previously published models along with their desired outcomes.

A model of service entities suggested by Shostack (1977) gives a useful framework for developing a model of the structure of satisfaction decisions of hotel operations Figure 2-12. The service marketing literature suggests that services are complex because of the intangible nature of the product and that it is delivered by several different service providers (Lovelock, 1983). The model describes the relationship between tangible and intangible factors within an airline industry. Intangibles such as service frequency, in-flight service and transport, which significantly affect the overall satisfaction felt by the customer, are difficult to define.

The model in Figure 2-12 gives the opportunity to visualise and manage the market entity. It reflects that a market entity can be partly tangible and partly intangible, without diminishing the importance of either characteristic. The model also suggests that either an inadvertent or deliberate change in a single factor may completely alter the entity.

The need to manage strategic change in organisations facing uncertain futures challenges both management theorists and practitioners to develop better models of organisations. This can lead to greater insight into processes that motivate and

accomplish organisational change in the environment (Sanchez & Heene, 1997) which leads to identification and clarification of some key issues in the dynamics of organisations as they try to respond to an uncertain and changing environment (Sanchez & Heene, 1997).



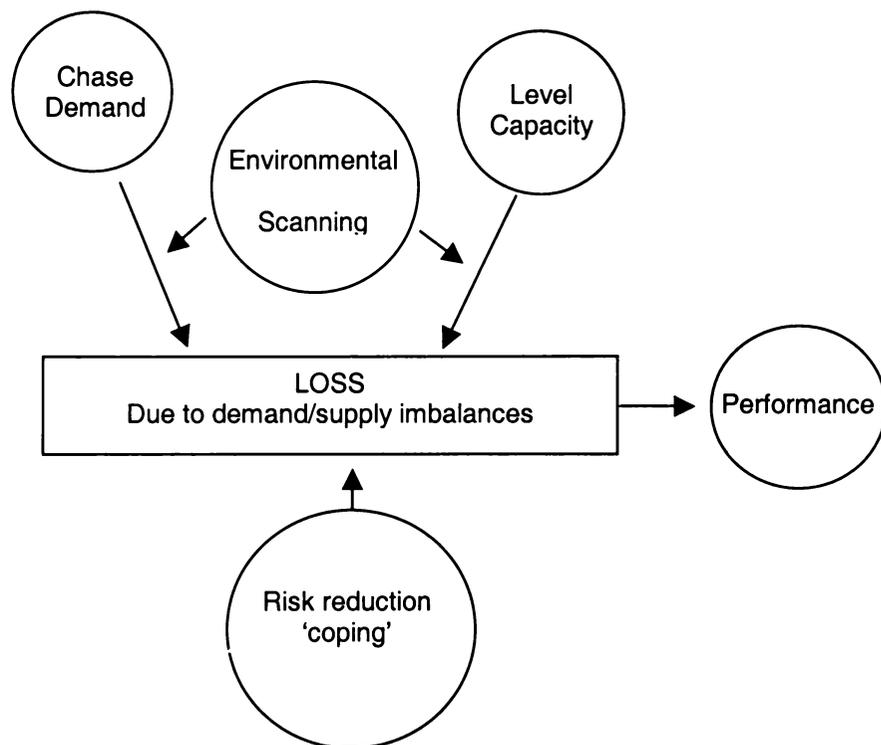
**Figure 2-12 Model of Airline Market Entities**

(adapted from Shostack, 1977, p.76)

There are a number of models that attempt to maximise hotel occupancy. Many hotel managers consider the implementation of a pricing policy, such as a yield management tool, to be an effective response to changes in the competitive environment (Schwartz and Hiemstra, 1997). There are other approaches such as one suggested by Schwartz and Hiemstra (1997) which involves an extrapolative forecasting model that improves the daily occupancy levels in a hotel by focusing on the shape of past booking curves. Another model uses randomly

generated numbers (Kritzman, 1993; Rubinstein, 1981) in what is referred to as a Monte Carlo simulation and scenario analysis decision making tools for hotel occupancy (Sheel, 1995). Still another model uses mathematical simulations to attempt to determine occupancy under a variety of different environments (Lockyer, 1997); these are a mixture of known, unknown and random data to generate a result which bears some resemblance to reality.

The choice of a model depends on the specific nature of the forecasted variable, and the nature of the available data (Witt & Witt, 1995; Sheldon & Var, 1985; Uysal & Crompton, 1985).



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**Figure 2-13 Conceptual Capacity Model**

(Ali-Knight et al., 1998, p 5)

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A model referred to as the capacity management model (Shemwell & Cronin, 1994) which emphasises how supply/demand imbalances cause losses in business performance is presented in Figure 2-13. The model is based on the work of Sasser (1976) who identified two basic strategies for managing capacity in service industries.

In Figure 2-13 these are referred to as the 'chase demand' strategy and the 'level capacity' strategy. In the chase strategy demand capacity is adjusted in relation to demand fluctuations. This can be accomplished in a number of different ways including the use of flexible staffing policies. This is used to adjust the staff available in low demand periods and accomplished through the use of part time and seasonal staff. The 'level capacity' strategy involves the use of marketing mix to enable demand to change capacity. The demand is influenced to minimise the need to change capacity and is used where demand is more visible so the service provider can effectively tell customers to wait when demands cannot be satisfied. A common approach to doing this is the use of differential pricing schemes between peak and off-peak periods.

The environmental scanning in Figure 2-13 is defined by Byars (1987) as the systematic methods used by an organisation to monitor and forecast those forces that are external to and not under the direct control of the organisation or its industry. This involves the collection of data from such areas as: political, social, economic and environmental, analysing and developing possible action. Of particular interest in Figure 2-13 is the overall simplicity of the model, however with this simplicity there is a lack of detail. The model as a result does not represent the whole system and the internal and external factors that also have influence. Alternatively, a model published by Choy (1985) looks at the hotel industry as a whole when forecasting occupancy performance in the form of a simple model applicable to small island states. The model predicts the expected demand for accommodation in terms of room nights and is represented by the formula in Equation 2-5.

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**Equation 2-5 Visitor room nights (VRN)**

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$$VRN = \frac{V * HP * ALS}{APS}$$

where:

*VRN* = visitor room nights:

*V* = number of forecasted visitor arrivals:

*HP* = percentage of visitors staying in hotels:

*ALS* = average length of stay:

*APS* = average party size as a proxy variable for average occupancy per room.

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Choy, 1985, p.5

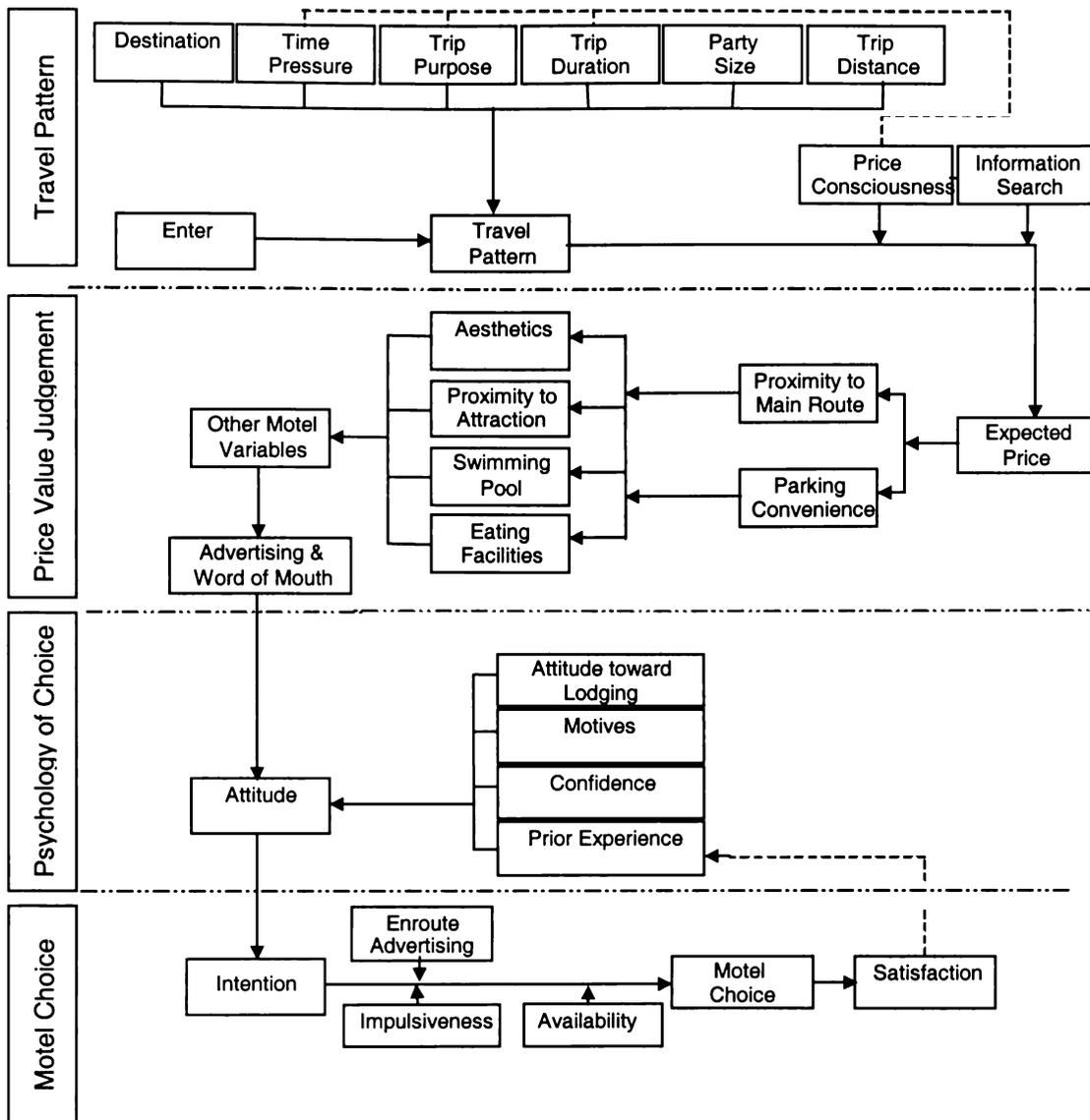
The data for *HP*, *ALS* and *APS* would be based on the prior year assuming that it is representative of current trends and experience. The formula takes an overall view of hotel demand and performance, and as such is based on the number of visitor arrivals. It does not consider the factors that would be taken into account when deliberating demand in an individual hotel. The formula in Equation 2-5 was developed using data from the Singaporean tourism industry, and has application where the number of tourists entering a country or region is known accurately, and there is specific information on the number of arrivals in relation to how many stay in hotels. Although this formula was published in 1985 it is just as applicable today because of the assumptions which it evaluates.

Another model developed by Yesawich (1984) takes a general judgement-based approach to project annual hotel occupancy, which is derived from the fundamental principles of hospitality marketing. It requires the forecaster to take an in-depth look at existing market condition. To be able to apply this technique two pieces of information are required: guest history and an understanding of the market forces that will affect the performance in the forecast period. The first of these is reasonably straightforward, although the collection of data can be somewhat time consuming; the second required information is much more difficult and problematic. Many of the significant events that affect hotel occupancy are

unpredictable. Relihan (1989) forecasts demand for hotel rooms using a yield management tool for hotel room pricing (Brotherton & Mooney, 1992).

Research conducted by Andrew, Cranage and Lee (1991) studied the empirical use of two time series models for forecasting hotel occupancy rates, Box-Jenkins and exponential smoothing. Each of these is a time series model. Unlike econometric models, time series models do not employ a causal relationship but rather look for time patterns, trends, cycles and seasonal fluctuations of the historical data (Andrew, Cranage & Lee 1991). These mathematical relationships are used to project patterns into the future. The Box-Jenkins model employs autoregressive and/or moving average type relationships, while the exponential smoothing model utilises a class of relationships based on exponentially weighted moving averages. With the data as discussed in the research it was found that the fitted time series models provided a high degree of accuracy in fit and in prediction. The Box-Jenkins models performed better than the exponential smoothing model in both the initial time period and in the six-month forecasted period. This processing of the occupancy predictions requires more than a "re-run" of the predetermined model (Schwartz & Hiemstra, 1997).

A model constructed and based on research by Mayo (1974) involved a self-report questionnaire that was systematically distributed to a sample of enroute auto vacationers. The research details the factors affecting motel choice, which are summarised to illustrate the important factors in Figure 2-14 where the model provides a framework for illustrating the major determinants of motel choice behaviour and shows the interrelationships among the variables.



**Figure 2-14 Major Determinants of Motel Choice**

(Mayo, 1974, p.55)

The traveller begins the model on the top left with several concepts influencing likely choice of accommodation for the night. As long as price and other factors are satisfactory, he/she is influenced to stay with a chain hotel where he/she has had an agreeable earlier experience.

Figure 2-14 is further explained by Table 2-23 where the division of four pre-choice and motel selection areas are defined.

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**Table 2-23 Factors Considered in the Accommodation Selection Process**

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**Travel Pattern** – These variables consist essentially of trip characteristic variables, such as destination, time pressure, trip purpose, and trip duration. The variables together produce a unique travel pattern.

**Price Value Judgements** – These variables apply a judgement to the price value comparison.

**Psychology of Choice** – This considers the travellers attitude towards alternative motels, reflecting the vacationer's personality and things that have been learned via experience.

**Motel Choice** – This illustrates the likely course of action the vacationer will take.

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Adapted from Mayo, 1974, pp. 58-63

Research by Brewton (1987) presents a model for analysing the lodging industry, Table 2-24 and further illustrated in Figure 2-15. He states that industry analysis is a framework for intelligence gathering “designed to provide essential information about different types of competition businesses face”, (Brewton, 1987, p 10) and that the most important reason for preparing an industry analysis is for forward planning as proactive management involves the ability to influence the future rather than react to it. Good management should have a knowledge of important industry relationships and ongoing trends. The model in Table 2-24 has five components:

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**Table 2-24 Factors in an Industry-Analysis Model**

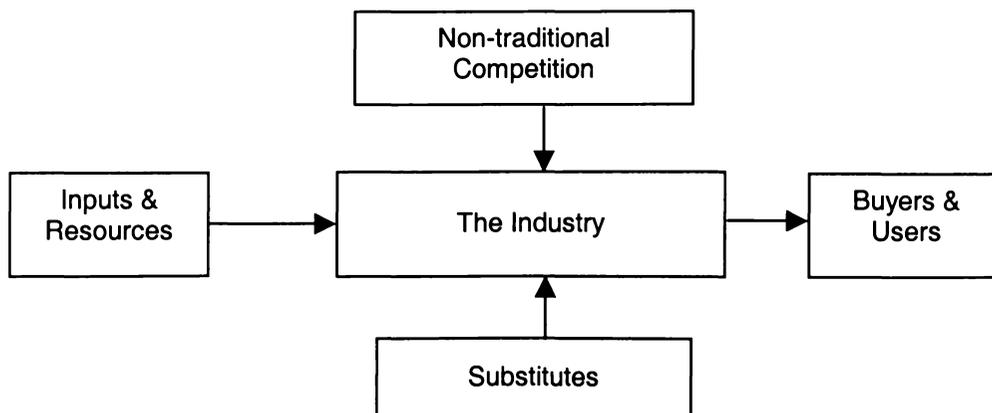
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1. *The industry* – identified by the basic standardised product or service that is produced;
2. *Inputs and resources* – the services, products, and raw materials used to produce the end product or service;
  - *Labour* – availability of workers and management, strengths and types of unions, and levels of wages and benefits;
  - *Technology* – primarily information processing, energy conservation, audio-video services, telecommunications, security systems, and fire safety;
  - *Energy* – type, cost structure, and local or national policies that could affect usage;
  - *Capital* – available dollars needed, as influenced by the economy and government taxation policies;
  - *Purveyors and vendors* – outside companies that provide food and beverage, supplies, and guestroom amenities;
3. *Non-traditional competition* – firms outside the mainline that offer a similar product or service that could erode demand for the basic product or service being studied;
4. *Substitutes* – competitors purveying dissimilar products or services that outmode the product or service being analysed;
5. *Buyers and users* – either the actual consumer or an organisation that purchases the product or service with the intent to distribute or resell it to others.

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Brewton, 1987, pp. 10-11

The model in Figure 2-15 is for the whole industry and can be described as a framework that hotel and restaurant managers can use to augment their intelligence-gathering and decision-making efforts



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**Figure 2-15 A Model for Analysing the Lodging Industry**

(Brewton (1987), p.11)

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The relationships are interesting and give an indication to the current research. Brewton speaks of the greater insight such a tool can give management into the total marketplace.

A model prepared by Kim (1996) (for a PhD thesis entitled “Development of a Model to Examine the Determinants of Demand for International Hotel Rooms in Seoul”) develops an econometric model that attempts to measure cause and effect relationships among variables (Sheldon & Var, 1985). One of the main aims of an econometrics model is the formulation of economic models in an empirically testable form (Maddala, 1989). This type of model enables the investigation of the causal effects of changes in the explanatory variables on the demand variable, also making “What if” types of simulations possible (Witt & Martin, 1987b) and is able “to assess the consequences of possible changes in the causal factors” (Witt & Witt, 1992, p.7). This model is of interest because of the close statistical relationships that are drawn between the different factors involved in hotel selection.

This section has discussed a variety of different types of previously published models, giving an insight into previous research and the factors used. The various approaches to models of hotel occupancy are presented as a reference point for further research.

## **2.7 Summary**

This chapter puts the research in perspective in relation to the current body of literature, while fulfilling the research question and objectives. This was achieved by first introducing the reader to both the international and New Zealand tourism and hotel industry, the characteristics and the factors affecting their growth and development, and the impact they play in the New Zealand economy. An important aspect of understanding the factors that influence hotel occupancy is the characteristics of the product, these factors of intangibility, inseparability, variability and perishability, which were discussed so that their impact could be

utilised in further sections. The findings of several studies of the factors affecting hotel occupancy was presented. These illustrated the diversity of the results along with a high level of commonality. For example five published research articles placed “Standard of Housekeeping or Cleanliness” as the most important attribute affecting occupancy while factors such as “Room service availability” had no commonality between the results (Callan, 1996; Weaver and Oh, 1993; Saleh & Ryan, 1992; Weaver & McCleary, 1991; et al). Some insight was given to the variability of results and difference in opinions by the research conducted by Parasuraman, Zeithaml and Berry (1985) which the authors denote as “gap 1”, referring to the difference between consumer expectations and management perceptions of these expectations. Discrepancies between management perceptions and consumer expectations existed resulting in service firm executives not always understanding what features are important to the consumer.

As a mechanism to understand the service product and in particular the difference between expectations and satisfaction the SERVQUAL method of measuring customer satisfaction was introduced, along with several models of service quality.

The individual factors including facilities, price, government policies, exchange rate and economic conditions was discussed indicating their impact on hotel occupancy. Research into the factors that influence the selection (Callan, 1996; Weaver and Oh, 1993; Saleh & Ryan, 1992; Weaver & McCleary, 1991; et al), gave insight into what previous research had suggested as major factors influencing the selection process. The interdisciplinary nature of the hotel industry was introduced along with the holistic approach taken by this research. Previously published models followed which showed a variety of approaches from simple “visitor room nights” (Choy, 1985) equations to complex “major determinants of motel choice (Mayo, 1974) with each adding to the overall perception of factors influencing occupancy.

## **2.8 Direction for This Research**

The models considered thus far give insight into research which has been previously conducted relating to the factors affecting hotel occupancy. These vary from fairly straightforward mathematical equations to more complex inter-relationships. It is clear from this review that a myriad of different approaches have been taken, some have explored a rather restrictive view of the factors affecting hotel occupancy while others have taken a more comprehensive view. Although each of these gives valuable insight to the issues at hand, the current research often does not fully integrate the multi-disciplinary nature of the hotel industry. Frequently the result is discipline based, i.e. looking at marketing or personnel or a limited combination of these. Therefore it is believed that an interdisciplinary approach is essential to give a wider perception of the multitude of factors involved as even the comprehensive studies do not include all of the factors involved in the selection process. As such, the outcomes are restricted in their application.

Therefore this research will investigate the factors affecting hotel occupancy from a management decision approach specifically considering New Zealand and evaluate those factors so that an applicable model of the interaction of these factors can be developed to assist hotel management to better understand the issues taking a broad approach in the decision making process.

Although it is felt that much of the existing research does not fully answer questions relating to occupancy this research will incorporate previous research results and attempt to compare and contrast international research findings to determine if there are parallels to be found in New Zealand.

The next chapter discusses the methodology of the collection of data to achieve these ends.

## **CHAPTER 3 RESEARCH METHODOLOGY**

### **3.0 Introduction**

This chapter details the methodology undertaken so that the overall objectives of this research can be achieved, beginning with a discussion and justification of the mixed method applied to the research. Data collection methods are then discussed along with the rationale for the sample selection, the development of the instrument used for data collection and the methods used in data entry and analysis. Finally details are given on the development of a decision model and ethical considerations.

The following is an outline of this chapter:

- 
- 3.0. Introduction
  - 3.1. Research Methodology
  - 3.2. Research Procedures
    - 3.2.1 Research and Industry Stakeholders
    - 3.2.2 Hotel Decision-makers
    - 3.2.3 Potential Guests
  - 3.3. The Model
  - 3.4. Ethical Considerations
- 

### **3.1 Research Methodology**

The main objective of this research is to investigate and understand the factors influencing Hotel/Motel accommodation selection in New Zealand and to develop an applicable management decision model. As discussed in Chapter 2, a model of hotel room occupancy includes a number of different factors, such as internal, external, controllable and uncontrollable (Yucelt, & Marcella, 1996).

To understand such factors previous studies conducted predominantly in the USA (Mayo 1974; Weaver and McCleary 1991; et al), have generally surveyed the potential guest, and as a result have been limited in their perspective as there are

other factors that impact on selection of accommodation that might not be perceived by the potential guest. This research takes a holistic approach and investigates the views of both the potential guest and the hotel industry with the industry representation separated into two groups: 1) hotel decision-makers, 2) research and industry stakeholders. The approach taken therefore has two advantages, first it broadens the research and second it makes it possible to analyse the differences that might exist between the perspectives of the different groups with respect to the research question. The procedure is similar to research conducted by Lewis (1987), where a comparison was done between data collected from upper management and randomly selected customers, in a service industry. Lewis identifies what he refers to as gaps between management and customer perspectives. The value of such an approach is that the development of the model will include both standpoints, and therefore could be particularly useful to management in understanding and evaluating their decisions.

### ***The Research Paradigm***

In evaluating the achievement of this research the process of data collection is important to obtain a valid data set. In this context there are two broad data collection methods: qualitative and quantitative. Distinguishing between these research approaches can further help with identifying the various contributions that each can make to research. The next section discusses their characteristics so that the relationships can be better defined within the research paradigm.

### ***Quantitative Methods***

Quantitative research, by definition, implies the application of a measurement or numerical approach to the nature of the issue under scrutiny as well as to the gathering and analysis of data. This type of methodology is likely to include extensive surveys which can consider broad issues, incorporate a range of factors, include a wide geographical spread of representative samples and a focus on group outcomes (Brannen, 1992). Not all quantitative research results from questionnaires. Some of it can arise from the counting of frequencies where the

construction of ranking might have been involved (Ryan, 1995) as used in importance performance analysis.

Advantages with a quantitative approach are that it is possible to provide authoritative survey data and also relate diverse factors. It can also assess the incidence, epidemiology and boundaries or problems of the situation under scrutiny. This gives the researcher the ability to compare areas of the country and sub-group or sets of factors which reveal the different perceptions that participants have of the same situation (Graziano & Raulin, 1989).

### ***Qualitative Methods***

Qualitative approaches in contrast lead to a much greater understanding of the meaning and context of behaviour and the process that takes place within observed patterns of interrelated factors. It also reveals the different perceptions which participants have of the same situation (Brannen, 1992; Mitchell, 1986).

Ryan (1995) classifies qualitative research in two main categories: field research, and open-ended interviewing techniques. Essentially each of these exists to develop a sense of the emotion that is associated with the subject being researched. Qualitative research is good at probing for answers with small sample sizes as used in the in-depth interview with research and industry stakeholders in this research (Ryan, 1995). Qualitative research is not limited in its use to answering questions of descriptive concern, but also considers issues of a causal nature (Ryan, 1995). Qualitative research does not propose truths, but rather factual, data-based results (Wells, 1991) and can generate hypotheses. These may include factors such as age, marital status and occupation in order to establish a causal relationship.

It is an important component of qualitative research to ensure that the wording of the questions do not in themselves indicate the answer, and by doing so create a bias (Ryan, 1995).

### ***Mixed Methods Methodology***

Layder (1988) argues that traditionally there has been a gulf between qualitative and quantitative research, with each belonging to distinctively different paradigms, and that the distinction relates to a number of levels concerning the production of knowledge and the research process. The combining of different methods within a single piece of research raises the question of movement between paradigms. As a result the term mixed methods refers to the use of a combination of qualitative and quantitative research (Brannen, 1992). Sofaer (1999) discusses the importance of a relationship between qualitative and quantitative research in applied areas. In broad terms qualitative research isolates and defines variables and variable categories. "These variables are linked together to form hypotheses often before the data are collected, this is then tested upon the data. In contrast, the quantitative research begins with defining very general concepts which, as the research progresses, change their definition. For the former, variables are the vehicles or means of the analysis while, for the latter, they may constitute the product or outcome" (Brannen, 1992, p.4). As reported by Bennington and Cummane (1998) the application of a multi-disciplinary approach is a growing trend with the ability to broaden research outcomes.

In considering qualitative and quantitative research methodologies, it is evident that there are disagreements regarding the value of each. The positivist tradition, which underpins much social policy research is, not surprisingly, often less than sympathetic to qualitative perspectives (Finch, 1986). Moreover, the interpretative social sciences have often been equally dismissive of quantitative methods (Brannen, 1992). Each academic discipline tends to favour some research approaches more than others with differing methodologies (Brannen, 1992).

The application of mixed methods is applicable to multi-disciplinary studies (Brannen, 1992). For this reason a mixed methods approach was applied to this research with the data collection including both qualitative and quantitative

methods. The combination of qualitative and quantitative research methods varies with the different stages of the research. The first part, that of the in-depth interview with researchers and industry stakeholders was entirely qualitative. Its use gave the participants the ability to express their views over a wide range of responses, and as a result formed a basis for the further studies. The survey of hotel decision-makers has a much smaller qualitative component, which was restricted to one main question about the five most important factors influencing occupancy. The survey of potential guests was entirely quantitative. This combination gave the research the opportunity to apply a wide range of data collection and analytical tools and to build the research from one stage to the next. Along with the importance of methods of data collection, it is necessary to ensure that the data is valid, as discussed in the next section.

### ***Research Validity***

A major concern in research is the validity of the procedures and conclusions. One of the meanings of the term validity refers to a methodological soundness or appropriateness of the research (Graziano & Raulin, 1989). This means that the research indeed measures what it is supposed to measure. Cook and Campbell (1979) discuss four types of validity: statistical validity, construct validity, external validity, and internal validity. The following is a brief explanation of each as given by Graziano and Raulin (1989).

**Statistical Validity:** are the results due to some systematic factor [the independent variable] or are they due merely to some random factor? Several indicators illustrate lack of validity, one of these is when the measure used to assess the dependent variables is unreliable. Another is when the assumptions that underlie the statistical tests are violated.

**Construct Validity:** looks at how well the study's results support the theory or constructs behind the research and asks whether the theory supported by the findings provides the best available theoretical explanation of the results.

**External Validity:** the results of an experiment are limited to those subjects and conditions used in the particular experiment. External validity refers to the degree to which it is possible to generalise the results of a study to other subjects, conditions, times, and places.

**Internal Validity:** This relates to whether the independent variable and not some extraneous variable is responsible for the observed changes in the dependent variables.

As a result of the list above those undertaking research need to be aware of 1). What are the threats to the validity of the research, and 2). What means are available to neutralize those threats (McBurney, 1998). The careful design of the research overcomes these difficulties, as in any research the methodology must be repeatable.

### ***Data Collection***

The first step in the data collection for this research was interviews carried out with the research and industry stakeholders; these findings were used in the development of the questionnaire which was administered to hotel decision-makers. The final stage in the data collection incorporated a survey of potential guests. These three sets of data were analysed using a number of different tools in the development of a management decision model to incorporate those factors identified through the research. The next section gives detailed information of the research procedure undertaken.

## **3.2 Research Procedures**

### ***3.2.1 In-depth Interviews with Research and Industry Stakeholders***

#### ***The Subjects***

The objective of the in-depth interview was to gather data on which to develop the

further investigation from senior persons in the tourism, hotel, government, education and related industries regarding their views of the factors affecting hotel occupancy. A convenient non-probability<sup>3</sup> (Fink, 1995) group of 11 senior persons were selected as outlined in Table 3-1, each of whom were contacted by telephone and asked if they were willing to participate in an in-depth interview, giving details about the project. This followed a process suggested by Mitchell (1980). All indicated their willingness to participate. All of those selected had been resident in New Zealand for the majority of their careers except for Dr. L. Krueel, who was at that time a visiting professor at the Central Institute of Technology and Head of Department of Hotel Management at Purdue University, USA. He was included to give an additional perspective on the investigation.

**Table 3-1 Breakdown of those Participating in In-depth Interviews by Organisation**

Government	Mr P. Winter, CEO, New Zealand Tourism Board (Wellington) Mr D. Comery, Chair, New Zealand Accommodation Council (Auckland) Mr G. Norris, CEO, Hospitality Standards Institute (Wellington)
Tourism Business	Mr P. Bourey, Owner Operator, Paul Bourey Travel (Wellington) Mr P. Laury, CEO, Travel and Tourism Association of New Zealand (Wellington)
Hotel Management	Mr J. Kenny, General Manager James Cook Hotel (Wellington) Mrs A. Legge, General Manager Museum Hotel (Wellington)
Educators	Mr R. Fraser, Hospitality Management Degree Coordinator & Chairman Board of Studies, Central Institute of Technology (Wellington) Dr. L. Krueel, Visiting Professor from Purdue University (Wellington) Mr C. Panakera, Senior Lecturer & Hotel Owner Operator, Waikato University (Hamilton)
Consultants	Mr T. Nang, National Director, Tourism & Leisure Consulting Group. Ernst Young (Auckland)

The professionals listed above have a wide experience of both the tourism and hospitality industries, within New Zealand and internationally, with many of them having owned and operated their own businesses and all currently holding senior management positions.

<sup>3</sup> The selection of participants is not subject to random selection, and as a result the data is not suitable to be analysed with probability analysis.

### ***The Instrument***

The instrument used for data collection was an in-depth interview comprising pre-determined questions. The interviews were designed to last approximately 30 minutes (although most of the interviews lasted closer to 45 minutes). Each of the interviews took place in the individual person's place of normal employment. Time was taken at the beginning of the interview to explain the purpose and to ask if there were any privacy concerns, at that time informed consent was obtained. To ensure the same questions were asked to each of the participants an interview guide was used.

The questions were broken into two main parts. The first question asked the participants to: "Please list in descending order the five most important factors that you believe have the greatest influence on hotel occupancy". The second part comprised a set of nine questions asking about specific factors influencing occupancy as listed in Table 3-2. The factors to be included in these questions were derived from the predominant factors indicated as affecting occupancy from previous research (Weaver & Oh, 1993; Saleh & Ryan, 1992 et al).

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**Table 3-2 Questions Asked during Second Part of Interview**

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What do you believe is the impact of:

- facilities on hotel room occupancy?
  - government on hotel room occupancy?
  - staff and service quality on hotel room occupancy?
  - competition on hotel room occupancy?
  - marketing on hotel room occupancy?
  - location on hotel room occupancy?
  - exchange rate on hotel room occupancy?
  - security on hotel room occupancy ?
  - price on hotel room occupancy?
-

### ***Data Entry and Analysis***

Two methods of recording the responses were used simultaneously: a written record made at the time of the interview and a tape recording of the interview, designed to provide a backup for the written record. These were compared to ensure an accurate record was made. Appendices A & B show the responses to the questions. The analysis of the data was accomplished using a computer software program called CATPAC™. This program uses the theory of neural networks to establish patterns within written text. The software can read rows of text and learn the underlying concepts of clusters of meaning which it reports graphically (Hample, 1996 p.63). CATPAC reads and analyses text by using a neural pathway; this is achieved by running a scanning window through the text. This scanning window consists of  $n$  consecutive words (default  $n = 7$ ). This approach strives to emulate human memory (Woelfel, 1996). The result is that only frequently reinforced connections will grow strong while those that are only infrequently or never reinforced become weak. After reading several cases, the software detects those stimuli that co-occur in the cases. These will tend to be positively interconnected in the network, while those that seldom or never co-occur will become negatively interconnected.

The result is a square similarities-dissimilarities matrix in which each row and column of the matrix represents a neuron or word and each number represents the strength of connection of the neurons that corresponds to the row and column of the number (Moore, Burbach & Heeler, 1995). A more detailed explanation of how the software operates is included in Appendix K.

The analysis of the data gives an indication of the factors that those being interviewed believed to be important in the selection of hotel rooms. The data were used as a basis for the next two sets of data collection. The next section discusses the process undertaken for the collection of data from an industry survey.

In summary, the data collection and analysis as discussed for the In-depth interviews with the researchers and industry stakeholders as a group of experts gives a valid framework and basis for this research. The selection of the participants gives a broad spectrum of opinions, from academics to hospitality and tourism management. The detailed collection of the open questions and analysis using CATPAC provide a result that is representative of the comments of the participants. The results from this analysis were applied in the development of the next data collection, that of hotel decision-makers, with the questions being built on the findings of this data set; in particular the first question in each are the same.

### ***3.2.2 Hotel Decision-Makers' Survey***

The second set of data for this research comprised a Hotel Decision-Makers' Survey. The objective of this survey was to investigate what persons in the hotel industry in senior decision-making positions believed were the factors that influence occupancy in hotels.

#### ***The Subjects***

The New Zealand hotel industry comprises a majority of small establishments, there being 86 hotels with greater than 80 rooms at the time of the survey (Ernst Young Hotel Survey, 1997). With reference to the limited number of establishments available a convenience, non-probabilistic sample of hotels using the Jason's (1996) Accommodation Guide was selected from those having more than 60 guest rooms, being equivalent to a 3 or higher star rating. These criteria were used as such establishments would have a larger number of facilities available to guests and also a larger range of factors influencing occupancy. It was also believed that the management staff in such establishments would have a broader level of experience and as a result a greater understanding of the factors

influencing occupancy. These participants, therefore, could be considered as a collaboration of 'experts' (Finsterbusch, 1976).

Two management positions were included in the sample, the first being the General Manager or Assistant General Manager of the hotel. This position was selected in order to give a general overview of the factors influencing occupancy. The second, the Front Office Manager, as this would give a more focused operational view of the factors influencing occupancy. Other departmental heads were not included because they did not have such a close functional relationship with guest occupancy.

Using these criteria, 37 different hotels were selected. Attempts were made to determine what percentage of the population this sample represented, but after contacting Qualmark, the organisation who assesses New Zealand Hotel quality, the Automobile Association, the Hotel Association of New Zealand and the Department of Statistics, no accurate figure could be determined. Further, as the rating schemes for hotels are voluntary there is no reliable nationwide reference. For example, the "Centra Hotel Auckland" does not advertise or display any quality star rating, but for the survey respondents indicated they were a five star hotel. By counting the entries in Jason's (1996) Accommodation Guide an estimated 147 establishments met the criteria for this research, making a sample of 26% of total number of hotels. The list of the establishments is in Table 3-3. Each of the 38 hotels were contacted by telephone to obtain the name and correct position title of their General Manager and/or Assistant General Manager as well as the Front Office Manager. This resulted in 79 named persons for the survey as detailed in Appendix H. Although there were a sample of only 37 hotels, by having more than one person from most establishments, this tended to broaden the sample size as each person would have had experience working in various establishments as indicated by Hotels' high turnover of management (Nailon, 1982).

**Table 3-3 List of 38 Establishments Included in the Survey**

Company	City	Company	City
Barrycourt Hotel	Auckland	Park Towers Hotel	Auckland
Bay Plaza Hotel	Wellington	Parkroyal Wellington	Wellington
Carlton Hotel	Auckland	Peninsula Hotel	Auckland
Centra Auckland Hotel	Auckland	Plaza International Hotel	Wellington
Champion International Hotel	Auckland	Portland Towers Hotel	Wellington
Christchurch City Travelodge	Christchurch	Quality Hotel Logan Park	Auckland
City Life Hotel	Wellington	Quality Hotel Oriental Bay	Wellington
City Plaza Hotel	Wellington	Quality Hotel Plimmer Towers	Wellington
Ellerslie International Hotel	Auckland	Quality Hotel Rose Park	Auckland
Elms Hotel	Christchurch	Quality Resort Terraces	Queenstown
First Imperial Hotel	Auckland	Sheraton Auckland Hotel	Auckland
Gateway Hotel	Auckland	Sheraton Rotorua Hotel	Rotorua
Hotel Raffaele	Wellington	Sky City Hotel	Auckland
Hyatt Regency Auckland	Auckland	The Heritage	Christchurch
James Cook Centra Hotel	Wellington	The Plymouth International Hotel	New Plymouth
Kiwi International Hotel	Auckland	The Surrey Hotel	Auckland
Manor Inn	Auckland	Waipuna International	Auckland
Museum Hotel	Wellington	West Plaza Hotel	Wellington
Noah's Hotel	Christchurch		

As evident from Table 3-3 the hotels surveyed cover the main axis areas plus other major areas throughout New Zealand, but it needs to be noted that geographical area was not a primary interest to the research - of importance was the persons surveyed and their position. However, as the sample was selected on the position held in the hotel no assurance can be made as to how representative the sample is in relation to gender or age although the results indicated 47% female and 53% male respondents.

### ***The Instrument***

The questionnaire was separated into three main parts (see Appendix C for full questionnaire), and was developed with reference to Dillman (1977), "Total Design Method". This method includes detailed descriptions on the preparation of the questionnaire, its length, types of questions and ordering of questions to

encourage a high return rate. A number of independent variables were considered, but possibly the most important of these was the level of experience as indicated by position held; the number of years working in the industry was not included as management experience was believed to be a better indicator of experience. Also included was the star rating of the establishment, location, type and size of the establishment. The questionnaire comprised 86 questions based on the results of the survey of research and industry stakeholders, ensuring that the major factors indicated as affecting occupancy were included, such as Price, Location, Service Quality. Also the literature on significant areas affecting occupancy were included within the questionnaire. The following details each of the sections of the questionnaire:

1. Independent variables - information about participants and the hotel in which they were employed:
  - Current Position
  - Rating of Establishment
  - Location (inner/outer city)
  - Type of Establishment (corporate, tourist, other)
  - Size of Establishment (number of guest rooms)
  
2. A question parallel to the first question asked in the in-depth interviews with the research and industry stakeholders, "... What are the five most important factors affecting guest room occupancy."
  
3. Questions to measure agreement, disagreement, priority rating and changes as specified in the questions made up of:
  - a. Questions 1 through 11 - 7 point Likert style questions asking agreement or disagreement with a set of statements, with 1 = Strongly Disagree, 4 = Neutral and 7 = Strongly Agree. The questions reflect the factors that the literature indicated as important factors influencing occupancy as discussed in Chapter 2.
  - b. Questions 12 through 30, asking about facilities. Each question was split

into two parts. The first asked the “priority to add the facility” on a 5 point Likert scale, 1 = Low priority and 5 = High priority. The second part asked the effect of the facility on occupancy with a 7 point Likert scale, 1 = Small, 4 = Medium and 7 = Large. The facilities included in these questions corresponded to factors included in research conducted by Weaver and McCleary (1991).

- c. Questions 31 through 46, asked about what facilities encourage repeat business. As with the previous question each question was split into two parts, the first asking the “priority the facility has in affecting rebooking” on a 5 point scale, 1 = Low priority and 5 = High priority. The second part asked the effect of the facility on repeat occupancy with a 7 point scale, 1 = Small, 4 = Medium and 7 = Large. Having the two parts to the questions made possible an adaptation of importance-performance analysis. The facilities included in these questions corresponded to factors included in research conducted by Weaver and Oh (1993).
- d. Questions 47 through 50 asked the respondents to indicate the priority of listed factors. Each of the 5 questions were separated into 5 parts and the respondent was asked to indicate by placing the number 1 to 5 against each factor, 5 being the highest and 1 being the lowest.
- e. Questions 51 through 86 asked the respondents to indicate on a set of 6 sliding scales the effect those different changes such as room tariff, advertising, staff training etc., have on occupancy.

For this research the procedure of administering the survey followed Dillman’s (1977) research regarding the inclusion of a personalised letter, and follow up letters, the folding of the letter and questionnaire, the size of the envelope, and inclusion of addressed and stamped return envelope. The following outlines the major events in the administration of the questionnaires.

- First letter and questionnaire was posted 26<sup>th</sup> July 1997 (Appendices C and D). Each of the pre-paid return envelopes had a code printed on it so that the responses could be identified.

- Follow up card sent 1<sup>st</sup> August 1997 (Appendix E); seven surveys had been returned by that time and they received a card thanking them for their participation (Appendix F).
- A reminder letter (Appendix G) was sent 3 weeks after the original questionnaire, this letter resulted in three phone calls, two asking for repeat questionnaires as the original had been lost and one stating that the named person had left the hotel and asking if the current person could complete the questionnaire.
- All persons who had not responded by 14<sup>th</sup> August were sent a repeat set of questionnaires.

### ***Data Entry and Analysis***

Of the 79 surveys sent, after the various reminders and follow up letters had been forwarded, 39 persons responded (49%), two reported that it was against company policy to respond to surveys. Two were discarded because only small parts of the questionnaire were completed. This resulted in 35 usable responses. Tables 3-4 and 3-5 show a breakdown under different categories of the number sent and the number received.

	Number of Surveys Sent	Number Returned	Percent Return
General Managers	48	20	42%
Departmental Heads/Managers	31	15	48%
Total	79	35	44%

Because of the high correlation between the results from the different establishments, to be discussed in Chapter 4, there is no indication of non-response bias and no discernable pattern of non-response was apparent.

Generally the questionnaires were all completed as anticipated but one person used a scale of 1 to 10 for questions 47 through 50 – these responses were divided by two to give a 1 to 5 range, and on page one several indicated more than one response in relation to the question about the type of establishment.

**Table 3-5 Categories of Hotels as Identified by the Hotel Decision-maker Respondents**

Details	Respondents
<b>Star Rating of Establishments</b>	
4 or 5 Star	17
3 Star	18
<b>Location</b>	
Inner City	20
Outer City	13
Commercial Area	2
<b>Type of Establishment</b>	
Corporate Hotel	13
Tourist Hotel	10
Combination Corporate / Tourist Hotel	12
<b>Size of Establishment</b>	
=> 60 < 80 Rooms	8
=> 80 < 100 Rooms	8
=> 100 < 150 Rooms	6
=> 150 Rooms	13

As the surveys were returned the data were entered into a Microsoft Access™ database. This was achieved by using a data entry table and form that was developed containing fields for each of the questions. All of the data were entered as number integer fields except for the open questions, which were entered as text. The numbering used for data entry related directly to the Likert scale or other numbering on the questionnaire.

As indicated in Table 3-6 the questionnaire was analysed using a number of different techniques. The questionnaires were worded so that this could happen to add diversity to the research. Different types of question lend themselves to different forms of analysis. SPSS™ was used for the statistical analysis.

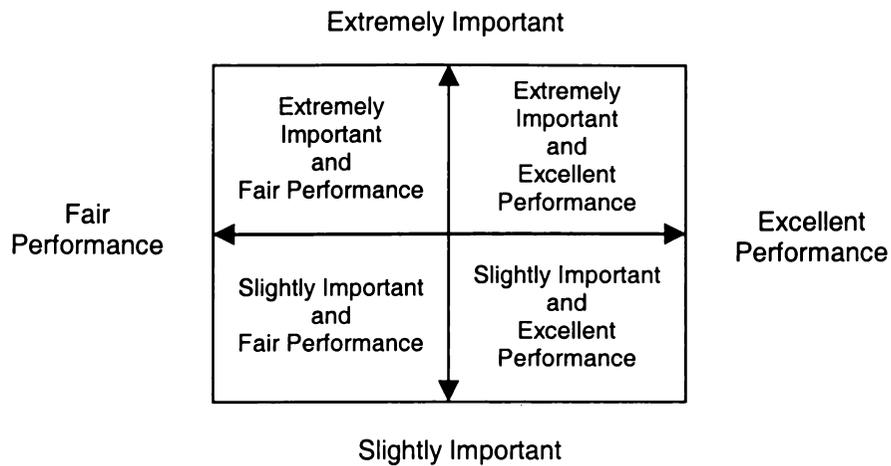
**Table 3-6 Methods of Analysing Hotel Decision-makers' Survey Data**

Question No	Type of Analysis
Open Questions	Prioritising responses and evaluation of text
1-11	Statistical analysis showing agreement or disagreement with statements.
12-46	Importance/performance analysis
47-50	Priority of factors affecting occupancy
51-86	Action/reaction analysis

For questions 12 through 46 an approach based upon importance-performance analysis (Keyt, Yavas & Rievken, 1994) was used as this gives a graphical representation of the data in a particularly clear manner. Since this is a specific way of viewing data some explanation will be given. In a model of importance-performance published by Martilla and James (1977), the authors held the view that a service could be judged by its “customer importance” and “company performance”. These relationships are illustrated in Figure 3.1.

The Martilla and James (1977) model uses two coordinates, and the various coordinates of the matrix indicate the relationship of those two coordinates' importance and performance (Slack, 1994). The objective of the analysis is to plot the data using the “X” and “Y” scores and then to analyse into which quadrant the data falls and the relationship between the datum and as a result the importance and performance of the various factors can be evaluated.

Performance-importance is a clear way of presenting data on two coordinates. For this research, this graphical approach was applied with the respondents being asked to rate the various factors according to two coordinates, that of priority and effect on occupancy as discussed in Chapter 4. To this point the data collected from this research was based on data from industry stakeholders. To expand the analysis the final data set was collected from hotel/motel potential guests.




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**Figure 3-1 Importance-Performance Analysis**

Modified from (Martilla and James, 1977. p.78)

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In summary, the second set of data collected for this research was made up of a survey of hotel decision-makers. The data collection was designed to gather views of a group of industry experts. Those participating were restricted to particular positions with a broad range of experience. The first part of the questionnaire asked them to indicate the five most important factors influencing occupancy which was the same question as for the research and industry stakeholders. The remainder of the survey comprised 86 questions which were based on the findings of the first data collection plus reference to the literature review. As a result a wide spectrum of data was collected giving specific details on factors influencing occupancy. A variety of analytical tools were used including performance importance analysis. The data collected from this stage was formulated into the survey of potential guests as discussed next.

### **3.2.3. Potential Hotel/Motel Guest Survey**

The third part of the research comprised collection of data through the use of a survey of potential hotel/motel guests, to determine the factors that influenced their selection of accommodation.

#### ***The Subjects***

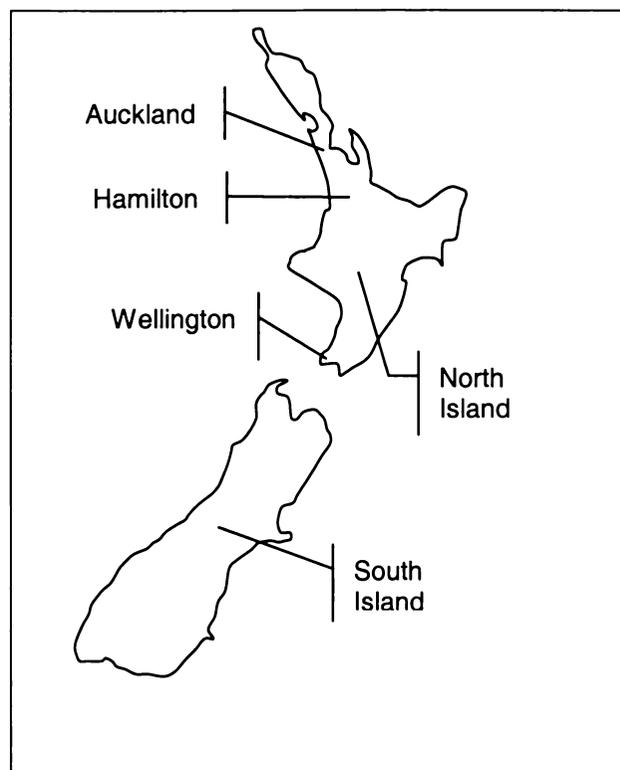
Hochstin (1967) discusses a number of different ways of selecting survey participants. One method considered was that of placing the questionnaires in hotel/motel rooms to be completed by guests while staying in the room. This approach was rejected because of the possible bias that the respondents might answer in relation to their current accommodation and that this would influence the responses (Hinrichs & Gatewood, 1967). After considering a number of alternatives, three were selected: the first was to conduct the survey in the waiting areas at three major airports (Auckland, Hamilton, Wellington). This approach was selected because those people using airports come from a wide geographical area, and as such give a good representation; also because the respondents were waiting for a plane - they would have time to complete the survey and as a result increase the response rate.

To overcome any socio/economic bias of the airport survey the second group of questionnaires was placed in randomly selected home mail boxes with FreePost return, this made the survey available to a wide diversity of persons.

The third data collection method involved the distribution of questionnaires into businesses. The objective of this was to obtain a balance between those using business and vacation accommodation and also to increase the number of business respondents.

As well as choosing three different data collection methods, the data was also collected in different areas within the North Island of New Zealand which had the

effect of also broadening the geographic representation, as illustrated in Figure 3-2.



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**Figure 3-2 New Zealand North and South Islands showing Areas Where Data was Collected**

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Table 3-7 shows the areas surveyed, the number of distributed questionnaires, number returned and the percentage of returns. The questionnaires were marked with small coloured codes so that the different sources could be identified (Dickson, Casey, Wyckoff & Wynd, 1977).

**Table 3-7 Areas Surveyed in the Potential Guest Survey**

Areas used for Surveying	Number of questionnaires returned	Number Distributed	Percentage Return
Hamilton Airport	67	100	67%
Auckland Airport	73	100	73%
Wellington Airport	67	100	67%
Hamilton Mail Boxes	81	400	20%
Auckland Mail Box	63	400	16%
Business Delivery	62	200	31%
Total	413	1300	31.8%

As indicated in the Table 3-7, 31.8% overall were returned with the highest return being the Airports and the lowest, the Auckland mailboxes. All survey questionnaires were distributed over a period from May 5<sup>th</sup> 1998 to June 19<sup>th</sup> 1998.

### ***Airport Survey***

Airports were surveyed first, in the order of Hamilton, Auckland and Wellington. Passengers and airport visitors were approached in the departure waiting areas. No subject selection was undertaken other than agreement to participate in the survey and being in the waiting area. Those who did not wish to complete the questionnaire excluded themselves from the survey. It had been previously agreed with the airport management that their customers would be inconvenienced as little as possible. Those persons who were seated and indicated they had sufficient time were given the survey on a clipboard with a pen and completed the survey straight away. Others willing but with less time took the survey with them and by following the instructions could fold the survey in three producing a return mail item with address and free post number. It was explained to the person being approached that the survey was part of a research project being undertaken by the University of Waikato, no additional assistance was given the respondents. Most of the questionnaires were completed on the spot and collected personally which resulted in a high yield, as discussed by Lovelock (1976). This approach also gave the respondents a short time to complete the

questionnaire with reduced latency, which is shown in some experiments to increase accuracy (MacLachlan, Czepiel & La Barbera, 1979). Each of the surveys had a letter “H, A, W” (abbreviated for Hamilton, Auckland and Wellington) placed on them so that where they were completed could be recorded. Table 3-8 lists the number of questionnaires completed on the spot, those returned by mail and total number of questionnaires distributed. At each of the airports 100 questionnaires were distributed. The overall return rate from the airports was 69%.

**Table 3-8 Number of Questionnaires Completed in the Potential Guest Survey**

Place	Total Received	Number completing on the spot	Number Returned by mail	Number Distributed
Hamilton Airport	67	58	9	100
Auckland Airport	73	66	7	100
Wellington Airport	67	56	11	100
Total	207	180	27	300

### ***Mail Box Delivery***

The second set of surveys were placed in private home mailboxes in two geographical areas, that of Hamilton and Auckland. In each of these 400 surveys were distributed.

### ***Hamilton***

In Hamilton the homes for the distribution of questionnaires was selected by giving each street/road on the map a number, and then using a computer to generate random numbers<sup>4</sup> and noting 20 streets/roads to be surveyed. Because it was unknown how many dwellings there would be it was decided that 20 surveys would be delivered in each street/road; if there were less than 20 dwellings the remaining would be added to the next street/road. 400 in total were distributed in

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<sup>4</sup> Turbo Basic™ was used to generate the random numbers.

mail boxes, 81 or 20% were returned. The questionnaires were distributed over a period of 4 days. Any mailbox indicating that no circulars or other types of unsolicited mail should be left were omitted.

### ***Auckland***

Because of the size of this sprawling city, there was no attempt made to select specific streets/roads. The surveys were delivered in four broad areas. To select the areas a list was made of the suburbs in Auckland, four were randomly selected and 100 surveys were delivered in sequential order. Any mailbox requesting that circulars or unsolicited mail not be left were not used for the survey. The Auckland surveys were distributed over a 2 day period. 400 surveys were distributed with 63 or 16% returned.

### ***Business Delivery***

The business surveys were the last to be distributed. The distribution involved visiting office type businesses in Hamilton and the Queen Street area in Auckland. On visiting the establishment it was enquired, usually of the receptionist, whether it was possible for some questionnaires to be left and distributed among those working in the office. The receptions were quite varied with some firms taking questionnaires for each person working in the office, while others would not take any. 200 questionnaires were distributed, with 62 or 31% being returned by mail.

### ***The Instrument***

The survey involved the use of a one-page questionnaire using a 5-point Likert scale for the questions (see Appendix I) with Free Post details on the other side. The survey was placed on one sheet, to make it easy for completion and so increase the return rate (Berdie, 1973). To make it possible for all the questions to fit on one sheet, foolscap paper was used, even though the use of larger than normal paper has in research been shown by Childers and Ferrell (1979) to give a lower return rate than normal A4 paper. The paper used was 5 mm wider and

32 mm longer than A4. The advantage of using a single sheet questionnaire (Leslie, 1970) was expected to outweigh any disadvantage of using slightly larger paper, enabling the use of a larger font which made the survey more readable. Also by being able to place all the questions on one side of one sheet, it gave the participants a perceived 'short' completion time resulting in a more immediate response (Hornik, 1981; Mullner, Levy, Byre & Matthews, 1982).

As discussed in Chapter 2, a number of researchers (Callan, 1996; Lewis, 1987 et al) have shown the effect of the independent variable on accommodation selection, particularly that of gender and purpose (vacation or business accommodation). In addition it was believed that age, salary or wage, desired quality rating of the establishment if making a booking, nationality of the respondent and whether the person booked their own accommodation personally, could have an impact. As a result each of these independent variables were included in the introductory section of the questionnaire.

The main part of the survey comprised 38 questions asking "... how important the following factors are to your future selection of Hotel/Motel accommodation." The factors in the questions were formulated from a survey conducted by Weaver and McCleary (1991). Some wording was changed to reflect New Zealand industry conditions (e.g. one question asked about the importance of free local telephone calls – in New Zealand hotels charge for all outgoing telephone calls) as well as the addition of items such as "Sky Television" which was not included in the Weaver and McCleary (1991) study. The responses were marked on a 5-point Likert scale (Oppenheim, 1966; Bourque and Fielder, 1995) 1 = Very Unimportant, 2 = Unimportant, 3 = Neutral, 4 = Important and 5 = Very Important. An additional column labelled "Not Relevant to Decision" was included. This approach to the questions was adopted as it gave the participants the opportunity to complete the questionnaire quickly, and as a result increase the number of returns (Warren, Pearce & Korth, 1982). Particular attention was made in the layout of the questions as suggested by Mayer and Piper (1982) to ensure that each question was clear and that instructions were easy to follow, and the length of each

question was carefully considered to improve the accuracy of response (Laurent, 1972).

### ***Data Entry and Analysis***

Of the 1300 surveys distributed 413 or 31.8% were returned; of these six were unusable as follows:

- 1 was returned completely blank.
- 2 were returned with very few questions answered.
- 3 were returned with the same response down the page in a line.

As a result of using the above data collection methods, the sample was representative of the New Zealand population with 52.5% females, the national average 51.1% (Department of Statistics, population censuses 1996). The survey showed an average age of 36-45 years while the national average age for the whole population was 32 years old, which includes youth and children. The survey also showed the average salary as \$40,001 - \$50,000 (this is higher than the national average of \$32,000. The higher average was caused by 11% indicating they earned more than \$60,000 while the national average is 5%; the mode was \$30,001 - \$40,000 which range includes the national average salary).

In relationship to the seven different data collection points (ie Auckland Airport, Hamilton mail box, etc) a one-way ANOVA using the Scheffé test which performs simultaneous joint pairwise comparisons for all possible pairwise combinations of means, examining all possible linear combinations of group means. This tool was used to determine if there was any significant statistical difference between the sets of data. Of the seven different data collection points over the 38 questions, there was a statistically significant difference in data collection points only for questions one "Price", question two "Discount offered personally or to company" and question seventeen "Cooking facilities in room", which indicates the homogeneity of the data no matter where it was collected.

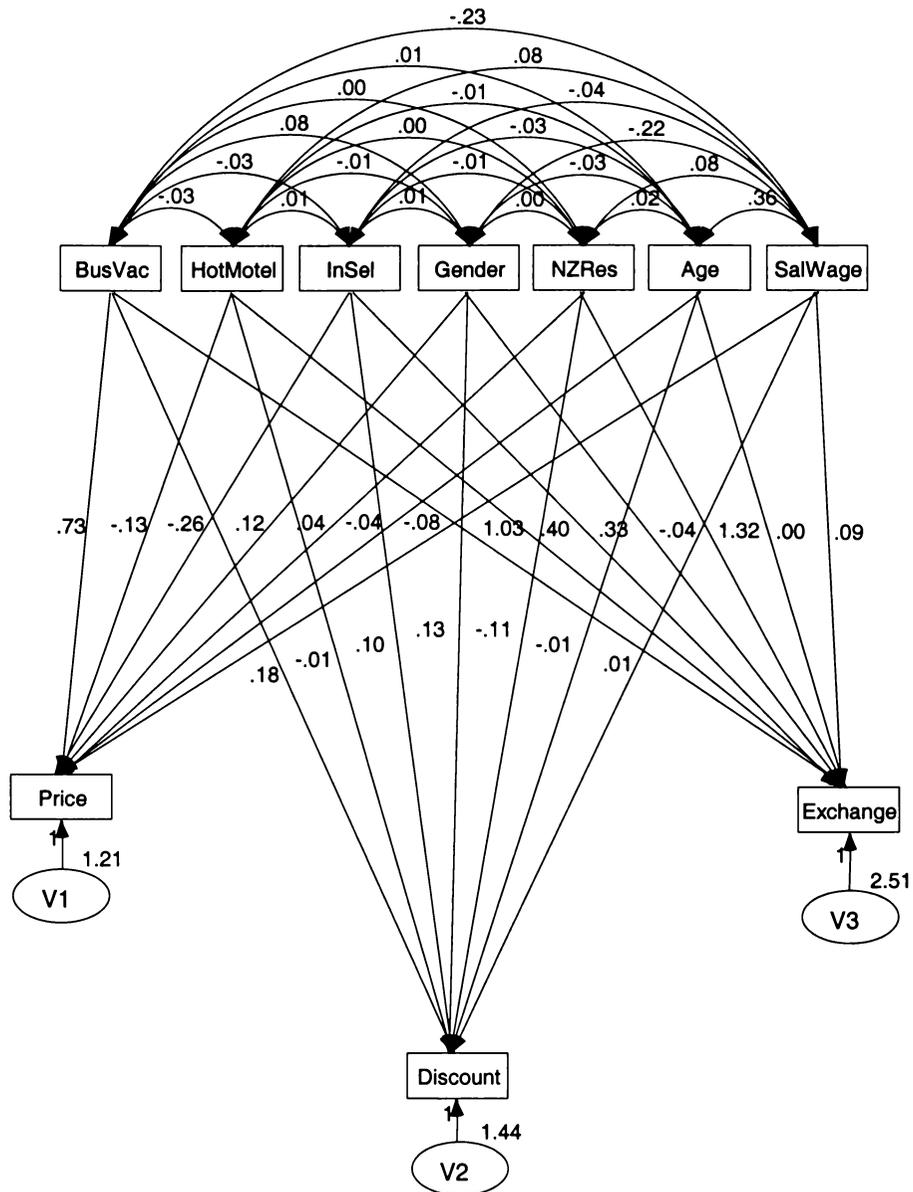
Data were entered into a Microsoft Access™ database. A data entry table and form were developed containing fields for each of the questions. All of the data were entered as number integer fields. The first seven questions were coded according to their responses, for example Gender on a 2-point scale and Age on a 6-point scale. The 38 questions relating to how important the factors were to future selection, were entered using the numbers from the Likert scale 1 = Very Unimportant to 5 = Very Important. Once the data were entered into Access they were then converted into the correct format for SPSS™. Details of the analysis are presented in Chapter 4.

As well as using SPSS, data were also analysed using a software package called AMOS™. This software is used for Linear Structural Equation Modelling and is based on earlier software packages called LISREL™, EQS™, PLS™ and other second generation data analysis techniques. In linear structural equations, the model is formulated as a system of equations relating several random variables with assumptions about the variances and co-variances of the random variables (Scarborough & Tanenbaum, 1998). AMOS is used to explore causal relationships among variables, and it is compared to path analysis as a method of exploring such relationships (Gregson, 1992). In the path analysis, the model is formulated as a path diagram, in which arrows connecting variables represent (co)variances and regression coefficients. The advantage of structural equation modelling over analytical tools such as multiple regression, factor analysis and multivariate analysis of variance, is that it can examine many relationships between dependent and independent variables at the same time. LISREL modelling has been used successfully to assess guest satisfaction (Gundersen, Heide & Olsson, 1996), service quality and satisfaction in the hotel/motel industry (Getty & Thompson, 1994).

In Figure 3-3 the numbers across the top are the correlations between the different independent variables. As is evident there is .00 correlation between the variable BusVac and NZRes indicating no correlation. Alternatively there is a low correlation of -.23 between BusVac and SalWage indicating some relationship

between the variables, with 1 showing direct correlation and 0 indicating no correlation.

Between the top row of boxes “BusVac, Gender, etc.” the independent variables and “Price, Discount, Exchange” dependent variables are arrows, the numbers next to those arrows represent the unstandardised regression weights. Although the model in Figure 3-3 is very useful, once the number of variables increases it becomes very difficult to read the relevant numbers, as a result tables of data will be used, as illustrated in Table 3-9 which shows the regression weights from Figure 3-3.



**Figure 3-3 Analysis Performed by AMOS Using the Potential Guest Survey Data**

**Table 3-9 Very Important Factors - with Significant Regression Weights**

	Business/Vacation Accommodation	Hotel/Motel Choice	Involved in Selection	Gender	New Zealand Resident	Age	Salary/Wage
Price	<b>.73</b>	<b>-.13</b>	<b>-.27</b>	<b>.12</b>	<b>.05</b>	<b>-.04</b>	<b>.08</b>
Discount	<b>.18</b>	<b>-.01</b>	<b>.10</b>	<b>.13</b>	<b>-0.11</b>	<b>-.01</b>	<b>.01</b>
Exchange	<b>1.04</b>	<b>.40</b>	<b>.33</b>	<b>.04</b>	<b>1.32</b>	<b>.00</b>	<b>.09</b>

Note: For this research - Regression Weights > .1 are considered to show a significant causal effect on a Dependent Variable by the Independent Variable, shown in bold.

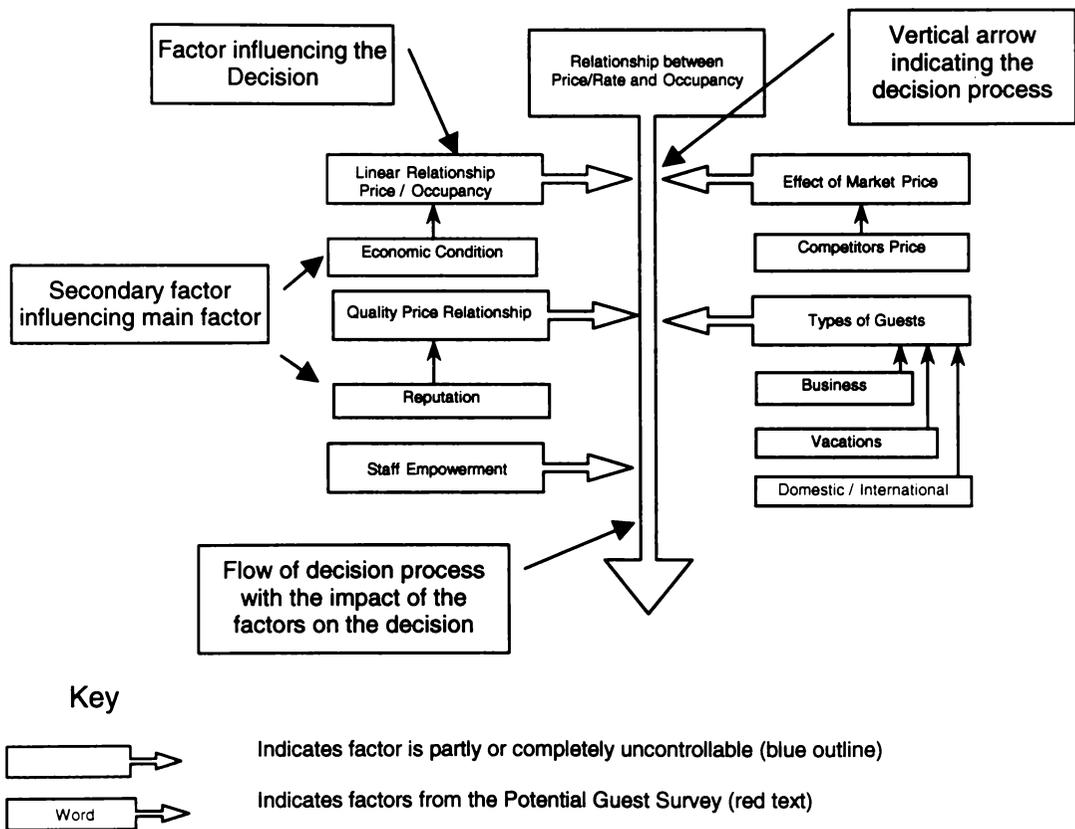
The regression weights in Figure 3-3 and Table 3-9 show the relationship between the dependent and independent variables; if this number is .00 then there is no relationship between the two variables. This indicates the proportion of variation in the dependent variable when the independent variable is changed (Lewis-Beck, 1980). Therefore in the case where the unstandardised regression weight is .00 there is no relationship between the independent and dependent variables. But in the case of the independent variable “NZRes” and the dependent variable “Exchange” there is an unstandardised regression weight of 1.32, this indicates that there is a strong causal relationship between the two. This analysis is thus useful in understanding the strength of relationships between two variables.

In summary, the last set of data collected for the research comprised a survey of potential guests. The data were collected in a number of different regions using a variety of data collection methods, resulting in 413 returns, and with statistically very few differences between the different collection points. The objective was to be able to evaluate the views of those people who actually use hotel/motel accommodation. This represents the unique characteristic of this research as it gives the ability to compare data from potential guests and from industry. The next section discusses the application of the data collected to an applicable management decision model.



**Table 3-10 Symbols used in the Construction of the Models**

1. The vertical arrow - the decision process.	
2. Major factor having influence on the decision.	
3. Secondary factors influencing the main factor	



**Figure 3-5 Components of a Stochastic Management Decision Model**

The model comprises several parts, the first of which is the vertical arrow; this indicates flow of the decision process. For clarity the models deal individually with specific factors of the decision process, each model should be viewed as flowing through each other. Connecting to this are the major items influencing the decision process and having varying impacts. No attempt in this research is made to quantify the individual impacts. The third shows secondary factors which have an impact on the major factor. Each of the parts of the model are brought together as illustrated in Figure 3-5, see Table 3-10, 1, 2 and 3.

### **3.4 Ethical Considerations**

Each group involved in the data collection process was informed fully as to the purpose of any information supplied. For the in-depth interviews at the time of first contact by telephone the participants were informed of the purpose of the interview, along with security and assurances of their anonymity. Before the interviews started, the participants were again informed of the purpose for the interviews and given any requested information about the use of the data.

For the hotel decision-makers' survey, a covering letter was included detailing information about the survey and the use of the data. This letter contained the following statement: "You may be assured of complete confidentiality. The questionnaire has an identification number for mailing purposes only."

The survey of potential guests contained the following statement clearly printed on the survey form:

"The results of this questionnaire will form an important part of a study of the factors why guests select particular Hotels/Motels. Please do not include your name or any personal details. In compliance with the Privacy Act 1995, no personal details will be used. Only overall data and summary results will be utilised to provide data for interpretation and analysis."

## **CHAPTER 4 ANALYSIS OF THE DATA**

### **4.0 Introduction**

This chapter contains a presentation and analysis of the data collected for this research, presenting the overall findings without drawing general conclusions or comparing results. General attributes of the data are discussed in this chapter but a full analysis is contained in Chapter 5. The results of this analysis are then brought together to emphasise data of particular interest to this research and to show agreement or otherwise.

*The following is an outline of this chapter*

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4.0. Introduction
4.1. Analysis of the Data
4.1.1. In-depth Interviews (Research and Industry Stakeholders)
4.1.2. Hotel Decision-makers' Survey
4.1.3. Potential Hotel/Motel Guest Survey
4.2. Conclusion

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### **4.1 Analysis of the Data**

This section discusses the analysis of the data collected for this research. The data are discussed in the order in which they were collected: 1). In-depth interviews with research and industry stakeholders; 2). Hotel decision-makers' survey and 3). Potential guest survey. The data in this chapter are discussed in general sequential order, further specific factor analysis is contained in Chapter 5.

#### ***4.1.1. In-depth Interviews (Research and Industry Stakeholders)***

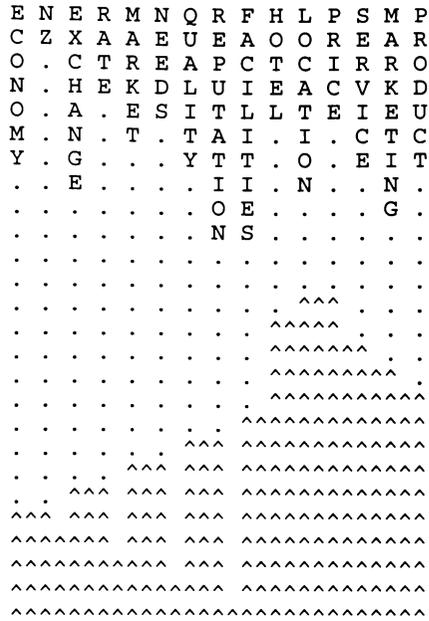
The first research was conducted among a group of research and industry stakeholders as outlined in Chapter 3 Methodology.

The enquiry took the form of an in-depth interview, where each of the participants was asked the same question. Firstly they were asked to list the five most important factors, in descending order, that affect hotel occupancy. These were recorded as a group of short statements and are reproduced in Appendix B.

As discussed in the Methodology of Chapter 3, a computer artificial neural software package called CATPAC was the major analysis tool used to evaluate the data. CATPAC is able to identify the most important words in a text and determine patterns of similarity based on the way they are used in the text. This association among words represents complete information about the similarities among all the words in the text, and is represented by a dendogram. The number of unique or keywords can be varied in the process, this has the effect of more closely focusing the findings on specific areas. Therefore in the analysis process the parameters can be altered and the results compared, this allows closer focus on the underlying relationships.

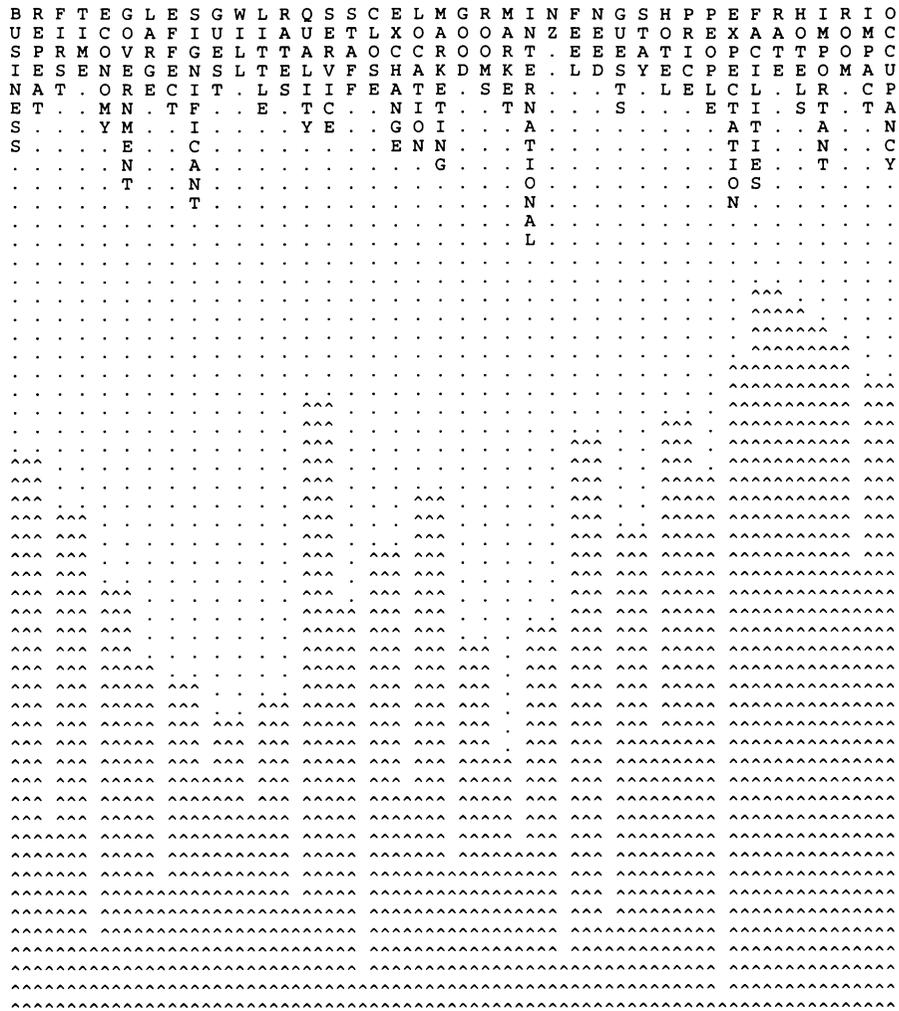
Before being processed the data were grouped under the different questions, all punctuation was removed and then the data file was converted into a text only file. Figure 4-1 shows the result of the data for the first question after being processed by CATPAC. The first question asked the participants to list the five most important factors affecting hotel occupancy. After experimenting with different numbers of key words, 15 were selected for this analysis. The dendogram grouped 'Facilities', 'Hotel', 'Location', 'Price', 'Service', 'Marketing' and 'Product' together. The other groupings contained 'Quality and Reputation', 'Exchange and Rate' and 'Economy and NZ'. The grouping containing 'Needs' is a result of the text when people were interviewed and is not deemed significant.

**Figure 4-1 Dendogram derived from Text**



The next analysis took the rest of the responses to questions, removing the initial five factors affecting room occupancy, and processing these data through CATPAC. The data were not sorted or ordered in any particular way. The analysis was tried using a variety of “Learning Parameters”. Figure 4-2 is the result of using the parameter of unique words 40 and word size 7. The dendogram grouped together ‘Expectation, Facilities, Rate, Hotels and Important’. The other significant groupings contained ‘Quality and Service’, ‘Hotel and Price’, ‘Business and Repeat’, ‘Location and Marketing’, ‘Economy and Government’ and ‘Good and Room’.

**Figure 4-2 Dendrogram derived from Text**



The software also produced a word count for each of the dendograms in Figures 4-1 and 4-2 in descending order. This information is shown in Table 4-1 where words that appear in each word count are reproduced along with the frequency of the number of times the words appeared. (Note: the number of words selected in the parameters was different between the two analyses, this resulted in a larger number for each word in the second. Also, the words Service and Quality appeared separately, but were linked in the analysis of the dendrogram). The third and fifth column in Table 4-1 indicates those words with an asterisk (\*) that were significant from the analysis of the dendrogram. These two pieces of information

were used to put the words in descending order of number of times mentioned and significance.

**Table 4-1 Frequency of Words Mentioned**

Word	Analysis of Five Most Important Factors Affecting Occupancy		Analysis of Other Open Questions	
	Frequency	Dendogram Major Grouping	Frequency	Dendogram Major Groupings
1. Price/Rate	3 + 3	*	30 + 19	*
2. Service Quality	3 + 2	*	24 + 17	*
3. Facilities	8	*	21	*
4. Location	8	*	12	*
5. Marketing	3	*	14	*
6. Economy	3			*
7. Product	2	*		
8. Exchange	2			
9. Reputation	2			

(Note: the items of price and rate which appeared separately in each of the analyses have been combined as they have the same meaning.) As a result of Table 4-1 the nine words with the major grouping and the highest frequency were 1). Price/Rate, 2). Service Quality, 3). Facilities, 4). Location, 5). Marketing, 6). Economy, 7). Product, 8). Exchange, and 9). Reputation. This analysis gives an indication through CATPAC of the frequency and grouping of words, and by association, the importance to hotel occupancy. This suggests that according to the researchers and industry stakeholders, these factors have the greatest impact, in the order presented, on occupancy.

The second section of the questions asked the respondents their views on a number of open questions. The top five responses to these questions are discussed in the order in which they appear in Table 4-2, not in the order in which they were asked.

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**Table 4-2 Top 5 Questions Asked During Second Section of Interview**

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What do you believe is the impact of hotel:

1. Price/Rate
2. Service Quality
3. Facilities
4. Location
5. Marketing

on hotel room occupancy?

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### **1. Price/Rate**

The first item from Table 4-2 is Price/Rate. Table 4-3 lists a selection of the significant comments made in the interviews in relation to price/rate and occupancy. It is clear from the statements that there is a close relationship between price and the perception or expectation of quality. The guest often comes preconditioned with knowledge and experiences of other establishments, and therefore has in mind an expectation of a relationship between price and the expected quality of service and facilities. There is also a strong relationship between price and occupancy.

The statements indicate that competition has a considerable effect on price; a number of those being interviewed indicated that they undertake discounting of room rate. There was also the strong statement that “cutting prices affects the market badly in the long run”. Another statement made was “... the worst thing the hotel industry did was to teach the customers about discounting of room rates”, and that this had resulted in the industry being its own worst enemy. This competitive discounting can often lead to price wars (Ali-Knight, 1998). It was also mentioned that planning of the addition of new hotel rooms within the market has an influence on what can be charged. An interesting statement related the discounting and the wearing out of the facility, and the need for refurbishment: “High occupancy at low room rates affects the time a facility takes to wear out”. Therefore although a business might have a high occupancy they may have low profits because of discounting and as facilities wear out, they are without the

income to keep the facilities in a good state of repair, which in turn reduces what can be charged for the room.

Several respondents indicated a solid relationship between the economy and room rates, indicating a fairly short lag between the two when the economy is in decline, but the lag is much longer in the economic recovery phase. Businesses are much more price sensitive during a recession than at other times. More expensive hotels as indicated are less susceptible to price. Several comments indicated that business hotel guests are less sensitive to price than vacation guests.

Some of those participating stated that there was a relationship between price and the number of overseas visitors coming to New Zealand, with the influence of the exchange rate making the overseas market very price sensitive.

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**Table 4-3 Price/Rate - In-depth Interview Comments**

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- Guest expectation of price quality relationship/Price has a perception of quality.
  - There is a strong link between price and occupancy.
  - Competition has a greater effect on price than any other issue/Good planning of the supply of rooms is important.
  - Cutting prices - affects the market badly in the long run/Industry is its own worst enemy in cutting prices.
  - The economic strength or otherwise of the companies of those who stay have a significant impact on the amount that can be charged/Close relationship between occupancy and the economy and that there is little lag time between these two.
  - Less impact on occupancy in more expensive hotels.
  - The front office staff are empowered to vary room rates to achieve maximum occupancy.
  - High occupancy at low room rate affects the time a facility takes to wear out.
  - Price does not have a large impact on business guests/For business customers price is not such a high priority.
  - Price is very important to the number of international guest arrivals.
- 

The CATPAC analysis of the price statements only showed links between words such as 'Price and Quality', 'Economy and Sensitive' and 'Hotel and Important'. Other than this it resulted in no significant direction.

## 2. Service Quality

The second item from Table 4-2 relates to what the respondents termed as Service Quality. Table 4-4 lists a selection of the statements made by the respondents. A number of those being interviewed indicated the relationship between the quality of service and the affect on occupancy. There was strong emphasis on the importance of meeting guest expectations. Cleanliness of the room and all the facilities had a high priority in affect on occupancy, and this was more pronounced in relation to repeat business. There was an indication of the importance of having the right staff, so that the service requirements could be met, and that to get the right people the salary needed to be appropriate. There was a clear indication that to a point guests will accept some items not meeting their expectations, but once the service quality dropped below a minimum perceived level there would be a significant effect on occupancy. The effect of poor service quality on repeat business is much higher than for first time guests.

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**Table 4-4 Service Quality - In-depth Interview Comments**

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- Quality must meet visitor expectations/The quality of service is very important.
  - Cleanliness is important especially for repeat business. Some people will complain about a small amount of dust on top of the TV.
  - Pay higher than the normal salary to get good people.
  - When performance drops below this minimum standard then there is a significant affect on occupancy.
  - Greater impact on repeat business.
  - Slow service reduces repeat business.
  - Guests need to feel welcome.
- 

Overall the importance of quality service was stressed, it was felt to be most important and that the guest needed to feel welcome.

The CATPAC analysis of the responses relating to service showed major word relationships in 'Important, Service, Staff, Level and Quality' which indicates the importance of staff and the quality of service offered to the customer. Other

relationships included 'Business and Repeat', 'Customer Occupancy and Effect', 'Expectations and People' and 'Business and Repeat'.

### **3. Facilities**

The third item from Table 4-2 relates to the facilities offered to the guest. Table 4-5 lists a selection of the comments recorded in the interview.

At the top of this list is that the "facilities need to meet the expectations of the guest"; this follows similar comments made by different persons in the interview, and indicates there is a growing demand for the range of facilities offered to the guest, including a increase in the requirement, as reported, for larger rooms. This was translated by one respondent to a room size of 25 to 30 square meters for a 1 to 3 star hotel and 30 to 32 square meters for a 4 star hotel.

One participant particularly emphasised the importance of segmenting the hotel market and providing the appropriate facilities for that market. An example would be the availability of a business centre in a business segmented hotel, as this is important to the business sector. This same segmentation relates to the reason for the stay and the length of the stay.

There was also an indication of the importance of the relationship between price and the facilities offered, and that the facilities offered had a greater impact on repeat guests than those staying for the first time.

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**Table 4-5 Facilities - In-depth Interview Comments**

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- Facilities must meet the needs and expectations of the guest (this varies on purpose of stay).
  - Growing demand for more facilities.
  - Guests have an expectation that they will be satisfied with the facilities available.
  - Size of the room, growing demand for larger rooms. (1 to 3 star hotel 25-30 sq metres, 4 star hotel 30-32 sq. metres).
  - Importance of segmenting your market, and understanding what their expectations are.
  - The need for facilities depends on length and reason of the stay.
  - Relationship between price and facilities.
  - The facilities are important for repeat business more than for the first time guest.
  - Facilities are important to the selection of a hotel, particularly to business clients.
- 

Analysis using CATPAC in considering the responses to facilities produced the following groupings of words: 'Expectation, Facilities, Hotel, Stay, Guest, Important'. This indicates a relationship between the expectation for facilities and the importance of the facilities. Also other combinations included 'Room and Size', 'Becoming and Extended', 'Business, First and Need', 'Impact and Large' and 'Hotel and Market'. Each of these indicates the same findings as previously discussed.

#### **4. Location**

The fourth item from Table 4-2 relates to the Hotel location. Table 4-6 lists a selection of the comments recorded in the interview. It is evident from the interviews that the location of a hotel is related to the reason for the stay, and that business and tourism guests have different objectives in the selection of a hotel. Also, location has a relationship to price and the amount that is paid for the room may influence this.

Constructing a hotel within easy walking distance is a major factor in the success of the hotel. This also includes the importance of being on the major travel routes. As with other factors discussed the location has a significant effect on repeat business.

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**Table 4-6 Location - In-depth Interview Comments**

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- A matter of one's personal circumstances and desired market outcome/Depend on the reason for the stay/2 distinct groups (Corporate - pay more for location) (Tourist - more price sensitive, location near recreation facilities).
  - As close as possible for the price.
  - Being within easy walking distance is a big factor to success.
  - Important to be on the major travel routes.
  - Proximity to food and beverage outlets.
  - On repeat business the location becomes more important.
  - Accessibility is very important.
- 

Analysis using CATPAC identifies the following relationships between the words: 'Important, Location, Stay, Price and Market'. Other relationships include 'Advantage, Close and Hotel' and 'Accessibility and Attractions'; these are in keeping with the previous discussion.

## **5. Marketing**

The fifth item from Table 4-2 relates to Marketing. The analysis of the comments as in Table 4-7 indicates that it is an advantage to be part of a group of hotels, mainly because the marketing budget can be shared among a number of different establishments. A number of the respondents spoke about 'Product Loyalty' and its importance in building a client-base for the business. This view was extended to having specific brand loyalty programmes that would have an effect on occupancy. In contrast one participant made the comment that people are basically not loyal to any one hotel, that they will change from time to time from one hotel to another and that they enjoy the change.

There was strong comment on the importance that the marketing promise is fulfilled, and that the guest gets facilities or service according to what they have been promised.

There are three comments in Table 4-7 that relate to marketing New Zealand outside the country. These indicate the importance of marketing New Zealand as a regional destination, and aiming the marketing at those who can afford a visit to

New Zealand, and the New Zealand Government promoting the country as a destination. The final statement claims that 'Money well spent on marketing has a significant impact on occupancy'.

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**Table 4-7 Marketing - In-depth Interview Comments**

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- Group hotels have an advantage because of their available marketing budget.
  - Product loyalty is encouraged, this assists with product awareness/Maintaining customer loyalty is important for the hotel/Brand loyalty programmes have a positive effect on occupancy/No need for a loyalty programme, people are not loyal at all, they move from one place to another as time goes past; people like change from time to time.
  - Important that the marketing promise is fulfilled, particularly for repeat business/Word of mouth is very important/Variance between promotional material and reality is a problem.
  - NZ's best approach is to be promoted as a regional destination.
  - Aimed at those who can afford to come to New Zealand.
  - Governments have a large impact on marketing a country.
  - Money well spent on marketing has a significant impact on occupancy.
- 

Analysis using CATPAC identified the following significant word grouping: 'Group, Hotels, Important, Marketing, Loyalty, Product and Occupancy'. Another group included 'Market and New Zealand'. The other groupings were not of major importance. The findings from the CATPAC analysis were in keeping with the previous findings.

The analysis to this point has dealt with the five most significant items from the in-depth interviews with senior government, tourism business, hotel managers, educationists and consultants. This analysis covered 1). Price/Rate, 2). Service Quality, 3). Facilities, 4). Location and 5). Marketing. The interviews also contained questions on a) Government, b) competition, c) the exchange rate and d) security. The findings from each of these will now be discussed.

### **a) Government**

Table 4-8 lists a selection of the comments recorded in the interviews. The first comment from Table 4-8 relates to the importance of the government in promoting the country as a whole, along with the importance of the development of infrastructure, so that tourists and others are easily able to travel.

The second group of comments from Table 4-8 relate to the operation of the government, and its importance in maintaining a stable environment for other businesses to function within, with this encouraging further investment in the industry. The comment was made several times as to the effect that government has internationally in promoting stability and the effect that instability has on hotel occupancy. One statement indicated that the hotel industry should take more notice of the cyclical nature of the economy. The final statement of particular note related to taxation and the detrimental effect that tax can have on the hotel industry.

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#### **Table 4-8 Government - In-depth Interview Comments**

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- Important for NZ to keep spending on international promotion of NZ as a destination (60 million)/the government should be involved in promoting international tourism/Government can promote tourism by developing the basic infrastructure, open skies policies, encouraging airport development, and the environment/Develop transportation links.
  - Government instability has a large effect on investment, and thus affects the tourism industry/Health of the local economy is important to encourage growth/Government has an important role in maintaining a climate of sustained investment/Unstable government tends to slow down tourism.
  - The economy, both in NZ and overseas, has a large impact.
  - The economy has a cyclical effect on occupancy.
  - Government must be aware of the sensitivity of taxation/Influence on fringe benefit tax and GST, which both influence occupancy/Taxation can have a negative impact on occupancy.
- 

### **b) Competition**

Table 4-9 contains a selection of the comments made by those being interviewed. Many of the comments dealt with concerns of over-supply of rooms in a particular market. It was clearly stated that the development of a new hotel in a region has an impact on all hotel accommodation levels, and this over-supply has an influence on the room rate that can be charged. In relation to competition the

most important factor from the interviews is the management of the supply of rooms in the market.

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**Table 4-9 Competition - In-depth Interview Comments**

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- Problems arise when there are more beds than used/Competition problems is often a bed planning problem/Over supply of rooms leads to lower occupancy, increased marketing, and reduced rates/Wellington is a very competitive market, the establishment of new properties can have a marked impact on everyone.
  - Competition has a significant effect on price.
  - If a new 150 to 200 room hotel were built in the region it would have a large impact on the business.
  - Competition has a significant effect on prices.
- 

**c) Exchange Rate**

Table 4-10 contains a selection of the comments from the in-depth interviews. As can be seen the participants indicated that small changes in the exchange rate had little effect, but that large changes definitely influence the plans people are making for their tourism trips. If New Zealand is part of a larger tour then the exchange rate in New Zealand is less important in relation to the whole tour. The exchange rate also changes where people are coming from overseas.

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**Table 4-10 Exchange Rate - from In-depth Interview Comments**

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- Small variations in exchange rates have little or no effect.
  - Larger changes, some changes in travel plans will be considered.
  - Only significant change in exchange rate has a notable effect.
  - If New Zealand is just part of a larger tour, then the exchange rate is not important.
  - Has varying impacts on international guests and where they are from.
  - The exchange rate has an impact on international visitors.
- 

**d) Security**

Table 4-11 lists a selection of responses from the participants in the interviews. The points made include the importance that guests in a hotel need to feel secure and safe; that non-business travellers do not realise the importance of security; and that women are more concerned about security than men. There is also an increased awareness of security when travelling away from home, either on business or pleasure.

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**Table 4-11 Security - In-depth Interview Comments**

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- Important that guests feel safe/People must feel secure.
  - Little need to promote safety, because it is assumed by guest.
  - Non-business travellers do not always recognise the value of security.
  - If they do not feel safe, they simply will not stay.
  - Women are more concerned about security.
  - People are becoming far more security conscious.
- 

This section discussed the findings of the in-depth interviews, the next section summarises the findings.

***Summary***

In summary the findings from the in-depth interviews and the analysis using CATPAC and other comments indicates that there is a set of five items which have the greatest impact on hotel occupancy. These five items in descending order are:

1. Price/Rate
2. Service Quality
3. Facilities
4. Location
5. Marketing.

The important aspects of each of these was discussed, emphasising the specific effects that they have on hotel occupancy. The discussion then finished with the items from the interviews that were rated less important, but still having significance in relation to hotel occupancy.

***4.1.2 Hotel Decision-makers' Survey***

The previous section discussed the analysis of data collected from in-depth interviews conducted with a group of managers in senior positions in the tourism, hotel, government, education and related industries. This section discusses the findings of the second data collection, which involved an industry survey conducted among 60 hotel decision-makers at major hotels in the main

metropolitan areas in New Zealand. Chapter 3 “Methodology” details the data collection process. Appendix I contains the survey form used for the data collection.

The questionnaire contained three main sections, the first being the collection of data about the employment position the person held and the establishment where they worked (rating, location, type and size of establishment). The second section consisted of one open question, “In your opinion what are the five most important factors affecting guest room occupancy”. The third section comprised 86 closed questions. These questions focused on specific areas of the factors that affect occupancy.

### ***The Five Most Important Factors Affecting Occupancy***

The first data collected after the gathering of demographics comprised one open question, which asked the respondents to list the “Five most important factors affecting guest room occupancy”. Appendix B contains the responses to this question. As this was an open question, respondents used a variety of words to answer the question. To draw some conclusion a “best fit” approach was used where similar words were grouped together, for example: Price, Room Rate, Price of Hotel Room, and Value were considered to be the same. Table 4-12 shows the number of occurrences of each phrase under the category of the five most important. For clarity, only those factors mentioned two or more times are individually listed in the table; factors mentioned once are grouped under the “Other” rows. As can be seen from this table, Location got 14 mentions as the 1<sup>st</sup> most important factor; Room Rate/Price/Value got 15 mentions as the 2<sup>nd</sup> most important factor and so on.

**Table 4-12 The Number of Times the Most Important Factors Were Mentioned**

Five Most Important Factors Influencing Occupancy		Number of Times Factor Mentioned	Percent of Responses
Factor 1	Location	14	40.0%
	Room Rate/Price/Value	5	14.3%
	Marketing/Sales	3	8.6%
	Staff/Service Quality	3	8.6%
	Supply and Demand	3	8.6%
	Facilities	2	5.7%
	Economy	2	5.7%
	Other	3	8.6%
Factor 2	Room Rate/Price/Value	15	42.9%
	Facilities	3	8.6%
	Reputation	2	5.7%
	Staff/Service Quality	2	5.7%
	Location	2	5.7%
	Other	11	31.4%
Factor 3	Staff/Service Quality	10	28.6%
	Facilities	7	20.0%
	Seasonal Tourism	4	11.4%
	Competition	3	8.6%
	Room Rate/Price/Value	2	5.7%
	Location	2	5.7%
	Other	7	20.0%
	Factor 4	Staff/Service Quality	8
Facilities		7	20.0%
Location		5	14.3%
Room Rate/Price/Value		4	11.4%
Events		3	8.6%
Other		8	22.9%
Factor 5		Staff/Service Quality	7
	Facilities	5	14.3%
	Room Rate/Price/Value	3	8.6%
	Reputation	2	5.7%
	Location	2	5.7%
	Sales/Marketing	2	5.7%
	Other	14	40.0%

It is of interest to note that in Table 4-12, Location is mentioned the most number of times as the number one factor; Room Rate/Price/Value is mentioned the most times as the number two most important factor; Staff/Service Quality had the most mentions as the third, fourth and fifth most important factors. For the fourth and fifth most important factors there is a flattening of the number of mentions, whereas with the first and second there is a distinct most important (Location, Room Rate/Price/Value).

The analysis in Table 4-12 is useful as it gives specific data for those items which have the greatest effect on occupancy, but no really clear picture develops as to the overall most important factors. This is because under each of the three most important headings another factor is listed as the most important. Table 4-13 takes the information from Table 4-12 and reproduces the total numbers of responses under each of the factor headings. The data from Table 4-13 falls into two specific groups: those that have over 20 mentions, and those with 5 or less mentions.

**Table 4-13 Overall Rating Factors from Table 4-12**

	Number of Times Factor Mentioned	Percent of Responses
Staff/Service Quality	30	17.1%
Room Rate/Price/Value	29	16.6%
Location	25	14.3%
Facilities	24	13.7%
Marketing/Sales	5	2.9%
Seasonal Tourism	4	2.3%
Supply and Demand	3	1.7%
Competition	3	1.7%
Events	3	1.7%
Economy	2	1.1%
Reputation	2	1.1%

In the analysis Staff/Service Quality, with 30 (17.1%) mentions, is clearly the factor that the respondents believed had the greatest effect on occupancy. This is followed by Room Rate/Price/Value with 29 (16.6%) second most important; Location with 25 (14.3%) mentions third, and Facilities with 24 (13.7%) mentions fourth. In this analysis Location moves to the third from the top position in Table 4-13. Between these four and the next group of eight there is a large difference in the number of mentions. The changes in position occurred because Table 4-12 looked at the five responses individually. Table 4-13 evaluated the weighting given to each of the factors overall.

It is of interest to note how the group of hotel senior management rated Marketing/Sales only the fifth most important (2.9%). The reason for this could be that those surveyed were operations management employees, and the hotels would have their own marketing department either for the individual hotel or for the chain.

The next set of questions comprised 86 closed questions. The first analysis carried out on this data was to determine whether there was any significant difference between the demographics of the respondents. This analysis sought to determine any differences in the way in which the questions were answered, for example did the general managers answer the questions differently than departmental heads; did those in 4 or 5 star hotels answer differently from 3 star hotels, or did those from corporate hotels answer differently from tourist hotels etc.

Two statistical tools were used for this analysis, the first being correlation coefficient to evaluate the whole data and subsets for their correlation. This was achieved by separating the data into different subsets as in Table 4-14.

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**Table 4-14 How the Data was Separated for Correlation Analysis**

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1. General Manager vs Other Management.
  2. 4 or 5 Star vs 3 Star.
  3. Corporate vs Tourist.
  4. Less than 100 rooms vs More than 100 rooms.
  5. Randomly generated but equally divided.
- 

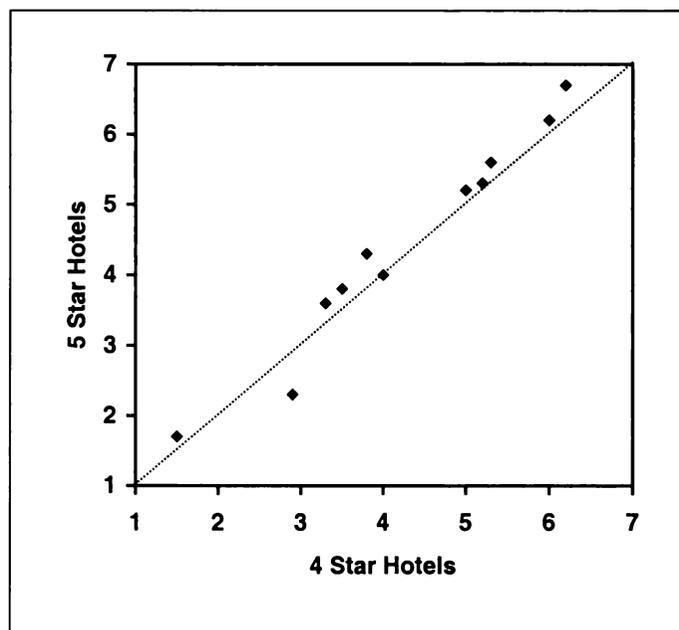
To achieve the analysis the data were separated into the groups as in Table 4-14, then the mean for each group was calculated; this figure was then used to calculate the coefficient of correlation. Table 4-15 shows the results of each group against different categories of questions.

**Table 4-15 Correlation Between the Average of Each Group**

	Questions 1 - 86	Questions 1-11	Questions 12-30	Questions 31-46	Questions 47 - 50	Questions 51-86
General Manager (n=17) Other Managers (n=18)	+ .91**	+ .99**	+ .94**	+ .88**	+ .77**	+ .92**
4 Star Hotel (n=17) 5 Star Hotel (n=18)	+ .91**	+ .98**	+ .92**	+ .84**	+ .73	+ .95**
Corporate (n=13) Tourist (n=22)	+ .89**	+ .98**	+ .91**	+ .90**	+ .83**	+ .95**
Less than 100 rooms (n=16) 100 Rooms or more (n=19)	+ .89**	+ .96**	+ .93**	+ .86**	+ .72	+ .95**

Pearson Correlation; \*\*Significant at the 0.01 level (2-tailed)

As indicated in Table 4-15 the correlation between the different groups is in most cases close to +1, showing a very high level of correlation between the groups. This indicates that each different sub group or partition gives almost the same response.



**Figure 4-3 Scatter Plot 4 and 5 Star Hotels, Question 1-11.**

As an example of the correlation Figure 4-3 shows one of the results from Table 4-15 where the average results for questions 1 through 11 are plotted with 5 Star hotels on the 'Y' axis and 4 Star Hotels on the 'X' axis. From this it is evident that the results from both sources are closely correlated.

The second analysis was achieved with the use of one-way ANOVA (Analysis of Variance) and Scheffé test using SPSS™ Version 7 for Microsoft Windows 95™ as illustrated in Table 4-16. The purpose of this analysis was to determine whether there was any significant difference between the sample means. The analysis was carried out with the first 46 questions because the rest of the questions were not suitable due to the way in which the questions were worded. For this analysis the independent variable was the different demographics (Current Position, Rating of Establishment, Type of Establishment, Size of Establishment) and the dependent variable was the responses to the survey questions.

**Table 4-16 Questions that Showed Significant Difference between Groups**

Current Position	Rating of Establishment 4-5 Star vs 3 Star	Type of Establishment Corporate vs Tourist Hotel	Size of the Establishment
23B *	26B *	2 **	13B *
26A **		4 *	
28B *		14A ***	
46A ***		15A ***	
46B *		15B **	
		16A *	
		16B **	
		17A ***	
		17B *	
		18A **	
		18B **	
		22A **	
		29A *	

\*p < 0.10. \*\*p < 0.05. \*\*\*p < 0.01.

When the analysis for significant difference in means was calculated for questions 1 to 46B, which involved 405 calculations, 20 or 4.9% were found to be significant. Table 4-16 shows the result of this analysis.

These two analyses showed that although there were some differences between the responses particularly in the “Type of Establishment”, the data would be considered to be holistic over all. Where significant differences have been identified they will be discussed during the analysis and development of the management decision models.

The following discussion will analyse the data from the responses to the questions individually in sequential order. At the end of that discussion the various factors will be grouped according to the analysis listed in the open questions.

### ***Factors Affecting Occupancy***

The first set of closed questions (Questions 1 to 11) asked the respondent to agree or disagree with a number of statements. The respondent was given a seven (7) point Likert scale upon which to respond from strongly disagree to strongly agree.

Figure 4-4 shows a Box and Whisker Plot of the first eleven closed questions sorted in descending order of means. Although it is not normal to include a Box and Whisker Plot rather to use it for analysis only, it is included as it gives a better representation of the data than a Table alone. Figure 4-4 graphs three pieces of statistical information: 1. Mean, 2. Mean  $\pm$  Standard Deviation, and 3. Mean  $\pm$  1.96 Standard Deviation as illustrated in the key. Each of the questions asked the respondents to indicate on a horizontal seven (7) point scale whether they strongly agreed or strongly disagreed with specific questions on the factors influencing occupancy.

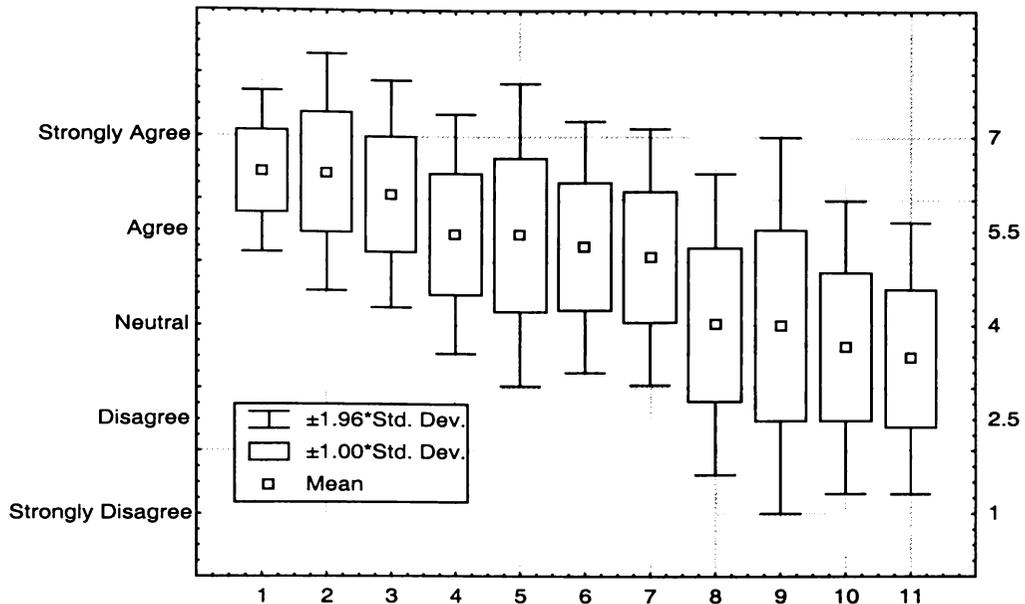


Figure 4-4 Box and Whisker Plot of First 11 Questions

Table 4-17 First Eleven Closed Questions in Descending Mean Order

	Mean	Standard Deviation	Skewness	Kurtosis
Group A Mean > 5.00				
1. Front line staff that are motivated have an effect on the number of guests re-booking.	6.44	0.65	-0.96	-0.17
2. Front line staff have an effect on level of occupancy.	6.30	1.01	-2.45	8.71
3. The sales ability of front line staff can increase occupancy.	6.08	0.92	-1.77	5.41
4. Reputation of an establishment has a greater impact on occupancy than price.	5.45	0.97	-0.30	-0.39
5. Change in government policy has an effect on occupancy.	5.44	1.23	-0.82	0.53
6. Motivated front line staff have a greater impact than facilities on increasing occupancy.	5.24	1.02	-0.41	0.09
7. Increasing the amount of training given to front line staff increases occupancy.	5.09	1.04	-0.22	0.43
Group B Mean < 5.00				
8. Price has a greater impact than facilities offered on increasing occupancy.	4.01	1.22	-0.16	-0.95
9. The quality of food in a restaurant has a greater impact on occupancy than price.	4.00	1.53	0.25	-0.88
10. Location is more important than quality of service on increasing occupancy.	3.65	1.19	0.20	-0.24
11. Company policy influences occupancy more than hotel quality.	3.47	1.11	0.28	-0.78

As a result an evident conclusion can be drawn from this representation of the data. Table 4-17 adds skewness and kurtosis to the mean and standard deviation evident in Figure 4-4. The skewness shows the direction of the standard normal curve, with a large negative indicating that the results are skewed to the right while with a large positive the results are skewed to the left. The kurtosis indicates how well the respondents agreed with each other or the spread of the results, with a large negative result indicating uniformity and a large positive result indicating a lack of uniformity. Each question will be discussed in the order in which it appears in Figure 4-4 from left (highest mean) to right (lowest mean).

It is notable that the top three factors from Figure 4-4 directly relate to front line staff and their motivation and ability. The strongest agreement is the statement that “Front line staff that are motivated have an effect on the number of guests re-booking”; the second, “Front line staff have an effect on the level of occupancy”; and the third, “The sales ability of the front line staff can increase occupancy”. Each of these statements indicates strong agreement by the participants, and emphasises the importance of the staff and their impact on occupancy. There is also agreement with the statement that “Motivated front line staff have a greater impact than hotel facilities on increasing occupancy”. This indicates again the importance of staff, and that they are more important than facilities in increasing occupancy. There is also agreement with the statement that “Increasing the amount of training given to front line staff increases occupancy”, which indicates a direct relationship between training and occupancy.

The 10<sup>th</sup> item from Figure 4-4 needs to be looked at in reverse; the question asked “Location is more important than quality of service in increasing occupancy”. The responses were in the neutral to disagree area with a mean of 3.65: as a result, quality of service is more important than location.

The 4<sup>th</sup> item from Figure 4-4 asks whether the “Reputation of an establishment has a greater impact on occupancy than price”. The data indicate that there is agreement with this statement, and as a result reputation has a greater effect than

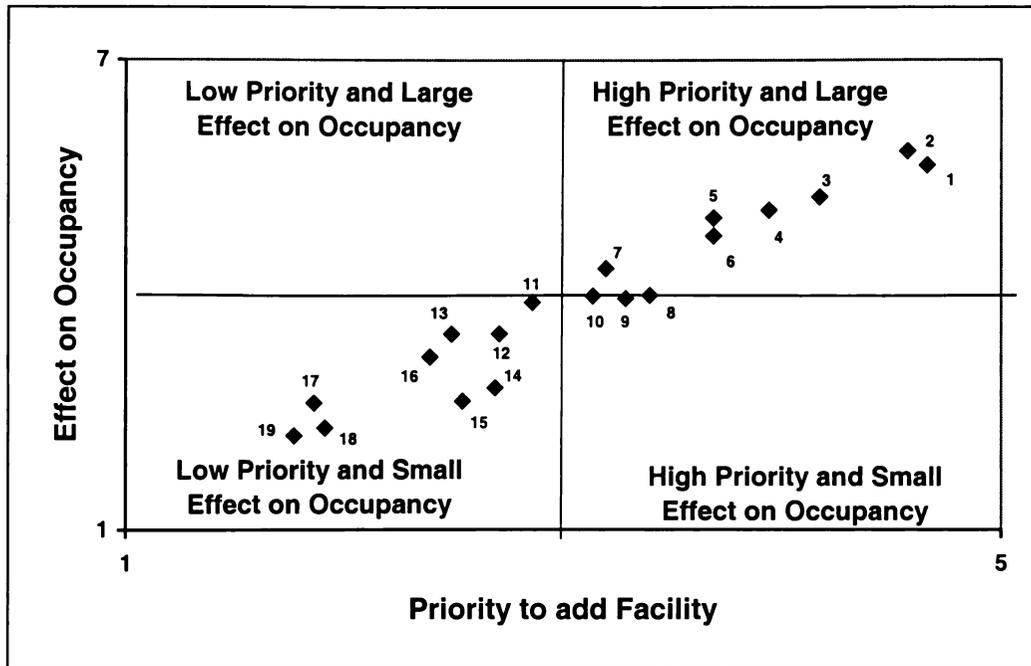
price. This is in conflict with previous findings that put reputation as a great deal less important. There is also agreement that “Changes in government policies have an effect on occupancy”. In relation to price and facilities there is a neutral result ( $\underline{M} = 4.01$ ) however price shows as very slightly more important. Also “The quality of food in a restaurant has a greater impact on occupancy than price” was given a neutral result ( $\underline{M} = 4.00$ ) indicating equal importance for both. The final statement, “Company policy influences occupancy more than hotel quality” indicates a result between neutral and disagree ( $\underline{M} = 3.47$ ), showing that hotel quality is much more important than company policy. The analysis of Figure 4-4 indicates the strong relationship between the staff and quality of service on occupancy.

The previous section asked the respondents for their agreement or disagreement with a number of statements. The next section looks at the facilities of a hotel and the impact and priority of these facilities in relation to occupancy.

### ***Facilities***

Facilities were the fourth most important factor influencing occupancy as rated in the open questions. Within the questionnaire questions 12 through 30 asked specifically about facilities. To answer the questions the respondents were asked to imagine that their establishment had none of the listed facilities and to indicate on a 5-point scale their priority in adding the facility; and on a 7-point scale the impact they believed the named facility would have on occupancy.

The data were analysed using an “importance–performance” approach to presenting the information. Thus the priority score is used as the “X” co-ordinate and the effect on occupancy score used as the “Y” co-ordinate. The result of this analysis is shown in Figure 4-5 where four co-ordinates can be identified: 1). high priority and large affect on occupancy, 2). low priority and large affect on occupancy, 3). low priority and small affect on occupancy, 4). high priority and small affect on occupancy.



1	TV in each room	11	Pay for movie in each room
2	Tea/Coffee making facility in each room	12	Snack Bar
3	Sky television in each room	13	Casino close to your establishment
4	Restaurant (European)	14	Internet in each room
5	Comprehensive room service	15	Email in each room
6	Business Centre, with fax, computer	16	Restaurant (Ethnic)
7	Spa Pool or Sauna	17	Fax machine in each room
8	Electronic Room Security	18	Computer in each room
9	Gymnasium	19	Video player in each room
10	Swimming Pool		

**Figure 4-5 Effect of Facilities on Occupancy vs Priority to Add Facilities**

For example, the first item is “TV in each room”: the priority mean was 4.66 and the effect on occupancy mean was 5.66. With reference to Figure 4-5 it can be seen that this appears in the top right co-ordinate, labelled 1. This indicates that there is a high priority for a TV in each room and that there is also a large effect on occupancy. Table 4-18 lists the position of each item on Figure 4-5.

Table 4-18 lists in ascending order the items from questions 12 through 30, showing their priority and effect on occupancy.

**Table 4-18 Facilities in Descending Order by Affect on Occupancy**

	Priority	Effect on Occupancy	Ranking
Tea/Coffee making facilities in each room	4.86	5.95	1
TV in each room	4.89	5.89	2
Restaurant (European)	3.98	5.70	3
Sky television in each room	4.06	5.25	4
Business centre, with fax, computer	3.90	5.25	5
Comprehensive room service	3.90	5.00	6
Spa pool or sauna	3.40	4.61	7
Electronic room security	4.13	4.33	8
Swimming pool	3.05	4.33	9
Gymnasium	3.10	4.32	10
Casino close to your establishment	2.83	4.09	11
Snack bar	2.90	3.84	12
Pay for movie in each room	2.95	3.64	13
Email in each room	2.23	3.44	14
Restaurant (Ethnic)	2.80	2.74	15
Internet in each room	2.85	2.22	16
Fax machine in each room	1.29	2.21	17
Computer in each room	1.30	2.10	18
Video Player in each room	1.26	1.57	19

**Note:** Priority 5 point scale, Effect on Occupancy 7 point scale

Table 4-18 prioritises the items that affect occupancy. The correlation coefficient between the two sets of figures was 0.92, indicating that there is a close relationship between the priority responses and the effect on occupancy responses.

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**Table 4-19 The Facilities and their Priority and Effect on Occupancy**

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***High Priority & Large Effect on Occupancy***

- TV in each room
- Tea/Coffee making facilities in each room
- Sky television in each room
- Restaurant (European)
- Comprehensive room service
- Business centre, with fax, computer
- Spa pool or sauna
- Electronic room security
- Gymnasium
- Swimming pool
- Pay for movie in each room

***High Priority & Small Effect on Occupancy***

- Snack bar
- Internet in each room
- Email in each room

***Low Priority & Small Effect on Occupancy***

- Casino close to your establishment
  - Restaurant (Ethnic)
  - Fax machine in each room
  - Computer in each room
  - Video player in each room
  - Video Player in each room
- 

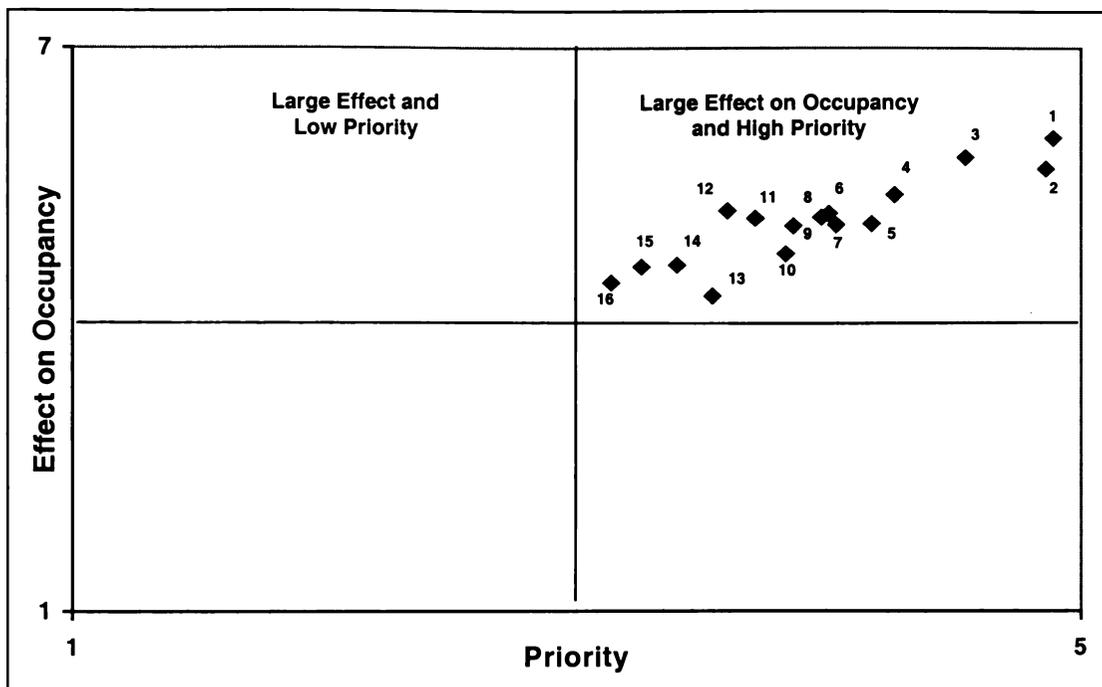
Table 4-19 lists the items from Figure 4-5 according to priority of adding the facility if not already available and the effect that that facility would have on occupancy. This section considered the factors that have an effect on occupancy along with the priority of adding that facility if not already available.

***Factors That Encourage Repeat Business***

The next set of closed questions considered the factors that encourage repeat business. Occupancy in a hotel is not purely made up of first time customers but also of customers who have previously stayed in the establishment. As reported by many authors (Rowe, 1996; Ruggless, 1997; Cebrynski, 1998; Cross, 1998; Matsumoto, 1998; McGarvey, 1998: et al) one of the objectives of a business is

not only to continuously attract new customers but also to encourage repeat customers. The main reason for this action is that the cost of attracting new customers is usually a lot higher than developing loyal ones.

There were two parts to each question as illustrated in Figure 4-6: the first asking the priority of the factor and the second the effect the factor had on occupancy.



1	Friendliness of the Staff	9	The size of the room
2	Motivation of staff to give quality service	10	Quality of the food in the Restaurant
3	Reputation of the establishment	11	Size of the rooms
4	Facilities offered by your establishment	12	Company decision on use of establishment
5	Guests being called by name by the staff	13	Safety issues (Security)
6	Facilities available for guests	14	Competition from other establishments
7	Cost of stay	15	Restaurants available to guests
8	Central business location	16	Closeness to main highways

**Figure 4-6 Factors that Effect Repeat Business their Effect on Occupancy and Priority**

The three factors having the greatest effect on repeat business in Figure 4-6 are:  
 1). Friendliness of the Staff, 2). Motivation of staff to give quality service and  
 3). Reputation of the establishment.

***Priority of Factors Affecting Occupancy***

The next set of questions asked the respondents to indicate their priority of sets of five options by awarding a 5 (highest) to 1 (lowest) rating. The full questionnaire is contained in Appendix C. Table 4-20 shows the results of the first of these questions.

**Table 4-20 Areas in the Training of Front Line Staff have the Greatest Affect on Occupancy**

	Mean	Std Dev	Skewness	Kurtosis
Customer relations skills	4.085	1.401	-1.521	0.996
Service skills	3.857	1.240	-0.793	-0.689
General staff motivation skills	3.428	1.170	-0.343	-0.689
Personal appearance skills	3.428	1.312	-0.456	-0.777
Time management skills	2.800	1.530	0.357	-1.294

As illustrated in Table 4-20 the question asked what areas of the training of front line staff have the greatest effect on occupancy. Customer relations skills (mean 4.09) was rated as the area of training that has the greatest effect on occupancy. The strength of this result is also indicated by the skewness (-1.52) which shows that the data distribution is skewed to the right with a long left tail. Also the kurtosis (0.99) indicates that the data are fairly closely clustered. Following behind customer relations skills was service skills (mean 3.86), with general staff motivation skills and personal appearance skills jointly in third place (mean 3.43); and in a low final place, time management skills (mean 2.80).

***Employment of Front Line Staff***

The next set of questions again asked the respondents to put into priority order five statements as they relate to the employment of front line staff and the

attributes considered important in affecting occupancy. The responses are listed in Table 4-21.

**Table 4-21 Attributes Considered when Employing Front Line Staff that Affect Occupancy**

	Mean	Std Dev	Skewness	Kurtosis
Ability to get along with guests	4.314	1.078	-1.576	1.772
Enthusiasm in the job	3.828	1.360	-0.933	-0.203
Operations skills	3.428	1.065	-0.034	-1.222
General grooming and appearance	3.385	1.305	-0.206	-1.276
Understanding of the profitability of your business	2.442	1.407	0.551	-1.014

As indicated in Table 4-21, ability to get along with guests is rated the most important (mean 4.31). This response was very strong as evident by the negative skewness (-1.57) which indicates that the data are skewed to the right, and the kurtosis of 1.77, which indicates that the data are tightly grouped. The second most important attribute is enthusiasm in the job (mean 3.83), followed by operations skills (mean 3.43) and general grooming and appearance (mean 3.38). This is followed by a significant gap to understanding of the profitability of your business (mean 2.44); the positive skewness (0.55) indicates that the data are skewed heavily to the left with a long right tail.

The next question in this series was in the same style, and asked which factor affects front line staff motivation the most. Table 4-22 lists the responses in descending order.

**Table 4-22 Which Factor Affects Front Line Staff Motivation the Most**

	Mean	Std Dev	Skewness	Kurtosis
Recognition of performance	4.23	1.19	-1.80	2.66
Good working environment	3.97	1.09	-0.79	-0.07
Aspiration for promotion	3.11	1.16	-0.23	-0.94
The rate of pay	2.97	1.12	-0.20	-0.26
Incentive payments	2.91	1.54	0.15	-1.42

As reported in Table 4-22, recognition of performance (mean 4.23) is rated as the factor that has the greatest affect on occupancy. The large negative skewness (-1.80) indicates that the data are strongly skewed to the right with a long left tail. Also the large positive kurtosis (2.66) indicates that the data are tightly grouped, and indicates a feeling of agreement amongst the respondents. Second was good working environment, with a not so strong negative skewness (-0.78) and a kurtosis of -0.07, indicating a near normal distribution of responses. Then there is a reasonable drop to aspiration for promotion (mean 3.11) and the rate of pay (mean 2.97) closely followed by incentive payments (mean 2.91) with a positive skewness of 0.15 and a negative kurtosis (-1.42) indicating the data are not closely clustered.

***Factors Having Greatest Impact On Occupancy***

The last question in this section again followed the same pattern as previously used, and asked which of the factors listed had the greatest impact on occupancy. Table 4-23 lists the results.

**Table 4-23 Which Factor Has the Greatest Impact on Occupancy**

	Mean	Std Dev	Skewness	Kurtosis
Reputation	4.11	1.23	-1.43	0.98
Staff	3.57	1.24	-0.95	-0.01
Location	3.37	1.46	-0.15	-1.58
Facilities	3.37	1.03	-0.32	0.15
Price	2.83	1.40	-0.08	-1.30

As listed in Table 4-23, reputation (mean 4.11) is the factor that has the greatest impact on occupancy. The large negative skewness (-1.43) indicates that the data are skewed to the right, and fairly closely grouped as indicated by the positive kurtosis (0.98). The next three are closely grouped: staff (mean 3.57), location (mean 3.37), and facilities (mean 3.37). The final factor, price (mean 2.83) has the least impact on occupancy of this group.

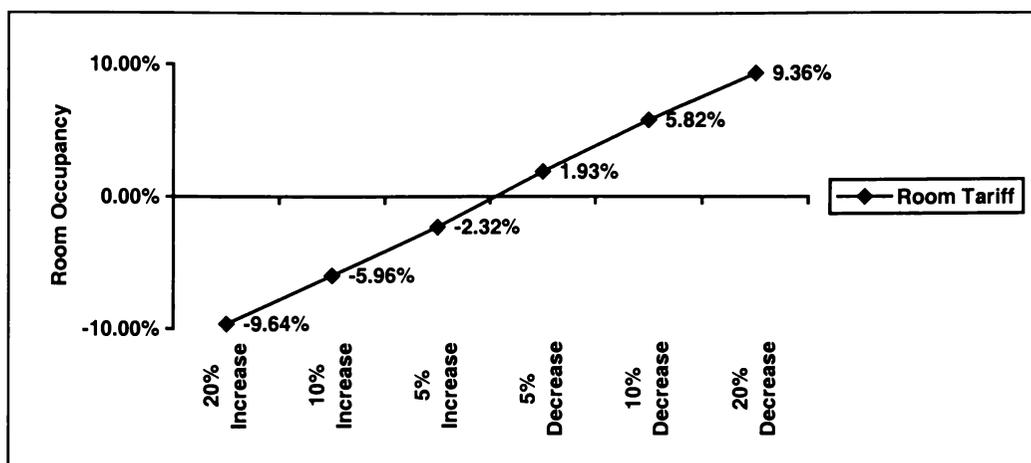
**Action Reaction Analysis**

The last set of questions took the form of action/reaction questions. In these questions the respondents were asked to surmise the result in response to a certain event. The questions were designed to give a quantitative result for each of the statements. The first of these questions considered room tariff, and the effect on occupancy that would be expected with a change in the room tariff. Table 4-24 illustrates how the question was asked.

**Table 4-24 Layout of Question on Changes in Room Tariff**

		Decrease in Occupancy				Increase in Occupancy		
		20%	10%	5%	0%	5%	10%	20%
		↓	↓	↓	↓	↓	↓	↓
<i>Change in Room Tariff – What effect do you think changes in Room Tariff have on Occupancy?</i>								
51	20% average increase in room tariff	----- ----- ----- ----- ----- ----- -----						
52	10% average increase in room tariff	----- ----- ----- ----- ----- ----- -----						
53	5% average increase in room tariff	----- ----- ----- ----- ----- ----- -----						
54	5% average decrease in room tariff	----- ----- ----- ----- ----- ----- -----						
55	10% average decrease in room tariff	----- ----- ----- ----- ----- ----- -----						
56	20% average decrease in room tariff	----- ----- ----- ----- ----- ----- -----						

In Table 4-24 the respondents were asked if the room tariff was to change from a 20% average increase to a 20% average decrease, what the effect would be on occupancy.

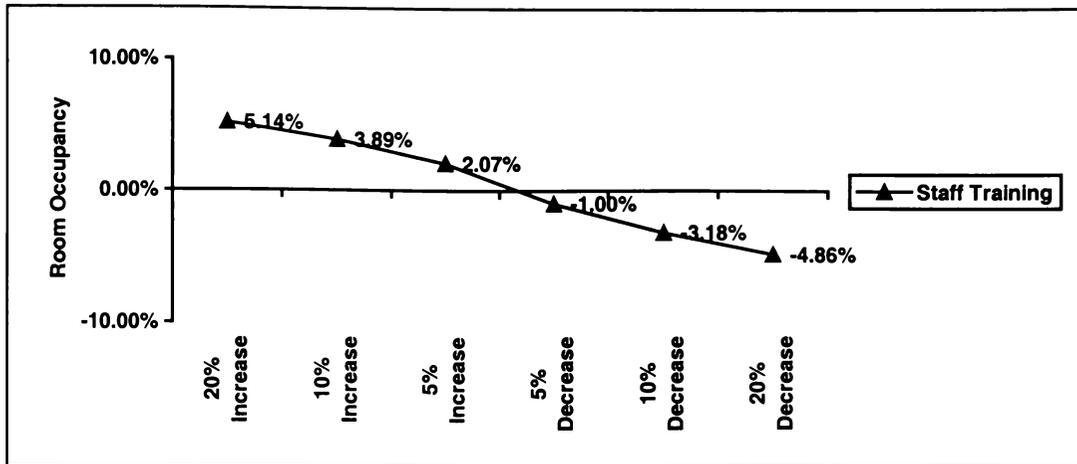


**Figure 4-7 Effect on Occupancy with Changes in Room Tariff**

Figure 4-7 illustrates the results of the question. As illustrated the respondents indicated a close linear relationship between room tariff and occupancy<sup>5</sup>. The respondents indicated that a 20% increase in room tariff would produce a 9.64% decrease in occupancy, and a 20% decrease in room tariff would produce a 9.36% increase in occupancy.

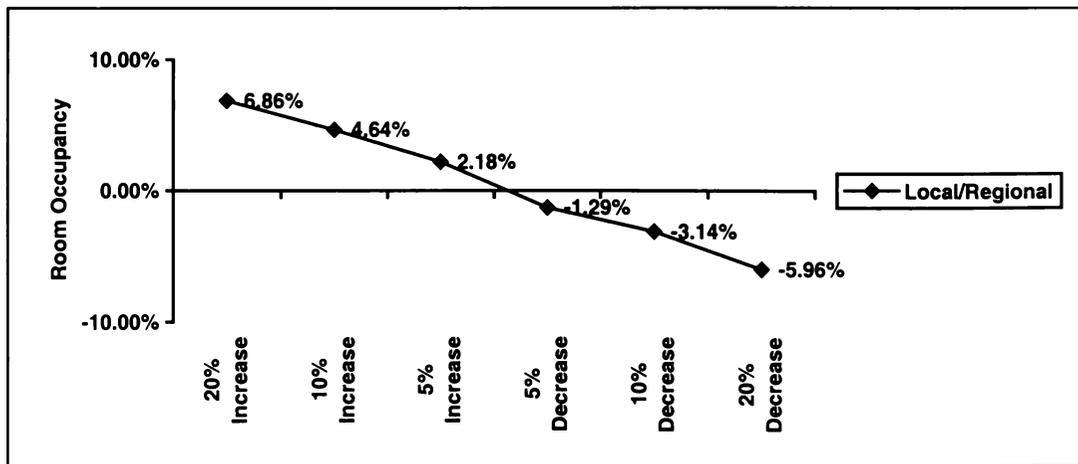
The next question asked about the effect on occupancy with a change in front line staff training. This question used the same format as in the previous question for the responses. As shown in Figure 4-8 an increase in expenditure of 20% is expected to result in a 5.14% increase in occupancy while a 20% decrease gives a 4.86% decrease in occupancy.

<sup>5</sup> There was some concern that the way the question was laid out influenced the results.



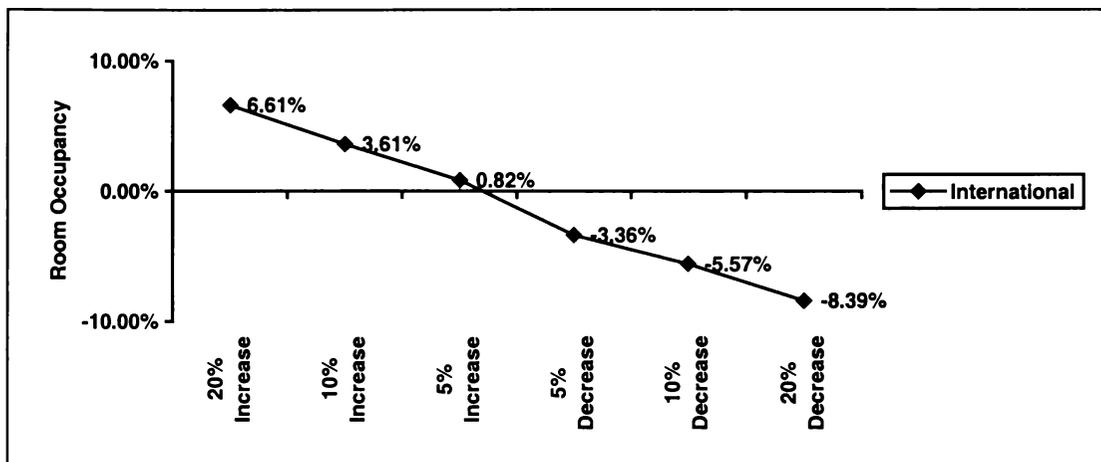
**Figure 4-8 Effect on Occupancy with Changes in Front Line Staff Training**

The next two questions followed the same general format where the respondent was asked what result they would expect with specific changes. The first asked what changes in occupancy would be expected with modifications in local and regional advertising Figure 4-9. The second asked what changes in occupancy would be expected with modifications in international advertising and promotion Figure 4-10.



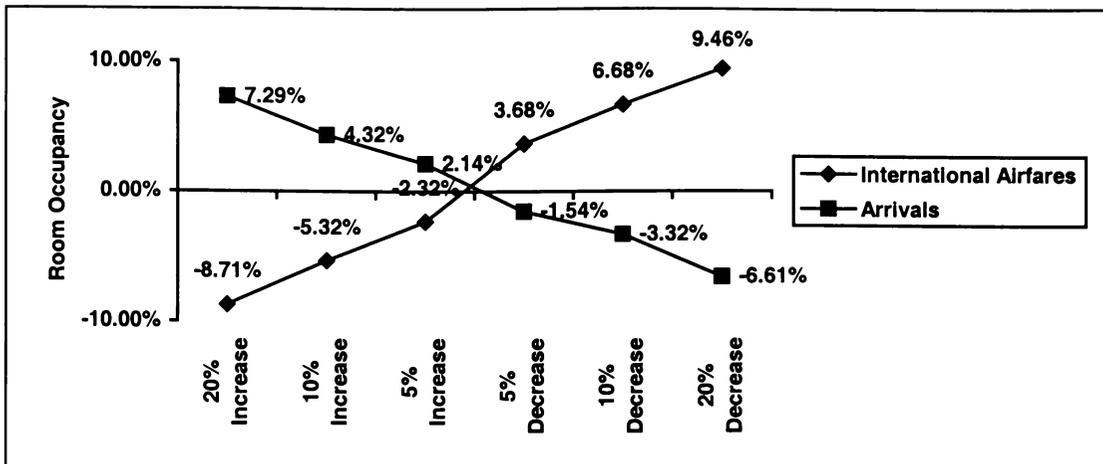
**Figure 4-9 Effect of Changes in Advertising and Promotion on Occupancy**

The result of an increase of 20% is very close in each case (6.86% local and region advertising and 6.61% International advertising). At the other extreme a decrease of 20% in local regional advertising produced a 5.96% decrease, and a 20% decrease in international advertising and promotion produced a larger decrease of 8.39%.



**Figure 4-10 Effect on Room Occupancy of Changes in Spending on Front Line Staff Training**

The last two questions in this section follow the same line, and deal with international airfares and changes in international tourist and business arrivals. Figure 4-11 illustrates the result of both of these questions.



**Figure 4-11 Effect on Room Occupancy of International Airfares and International Arrivals**

From figure 4-11 it may be deduced that a large effect is indicated in relation to changes in international airfares, with a 20% increase resulting in an 8.71% reduction in occupancy, and a 20% decrease resulting in a 9.46% increase in occupancy.

This section has discussed the findings from the survey conducted among industry decision-makers. The first analysis looked at the open question where the respondents were asked to list the five factors that have the greatest effect on occupancy. These factors were discussed and put into priority order. The rest of the questions were then discussed in sequential order, drawing specific conclusions. The last part of this discussion looked at the major factors from the open questions and related the closed questions to them in priority order of: 1). Staff/Service Quality, 2). Room Rate/Price/Value, 3). Location, 4). Facilities. Then the effects of Marketing/Sales and Competition were discussed. These data will be used in Chapter 5 in the development of a model of hotel occupancy.

### **4.1.3 Potential Hotel/Motel Guest Survey**

This section analyses the data collected from the guest survey as discussed in Chapter 3 Methodology, giving details of the data collection method. A copy of the questionnaire is contained in Appendix I. As discussed previously the questionnaire contained two main parts, the first to collect information about the respondents. The second part contained 38 questions, where the respondents were asked to indicate how important various factors were to the future selection of hotel/motel accommodation. Those answering the questionnaire were asked to respond in two ways: the first indicating if the factor was not relevant to the decision, the second rating the factor on a 5-point scale from Very Unimportant to Very Important. The responses were scored Zero (0) for Not Relevant, and One (1) for Very Unimportant to five (5) for Very Important. Therefore the higher the number the higher the importance of any particular factor in the future selection of accommodation.

The surveys were carried out in a number of different locations in the North Island of New Zealand as detailed in Chapter 3. Table 4-25 lists the areas surveyed, the number of surveys distributed, the number returned and percentage return.

**Table 4-25 Areas Used for Surveying Data Collection**

	Number of questionnaires returned	Number Distributed	Percentage Return
Hamilton Airport	67	100	67%
Auckland Airport	73	100	73%
Wellington Airport	67	100	67%
Hamilton Mail Boxes	81	400	20%
Auckland Mail Box	63	400	16%
Business Delivery	62	200	31%
Total	413	1300	31.8%

The first analysis which was carried out was to determine how common the results

from the various location points were, and whether the data could be considered to be holistic. This was achieved by calculating to see if there were significant differences between the means using one-way ANOVAR (Analysis of Variance) and Scheffé test.

Of the 304 combinations of groups of dependent and independent variables tested as illustrated in Table 4-26 there were 85 or 27% found to have significant differences in their means. The differences tend to fall into specific patterns, such as differences between the responses of the different genders, therefore the data will be analysed as a whole but where there are differences this will be included in the analysis of the individual factors. These findings are consistent with other research (Callan 1996) where noticeable differences appeared among business and leisure (vacation) customers.

**Table 4-26 Mean Significance Analysis**

	Dependent Variable ↓	Independent Variable →	Business / Vacation	Motel / Hotel	Involved in Booking	Gender	NZ/Non-NZ Resident	Age	Salary / Wage	Collection Point
1	Price		***	**	**	***				SD
2	Discount offered personally or to company									SD
3	Exchange rate		***	*			***			SD
4	Sky television in room		***			***				
5	In-room movies (video)									SD
6	Facilities over all					**				
7	Size of room									
8	Decorations/ambience				*					
9	Good Security					***				
10	Spa pool		***			**	**			
11	Comfortable Mattress and Pillow					***				
12	Swimming Pool		***			***	*			
13	Business centre		***	***		***	***		SD	
14	Fax machine in room		***	**	***	**	***		SD	SD
15	World Wide Web/Email in room or available		***	*	**	**	***		SD	SD
16	Tea and Coffee available in room		**	**	**	***	***	SD		
17	Cooking facility in room		***	***	**	***				SD
18	Quiet room		*					SD		
19	On premises parking		***		**	***	***			SD
20	Close to business areas or attraction					***				
21	Closeness to Highway									
22	Closeness to Airport									
23	Quality of staff service		*			***				
24	Friendliness of staff		*			***		SD		
25	Staff calling you by name						**			
26	Speed of check-in and out		**	***				SD		
27	Always stay in the same place		***	*		***	**			
28	Company policy for particular establishment		***		***	***		SD		
29	Part of a chain or group of establishments		***		***	*				
30	Ease of booking			***		**			SD	
31	Government policies		**		*		**			
32	Cleanliness of the Room				*	***		SD		
33	Good quality bath towels and washcloths				**	**		SD		
34	Well maintained furnishings			*	**	***		SD		
35	Good reputation of establishment		**	***		***				
36	Free newspaper		***							
37	Family Restaurant		***							
38	Amenities in Bathroom			*		*		SD		

**Note:** \*p < 0.10 \*\*p < 0.05 \*\*\*p < 0.01.

SD = Using One-Way ANOVA (Scheffe Post Hoc Test) at least one pair of variables is significant at the .05 level.

The second analysis involved ordering by mean. This was achieved by calculating the mean of each of the factors and putting them into descending order. Table 4-27 lists those factors which were rated as “Very Important” ( $M > 4.2 \leq 5$ ) to the choice of accommodation, along with the mean, standard deviation, variance, skewness and kurtosis.

**Table 4-27 Factors rated as Very Important in Future Choice of Accommodation**

Rating		Mean	Standard Deviation	Skewness	Kurtosis
1	Cleanliness of the room	4.59	0.76	-3.34	15.85
2	Good quality bath towels and washcloths	4.34	0.80	-1.81	5.18
3	Quality of staff service	4.30	0.75	-1.93	8.02
4	Friendliness of staff	4.27	0.81	-1.80	5.98
5	Comfortable Mattress and Pillow	4.24	0.94	-1.83	4.27
6	Quiet room	4.22	0.92	-1.9	5.10

Note ( $M > 4.2 \leq 5$ )

From Table 4-27 it is evident that the number-one factor which has the greatest effect on the choice of accommodation is the “Cleanliness of the Room”. This result is accompanied with a very strong positive kurtosis indicating strong agreement among the participants. It is of particular note that of the six items in Table 4-27 there are four that relate to facilities, and two that relate to service quality.

Regression Weights Between	Business and Vacation Accommodation	Hotel and Motel Choice	Involved and Not Involved in Selection	Gender	New Zealand Resident and Non Resident	Age	Salary - Wage
Cleanliness of the room	-.02	-.03	<b>.15</b>	<b>.28</b>	<b>-.23</b>	-.01	.03
Good quality bath towels and washcloths	-.01	<b>.10</b>	<b>.24</b>	<b>.21</b>	<b>-.18</b>	.08	.02
Quality of staff service	.06	.09	.02	<b>.37</b>	-.04	-.01	.04
Friendliness of staff	<b>.10</b>	.07	.07	<b>.31</b>	-.08	-.01	.04
Comfortable mattress and pillow	.01	-.02	<b>-.22</b>	<b>.31</b>	<b>-.17</b>	.03	.03
Quiet room	<b>-.19</b>	-.09	-.03	<b>.22</b>	-.05	-.02	.07

Note: For this research - Regression Weights > .1 was chosen to show a meaningful causal effect on a Dependent Variable by the Independent Variable.

Table 4-28 illustrates the regression weights as generated by AMOS™ for the factors rated as “Very Important” by potential guests, in the choice of accommodation. For clarity those independent variables which have a significant causal effect on factors are shown in **bold** in each of the regression weights tables. The analysis shows that the independent variables of “Age” and “Salary/Wage” have almost no causal effect on the factors considered, while “Gender” has a causal effect on all the factors, and other independent variables have small causal effects.

**Table 4-29 Factors Rated as Important to the Future Choice of Accommodation**

Rating		Mean	Standard Deviation	Skewness	Kurtosis
7	Well maintained furnishings	4.18	0.78	-1.31	3.43
8	On premises parking	4.17	1.02	-2.07	5.59
9	Facilities over all	4.07	0.80	-1.66	5.65
10	Good Security	4.05	0.90	-1.53	3.82
11	Tea and Coffee available in room	3.94	1.20	-1.69	2.70
12	Good reputation of establishment	3.91	0.91	-1.09	2.30
13	Speed of check-in and out	3.79	1.00	-1.26	2.15
14	Amenities in bathroom	3.79	1.12	-1.16	1.39
15	Price	3.79	1.19	-1.39	1.88
16	Ease of booking	3.63	1.16	-1.68	2.89
17	Close to business areas or attraction	3.58	1.15	-1.14	1.38
18	Size of room	3.53	0.93	-1.31	3.03
19	Decorations/ambience	3.51	0.99	-1.26	2.21
20	Discount offered personally or to company	3.43	1.21	-1.04	1.13

Note: ( $M > 3.4 \leq 4.2$ )

Table 4-29 lists the factors from the survey of potential guests that they indicated were “Important” ( $M > 3.4 \leq 4.2$ ) to the choice of accommodation. It is of particular note that “Price” which was highly rated in the in-depth interviews and the survey of hotel decision-makers is rated in this survey of potential guests as the 15<sup>th</sup> factor overall.

<b>Table 4-30 Important Factors - with Regression Weights</b>							
Regression Weights Between	Business and Vacation Accommodation	Hotel and Motel Choice	Involved and Not Involved in Selection	Gender	New Zealand Resident and Non Resident	Age	Salary - Wage
Well maintained furnishings	.04	<b>.13</b>	<b>.21</b>	<b>.31</b>	<b>-.37</b>	.09	.04
On premises parking	<b>.30</b>	.01	<b>-.29</b>	<b>.29</b>	<b>-.81</b>	.03	.04
Facilities over all	.03	.01	-.07	<b>.16</b>	.07	-.06	.02
Good Security	-.00	-.03	<b>.13</b>	<b>.29</b>	<b>-.24</b>	.01	-.01
Tea and Coffee available in room	-.05	<b>-.25</b>	<b>-.37</b>	<b>.59</b>	<b>-.79</b>	<b>.24</b>	.00
Good reputation of establishment	<b>.23</b>	<b>.28</b>	<b>.10</b>	<b>.21</b>	<b>-.18</b>	.04	.00
Speed of check-in and out	<b>-.20</b>	<b>.24</b>	<b>.12</b>	<b>.19</b>	<b>.14</b>	-.05	.07
Amenities in bathroom	.12	.19	<b>.23</b>	<b>.23</b>	<b>.29</b>	-.02	-.09
Price	<b>.73</b>	<b>-.13</b>	<b>-.27</b>	<b>.12</b>	.05	-.04	.08
Ease of booking	-.07	<b>.27</b>	-.08	<b>.43</b>	<b>-.26</b>	-.04	.13
Close to business areas or attraction	<b>-.26</b>	.07	<b>-.18</b>	<b>.39</b>	<b>-.20</b>	-.07	.02
Size of room	.00	.12	.02	.08	<b>.10</b>	-.06	.02
Decorations/ambience	-.08	.08	<b>.26</b>	<b>.21</b>	<b>-.14</b>	.02	.07
Discount offered personally or to company	<b>.18</b>	-.01	<b>.10</b>	<b>.13</b>	<b>-.11</b>	-.01	.01

Note: For this research - Regression Weights > .1 was chosen to show a meaningful causal effect on a Dependent Variable by the Independent Variable.

Table 4-30 illustrates the regression weights as generated by AMOS for the factors rated as “Important” in the choice of accommodation. The independent variables “Salary/Wage” and “Age” have almost no causal effect on the factors analysed, while “Gender” has a very strong causal effect on almost all factors, and other independent variables have a variety of effects on factors.

**Table 4-31 Factors rated as Neutral to the Future Choice of Accommodation**

Rating		Mean	Standard Deviation	Skewness	Kurtosis
21	Free newspaper	3.39	1.24	-1.00	0.78
22	Cooking facility in room	3.31	1.34	-0.99	0.49
23	Family restaurant	3.01	1.37	-0.72	-0.01
24	Staff calling you by name	3.00	1.26	-0.72	0.41
25	Spa pool	2.65	1.39	-0.34	-0.54
26	Closeness to Airport	2.65	1.29	-0.56	-0.14
27	Closeness to Highway	2.62	1.18	-0.65	0.09

Note: ( $M > 2.6 \leq 3.4$ )

Table 4-31 lists the factors that are “Neutral” ( $M > 2.6 \leq 3.4$ ) as reported in the survey of potential guests. Each of these relates to facilities or location.

**Table 4-32 Neutral Factors - with Regression Weights**

Regression Weights Between	Business and Vacation Accommodation	Hotel and Motel Choice	Involved and Not Involved in Selection	Gender	New Zealand Resident and Non Resident	Age	Salary - Wage
Free newspaper	-.41	-.07	-.13	.06	-.41	.11	.00
Cooking facility in room	.65	-.78	-.26	.55	.10	.05	-.06
Family restaurant	.40	-.11	.20	.11	.09	.09	.03
Staff calling you by name	.03	.05	-.07	.00	.60	-.07	-.06
Spa pool	.41	.08	.01	.15	-.49	-.05	-.02
Closeness to Airport	-.05	.18	.12	-.19	.18	-.06	.00
Closeness to Highway	-.03	-.03	-.05	-.10	-.08	-.08	.08

Note: For this research - Regression Weights  $> .1$  was chosen to show a meaningful causal effect on a Dependent Variable by the Independent Variable.

Table 4-32 illustrates the regression weights as generated by AMOS for the factors rated as “Neutral” in the choice of accommodation. As in the previous two analyses the independent variables “Age” and “Salary/Wage” show almost no

causal effect on the factors analysed. The causal effect of other variables are mixed with “Gender” showing the strongest effect, followed by “New Zealand Residents” and with others showing smaller causal effect.

**Table 4-33 Factors rated as Unimportant to the Future Choice of Accommodation**

Rating		Mean	Standard Deviation	Skewness	Kurtosis
28	Always stay in the same place	2.59	1.36	-0.58	-0.35
29	Swimming Pool	2.58	1.34	-0.37	-0.56
30	Sky television in room	2.48	1.60	-0.23	-1.10
31	In-room movies (video)	2.15	1.52	0.01	-1.08
32	Part of a chain or group of establishments	1.92	1.48	-0.16	-1.41
33	Business centre	1.85	1.42	-0.03	-1.21
34	Exchange rate	1.84	1.69	0.22	-1.35

Note: ( $M > 1.8 \leq 2.6$ )

Table 4-33 lists the factors that were reported as “Unimportant” ( $M > 1.8 \leq 2.6$ ) to the choice of accommodation. These items related mainly to the business environment.

<b>Table 4-34 Unimportant Factors - with Regression Weights</b>							
Regression Weights Between	Business and Vacation Accommodation	Hotel and Motel Choice	Involved and Not Involved in Selection	Gender	New Zealand Resident and Non Resident	Age	Salary - Wage
Always stay in the same place	<b>-0.32</b>	<b>.18</b>	.05	<b>-0.26</b>	<b>-0.59</b>	-0.04	.02
Swimming Pool	.31	-0.01	<b>-0.20</b>	<b>.34</b>	<b>-0.47</b>	-0.05	.04
Sky television in room	<b>-0.24</b>	<b>-0.28</b>	.07	<b>-0.72</b>	-0.08	<b>-0.25</b>	.02
In-room movies (video)	.24	.08	.05	<b>-0.30</b>	<b>-0.34</b>	<b>-0.22</b>	-0.01
Part of a chain or group of establishments	<b>-0.26</b>	<b>.14</b>	<b>.51</b>	<b>-0.20</b>	<b>.34</b>	-0.04	-0.00
Business centre	<b>-1.18</b>	<b>.34</b>	<b>-0.12</b>	.09	<b>.54</b>	.01	.09
Exchange rate	<b>1.03</b>	<b>.40</b>	<b>.33</b>	-0.04	<b>1.32</b>	.00	<b>.10</b>

Note: For this research - Regression Weights  $> .1$  was chosen to show a meaningful causal effect on a Dependent Variable by the Independent Variable.

Table 4-34 illustrates the regression weights as generated by AMOS for the

factors rated as “Unimportant” in the choice of accommodation. The significant change in this Table from the previous ones is that the largest causal effect is in those indicating “Business/Vacation Accommodation”. Also “Gender” shows strong causal effect, while “Age” and “Salary/Wage” show very little. The effect of “New Zealand Residents” is also more significant than in previous Tables.

**Table 4-35 Factors rated as Very Unimportant to the Future Choice of Accommodation**

Rating		Mean	Standard Deviation	Skewness	Kurtosis
35	World Wide Web/Email in room or available	1.79	1.56	0.32	-1.18
36	Company policy	1.67	1.57	0.15	-1.51
37	Government policies	1.55	1.58	0.40	-1.25
38	Fax machine in room	1.53	1.31	0.25	-1.16

Note: ( $M > 1 \leq 1.8$ )

As illustrated in Table 4-35 four factors were rated as “Very Unimportant” ( $M \geq 1 \leq 1.8$ ), these factors relate more to those staying in business accommodation than in vacation accommodation.

**Table 4-36 Very Unimportant Factors - with Regression Weights**

Regression Weights Between	Business and Vacation Accommodation	Hotel and Motel Choice	Involved and Not Involved in Selection	Gender	New Zealand Resident and Non Resident	Age	Salary - Wage
World Wide Web/Email in room or available	<b>-.71</b>	.08	<b>.39</b>	-.04	<b>.92</b>	-.09	<b>.15</b>
Company policy	<b>-.92</b>	-.15	<b>.78</b>	-.16	-.08	-.13	.05
Government policies	<b>.58</b>	.07	<b>.61</b>	<b>-.31</b>	<b>.73</b>	.03	-.00
Fax machine in room	<b>-.74</b>	.11	<b>.48</b>	.02	<b>.60</b>	-.03	.11

Note: For this research - Regression Weights  $>.1$  was chosen to show a meaningful causal effect on a Dependent Variable by the Independent Variable.

Table 4-36 illustrates the regression weights as generated by AMOS for the factors rated as “Very Unimportant” in the choice of accommodation. The independent variables “Business/Vacation Accommodation” and “Involved in Selection” show a large causal effect on the factors, while “Gender” shows a less significant effect along with other variables.

## **4.2 Conclusion**

This chapter discussed the findings of the three data collection methods. The first of these, in-depth interviews, used CATPAC to analyse the data through the use of dendogram and word count to draw conclusions from those factors, which were expressed to be important by the respondents. The second, hotel decision-makers’ survey, analysed the data using a number of statistical approaches to evaluate the responses including evaluation of open questions and factors influencing hotel occupancy. The third survey of prospective guests presented the analysis of the questions in sequential order emphasising those factors which have specific effect upon the choice of accommodation. The data were presented according to the effect it was reported to have on the choice of accommodation between “Very Important” to “Very Unimportant”. The effect of the causal variables was shown through tables illustrating the regression weights as generated by AMOS.

Each of these analyses was conducted looking at the data generally in sequential order. No attempt was made to draw overall conclusions.

The next chapter takes this data analysis and incorporates data from each of the interviews and surveys to draw conclusions in relationship to specific factors influencing hotel occupancy.

## **CHAPTER 5 MANAGEMENT DECISION MODEL**

### **5.0 Introduction**

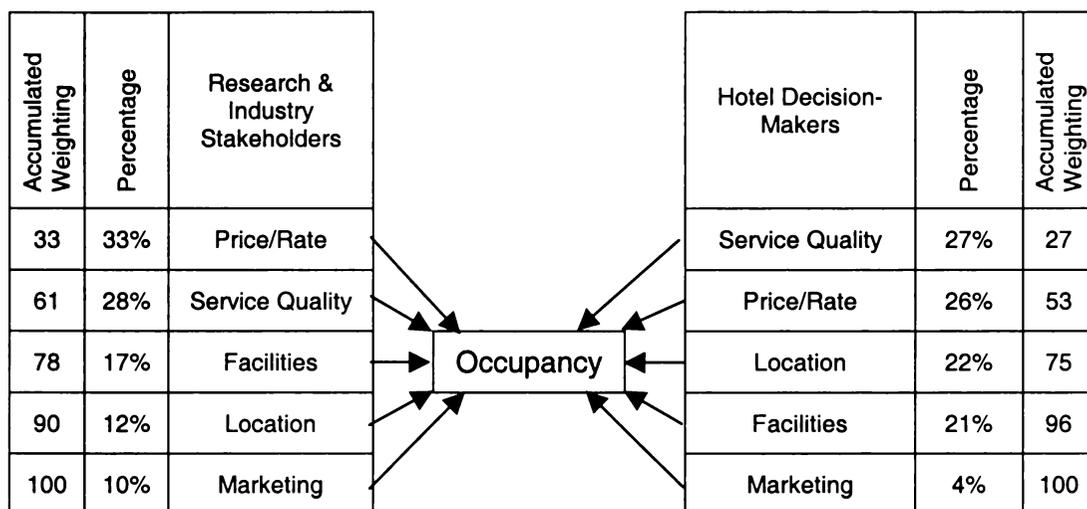
The previous chapter presented an overall analysis of the data gathered for this research, presenting the findings in the order of collection. This chapter will draw together the data presented in Chapter 4 and will take the important factors of the three sets of data so that the essential content is maintained (Zeigler, 1978).

Then an applicable stochastic management decision model will be developed which will give hotel management a better understanding of the salient features of the factors influencing occupancy. The model will be used to better understand the factors influencing hotel accommodation. The value of such a model is the interrelationship between the various factors, that is for such a model to be of value it should illustrate the behaviour of the different factors and their effect on occupancy and the underlying phenomena (Cohen & Cyert, 1961).

The following is an outline of this chapter:

- 
- 5.0. Management Decision Model
  - 5.1. In-depth and Hotel Decision-makers Management Decision Model
    - 5.1.1. Price/Rate Management Decision Model
    - 5.1.2. Service Quality Management Decision Model
    - 5.1.3. Facilities Management Decision Model
    - 5.1.4. Location Management Decision Model
    - 5.1.5. Marketing Management Decision Model
  - 5.2. Potential Guest Management Decision Model
    - 5.2.1. Price/Rate Management Decision Model
    - 5.2.2. Service Quality Management Decision Model
    - 5.2.3. Facilities Management Decision Model
    - 5.2.4. Location Management Decision Model
    - 5.2.5. Other Factors in Management Decision Model
  - 5.3. Feedback Effect on Occupancy
-

An examination of the data gathered for this research indicates that the three sets of data fall into two distinct groups. First the researchers and industry stakeholders and hotel decision-makers have very similar results as indicated in Figure 5-1 which illustrates the relative importance of the top five factors affecting occupancy. The rating of the factors is derived from Tables 4-1 and 4-13. Because of the common results the data from the in-depth interviews held with the research and industry stakeholders and the hotel decision-makers' survey can be viewed collectively.



**Figure 5-1 Comparative Weighting of the Five Major Factors from In-depth Interview and Hotel Decision-makers' Surveys**

Although there are some differences between the two groups as has been discussed in Chapter 4, these differences are minimal. In the in-depth interviews price/rate was the most important, however in the hotel decision-makers' survey, it was indicated to be second in importance as illustrated in Figure 5-1.

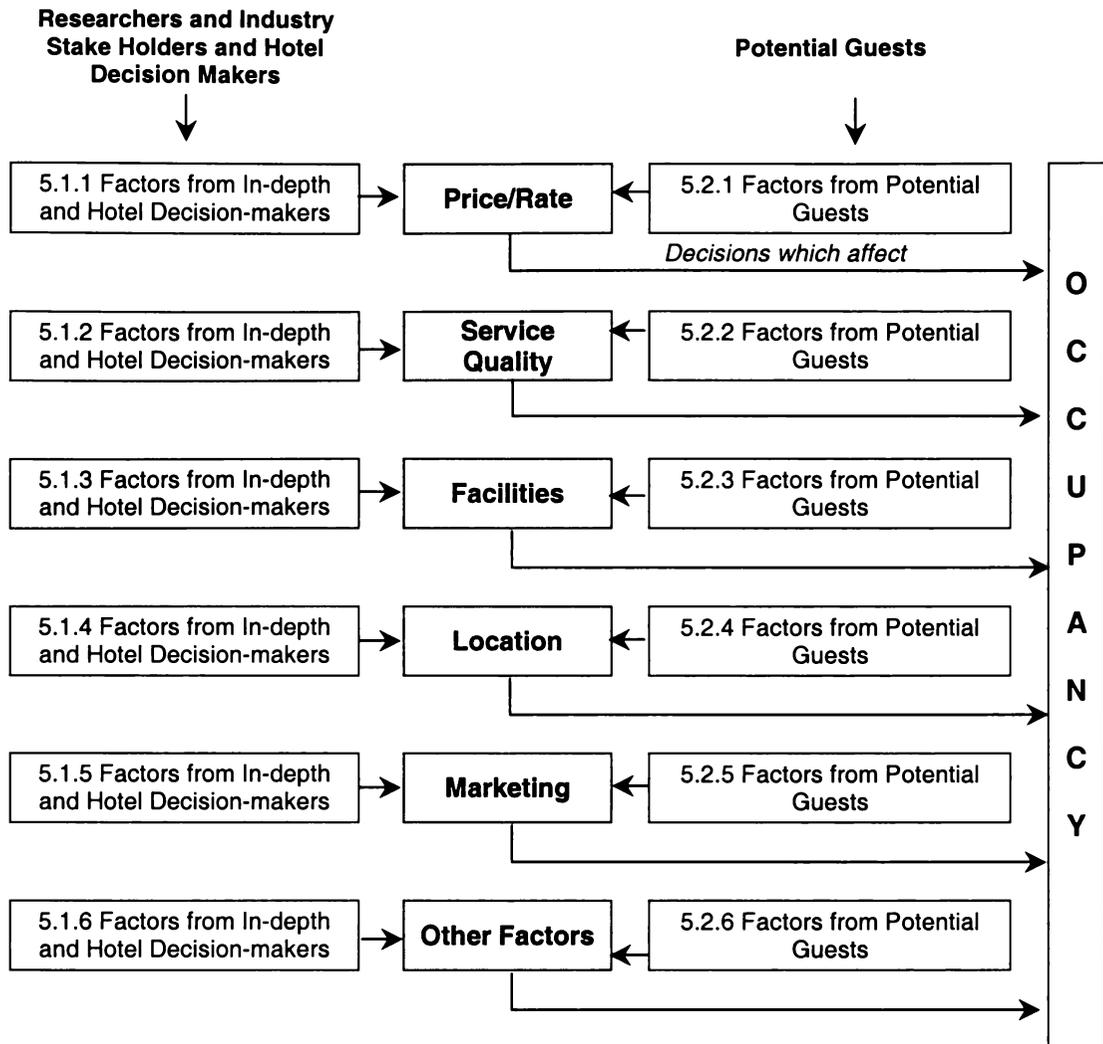
The second grouping comprises the data from the potential guest survey. Results from this group show marked differences in the priority of the factors affecting the choice of accommodation when compared to the other two groups. The next

section will show the development of a decision model first using the data from the in-depth and hotel decision-makers' surveys; these models will then have the potential guest data added to them.

The process of the developing of the model undertaken involves three stages. First, the underlying perceptual structure is developed, this involves evaluating the factors raised in the investigation, as developed in Chapter 4. Second, a business-level decision model is developed showing the influence of the various factors, with an indication of the relationship of those factors on occupancy (Chapter 5). Finally, the relevant management implications are discussed (Chapter 6).

As discussed in section 3.3, the stochastic management decision model comprises a number of parts illustrating the factors with the greatest impact on occupancy. Although each factor is discussed individually it is important to also view the relationship between the factors. Figure 5-2 gives such an overview, and should be viewed with reference to Figure 5-1. The various factors are indicated under the section in this chapter where they appear for ease of reference.

In the models presented in Chapter 5 the various factors influencing the decision can be made up of multiple influences, for example from Figure 5-3 the type of guest has an impact on occupancy, and this is influenced by a number of other variables such as whether the guest is staying on business or vacation, domestic or international, repeat or first time guest, etc. The relationship between the variables does not indicate that all the variables have the same influence but that each varies in relation to the strength of each factor and therefore the model does not represent a linear relationship of all of the factors indicated.



**Figure 5-2 Combination of Decision Models Relationship and Feedback**

As illustrated in Figure 5-2 there are six parts to the model, each of which show the influences evaluated through the research on 1). Price/Rate, 2). Service Quality, 3). Facilities, 4). Location, 5). Marketing, 6). Other Factors. This section describes how the influencing factors in each of these are interpreted. To accomplish this reference will be made to Figure 5-3 which shows the findings from the researchers and industry stakeholders and the hotel decision-makers data. It can be seen from Figure 5-3 that there is a central arrow pointing downwards, this represents the management decision process.

The different factors identified in the research interact with the decision process, for example from Figure 5-3 'Linear/Relationship Price/Occupancy', 'Quality Price Relationship', 'Staff Empowerment', 'Effect of Market Price', 'Types of Guests' all interact with the decision process. In the first one, 'Linear Relationship Price/Occupancy', the research indicated, as presented in Table 5-1, that there is a linear relationship between Price and Occupancy. In fact, a 20 percent increase in price would produce a reduction of 9.64 percent in occupancy, and a 20 percent reduction in price would produce a 9.36 percent increase in occupancy. However, Price cannot be viewed in isolation. As also identified there is an 'Effect of Competition on Price'. This means that although reducing price to increase occupancy may have an effect, local competition may also reduce their price which will reduce the advantage a price change may have. This is also reflected by the influence that 'Effect of Market Price', and 'Competitor's Price' has. So, a manager may use price to control occupancy, however, other factors must also be considered.

Another factor indicated by the research is a 'Quality Price Relationship' and that this is governed by 'Reputation', which indicates that if price discounting is used too heavily by an establishment, the property's reputation can be affected. This in turn can affect the ability of the property to attract guests. Therefore as for the previous factor, this factor is something that can be considered in the decisions made by management, but must be viewed along with other factors.

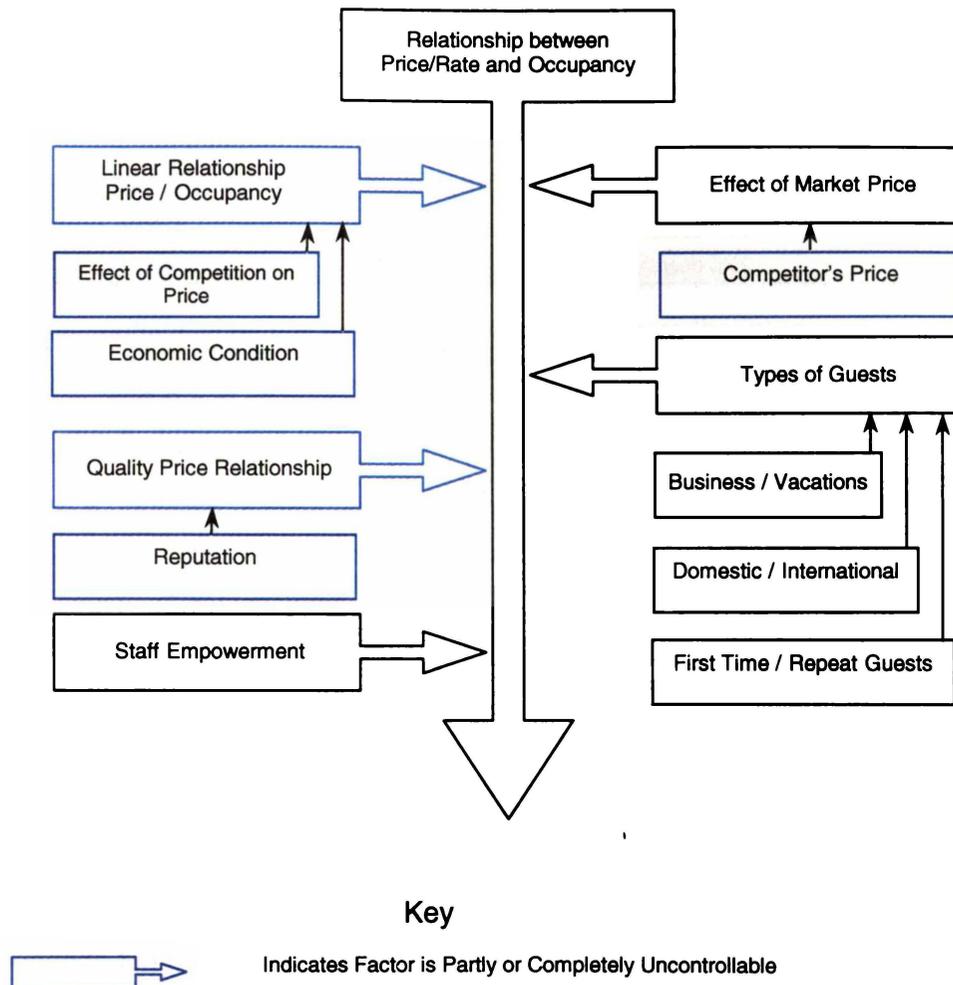
The last major factor influencing price decisions as identified in Figure 5-3 is 'Type of Guest'. As can be seen this is influenced by such factors as 'Business/Vacation Guest', 'Domestic/International Guest', and 'First Time/ Repeat Guest' identified from the research. For example a business guest may be less susceptible to price as the employer may be paying. For a business hotel which has low occupancy during the weekends, discounts to vacation guests may improve weekend patronage.

Figure 5-8 adds to the data presented in Figure 5-3 by including the data from the potential guests. In the survey of potential guests, price was rated as the 15<sup>th</sup> most important factor affecting occupancy, and therefore a lot less important to potential guests than to researchers and industry stakeholders and hotel decision-makers. As a result this factor has an influence on the decision process. Plus the research also identified that price was more important to women than men, and more important to vacation guests. The research identified that discounts and the exchange rate were not important.

Therefore in using the model a manager needs to consider the various influencing factors and make a decision based on the evidence and where the particular property wishes to be within the market.

## 5.1 In-depth and Hotel Decision-makers Decision Model

### 5.1.1 Price/Rate Management Decision Model



**Figure 5-3 Price/Rate Management Decision Model**

Each of the factors discussed in this section are referenced to the management decision model Figure 5-3. The first to be considered is price/rate; this factor was ranked as the most significant by the participants in the in-depth interviews and as second in the hotel decision-makers' survey. The strong "linear relationship

between price/occupancy” is demonstrated by one of the questions in the survey of hotel decision-makers. In this question the respondents were asked to indicate how changes in room price or tariff would affect occupancy.

**Table 5-1 Changes In Room Tariff and Affect on Occupancy**

Amount of Increase or Decrease in Room Tariff	Percentage Change in Occupancy
20% increase	-9.64%
10% increase	-5.96%
5% increase	-2.32%
5% decrease	1.93%
10% decrease	5.82%
20% decrease	9.36%

The figures shown in Table 5-1 indicate a 20% increase results in a 9.64% decrease in occupancy while a 20% decrease results in a 9.36% increase. Review of the literature does not identify any study which reports such a close linear relationship between changes in price and occupancy, although a relationship between occupancy and the amount the customer is willing to pay is discussed by a number of authors including Lewis and Shoemaker (1997). There was a very high level of agreement between the respondents, and therefore a strong indication that the relationship is valid.

While the close relationship between price and occupancy is emphasised in the in-depth interviews with statements such as, “There is a strong link between price and occupancy”, it does have other factors influencing it. This was expressed by one of the interviewees as, “Prices in one establishment do not change in isolation”. Research indicates that there are close on-going competitive comparisons between different hotels, with different operators phoning each other anonymously to ascertain the rates being charged (Grewal, Monroe & Krishnan, 1998). Although the analysis in Table 5-1 shows a relationship, in the model in Figure 5-3 “Linear Relationship Price/Occupancy” is shown as partly uncontrollable which indicates its nature in a small market such as New Zealand. If one or more operator changes their pricing strategy this has an affect on the whole local market. Therefore, as stated in the in-depth interviews, there is a

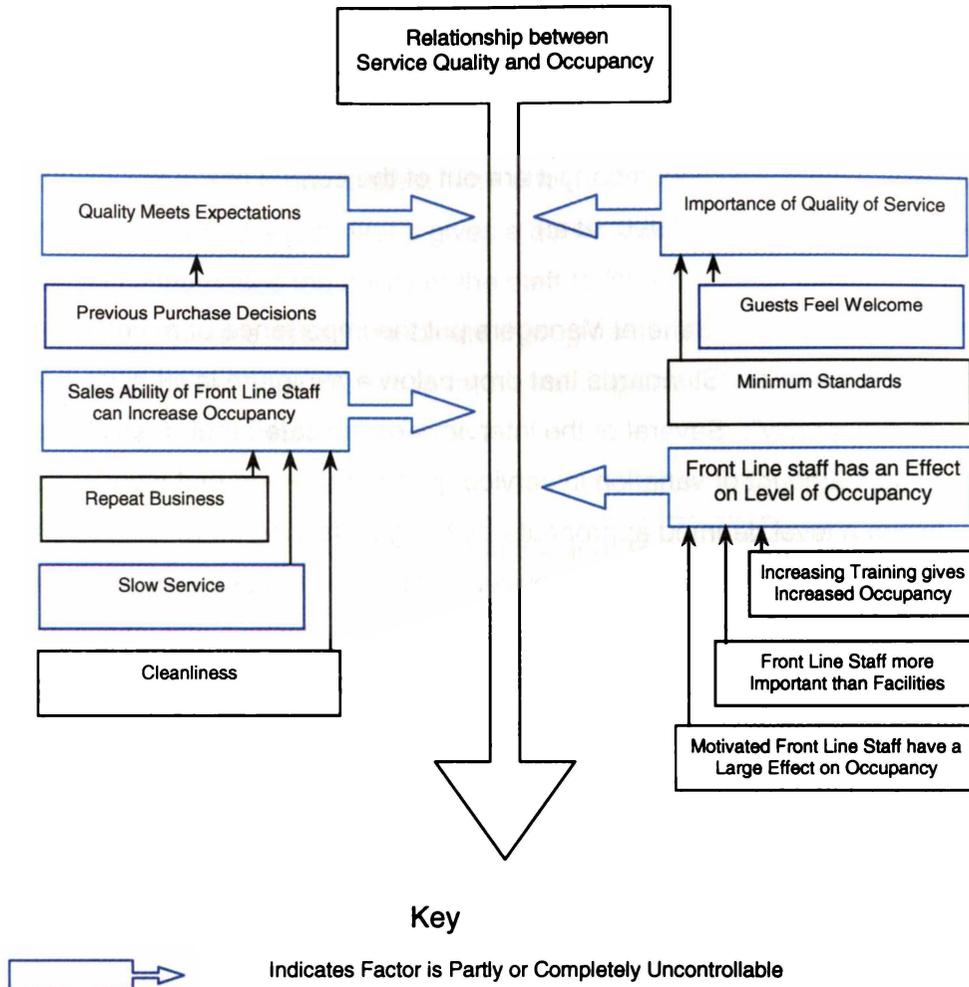
strong “Effect of competition on prices” and this is largely uncontrollable by the individual hotel operator; as a result any price change may not have the effect as indicated in Table 5-1.

As well as the effect of competition on pricing there was also a reported strong relationship between price and “Economic condition”, as identified in research by Seal (1999) where the effect of the economy on occupancy is discussed. This relationship is also illustrated in the CATPAC dendogram analysis of responses, where the words “Economy and Sensitivity” are significant and closely aligned. The effect of the economy is out of the control of an individual operator, and while shown as uncontrollable in Figure 5-3, suggests that the economy should be carefully monitored by management. Statements from the interviews emphasised this, and in particular that when the economy is in decline the effect on occupancy is very quick, where in a recovery the effect is much slower. Comments from the respondents indicated two effects as a result of changes in the economy: first, when it is declining there are less business travellers and they become more sensitive to price. Second, there is evidence that the declining economy means there are less domestic tourists who can afford international holidays; for inbound tourists the effect of the economy can influence the value of the currency, making New Zealand a less expensive option. Several respondents in the in-depth interview said that business guests were less susceptible to price than tourists and their importance is evident from strong result in the CATPAC dendogram.

In the in-depth interviews it was expressed in a number of ways that guests have an “Expectation of a price-to-quality relationship”. The guest has a perceived recognition of the relationship between quality and price (Hasek, 1992); they bring to the purchase decision all their previous experiences and expectations, and this is used in the selection process (Chen, Gupta & Rom, 1994). Although an individual establishment has the ability to control its own quality/price relationship, it cannot change what competitors are doing in the market other than meet or exceed the market.

The expectation of the guest is often represented by the reputation of the establishment. A question in the hotel decision-makers' survey asked whether reputation or price had the greatest affect on occupancy. The result showed that reputation had a larger affect than price on occupancy ( $M$  5.45, skewness  $-0.30$ , kurtosis  $-0.38$ , on a 7-point scale). This result is contrary to the findings in Table 4-13 where price received 29 (16.6%) of the mentions and reputation received 2 (1.1%) mentions as the most important factors affecting occupancy. This apparent contradiction is supported by another question in the hotel decision-makers' survey where they were asked to put in order of affect on occupancy the following: 1). Location, 2). Staff, 3). Facilities, 4). Price and 5). Reputation. From the responses to the open questions it would have been expected that price would be at the top, but in this question price ( $M$  2.83, 5 point scale) was in the last position with reputation ( $M$  4.11) and staff ( $M$  3.57) first and second. Therefore in each of the last two cases reputation was placed as more important than price in affect on occupancy. No explanation of this contradiction is available but it opens up possible areas of further research. Figure 5-3 indicates that although the reputation of an individual establishment can be controlled to an extent, this can be influenced by other establishments in the same market. Guests staying in a hotel can be viewed as either first time guests or repeat business. A question in the survey of hotel decision-makers asked the effect of price on repeat business. The analysis of this question ( $M$  5.12, skewness  $-0.72$ , kurtosis 0.12, on a 7 point scale) indicates a medium to large effect on occupancy of price on repeat business and this is substantiated in the literature (Dowling, 1998).

### 5.1.2 Service Quality Management Decision Model



**Figure 5-4 Service Quality Management Decision Model**

The second item from Figure 5-1 is Service Quality. An important comment made in the in-depth interviews was that “Quality must meet expectations”, although this relationship often has a greater impact on repeat business than first time guests and favourable word-of-mouth publicity (Fornell, 1992; Halstead & Page, 1992). The impact of loyal customers is considerable in the hotel industry. The

profitability increases proportionally with the number of loyal customers, and up to 60% of sales to new customers can be attributed to word-of-mouth referrals (Reichheld & Sasser, 1990). Brown and Swartz (1989) found that both the customer's and the employee's expectations and perceptions of the service encounter play an important role in determining the customer's evaluation. This varies considerably from guest to guest, and perceived service quality and the expectations that accompany it are out of the control of the individual operator (Spreng & Mackoy, 1996; et al).

One of the Hotel General Managers put the importance of maintaining standards in these terms: "Standards that drop below a minimum level have a large impact on occupancy". Several of the interviewees indicated that guests would tolerate a certain amount of variation in service quality, but when that level of quality fell below a level deemed appropriate by the guests then there would be a large effect on occupancy. As stated by Lewis and Mitchell (1990) many guests are aware of the alternatives on offer from other establishments, and also of the rising standard of service offered. Although the standards in one establishment can be controlled, they are in competition with other establishments who might be constantly improving their standards.

Much of the effect of service quality relates directly to the staff working in the establishment. A question asked in the hotel decision-makers' survey related to the impact that staff have on occupancy. The question asked the respondents to indicate agreement or disagreement with the statement "Front line staff have an effect on level of occupancy", (M 6.30, SD 1.01, skewness -2.45, kurtosis 0.78, 7 point scale). The responses indicated strong agreement, that front line staff do affect occupancy. A second question from the same survey asked about the sales ability of staff with agreement or disagreement to the statement that, "The sales ability of front line staff can increase occupancy" (M 6.08, SD 0.92, skewness -1.77, kurtosis 5.41, 7-point scale). The respondents strongly agreed with this statement. The large positive kurtosis also indicates the strength of opinion.

The literature (Weiss, 1998; Delaney & Huselid, 1996; Liu 1998; et al) indicates a close relationship between performance of staff and the amount of training given to the staff. This relationship was measured in the question to hotel decision-makers, "Increasing the amount of training given to front line staff increases occupancy", (M 5.08, SD 1.04, skewness -0.221, kurtosis 0.43, 7-point scale). The responses indicate agreement with the statement therefore the level of occupancy and training are related. The effect of training as reported by Hammel (1996) has a two-fold effect: first it gives a better quality of service to the guest, and second it increases the ability of the staff to lift the level of sales. The hotel decision-makers were asked to indicate through a series of questions the direct relationship between the amount spent on training and the effect on occupancy. Table 5-2 lists the results.

**Table 5-2 Changes In Expenditure on Training and Resulting Change in Occupancy**

Amount of Increase or Decrease in the Expenditure on Training	Percentage Change in Occupancy
20% increase	5.14%
10% increase	3.89%
5% increase	2.07%
5% decrease	-1.00%
10% decrease	-3.18%
20% decrease	-4.86%

Table 5-2 illustrates a very close linear relationship between training and occupancy, showing that a 20% increase in the amount spent on training of front line staff would produce a 5.14% increase in occupancy, and that a 20% decrease would result in a 4.86% decrease in occupancy. As with other factors, staff motivation and the job they do has a degree of uncontrollability in that many external factors to the hotel can influence the motivation of employees; also there is a constantly changing employee market with people changing jobs, leaving the workforce etc. This gives a degree of uncontrollability.

A further question, “What areas in the training of front line staff have the greatest effect on occupancy” gives insight into areas of training that would benefit occupancy. This question lists five areas: 1). Service skills, 2). Customer relations skills, 3). Time management skills, 4). General staff motivation skills and 5). Personal appearance skills. The respondents were asked to rank each of these in order, 5 having the greatest effect on occupancy, and 1 having the least effect on occupancy. Table 5-3 lists the factors in descending order by mean, as reported by the respondents.

**Table 5-3 Areas in the Training of Front Line Staff that have the Greatest Affect on Occupancy**

Rating	Factor	Mean
1	Customer relations skills	4.09
2	Service skills	3.86
3	General staff motivation skills	3.43
4	Personal appearance skills	3.43
5	Time management skills	2.80

As illustrated in Table 5-3 the two top areas of training that have the greatest effect on occupancy are: 1). Customer relations skills, and 2). Service skills. This relates the level of training and the areas of training to the importance of service quality.

Another question in the hotel decision-makers’ survey asked agreement or disagreement with the statement, “Motivated front line staff have a greater impact than facilities on increasing occupancy” (M 5.24, SD 1.02, skewness –0.41, kurtosis 0.09, 7-point scale). The result indicates that the respondents agree with the statement, the kurtosis indicating uniformity among the respondents. This finding is also in keeping with the following discussion on the effect of facilities.

The “Importance of quality service” was emphasised many times in the in-depth interviews. This was expressed in statements such as the importance of “Guests feeling welcome”. This was also shown in the dendogram which had a strong link

between the words 'important, service, staff, level and quality'. A basic characteristic of the hotel industry is that it is people-oriented (Martin & Horne, 1992) and therefore the need for the guest to feel welcome is a basic requirement. The effect of service quality on "Attracting repeat business" was a recurring theme in the interviews and also illustrated by the relationship of the words, 'repeat and business' in the dendogram.

The quality of service given to customers has a direct relationship on the level of repeat business. A study undertaken by Barsky (1996) at the Hotel Sofitel in San Francisco over period January 1 1995 to October 1 1995 reported on staff training that showed employees had "responsibility and tools to improve customer satisfaction" (Barsky, 1996, p.18). As a result there was a measurable difference in repeat business. However, research conducted by Bolton and Drew (1991) shows average rating of perceived service quality changes slowly over time and therefore a long term approach is necessary for perceived changes in service quality to become accepted. The general mood or disposition of the employee also influences the quality of service and therefore there is an uncontrollable factor present.

The "Relationship between cleanliness and repeat business" was raised by hotel management as an important factor that has a marked affect on repeat business. One comment made was that some customers will complain at a small amount of dust on the back of a television. An article by Cadotte and Turgeon (1988) reports on the comparative ratings of hotel attribute compliments and complaints in which cleanliness was rated as the 9<sup>th</sup> most common complaint out of a range of 25, and the 2<sup>nd</sup> most common complement again out of the same range of 25.

The impact of repeat business was investigated in a question to the hotel decision-makers which asked agreement or disagreement with the statement, "Front line staff that are motivated have an effect on the number of guests re-booking" (M 6.44, SD 0.65, skewness -0.96, kurtosis -0.166, 7-point scale). The result showed strong agreement with the statement, and again emphasises the impact that staff have on re-booking guests. In order to determine the factors that

motivate front line staff, Hallowell, Schlesinger and Zornitsky (1996, p.21) discuss the importance of motivated staff in the terms of “Internal Service Quality”, which is defined as the quality of service the staff receive from the organisation in which they work. The benefits of this are stated as “employee satisfaction, which enables the delivery of high value service, resulting in customer satisfaction, leading to customer loyalty” (Hallowell, Schlesinger & Zornitsky, 1996, p.22). The hotel decision-makers were asked to rate in descending order (5 indicating the highest and 1 the lowest), the five factors that they felt most motivated staff: 1). The rate of pay, 2). Recognition of performance, 3). Incentive payments, 4). Aspiration for promotion, and 5). Good working environment. The results are illustrated in Table 5-4. Recognition of performance (M 4.23) has the greatest affect on the motivation of front line staff, and good working environment (M 3.97) is the second most significant factor that affects front line staff motivation. Of particular interest is that the rate of pay (M 2.97) and incentive payments (M 2.91) are rated as the having the least effect on front line staff motivation.

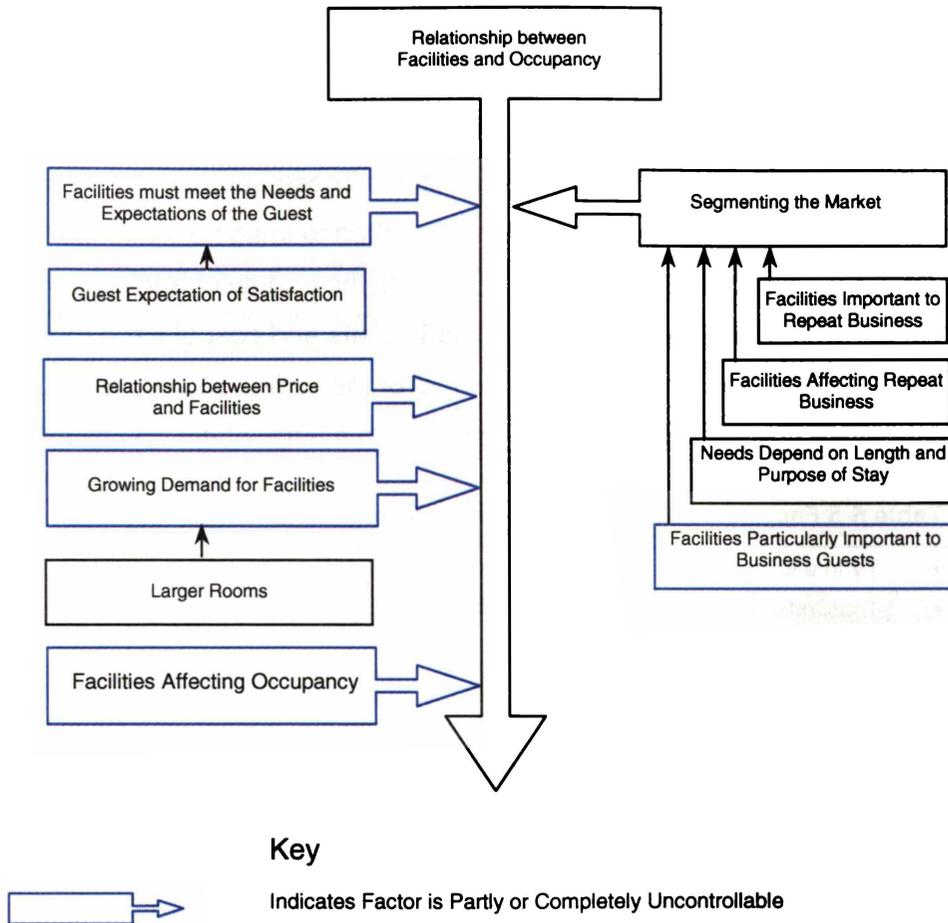
**Table 5-4 Factors that Affect Front Line Staff Motivation the Most**

Rating	Factor	Mean
1	Recognition of performance	4.23
2	Good working environment	3.97
3	Aspiration for promotion	3.11
4	The rate of pay	2.97
5	Incentive payment	2.91

Even though salary is indicated as having a low impact on staff motivation, two of the operations managers in the in-depth interviews indicated that they pay above normal salary to attract the right quality of staff.

The final question in this section relates location to service quality by asking the hotel decision-makers their agreement or disagreement with the statement, “Location is more important than quality of service in increasing occupancy”, (M 3.65, SD 1.19, skewness 0.19, kurtosis -0.238, 7 point scale). There is mild disagreement which indicates that service quality is slightly more important than location in effect on occupancy, this finding is in keeping with figure 5-1.

### 5.1.3 Facilities Management Decision Model



**Figure 5-5 Facilities Management Decision Model**

The 3<sup>rd</sup> most important factor influencing hotel occupancy from Figure 5-1 is facilities. From the in-depth interviews the comment that there is a “Growing demand for facilities” and that the “Facilities must meet the needs and expectations of the guest” was stated in several different ways. This was also evident in the in-depth interview dendogram where the words ‘Expectation, Facilities, Hotel, Guest and Important’ are all predominantly linked. The guest

brings to the purchase decision certain levels of expectation of the facilities available (Griffin, 1998; Cassedy, 1998; McMillan, 1993) along with specific requirements for particular groups of guests such as business travellers (Anonymous, 1998) and the growing expectations of guests overall (Worcester, 1998; Yu, 1992).

Of particular note from the Hotel decision-makers' survey was a set of questions asking about the effect of different facilities. These questions were asked in two parts. In the first part respondents were asked to imagine that their establishment did not have certain facilities and to indicate the priority of adding that facility, as the addition of facilities adds to the fixed assets and cost of each room (Higley, 1997). The second part asked the effect of the facility on occupancy. Table 5-5 lists those factors that had a high priority and a large effect on occupancy.

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**Table 5-5 Factors having High Priority and Large Effect on Occupancy**

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- TV in each room
  - Tea/Coffee making facilities in each room
  - Sky television in each room
  - Restaurant (European)
  - Comprehensive room service
  - Business centre, with fax, computer
  - Spa pool or sauna
  - Electronic room security
  - Gymnasium
  - Swimming pool
  - Pay for movie in each room
- 

As indicated in Table 5-5 the top three items as reported related to television, the ability to make tea and coffee in room and the availability of Sky television. The facilities list in Table 5-6 shows the items with high priority and small effect on occupancy. These items are important for the hotel to have, but are considered to have a low impact on occupancy.

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**Table 5-6 Factors having High Priority and Small Effect on Occupancy**

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- Snack bar
  - Internet in each room
  - Email in each room
- 

Table 5-7 lists the items with low priority and small effect on occupancy.

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**Table 5-7 Factors having Low Priority and Small Effect on Occupancy**

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- Casino close to your establishment
  - Restaurant (Ethnic)
  - Fax machine in each room
  - Computer in each room
  - Video player in each room
  - Video Player in each room
- 

The data from Tables 5-7, 5-8 and 5-9 give an indication of those facilities hotel decision-makers feel are important and their effect on occupancy.

Not all customers are the same and different facilities would affect different segments of the market (Wolff, 1997) which was confirmed in the in-depth interview with statements on the importance of “Segmentation of the market” (Baltin & Cole, 1995; Johnson, 1997). The difference between tourists and business travellers in relation to the importance of different facilities is illustrated in Table 5-8.

**Table 5-8 Facilities which Show Significant Mean difference between Corporate and Tourist Hotels**

	Corporate Hotel Mean	Tourist Hotel Mean	p
Business centre priority	4.08	2.60	***
Fax Machine in room priority	2.46	1.10	***
Fax Machine in room effect on occupancy	3.23	1.65	**
Computer in room priority	2.08	1.30	*
Computer in room effect on occupancy	2.62	1.53	**
Email in room priority	3.23	1.50	***
Email in room effect on occupancy	3.37	2.03	*
Internet in room priority	2.77	1.50	**
Internet in room effect on occupancy	3.33	1.68	**
Comprehensive room service priority	3.69	3.00	*
Spa pool priority	2.84	3.80	**

\*p < 0.10 \*\*p < 0.05 \*\*\*p < 0.01

As noted from Table 5-8, the facilities such as “Business centre, Fax machine in room, Computer in room, Email in room, Internet in room and Comprehensive room service” have a higher priority and/or larger effect on occupancy in corporate hotels than tourist hotels. The priority of adding a “Spa pool” in a tourist hotel is higher than in corporate hotels. This indicates a clear need for segmentation as suggested in the in-depth interviews.

Several participants in the in-depth interviews indicated the importance of the “Relationship between price and facilities”, however, this factor is largely uncontrollable in that the guest might have an expectation that a certain price would provide a particular range of facilities. The hotel has the ability to satisfy this price facility relationship, or otherwise.

Also of note from the interviews was the indication of a “Growing demand for larger rooms”. Several of those interviewed indicated that guests have growing demands in relation to the size of rooms, and this link was also evident from the dendrogram. One of the hotel consultants specified the size (1 to 3 star hotel 25-30 sq. meters, 4 star hotel 30-32 sq. meters). However this increase in the size of the room comes with a development cost and on-going operational cost (Lindsay, 1994).

Other statements reflecting opinions from the in-depth interviews were: “Need for facilities dependent on length of stay” and the “Importance of facilities for repeat business”. This was also part of a number of questions asked in the hotel decision-makers’ survey. The questions asked are illustrated in Table 5-9.

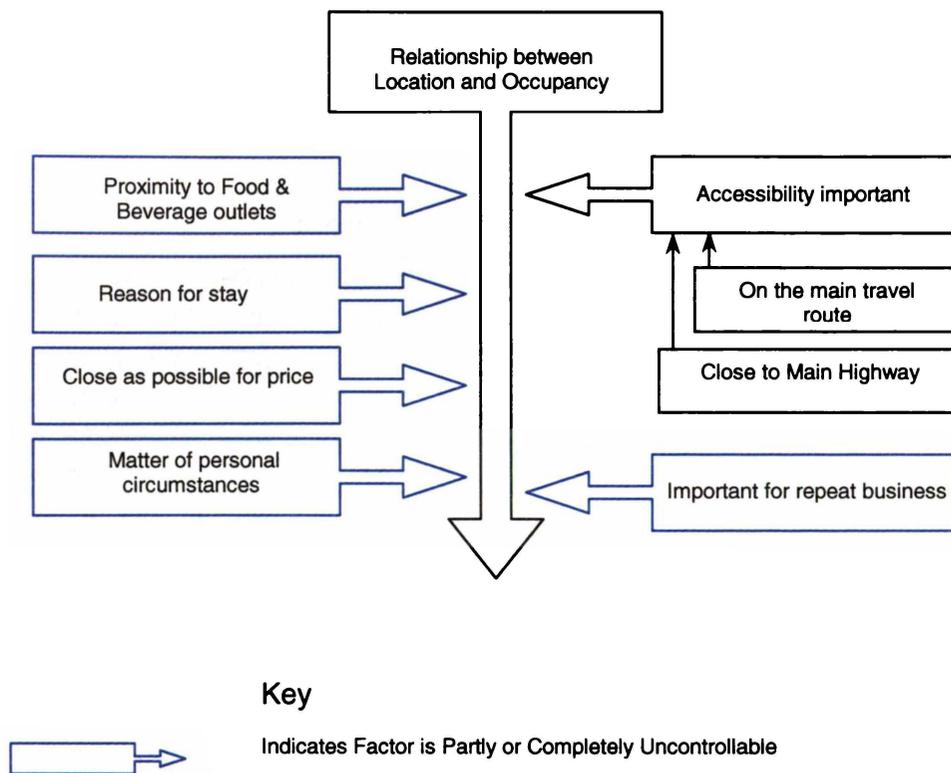
**Table 5-9 Influence of Factors on Repeat Business**

	Mean	Std Dev	Skewness	Kurtosis
Facilities offered by your establishment	5.44	.96	0.27	-0.54
Facilities available to guests	5.24	1.06	-0.16	-0.37
Size of guest rooms	5.19	1.21	0.00	-0.95
The size of the room	5.11	1.06	-0.25	-0.96
Restaurant available to guests	4.67	1.36	-0.44	0.45

Note: 7 point scale

Each of the questions in Table 5-9 used a 7-point Likert scale with 1 being small and 7 large. The responses in Table 5-9 indicate that they all have a medium to large effect on repeat business, with facilities overall (M 5.44) having the largest effect and a restaurant available to guests (M 4.67) having the least effect from that list.

### 5.1.4 Location Management Decision Model



**Figure 5-6 Location Management Decision Model**

The 4<sup>th</sup> most important factor influencing hotel occupancy as reported in the in-depth interviews was Location. Those interviewed made such comments as “Depends on the reason for the stay”, “A matter of one’s personal circumstances”, “As close as possible for the price”, “Important to be on the main travel routes”, “Proximity to food and beverage outlets”, “For repeat business location is more important” and “Accessibility is very important”.

To evaluate the effect of location in relation to other factors that affect occupancy, one question in the hotel decision-makers’ survey asked which of the following 1). Location, 2). Staff, 3). Facilities, 4). Price, and 5). Reputation, had the greatest affect on occupancy. A Likert scale of 1 to 5, with 5 having the greatest effect on

occupancy and 1 the least effect was used. The result in order is reproduced in Table 5-10.

**Table 5-10 Priority Listing of Factors**

Rating		Mean	Skewness	Kurtosis
1	Reputation	4.11	-1.43	0.98
2	Staff	3.57	-0.95	-0.01
3	Location	3.37	-0.15	-1.58
4	Facilities	3.37	-0.32	0.15
5	Price – Room Rate	2.83	-0.08	-1.30

As is evident from Table 5-10, hotel decision-makers believed location (M 3.37) to be of lesser importance than staff (M 3.57), but reputation (M 4.11) is indicated as the most important factor and price the least important of the list. This result is in direct contrast to the findings of the potential guests where reputation was in eleventh place with just 2 mentions.

Table 5-11 shows the results of two questions that measured the effect on occupancy of “Central business location” and “Closeness to main highways.” Ratings for each of these questions were indicated on a 7-point Likert scale.

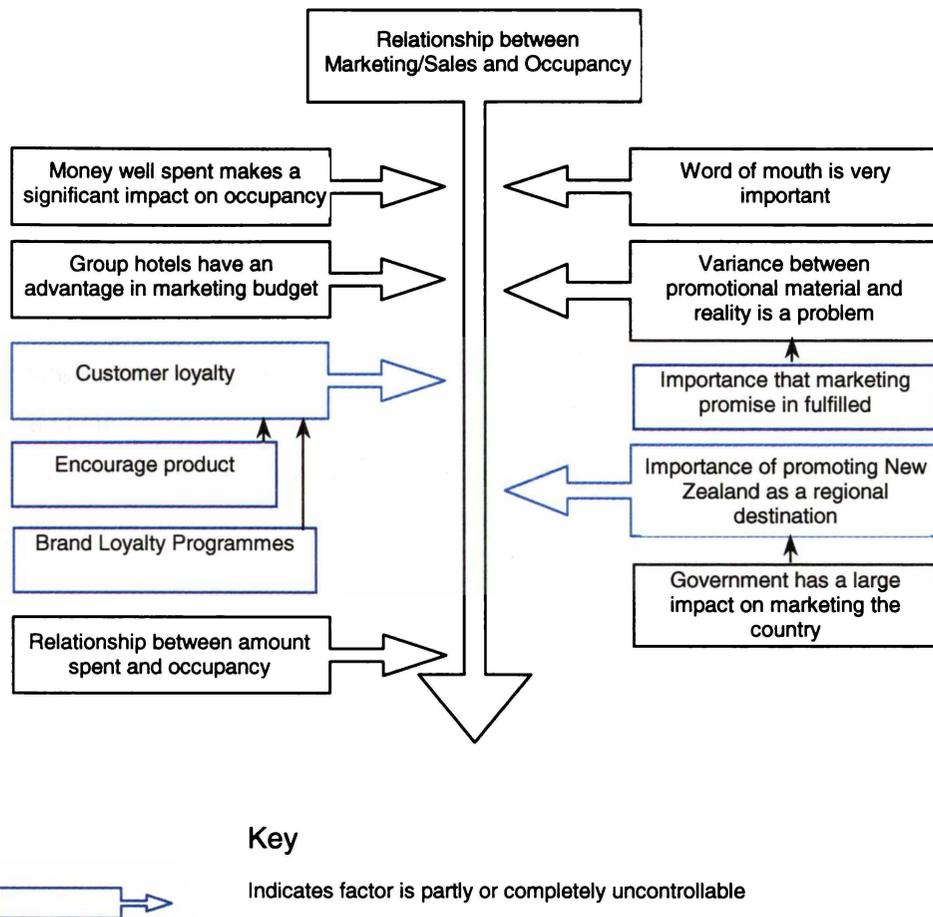
**Table 5-11 Effect of Location on Occupancy**

	Mean	Skewness	Kurtosis
Central Business Location	5.20	-.14	.36
Closeness to Main Highway	4.50	-.14	-.79

As illustrated in Table 5-11, respondents felt that being in a central business location has a medium to large effect on occupancy, and that closeness to main highway has a lower effect on occupancy.

In question 3 the respondents were asked their agreement or disagreement with the statement “Location is more important than quality of service in increasing occupancy”. As previously reported the findings place location as less important than staff/service quality (M 3.65, skewness 0.19, kurtosis –0.23).

### 5.1.5 Marketing Management Decision Model



**Figure 5-7 Marketing Management Decision Model**

The 5<sup>th</sup> item from Figure 5-1 is marketing and sales. As illustrated in Figure 5-1 Marketing received 10% of the mentions in the in-depth interviews and dendogram, and 4% from the open question in the hotel decision-makers' survey.

A series of questions in the hotel decision-makers' survey was designed to quantify the effect of changes in marketing expenditure on both the local regional expenditure and international advertising and promotion.

**Table 5-12 Effect of Changes in Expenditure on Marketing and Promotion**

<b>Local/Regional Marketing Expenditure</b>	<b>Effect on Occupancy</b>
20% increase	6.86%
10% increase	4.64%
5% increase	2.18%
5% decrease	-1.29%
10% decrease	-3.14%
20% decrease	-5.96%
<b>International Advertising and Promotion</b>	<b>Effect on Occupancy</b>
20% increase	6.61%
10% increase	3.61%
5% increase	0.82%
5% decrease	-3.36%
10% decrease	-5.57%
20% decrease	-8.39%

The data illustrated in Table 5-12 show a close relationship between expenditure and the effect on occupancy. In relation to the amount spent on advertising and promotion in the local or regional area it was reported that an increase of 20% would result in an increase of 6.86% while a decline of 20% would result in a proportionally smaller decline of -5.96%. In the case of international advertising and promotion expenditure a 20% increase had a reported 6.61% increase in occupancy, while a 20% decrease had a larger effect of 8.39%. From the in-depth interviews the point was made several times that "Money well spent on advertising makes a significant impact on occupancy". This was also reinforced by the linking of the words 'important and money' in the dendogram.

The importance of customer loyalty was mentioned several times in the in-depth interviews. Also evident from the dendogram were very strong links to the words 'hotel, marketing, loyalty and occupancy', a fact that is reiterated in the dendogram of the in-depth interviews where 'money and impact' are strongly linked (Wolman, 1994). This relates to the development of customer loyalty, and the development of programmes which promote it, often referred to as frequent-guest or frequent-stay programs which have, as reported by Koss-Feder (1994), a permanent place

within the hotel industry. In contrast to others in the in-depth interviews, one hotel general manager stated that there was “No need for loyalty programmes”; and went on to say that “customers are basically not loyal, and will try different products from time to time.” This statement is certainly contrary to other research (Bond, 1995).

Questioning showed that there is “Advantage in being part of a group”, because the group of hotels can combine their marketing budget and promote the whole group together. This is also indicated as being largely uncontrollable by any individual establishment.

Emphasis was given in the in-depth interviews to the statement that “Word of mouth is very important” – this form of promotion of a business is well documented in the literature and highlights the importance of this in marketing and is indicated as uncontrollable, emphasising that what is said by people is mostly out of hotel management control.

To this point the research has discussed the four major factors affecting occupancy: 1). Price/Rate, 2). Service Quality, 3). Facilities, 4). Location and 5). Marketing. The in-depth interviews identified less significant factors that affect hotel occupancy as listed in Table 5-13.

**Table 5-13 The Six Least Significant Factors Affecting Occupancy**

	Rating	Mean
Seasonal Tourism	4	2.3%
Supply and Demand	3	1.7%
Competition	3	1.7%
Events	3	1.7%
Economy	2	1.1%
Reputation	2	1.1%

These less significant items as in Table 5-13 are not discussed individually because of their indicated limited affect on occupancy but are incorporated where appropriate into the other models.

## 5.2 Potential Guest Management Decision Model

The previous section considered those factors from the in-depth interviews and the survey of hotel decision-makers in relation to those factors that influence occupancy. The objective of this section is to compare those findings with the results from the potential guest survey questionnaire, and to use this to modify the previously developed models. All the questions in the potential guest survey were based on a 5-point Likert scale, the results are expressed using the following: Very Unimportant =  $\underline{M} \geq 1 \leq 1.8$ , Unimportant  $\underline{M} > 1.8 \leq 2.6$ , Neutral  $\underline{M} > 2.6 \leq 3.4$ , Important  $\underline{M} > 3.4 \leq 4.2$ , Very Important  $\underline{M} > 4.2 \leq 5$ .

Table 5-14 contains those items which potential guests indicated as very important to the choice of accommodation. In comparing this list to the list in 5-1 it is evident that there are differences in those factors affecting occupancy.

**Table 5-14 Top 10 Factors that are Very Important or Important to Choice of Accommodation**

Rating		Mean	Standard Deviation	Skewness	Kurtosis
	<b>Very Important (<math>\bar{M} &gt; 4.2 \leq 5</math>)</b>				
1	Cleanliness of the room	4.593	0.760	-3.341	15.853
2	Good quality bath towels and washcloths	4.337	0.804	-1.810	5.176
3	Quality of staff service	4.303	0.746	-1.932	8.021
4	Friendliness of staff	4.269	0.808	-1.802	5.976
5	Comfortable Mattress and Pillow	4.240	0.936	-1.831	4.275
6	Quiet room	4.220	0.923	-1.903	5.098
	<b>Important (<math>\bar{M} &gt; 3.4 \leq 4.2</math>)</b>				
7	Well maintained furnishings	4.184	0.782	-1.314	3.429
8	On-premises parking	4.167	1.019	-2.070	5.586
9	Facilities over all	4.073	0.803	-1.657	5.650
10	Good Security	4.053	0.896	-1.528	3.817

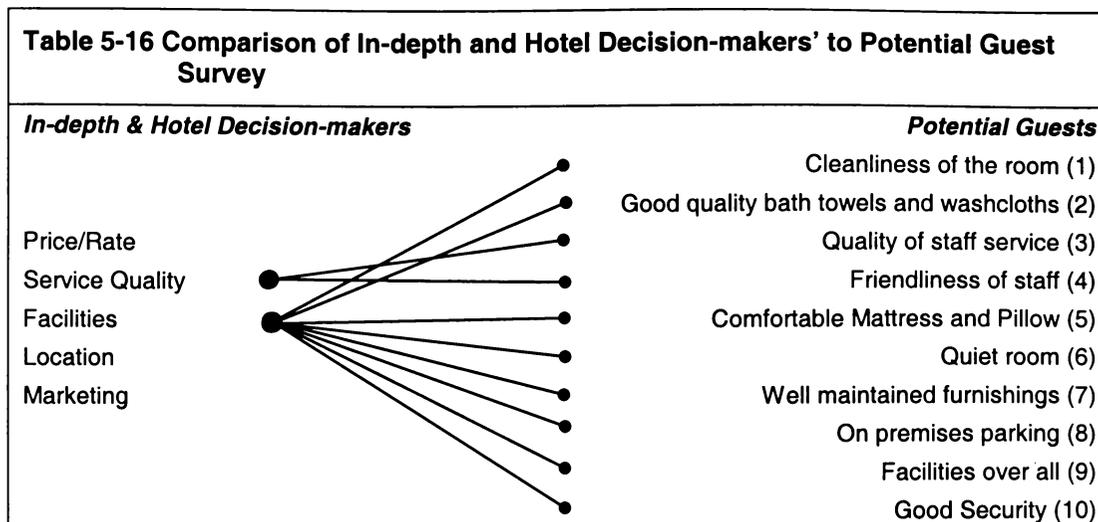
As previously discussed a number of the questions in the survey of potential guests used the same questions as those in a study conducted by Weaver and McCleary (1991). Table 5-15 presents the top ten factors from this study and compares them to the study conducted by Weaver and McCleary (1991).

**Table 5-15 Comparison between Results of this Study and Weaver & McCleary (1991) Study**

	This study	Weaver & McCleary
Cleanliness of the room	1	1
Good quality bath towels and washcloths	2	4
Quality of staff service	3	*
Friendliness of staff	4	7
Comfortable mattress and pillow	5	2
Quiet room	6	*
Well maintained furnishings	7	8
On premises parking	8	3
Facilities over all	9	*
Good Security	10	11

\*Question not asked or outside top ten in the Weaver and McCleary (1991) Study

It is of particular interest that the number one factor affecting selection of occupancy in both Weaver & McCleary's (1991) study and the potential guest survey in this research are the same, namely "Cleanliness of the Room".



As evident from Table 5-16, where the in-depth interview rated price as the most important factor affecting occupancy and the survey of hotel decision-makers rated it second, price is not listed as "very important in the future choice of accommodation" in the potential guest survey. In the survey of potential guests, questions relating to price were rated as 15<sup>th</sup>, 20<sup>th</sup> and 34<sup>th</sup> over all responses which is much lower in importance. Table 5-17 lists the relevant questions along with their rating as factors affecting the choice of accommodation.

**Table 5-17 Questions Relating to Room Rate/Price/Value and their Mean Rating**

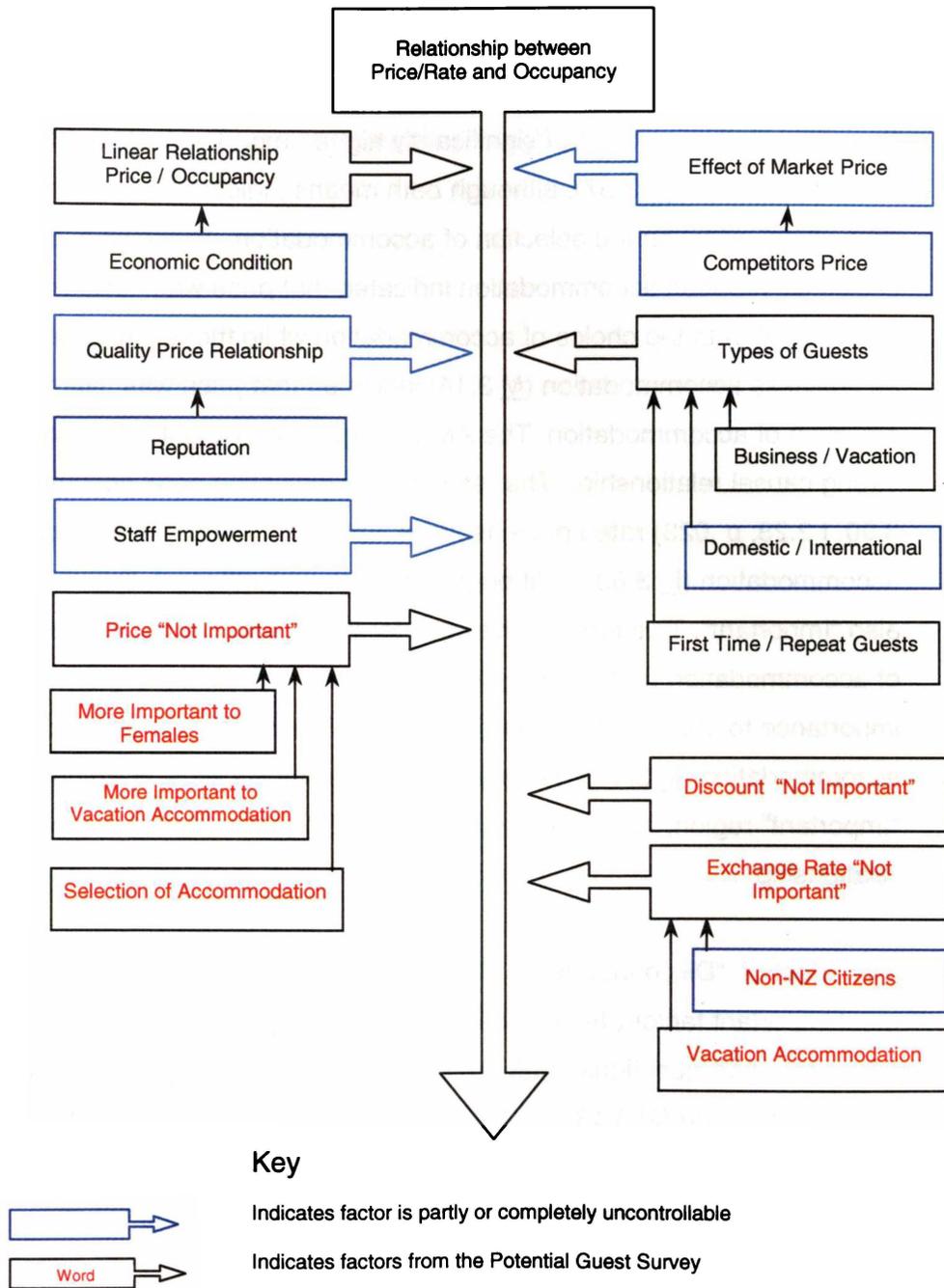
	Mean	Std Dev	Skewness	Kurtosis	Rating
1 Price	3.78	1.19	-1.39	1.88	15
2 Discount offered personally or to company	3.43	1.21	-1.04	1.13	20
3 Exchange rate	1.84	1.69	0.221	-1.35	34

Analysis of these findings reveals a dichotomy that is of particular note: the perception that the industry holds with regard to the importance of price to a customer is inaccurate. As discussed in Chapter 2, Parasuraman, Berry and

Zeithaml (1991) identified five specific gaps occurring between the consumer and the marketer. The gaps as indicated in this research open the opportunity for further research, specifically returning to those hotel decision-makers and asking why they believe there is such a difference.

Even though the order of the factors having the most effect on the selection of accommodation in the potential guest survey is quite different from the data from the other two sets of data previously discussed, for this section they will be discussed in the same order as in Figure 5-1, 1). Price/Rate, 2). Service Quality, 3). Facilities, 4). Location, 5). Marketing and 6). Other.

### 5.2.1 Price/Rate Management Decision Model



**Figure 5-8 Price/Rate Management Decision Model**

In the survey of potential guests the respondents were asked the effect that “Price” has in influencing choice of accommodation. The results indicate that this factor is important but it is rated as the 15<sup>th</sup> factor overall (M 3.78, SD 1.19, skewness -1.39, kurtosis 1.88) in the choice of accommodation out of 38 factors.

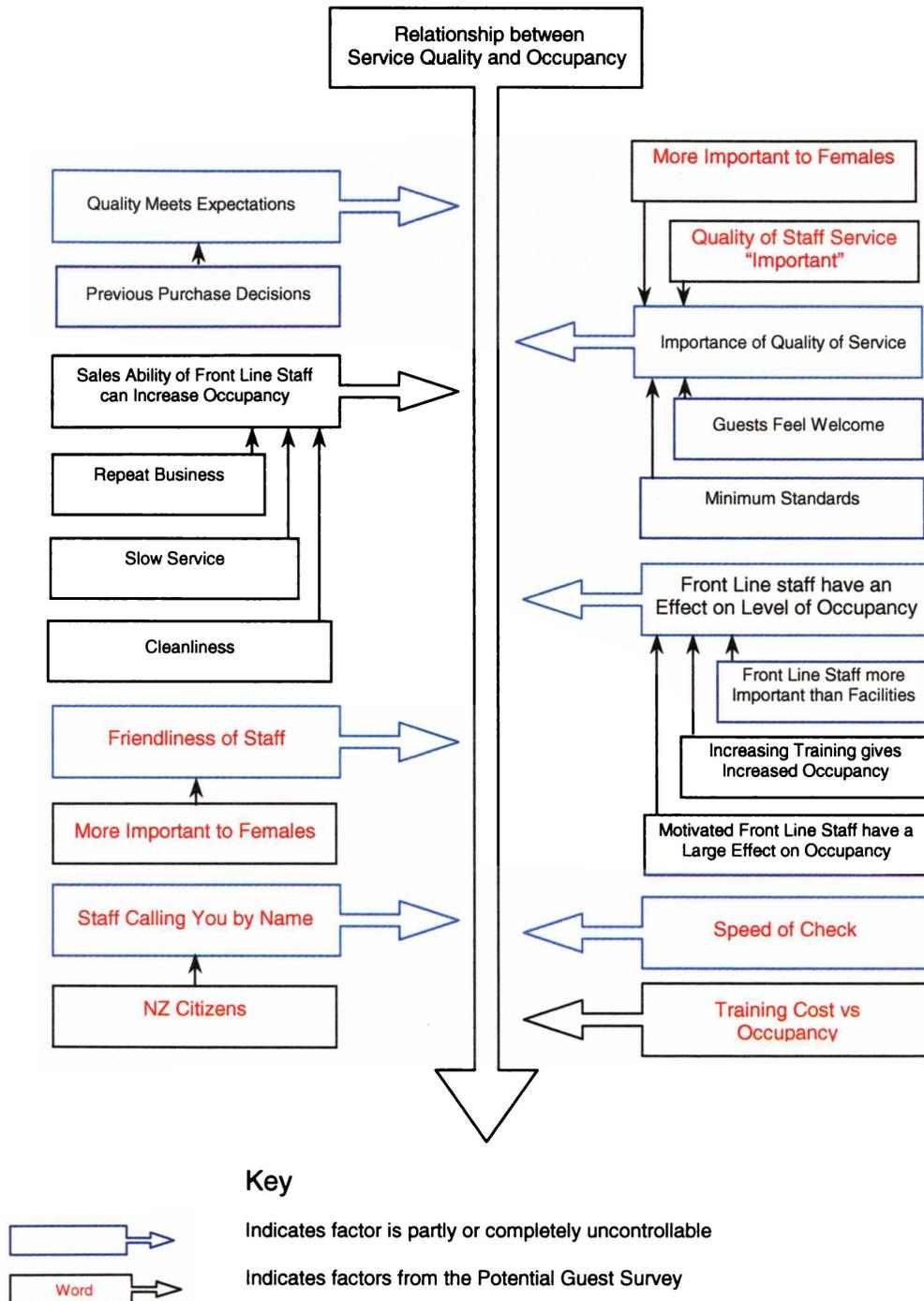
Females rated price to be of significantly higher importance (M 3.98, t -3.58, p .000) than males (M 3.57), although both means indicated that price had an “Important” effect on the selection of accommodation. Those who indicated their choice as vacation accommodation indicated that price was “Important” (M 4.06, t -7.61, p .000) to the choice of accommodation while those indicating their choice as business accommodation (M 3.14) indicated that price was “Neutral” in the selection of accommodation. The AMOS regression weight (.73) confirms this strong causal relationship. The respondents indicating hotel accommodation (M 3.90, t 2.28, p .023) rated price as more “Important” than those indicating motel accommodation (M 3.63). Although the mean was different, their selection was also “Important”. This too was the case for those who are involved in the selection of accommodation (M 3.84, t 2.54, p .011) who indicated a slightly higher importance to price than those who were not involved in the selection of accommodation (M 3.41). However, the latter results were marginally in the “Important” region; the regression weight (-.27) also indicates a moderate relationship.

The effect of “Discount offered Personally or to Company” was rated as the 20<sup>th</sup> most important factor affecting occupancy, which put it almost in the middle of the total number of questions of 38. The data indicate that this factor is just in the “Important” range (M 3.43, SD 1.21, skewness -1.04, kurtosis 1.13) to the decision on the choice of accommodation. There was no significant difference between the means of the various groups participating in the survey.

The last question relating to price in the potential guest survey asked about the effect that the exchange rate had on accommodation selection. The data indicate that this factor is “Unimportant” to the decision on the choice of accommodation

(M 1.84, SD 1.69, skewness 0.221, kurtosis -1.35, 5 point scale), but there was a significant difference between those indicating vacation accommodation (M 2.07, t -4.47, p .000) with a result of “Neutral” and those selecting business accommodation (M 1.28) who assessed the impact of exchange rate as “Very Unimportant”. This strong relationship was evident also in the AMOS Linear Structural Relation Diagram (regression weight 1.03).

## 5.2.2 Service Quality Management Decision Model



**Figure 5-9 Service Quality Management Decision Model**

Those participating in the in-depth interviews rated Service Quality as the second most significant factor affecting occupancy. In the survey of potential guests the question asking the effect of the “Quality of staff service” in relation to the choice of accommodation was rated as the 3<sup>rd</sup> most important factor overall, and was rated as “Very Important” (M 4.30, SD 0.75, skewness -1.93, kurtosis 8.02) to the choice of accommodation. Females indicated that the quality of staff service was more important (M 4.47, t -4.93, p .000) than males (M 4.12) who rated it as only “Important”, this relationship was also evident from AMOS which showed a strong relationship (regression weight .368) between females and staff service.

The 4<sup>th</sup> most important factor affecting accommodation selection was “Friendliness of Staff” which was also rated as “Very Important” (M 4.27, SD 0.81, skewness 1.80 and kurtosis 5.98). The results across all ages of participants in the survey were very similar except for those 66 years old or older, where there was a significant difference. This group reported that the “Friendliness of Staff” is less significant to the choice of accommodation and only “Important” (M 3.54). This result may be more a factor of a small sample size (n = 13) at this age participating in the survey, rather than any particular trend. This lack of any significant difference is evident from AMOS which indicated a very low relationship (regression weight .071). The only other variation among the participants was that females (M 4.41, t -3.93, p .000) indicated that the “Friendliness of staff” was “Very Important”, in contrast to males who rated it as “Important” (M 4.11). This was reinforced by AMOS with a strong regression weight (.31).

The participants were asked the importance of “Staff calling you by name”, this factor was rated as the 24<sup>th</sup> most important and as Neutral (M 3.00, SD 1.26, skewness -0.72, kurtosis 0.41) to the choice of accommodation. There was very significant difference with non-New Zealand residents (M 3.48, t -2.14, p .033) indicating that this was significantly more important to them than New Zealand residents (M 2.97) which was supported by AMOS with a strong regression weight (.60).

Another question asked the participants the importance of the “Speed of Check-in and out” in relation to the choice of accommodation. This factor was rated in the survey as the 13<sup>th</sup> most important factor (M 3.79, SD 1.00, skewness –1.25, kurtosis 2.15), and is rated overall as “Important” to the choice process. There were two significant mean differences: the first was those selecting vacation accommodation (M 4.31, t –1.77, p .077) who indicated that “Speed of Check-in and out” was “Very Important” in comparison to business accommodation (M 4.16) “Important.” AMOS reinforced this with a moderately strong regression weight (.20). The second was with those indicating hotel accommodation (M 3.96, t -2.98, p .003) giving it more importance than those selecting motel accommodation (M 3.67), again reinforced by AMOS with a strong regression weight (.24).

### 5.2.3 Facilities Management Decision Model

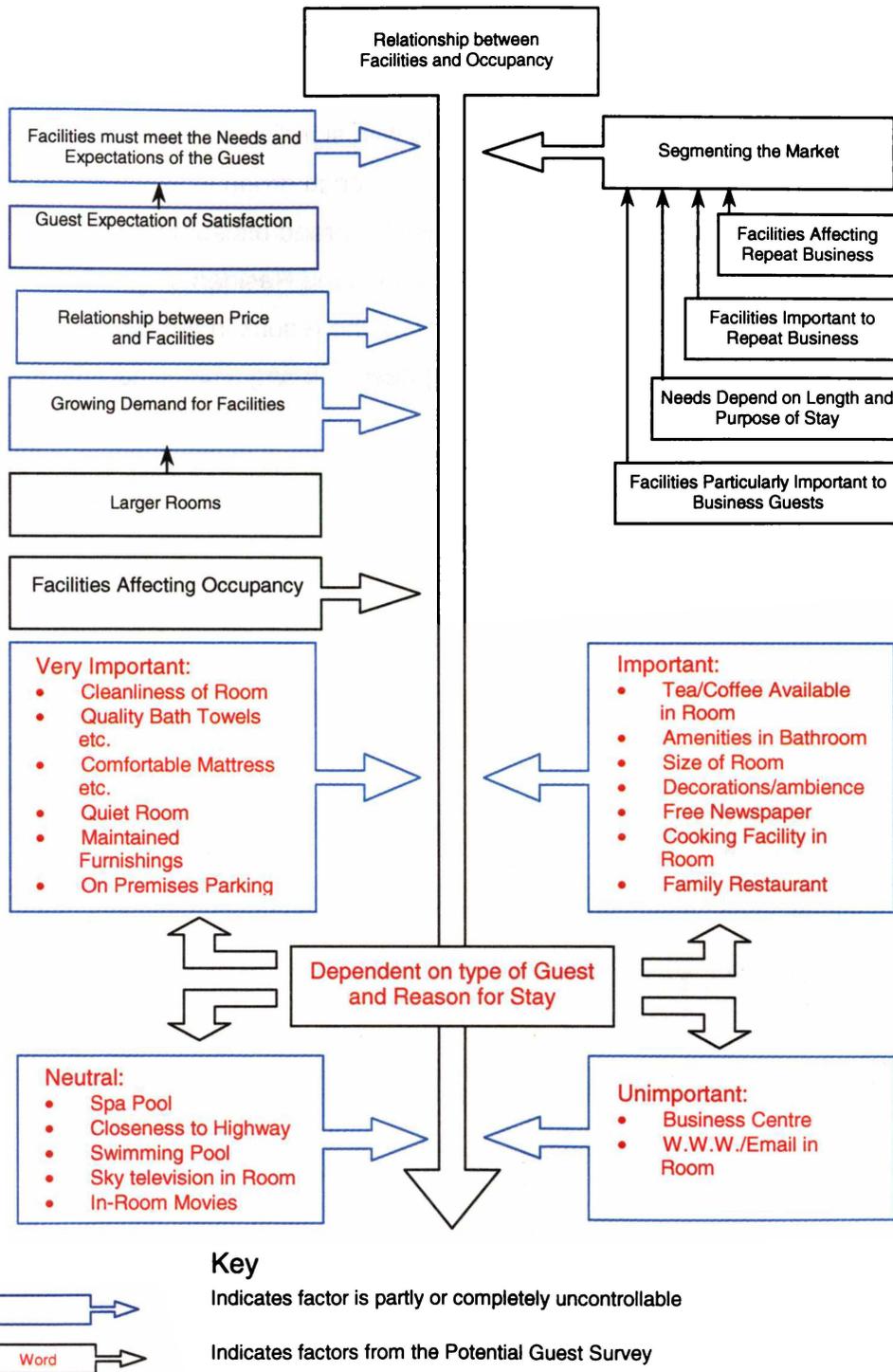


Figure 5-10 Facilities Management Decision Model

Overall, as reported in the survey of potential guests, facilities have the greatest impact on the choice of accommodation. A large number of questions in the survey relate to facilities, these are listed in Table 5-18 along with their relative rating as Very Important, Important, Neutral, Unimportant and Very Unimportant to the choice of accommodation along with significant mean differences. This table also includes the number of persons in each group to indicate any bias that might exist. As evident the groups are evenly spread except for “New Zealand Residents” ( $n = 384$ ) and “Non New Zealand Residents” ( $n = 29$ ) where the small sample size may have a bias effect on the results in the table. Additionally those “Not Involved in selection” ( $n = 56$ ) despite being a small sample are large enough not to produce a bias.

**Table 5-18 Difference between Demographic Groups in Potential Guest Survey**

	Business	Vacation	Motel	Hotel	Involved in Selection	Not Involved in Selection	Male	Female	New Zealand Resident	Non New Zealand Resident
<b>Number of persons in each group</b>	124	289	242	171	357	56	196	217	384	29
<b>Very Important</b>										
• Cleanliness of Room						*		***		
• Quality bath towels etc						**		**		
• Comfortable Mattress/Pillow								***		
• Quiet room	*									
<b>Important</b>										
• Well maintained furnishings				*		**		***	**	
• On premises parking		***			**			***	***	
• Facilities over all								**		
• Good Security								***		
• Tea/Coffee available in room		**	**		**			***	***	
• Amenities in Bathroom				*				*		
• Size of room										
• Decorations/ambience						*				
<b>Neutral</b>										
• Free newspaper	***									
• Cooking facility in room		***	***		**			***		
• Family Restaurant		***								
• Spa pool		***						***	**	
• Closeness to Highway										
<b>Unimportant</b>										
• Swimming Pool		***						***	*	
• Sky television in room	***						***			
• In-room movies (video)										
• Business centre	***			***			***			***
<b>Very Unimportant</b>										
• W.W.W./Email in room	***			**		**	**			***
• Fax machine in room	***			**		**	**			***

Note: \*p < 0.10 \*\*p < 0.05 \*\*\*p < 0.01

### **Very Important Facilities**

The first question about facilities asked the respondents about the “Cleanliness of room” (M 4.59, SD 0.76, skewness –3.34, kurtosis 15.85) which was rated as the most important factor overall influencing the choice of accommodation. The large kurtosis shows a small spread of responses, and the responses were skewed to the right, showing strong agreement.

From the data there were two significant differences in the means: the first with females (M 4.72, t –3.45, p .000) who indicated that the cleanliness of the room is more important than males (M 4.48). This was reinforced by AMOS with a strong regression weight (.28); and the second that those not involved in the selection of their accommodation (M 4.75, t –1.67, p .097) indicated this is more important than those who are involved in the selection (M 4.57) but both groups indicated that this factor was very important.

The second most important facility was “Good quality bath towels and washcloths” (M 4.34, SD 0.80, skewness –1.81 and kurtosis 5.18), and was rated as the 2<sup>nd</sup> most important factor influencing choice of accommodation. As with the previous factor the data indicated some differences between means.

**Table 5-19 Significant Difference in Age of Respondents**

Age	Mean	Standard Deviation	n	Age 26-35	Age 36-45	Age 46-55	Age 56-65	Age ≥66
18-25	4.65	0.61	31	**	NS	NS	NS	NS
26-35	4.10	0.95	122		NS	***	**	NS
36-45	4.25	0.82	118			NS	NS	NS
46-55	4.59	0.61	83				NS	NS
56-65	4.57	0.58	46					NS
>66	4.23	0.60	13					

**Note:** \*p < 0.10 \*\*p < 0.05. \*\*\*p < 0.01. NS indicates no significant difference between pairs of means.

Table 5-19 illustrates that there was some difference with age, and that it was of less importance with the indicated groups. This difference was not evident from

AMOS with a very small regression weight (.08). Also females indicated (M 4.42, t -2.34, p .020) that “Good quality bath towels and washcloths” was significantly more important than males (M 4.26) in the choice of accommodation, this is evident from AMOS with a significant regression weight (.21). It was reported that those involved in the selection of accommodation (M 4.55, t -2.34, p .030) indicated that this factor was significantly more important than those who were not involved in the selection (M 4.30). This was reinforced by AMOS with a strong regression weight (.24).

The third facility included in the questionnaire asked about “Comfortable mattress and pillow” (M 4.24, SD 0.94, skewness -1.83 and kurtosis 4.28), which was reported as the 5<sup>th</sup> most important factor influencing choice of accommodation. The only mean difference was that females (M 4.37, t -3.08, p .000) indicated that this facility was significantly more important than males (M 4.09) in the choice of accommodation. This was confirmed by AMOS with a strong regression weight (.31).

The next question about facilities asked about the importance of a “Quiet Room” (M 4.22, SD 0.92, skewness -1.90, kurtosis 5.10, 5 point scale). This was rated 6<sup>th</sup> most important factor influencing choice of accommodation.

**Table 5-20 Significant Difference by Age of Respondents**

Age	Mean	Standard Deviation	n	Age 26-35	Age 36-45	Age 46-55	Age 56-65	Age ≥66
18-25	4.65	0.61	31	NS	NS	NS	NS	***
26-35	4.10	0.95	122		**	NS	NS	NS
36-45	4.25	0.82	118			NS	NS	***
46-55	4.59	0.61	83				NS	**
56-65	4.57	0.58	46					***
>66	4.23	0.60	13					

**Note:** NS indicates no significant difference between pairs of means, \*p < .10 \*\*p < .05 \*\*\*p < 0.01.

As illustrated in Table 5-20 there is some difference in relation to age and the need for a quiet room, this is most significant with those 60 years and older. Also those indicating a choice of business accommodation ( $M$  4.34,  $t$  1.71,  $p$  .090) indicated a significantly higher importance than those choosing vacation accommodation ( $M$  4.17). This was reinforced by AMOS with a moderately strong regression weight (.19). AMOS also showed a relationship between quiet room and gender (regression weight .22) which did not appear in ANOVAR calculation ( $t$  -1.19,  $p$  .23).

### ***Important Facilities***

The importance of “Well maintained furnishings” ( $M$  4.18,  $SD$  0.78, skewness -1.31, kurtosis 3.43), is the 7<sup>th</sup> most important factor influencing choice of accommodation. The data showed a small difference in age, with those aged 26 to 35 ( $M$  4.09) indicating that this facility was significantly less important than other age groups, but all age groups indicated that “Well maintained furnishings” were “Important” to the choice of accommodation. AMOS indicated no relationship between the “Well maintained furnishings” and age with a very low regression weight (.09).

There were two other groups who indicated that “Well maintained furnishings” was more important, the first being females ( $M$  4.31,  $t$  -3.72,  $p$  .000) who graded it as “Very Important” in comparison to males ( $M$  4.04) who gave a result of “Important”. This was reinforced by AMOS with a strong regression weight (.31). The second was New Zealand residents ( $M$  4.21,  $t$  2.32,  $p$  .210, 5 point scale) who rated this factor as “Important” while Non-New Zealand residents ( $M$  3.86) rated it as “Unimportant” to the choice of accommodation. This was reinforced by AMOS with a very strong regression weight (.37).

The next important factor was “On premises parking” (M 4.17, SD 1.02, skewness –2.07, kurtosis 5.59, 5 point scale) which was rated the 8<sup>th</sup> most important factor affecting future selection of accommodation.

**Table 5-21 On Premises Parking - Difference in Demographics**

“Important”	Mean	“Neutral”	Mean	<i>t</i>	<i>p</i>
Vacation Acc.	4.29	Business Acc.	3.87	-3.94	0.00
Involved in Selection	4.21	Not Involved	3.89	2.18	0.03
Female	4.33	Male	3.98	-3.51	0.00
NZ Resident	4.22	Non-NZ Resident	3.48	3.81	0.00

As illustrated in Table 5-21 there were a number of different groups who rated this question with significant differences. Of particular interest from Table 5-21 is that each of those in the left-hand column considering the mean score rated it as “Important” while the contrasting group indicated that it was “Neutral” to the choice of accommodation. The regression weight is also indicated in Table 5-21 and in each case confirms the relationships.

The questions to this point asked the respondents about individual facilities. The next question, “Facilities overall” (M 4.07, SD 0.80, skewness –1.66, kurtosis 5.65), took a comprehensive view and was rated as the 9<sup>th</sup> most important factor influencing choice of accommodation. There was one significant difference between means. Females (M 4.15, *t* –1.20, *p* .040) indicated that the “Facilities Overall” had a greater impact in the choice of accommodation than males (M 3.99). This was reinforced by AMOS with a relatively small regression weight (.16).

The importance of “Good security” (M 4.05, SD 0.90, skewness –1.53, kurtosis 3.82), is the 10<sup>th</sup> most important factor influencing choice of accommodation. The only significant difference is between females (M 4.20, *t* –3.50, *p* .00) who rated it as “Very Important” and males (3.89) who rated it as “Important”. This was reinforced by AMOS with a strong regression weight (.29)

The importance of “Tea and coffee in room” (M 3.94, SD 1.20, skewness –1.685, kurtosis 2.70, 5 point scale) is the 11<sup>th</sup> most important factor influencing choice of accommodation.

**Table 5-22 Tea and Coffee in Room - Difference in Demographics**

	Mean		Mean	t	p
Vacation Acc.	4.02	Business Acc.	3.74	-2.19	.029
Involved in Selection	3.99	Not Involved	3.64	1.99	.047
Females	4.20	Males	3.65	-4.81	.000
NZ Resident	3.99	Non-NZ Resident	3.31	2.95	.000

As illustrated in Table 5-22 there were a number of different groups that rated this question with significant differences. Of particular interest from Table 5-22 is that each of those in the left-hand column considering the mean score, rated it as “Important”. The regression weight also indicated in Table 5-22 confirms the relationships in each case.

The last factor that showed significant mean difference was age, Table 5-23 illustrates these differences. This was not confirmed by AMOS which has a small regression weight (.03).

**Table 5-23 Significant Difference by Age of Respondents**

Age	Mean	Standard Deviation	n	Age 26-35	Age 36-45	Age 46-55	Age 56-65	Age ≥66
18-25	4.6452	.6082	31	NS	***	***	***	NS
26-35	4.0984	.9483	122		***	***	***	NS
36-45	4.2458	.8158	118			NS	NS	NS
46-55	4.5904	.6056	83				NS	**
56-65	4.5652	.5832	46					**
>66	4.2308	.5991	13					

**Note:** NS indicates no significant difference between pairs of means, \*p < .10 \*\*p < .05 \*\*\*p < 0.01.

“Amenities in bathroom” (M 3.79, SD 3.79, skewness -1.16, kurtosis 1.38), is the 14<sup>th</sup> most important factor influencing choice of accommodation. Females (M 3.88, t -1.69, p .09) indicated that the “Amenities in bathroom” was significantly more important than males (3.69). This was confirmed by AMOS with a large regression weight (.23). Also, those indicating hotel accommodation (M 3.91, t -1.84, p .07) reported that this factor was more important than those indicating motel accommodation (M 3.71) but both rate this factor as “Important”. This was reinforced by the moderately strong regression weight (.19).

The “Size of room” (M 3.53, SD 0.93, skewness -1.31, kurtosis 3.03, 5 point scale) is the 18<sup>th</sup> most important factor influencing choice of accommodation. There was no significant difference between any of the groups participating in the survey.

The facility of “Decorations/ambience” (M 3.51, SD 0.99, skewness -1.260, kurtosis 2.20) is the 19<sup>th</sup> most important overall. Those indicating that they are not involved in the selection (M 3.75, t -1.96, p .05) indicated a significant difference in comparison to those who are involved in the selection (M 3.47).

The availability of “Free newspaper” (M 3.39, SD 1.24, skewness -1.00, kurtosis 0.78) is the 21<sup>st</sup> most important factor influencing choice of accommodation and is rated as “Neutral” in the choice of accommodation. The only significant difference that those choosing business accommodation (M 3.63, t 2.61, p .009) indicate is that this facility is more important than those indicating vacation accommodation (M 3.28). This was reinforced by AMOS with a very strong regression weight (.412). AMOS indicated a relationship between New Zealand and non-New Zealand residents in relation to “Free Newspaper” regression weight (.41), but this was not evident in using the ANOVAR calculation (t 1.43, p .153).

The availability of “Cooking facilities in the room” (M 3.31, SD 1.34, skewness -0.99, kurtosis 0.49, 5 point scale) is the 22<sup>nd</sup> most important overall, and rated as neutral in the choice of accommodation.

**Table 5-24 Cooking Facilities in the Room Difference in Demographics**

	Mean		Mean	t	p
Vacation Acc.	3.63	Business Acc.	2.56	-7.94	.000
Motel Accommodation	3.69	Hotel Accommodation	2.77	7.29	.000
Involved in Selection	3.38	Not Involved	2.89	1.99	.047
Females	3.69	Males	2.89	-6.39	.000

As illustrated in Table 5-24 there were a number of different groups that rated this question with significant difference. Of particular interest from Table 5-24 is that each of those in the left hand column considering the mean score rated on-premises parking as “Important” except for those involved in the selection of accommodation who rated it as “Neutral”. Alternatively the other means indicate a “Neutral” rating except for business accommodation who rated it as “Unimportant”. The regression weight is also indicated in Table 5-24 and in each case confirms the relationships.

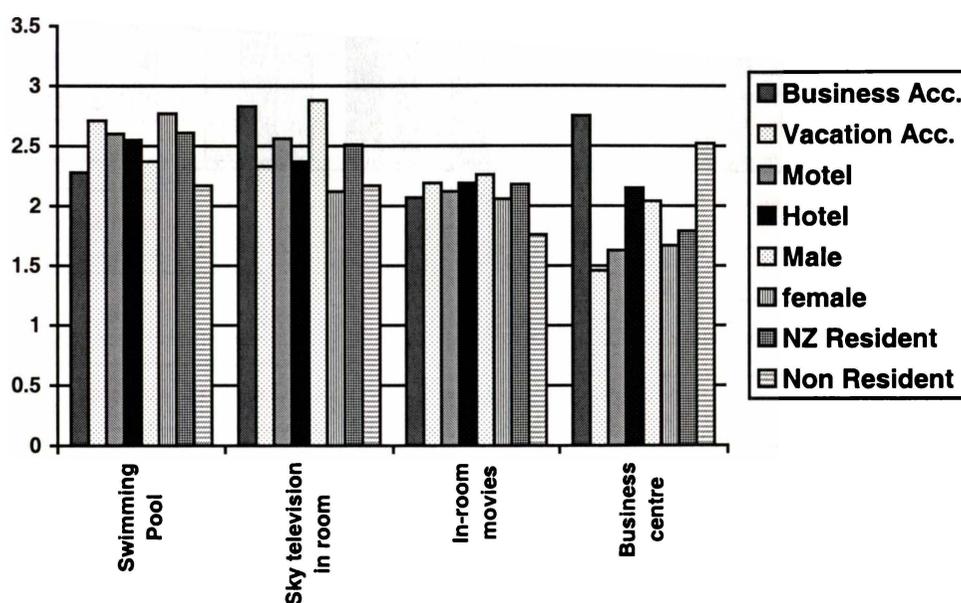
The availability of “Family restaurant” (M 3.01, SD 1.37, skewness -0.72, kurtosis -0.01), is the 23<sup>rd</sup> most important factor influencing choice of accommodation, and is rated as “Neutral”. The only significant mean difference is between those indicating the selection of vacation accommodation (M 3.13, t -2.73, p .007) and indicating business accommodation (M 2.73), both rated it as “Neutral”.

The availability of a “Spa pool” (M 2.65, SD 1.39, skewness -.34, kurtosis -.54) is rated as “Neutral” in the choice of accommodation, and the 25<sup>th</sup> most important factor influencing choice of accommodation. Those indicating the selection of vacation accommodation (M 2.79, t -3.16, p .002) indicated that “Spa pool” was more important than those choosing business accommodation. This was reinforced by AMOS with a strong regression weight (.41). Also females (M 2.79, t -2.15, p .032) rated “Spa pool” as “Neutral” to the choice of accommodation while males (M 2.50) rated it as “Unimportant”. This was reinforced by AMOS with a moderate regression weight (.15). Finally New Zealand citizens (M 2.69, t 2.06, p .040) indicated that “Spa pool” is more important than non-New Zealand

residents (2.14). This was reinforced by AMOS with a strong regression weight (.49).

A question asking about the effect of “Closeness to Highway” on accommodation (M 2.62, SD 1.18, skewness -.34, kurtosis -.53) indicated this factor as “Neutral” and the 27<sup>th</sup> most important factor influencing choice of accommodation. There was no significant difference between any of the groups in the survey.

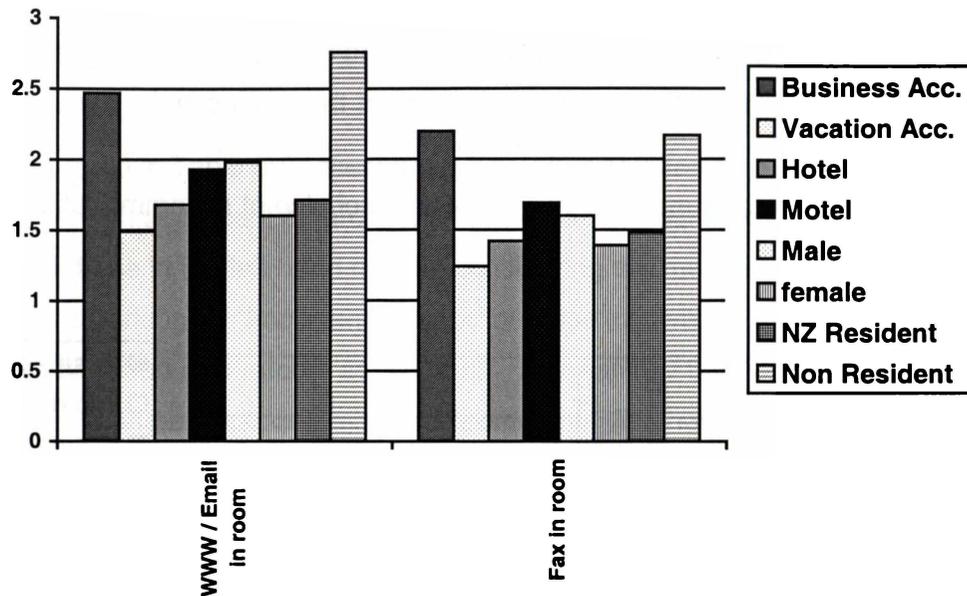
The following are unimportant factors in the choice of accommodation.



**Figure 5-11 Unimportant Factors Affecting Choice of Accommodation**

Figure 5-11 details those factors that were indicated to be “Unimportant” to the choice of accommodation. Swimming Pool is rated 29<sup>th</sup>, Sky Television in room 30<sup>th</sup>, In-room Movies 31<sup>st</sup>, and Business Centre 33<sup>rd</sup> most important factors influencing choice of accommodation. The graph shows the mean for each group. The largest difference is in the area of business centre. The availability of business centres is significantly more important for those indicating business accommodation in a hotel and non-New Zealand residents.

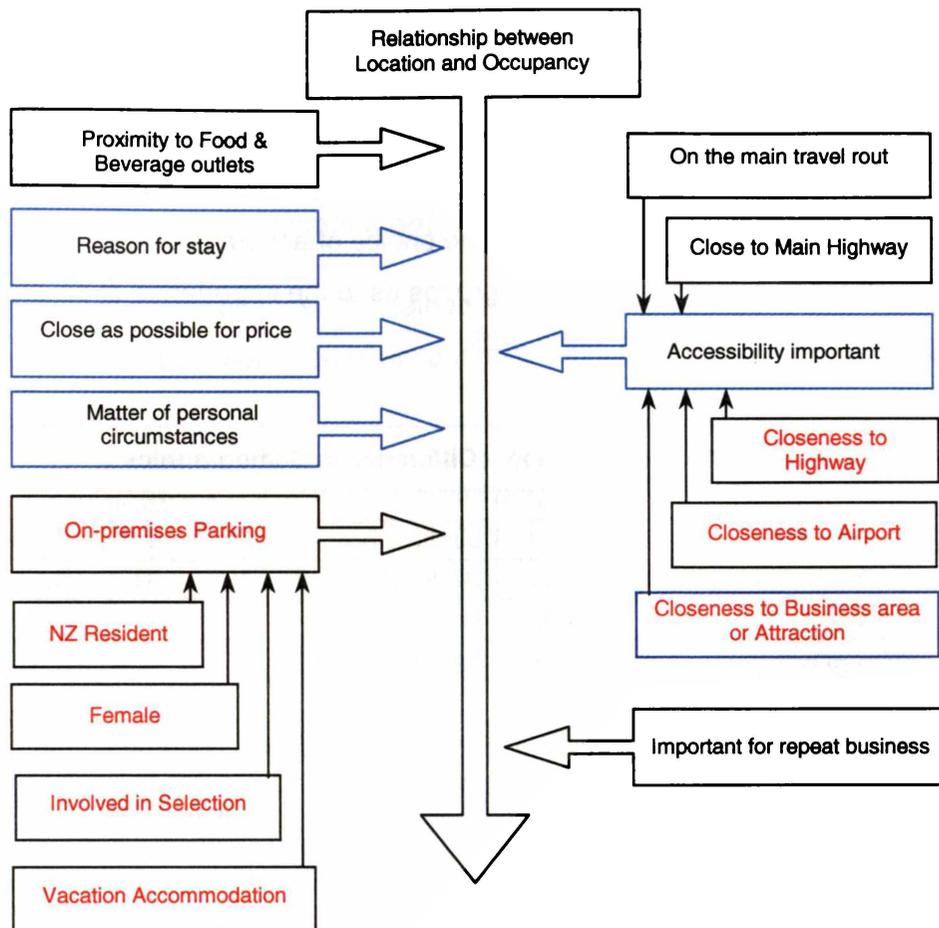
Two factors were scored by the respondents at less than a mean of 1.8, therefore “Very Unimportant” to the choice of accommodation. Figure 5-12 details the difference between the participants.



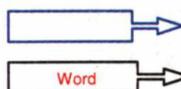
**Figure 5-12 Very Unimportant Facilities in the Choice of Accommodation**

From Figure 5-12 WWW/Email in room is 35<sup>th</sup>, and Fax in room is 38<sup>th</sup> most important factor influencing choice of accommodation. But, as evident from the graph both business guests and non-residents rated these factors higher than other groups.

### 5.2.4 Location Management Decision Model



#### Key



Indicates factor is partly or completely uncontrollable

Indicates factors from the Potential Guest Survey

**Figure 5-13 Location Management Decision Model**

The fourth item reported by the in-depth interviews as having the most affect on occupancy was location.

The first question dealing with location in the potential guest survey asked about the effect on choice of accommodation of “On-premises parking” (M 4.17, SD 1.02, skewness –2.07, kurtosis 5.59) and is rated as the 8<sup>th</sup> most important factor overall, and “Important” to the choice of accommodation. There were a number of differences between groups as to the importance of on-premises parking as indicated in Table 5-25.

**Table 5-25 On-Premises Parking – Difference in Demographics**

	Mean		Mean	<i>t</i>	<i>p</i>
Vacation Acc.	4.29	Business Acc.	3.87	-3.94	.000
Involved in Selection	4.21	Not Involved	3.89	2.17	.030
Females	4.33	Males	3.98	-3.50	.001
NZ Resident	4.22	Non-NZ Resident	3.48	3.81	.000

As illustrated in Table 5-25 those indicating vacation accommodation, involved in selection of accommodation, females and New Zealand residents indicated that on-premises parking is significantly more important.

The next question enquiring about location asked the importance of being “Close to Business area or Attraction”, the 17<sup>th</sup> most important factor influencing choice of accommodation and rated as “Important” (M 3.48, SD 1.15, skewness –1.14, kurtosis 1.38). Females (M 3.72, *t* –2.67, *p* .010) indicated that being close to business area or attraction is more important than males (M 3.42), but both still rated it as “Important”.

The participants were also asked the importance of “Closeness to airport” to accommodation choice, (M 2.65, SD 1.29, skewness –0.56, kurtosis –0.143) and rated it the 26<sup>th</sup> most important factor influencing choice of accommodation, overall “Neutral”. There was no significant difference in the means of the demographics. The last question relating to location asked the importance of

“Closeness to Highway”, and rated 27<sup>th</sup> most important (M 2.62, SD 1.18, skewness -0.65, kurtosis 0.09), overall rating it as “Unimportant” to the choice of accommodation. There was no significant difference in the means of the demographics.

### **5.2.5 Other Factors in Management Decision Model**

The survey of potential guests contained five additional questions asking about the influences on the selection of accommodation as in Tables 5-26 through Table 5-30.

1. Always stay in the same place
2. Company policy to stay in particular establishment
3. Part of a chain or group of establishments
4. Ease of booking
5. Government policy

The first asks whether the respondents “Always Stay in the Same Place” (M 2.59, SD 1.36, skewness -.58, kurtosis -.352), the responses placed this factor as “Unimportant” to the selection of accommodation. Table 5-26 indicates that this factor is more important to those who are seeking business accommodation, stay in hotels, are male, and New Zealand residents, although the means are higher for each of these groups, giving a higher rating than neutral.

**Table 5-26 Always Stay in the Same Place - Difference in Demographics**

	Mean		Mean	<i>t</i>	<i>p</i>
Business Accommodation	2.91	Vacation Accommodation	2.45	3.20	.001
Hotel	2.73	Motel	2.49	-1.80	.072
Males	2.78	Females	2.41	2.76	.006
NZ Resident	2.63	Non-NZ Resident	2.07	2.15	.032

The second asked about the effect of “Company policy to stay in particular establishments” (M 1.67, SD 1.57, skewness .15, kurtosis -1.51) which puts this factor in the very unimportant region in the selection of accommodation. As evident from Table 5-27 there is significant differences between those using

business accommodation, not involved in the selection of accommodation and males, although all the means still remain in the unimportant region.

**Table 5-27 Company Policy to Stay in Particular Establishment – Difference in Demographics**

	Mean		Mean	<i>t</i>	<i>p</i>
Business Accommodation	2.46	Vacation Accommodation	1.33	3.20	.001
Not Involved	2.55	Involved in Selection	1.53	-4.62	.000
Males	1.90	Females	1.47	2.81	.005

The third question asked the respondents about the affect of the accommodation being “Part of a Chain or Group of Establishments” (M 1.92, SD 1.48, skewness -.161, kurtosis –1.41); results make this factor “Unimportant” to the choice of accommodation. Table 5-28 details the differences between groups. Those indicating business accommodation not involved in the selection and males have a higher mean and show a significant difference, although again they are all in the “Unimportant” region.

**Table 5-28 Part of a Chain or Group of Establishments - Difference in Demographics**

	Mean		Mean	<i>t</i>	<i>p</i>
Business Accommodation	2.23	Vacation Accommodation	1.79	2.77	.006
Not Involved	2.41	Involved in Selection	1.84	-2.69	.007
Males	2.06	Females	1.79	1.85	.065

The fourth question asked about “Ease of Booking” (M 3.63, SD 1.16, skewness -1.68, kurtosis 2.89); results indicate that this factor is important to the choice of accommodation. Table 5-29 shows those groups which had significantly different means, namely those selecting motel accommodation and females.

**Table 5-29 Ease of Booking - Difference in Demographics**

	Mean		Mean	<i>t</i>	<i>p</i>
Motel	3.81	Hotel	3.50	-2.69	.007
Females	3.77	Males	3.48	-5.56	.011

The final factor in this section dealt with the effect of “Government policy” (M 1.55, SD 1.58, skewness .39, kurtosis –1.25); this factor proved to be very unimportant to the choice of accommodation. Table 5-30 shows that those indicating vacation accommodation, not involved in selection of accommodation and non-New Zealand citizens had significantly different means, but they were still all in the very unimportant to unimportant region of the answers.

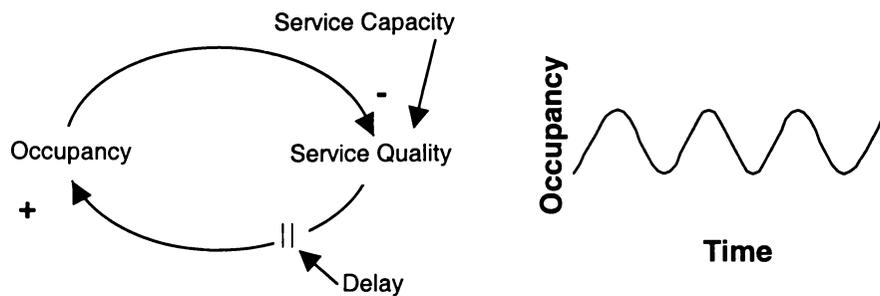
**Table 5-30 Government Policy - Difference in Demographics**

	Mean		Mean	<i>t</i>	<i>p</i>
Vacation Accommodation	1.65	Business Accommodation	1.30	-2.10	.036
Not Involved	1.87	Involved in Selection	1.50	-1.67	.096
Non-NZ Resident	2.14	NZ Resident	1.50	-2.09	.037

Each of these other factors have a very small impact on the choice of accommodation, and as such have not been applied to the models developed, but they do give additional insight into specific groups and their needs.

### 5.3 Feedback Effect on Occupancy

Each of the foregoing models suggests a linear relationship between the various factors and occupancy, which does not in reality exist because of the finite number of resources available at any one time within the hotel. For example with the model relating to service quality, the analysis indicates a relationship between service quality and occupancy, but as demand goes up, then as capacity limits are reached, service quality can go down and after a delay demand may also go down (Moffatt, 1992). Estimations show that the quality of a service drops rapidly when demand exceeds as low as 75 per cent of a service firm’s capacity (Heskett, 1986). This is because the comfort of other service users may be compromised, if the service firm is used to capacity. To overcome this some service providers maintain some idle capacity as the availability of the service on-demand is necessary to establish and maintain service quality (Bassett, 1992).



**Figure 5-14 Causal Diagram Illustrating Feedback Effect on Occupancy**

Adapted from Moffatt (1992)

The capacity limit is also evident in the effect of price on occupancy. As discussed previously one of the characteristics of a hotel is that the number of guest rooms is fixed in the medium period. Therefore in periods of high occupancy, price is a much less significant factor influencing occupancy; once the hotel's capacity is reached the influence of the various factors may no longer have the same impact as they may have in periods of low occupancy. This is evident from the amount charged by hotels in the business region of Wellington. During week-days when there is a high demand due to the large number of business people staying in hotels, who are less susceptible to price, the cost per room is a lot higher than at the weekend where special deals are offered to attract local tourists, who are much more price sensitive. As a result there are in each of the models other factors which are not explicit but have effects on occupancy.

This chapter has taken the data presented in Chapter 4 and applied those findings to the development of a stochastic model which gives greater insight into the factors affecting hotel occupancy and the influence of these factors on that choice. As a result management decision models are presented which relate these different factors to the management decision process. Each of the factors in the presented models indicates an effect on occupancy. As a result the line models clearly indicate actions which, if considered by management, could influence the decision process. Although the line models do not present specific probabilistic or

other values, they get their validity from the findings of the research. As a result they have value in the decision process for which they were designed. The next chapter looks at the implications of the research and in particular how these help with the understanding of the research problem.

# **CHAPTER 6 CONCLUSIONS AND IMPLICATIONS**

## **6.0 Introduction**

In the previous chapter, data analysed from Chapter 4 was presented in the form of a stochastic management decision model. This final chapter discusses the conclusions and implications of this research, including an overview of the research, summary of findings and meta model, followed by research limitations. Findings are presented as a meta model in order to explain relationships between various parts of the management decision models of Chapter 5.

The following is an outline of this chapter:

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- 6.0. Introduction
  - 6.1. Overview of Research Chapters
  - 6.2. Summary of Findings and Meta Model
  - 6.3. Research Limitations
  - 6.4. Implications for Further Research
  - 6.5. Conclusions
- 

## **6.1 Overview of Research Chapters**

Chapter One introduced this research, giving details of the background, research problem and justification, and outlined the importance of occupancy in the hotel industry and the impact that occupancy has on profitability.

The purpose of Chapter Two was to review prior research relating to the issues of hotel occupancy. The underlying theories and concepts of the hotel industry, its characteristics and the factors influencing occupancy were explored; various models were discussed and the holistic approach of this thesis was introduced.

Chapter Three described the methodology and process used to collect the data from the three studies undertaken for this research. Additionally the chapter gave detailed explanations on how the various groups were selected.

Chapters Four and Five evaluated the data from the three studies exploring the factors which influence occupancy (as revealed from the data). From this analysis, a number of management decision models were produced representing the major factors influencing occupancy. A brief overview of the three studies and their purpose is provided below:

**STUDY 1 – Research & Industry Stakeholders:** this study involved an in-depth interview containing open questions, having the objective of determining what factors the participants viewed as most significant in the selection of accommodation.

**STUDY 2 – Hotel Decision-makers:** this study involved open and closed questions, with reference to the findings from Study 1. Participants were selected to represent those with experience and who held management positions in the hotel industry. The objective was to determine the perceptions of decision-makers as to the determinants of occupancy.

**STUDY 3 – Potential Guests:** This third study used closed questions to enquire specifically into the factors that influence the “choice of accommodation”. This study was particularly important as it brought to the research the perspective of the guest and also provided an opportunity to compare differences in perceptions between hotel decision-makers and their clientele.

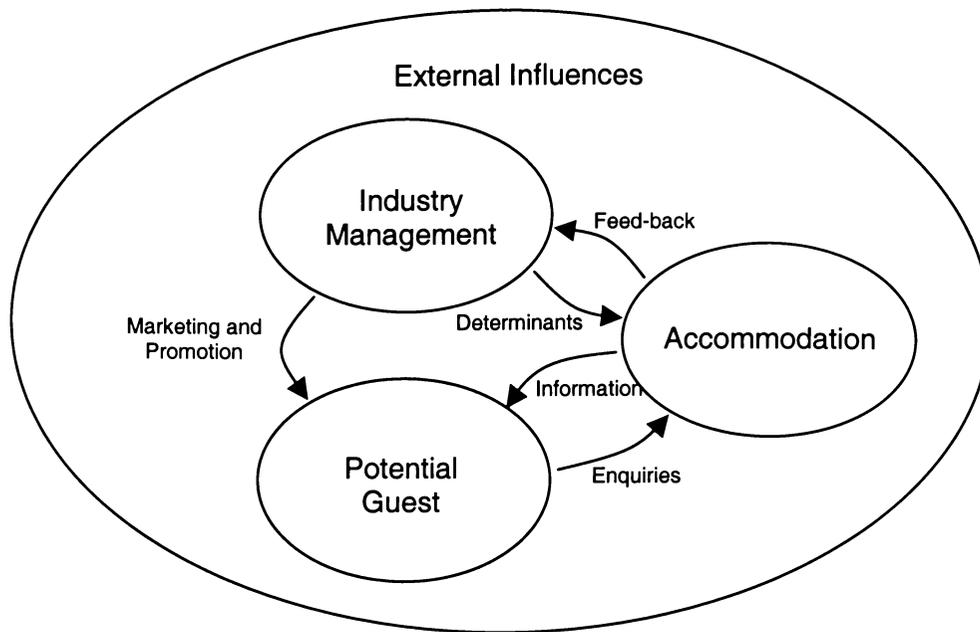
## 6.2 Summary of Findings and Meta Model

Chapter 5 presented the results from this research in a series of management decision models in the order of importance of the factors identified by the researchers and industry stakeholders. The objective of this section is to summarise and present the salient points from those data.

This research has revealed interesting and pertinent outcomes. In this section a meta model has been developed to synthesise the major themes of this study. This meta model takes into account those involved in the accommodation process – providers and users, and incorporates the inter-relationships of physical and practical processes that occur. Because this research identified strong and clear similarities between researchers and industry stakeholders, and the hotel decision-makers, for clarity these groups will be referred to as ‘industry management’.

The meta model presents the three major components of the occupancy experience: 1) Industry Management, 2) Potential Guest, and 3) the Accommodation itself. Inter-relationships between these three components are represented by direction arrows which show movement for a) Marketing and Promotion, b) Feed-back, c) Determinants, d) Information and e) Enquiries; see Figure 6-1. These are surrounded and influenced by the external factors which affect the process, such as competition from other establishments, government policies and exchange rates. These factors, as discussed in Chapter 2, are out of the control of accommodation management but can have a very significant influence on occupancy.

Each part of the model and the relationship to management decision-making will now be discussed, emphasising potential impact on hotel management decisions and how each part of the model emphasises the relationships in the decision process.




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**Figure 6-1 Model of Accommodation Selection**

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### ***6.2.1 Industry Management and Potential Guests***

In the meta model a clear difference is drawn between Industry Management and Potential Guests, in order to illustrate the differences identified in this research in respect to the factors that these two groups believed had impact on the selection of accommodation. Other researchers, Lewis (1987) and Wei, Ruys and Muller (1999), have also identified a difference between the beliefs of management and guests on the factors important in the selection of accommodation.

The Potential Guest communication in Figure 6-1 is directed through the Accommodation and reaches Industry Management via feedback. The guest receives information from the Accommodation typically in response to an enquiry. Also the Accommodation receives information from Industry Management in the form of determinants. These determinants are the influence that management has upon the accommodation assets, such as the quality of facilities, the selection of bed linen, towels, furniture, the level of staffing, and training of staff. These are the

areas where management have direct influence on the property. As a result the Accommodation is the means of interaction between both the Potential Guest and the Industry Management.

As part of the industry research, management respondents were asked to identify the five most important factors that have the greatest impact on occupancy. The data were used in the development of the questions asked of the potential guests, along with additional questions identified from the literature. The factors identified in the research conducted with industry management were used in the development of the questions for the potential guests. The data show a marked difference between industry management and potential guests.

<b>Table 6-1 Comparison of Industry Management Rating of Important Factors as compared with Potential Guests</b>	
<i>Industry Management</i>	<i>Potential Guests</i>
(1) Price/Rate	Cleanliness of the room (1)
(2) Service Quality	Good quality bath towels and washcloths (2)
(3) Facilities	Quality of staff service (3)
(4) Location	Friendliness of staff (4)
(5) Marketing	Comfortable Mattress and Pillow (5)
	Quiet room (6)
	Well maintained furnishings (7)
	On premises parking (8)
	Facilities over all (9)
	Good security (10)
	Tea and coffee available in room (11)
	Good reputation of establishment (12)
	Speed of check-in and out (13)
	Amenities in bathroom (14)
	Price (15)
	Ease of booking (16)
	Close to business areas or attraction (17)

Table 6-1 compares the top five items from industry management and the top 17 items from the survey of potential guests. Differences of concept are evident: for industry management 'Price' is rated as the most important; for potential guests it is rated as number 15 out of a total of 38 factors. As illustrated in Table 6-1 out of

the top 17 items identified by potential guests, ten related to facilities. Facilities such as 'cleanliness of room' and 'good quality bath towels' are rated very highly as important items in the selection of accommodation by potential guests whereas they have a lower rating by industry management.

The difference in Table 6-1 whereby industry management rate price as the most important factor and potential guests rate it far less important (at number 15 in the selection of accommodation), raises the question as to why industry management perceive price to be so important. An explanation can come from the following areas: first cleanliness (rated most important by guests) may be taken as given by many industry managers; one which they may not consider necessary to promote. Second, the dominance of price may be a result of management's need to generate revenue. The considerable reliance many establishments have on the setting of room prices through yield management tools further emphasises the importance of price, along with the fact that many advertisements for accommodation use price as a major factor in enticing and differentiating guests (Kotler et al., 1996).

In addition, a potential guest seeking accommodation may undertake research into what is available within the market within given price zones, and when the facilities and services offered meet their desired needs and wants, an approach is made to enquire the cost as part of the final selection process, possibly as a means to obtain further discounts or offers. This contact would represent, in many cases, the first direct contact between the Potential Guest and the Accommodation. As a result price might be predominant in the accommodation manager's mind as central (ie, one contact and it is about price), but this does not recognise the process that took place before the contact. When the approach is made, Industry Management might be prepared to offer discounts to the guest with the belief that this is the predominant factor in the selection of accommodation, whereas reassuring the guest about the quality, cleanliness and a comfortable bed before giving a price could result in a property maintaining its average room rate and increasing the occupancy rate.

Although price was rated the most important factor by industry management, the research also identified some warning messages expressed in comments made by industry management with statements such as, “Competition has a greater effect on price than any other issue”, “Cutting prices – affects the market badly in the long run” and finally a very telling statement that the, “Industry is its own worst enemy in cutting prices”. Consideration should be given to these comments in the setting of prices. The use of price as the dominant instrument in influencing occupancy through the application of yield management, as has been identified in this and other research (Huyton, Evans, & Ingold 1997) has negative implications. As a result it can instigate price wars and a higher awareness in the guests’ minds of asking for discounts, creating additional reasons for dissatisfaction.

As indicated in Table 6-1, facilities was rated the third most important by industry management. A further question in the survey of industry management sought information on the importance of these additional facilities. Table 6-2 takes industry management’s rating of eight facilities and compares it to the rating potential guests gave to these eight facilities. The table shows Sky television is rated as ‘important’ by industry management as having a large impact on occupancy while the potential guest survey rates it as ‘unimportant’. Likewise restaurant (European) is rated ‘very unimportant’ by industry management but is rated as ‘neutral’ in the selection of accommodation by potential guests.

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**Table 6-2 Comparison of Facilities Between Industry Management and Potential Guests**

<i>Rating of Facilities</i>	<i>Industry Management</i>	<i>Potential Guests</i>
Tea/Coffee making facilities in each room	Very Important	Important
Comprehensive room service	Important	Very Important
Sky television in each room	Important	Unimportant
Electronic room security	Neutral	Important
Swimming pool	Neutral	Unimportant
Pay for movie in each room	Neutral	Unimportant
Restaurant (European)	Very Unimportant	Neutral
Spa pool or sauna	Very unimportant	Neutral

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Because of the difference between Industry Management and Potential Guests in the selection of Accommodation, these two are placed separately in the Figure 6-1. However, not only are there differences between Industry Management and Potential Guests, there are differences within the Potential Guest grouping itself as to the importance of various factors and their effect on accommodation selection. Table 6-3 lists those items that show a statistically significant difference ( $p \leq 0.05$ ) between groups. While items such as 'cleanliness of the room' and 'comfortable mattress and pillow' are 'very important' to both males and females in the selection of accommodation, they are statistically more important to females. 'Good security' is 'very important' to females but only 'important' to males. In evaluating Table 6-3 particular attention needs to be paid to the mean scores; for example, although 'Family restaurant' is rated as neutral by both males and females, the mean score indicates that for females (mean 3.13) it is more important than males (mean 2.73).

The next section discusses the third major component from Figure 6-1, that of the Accommodation.

**Table 6-3 Comparison of Needs of different Potential Guests**

		<b><i>Importance of Factor with mean score</i></b>	>		<b><i>Importance of Factor with mean score</i></b>
Cleanliness of the room	Female	Very Important (4.72)	>	Male	Very Important (4.48)
Comfortable mattress and pillow	Female	Very Important (4.37)	>	Male	Very Important (4.09)
Well maintained furnishings	Female	Very Important (4.31)	>	Male	Very Important (4.04)
	Vacation	Very Important (4.29)	>	Business	Important (3.87)
On premises parking	Female	Very Important (4.33)	>	Male	Important (3.98)
	NZ Res.	Very Important (4.22)	>	Non Res.	Important (3.48)
Good security	Female	Very Important (4.20)	>	Male	Important (3.89)
Tea/coffee available in room	Female	Very Important (4.20)	>	Male	Important (3.65)
	NZ Res.	Important (3.99)	>	Non Res.	Neutral (3.31)
Free newspaper	Business	Important (3.63)	>	Vacation	Neutral (3.28)
	Vacation	Important (3.63)	>	Business	Neutral (2.56)
Cooking facilities	Motel	Important (3.69)	>	Hotel	Neutral (2.77)
	Female	Important (3.69)	>	Male	Neutral (2.89)
Family restaurant	Vacation	Neutral (3.13)	>	Business	Neutral (2.73)
	Vacation	Neutral (2.79)	>	Business	Unimportant (2.10)
Spa pool	Female	Neutral (2.79)	>	Male	Unimportant (2.50)

### **6.2.2 Accommodation**

The meta model in Figure 6-1 shows a clear difference between Industry Management and the Accommodation. This difference is more pronounced in the larger establishments included in this research than may be evident in smaller establishments where management perform many of the operational tasks such as cleaning rooms, taking reservations etc. The separation however does emphasise the operational staff, physical components, range of facilities and organisational structures, such as listed in Table 6-3. This part of the model is shown as separate from both the Industry Management and the Potential Guest to demonstrate that the physical and human assets of the Accommodation exist on their own as a separate entity. This research has identified these characteristics as important in influencing the guest selection process. For example the differences identified by industry management may not be a result of knowing the exact factors which influence occupancy, but more a traditional perception inherited from manager to manager that price is the most important factor influencing occupancy. Often this thinking can influence what management believe is important to guests but is not reflected in research conducted into customer needs and expectations.

To this point the main components in Figure 6-1, that of Industry Management, Potential Guest and Accommodation have been discussed. Within a hotel operation these components do not operate isolated from each other - there is interaction between them. The following section discusses the way each of these are linked and the relationship between them.

### **6.2.3 Marketing and Promotion**

As identified in Figure 6-1, communication takes place between Industry Management and Potential Guests through marketing and promotion. The literature discussed in Chapter 2 strongly emphasised the importance of marketing and promotion within all businesses as well as in the accommodation industry

(Lewis & Shoemaker, 1997). From this research the findings from the industry management data showed that marketing was not a highly rated factor affecting occupancy. In the interviews held with the industry management, comments included items such as “correctly marketing and promoting an establishment can have significant returns” and also that “marketing as part of a chain or group of hotels has a significant advantage”. Also indicated was a close linear relationship between the amount spent on marketing (if correctly targeted) and the level of occupancy. To gain the most benefit, as emphasised from the research, “money spent on marketing must be spent in the right way” and that “advertising an accommodation establishment to the wrong market is a waste of money”. For example promoting a middle to low star rated family accommodation in a top of the range international magazine would be of little use. Even if it did generate guests they are likely to be dissatisfied with the accommodation.

Understanding the needs of the guest is an important factor in marketing and promotion because the differences identified by industry management may not be a result of knowing the exact factors which influence occupancy, but more a traditional perception inherited from manager to manager, for example price is the most important factor influencing occupancy. Often these beliefs can influence what management think is important to guests but may not reflect the real world situation.

Table 6-3 compares the factors which are important between different groups of potential guests. Table 6-4 lists overall importance of facilities to potential guests. If a particular establishment is looking at increasing the number of guests from a particular section of the market and offering facilities and services to attract this section, the information in Table 6-3 gives an insight into the actions that need to be taken by management. For example an accommodation provider may decide that, with the growing number of female business people travelling (as identified in this research with industry management), this group should be targeted to stimulate growth. Certain factors such as ‘cleanliness of the room’, ‘comfortable mattress and pillow’, ‘well maintained furnishings’ and ‘good security’ are

statistically of more importance to females than males. As a result a hotel looking at developing this market could evaluate their current status in each of the indicated areas and decide whether they already fulfil the requirements for that market, or whether an investment in updating or adding the preferred facilities would generate a return for the investment. A small number of establishments have set up special areas for females where an entire floor or section is allocated along with additional security. Table 6-3 shows that 'On premises parking' is very important to females. In some establishments female guests are supplied parking very close to their accommodation.

**Table 6-4 Facilities in Order of Importance from Potential Guest Survey**

<i>Facility</i>	<i>Importance of Facility with Mean Score</i>
Cleanliness of the room	Very Important (4.59)
Good quality bath towels and washcloths	Very Important (4.34)
Comfortable Mattress and Pillow	Very Important (4.24)
Quiet room	Very Important (4.22)
Well maintained furnishings	Important (4.18)
On premises parking	Important (4.17)
Facilities over all	Important (4.07)
Good Security	Important (4.05)
Tea and Coffee available in room	Important (3.94)
Amenities in bathroom	Important (3.79)
Size of room	Important (3.53)
Decorations/ambience	Important (3.51)
Free newspaper	Neutral (3.39)
Cooking facility in room	Neutral (3.31)
Family restaurant	Neutral (3.01)
Spa pool	Neutral (2.65)
Swimming Pool	Unimportant (2.58)
Sky television in room	Unimportant (2.48)
In-room movies (video)	Unimportant (2.15)
Business centre	Unimportant (1.85)
World Wide Web/Email in room or available	Very Unimportant (1.79)
Fax machine in room	Very Unimportant (1.53)

As well as the data from the potential guest perspective, the findings from the industry managers also gives insight into actions that can be taken towards better marketing and accommodation promotion. Comments from industry managers in this research, such as the “importance of the size of the room”, “price/quality relationship”, “economic condition” and the “importance of quality meeting expectations” are of benefit in assessing future planning of upgrade and refurbishment.

Word-of-mouth advertising is important in any business, and it is equally important within the accommodation industry as emphasised in this research in Table 4-7, and comments such as “Word of mouth is very important”. This is also essential in establishing customer loyalty and what is developing as relationship marketing, as discussed in Chapter 2. Although the literature indicates that there are mixed views on the effect of loyalty schemes (Fornell,1992), there is also evidence that this type of activity can affect occupancy, a transition from the belief of managers to empirical evidence. There is some indication, too, of an advantage by being a member of a group of hotels (Nightingale, 1985). This comes particularly through the ability of a guest to book from one establishment to another, or go through one booking agent for a number of different locations. Unfortunately, the exact financial return in relation to costs, which often includes fixed and variable costs to belong to the group, is difficult to determine and has not attracted a great deal of academic study to quantify this relationship thus far.

#### ***6.2.4 Enquiries and Information***

As part of accommodation selection, the Potential Guest undertakes a process where their needs and wants are measured against what a particular establishment can offer. The search for information can take many forms, from advertisements in newspapers, accommodation guides and internet web pages to contacting the accommodation establishment directly. Potential guests are interested in the number and type of facilities and other services provided. In this research, industry management stated: “Facilities must meet the needs and

expectations of the guest”; also that there is a “growing demand for more facilities”. From all of the factors influencing occupancy as identified in the potential guest survey (Tables 4-27 through 4-36), Table 6-4 lists facilities along with their importance from this research as they relate to influencing occupancy.

The requirements for facilities by potential guests, as identified in the research, can vary by the “type and purpose or length of the stay”. For example the provision of on-premises parking is statistically more important to vacation guests in comparison to business guests. Also, tea and coffee available in the room is statistically more important to New Zealand residents in comparison to non-New Zealand residents (see Table 6-3). This is not to say that non-New Zealand residents would not use the facility, rather that it is statistically more important to the New Zealand resident group.

In targeting a specific market, the objective of management should be to give the Potential Guest information about those facilities which this research has identified are important to them, as discussed in section 6.2.3 and illustrated in Tables 6-3 and 6-4. In addition establishments that do not have favoured facilities can, in their planning, implement procedures to introduce those facilities that are of particular interest to a particular target group. This would require analysing the financial cost and return of adding the facility. The inclusion of some facilities may not be economically viable, for example the identified “growing need for larger rooms” would impose a very significant cost on an accommodation provider along with a possible reduced income per square metre of floor space, and the overall impact may not be profitable.

As well as facilities there are other factors about which the Potential Guest is seeking information. One is the quality of service that will be offered. Table 6-5 lists service quality indicators desired by potential guests.

**Table 6-5 Service Quality from Potential Guest Survey in Order of Importance**

<i>Indicator</i>	<i>Importance of Facility with Mean Score</i>
Quality of staff service	Very Important (4.30)
Friendliness of staff	Very Important (4.27)
Speed of check-in and out	Important (3.79)
Staff calling you by name	Neutral (3.00)

As identified by industry management, from the guest's first contact with the accommodation provider the service provided "must meet expectations". Issues such as "slow service" and the "guest not being called by name" do not only impact on the first time a guest may stay at an establishment, but also has a "great impact on repeat business". Therefore, the quality of service offered by the establishment must consistently meet desired criteria, especially as it has been shown that it is more expensive to attract new guests than retain guests (Boshoff, 1997).

### **6.2.5 Determinants & Feedback**

Determinants refer to those actions that Industry Management take to directly or indirectly impact on the Accommodation, and thus affect the guest's selection decision. The potential guests indicated the importance of service quality and Table 6-5 presents the items in order of importance. The research identifies a strong relationship between performance and the amount spent on staff training (see Figure 4-8). This is not a new concept, with other researchers giving it emphasis (Delaney & Huselid, 1996; Liu 1998; Weiss, 1998; et al). As discussed by Hammel (1996), increasing the amount of training has a two-fold result: first it lifts the quality of service given to the guest and second, it also has an impact on occupancy rates. When asked in this research what areas were most important for training, industry management stated that the two most important items were 'Customer relations skills' and 'Service skills' (see Table 5-3).

The research also identified the need for staff to be motivated (Hallowell, Schlesinger and Zornitsky, 1996; Table 4-17), and the effect that motivated staff have on occupancy. Clearly the process of training has many facets to it, and one of those is that if a staff member receives training, they generally feel they are being 'taken care of' by the establishment, and in return feel a higher level of motivation. When asked, industry managers indicated that 'Recognition of performance' and 'Good working environment' were a lot more important as a motivator than 'The rate of pay' as indicated in Table 4.22.

There is more to hotel occupancy than first time guests. It is evident from this research that although the facilities and services offered may attract a guest initially, to attract repeat business requires maintaining the quality over a longer period. This requires a dedicated workforce so that both the personal interactions and the facilities continue to meet guest expectations (Lewis and Mitchell, 1990). This research again emphasises the importance of customer contact with staff in the encouraging of repeat business, and specifically 'Front Line Staff'.

Location is a factor influencing Accommodation that is usually fixed in the medium to long term and, as such, is difficult for Industry Management to directly influence in the short term. Much of the literature in relation to hotel location rates it as very important (Barsky & Labagh, 1992; see Table 4-6), but this research indicates that there should be a closer relationship between location and the purpose of the stay in the accommodation. Management of business accommodation identified that "being within easy walking distance is a big factor to success". This research also emphasises that location is important in relation to what one is willing to pay (see Table 4-6), and that location is more important to repeat business. Initially a new visitor to a particular area may not be familiar with where exactly the accommodation is located in relation to their purpose of visiting, but on repeat visits location would be a known element, and also the advantages and disadvantages of that location (street noise, difficulty in parking, getting to and from the accommodation) would be known. This is particularly true where one-way streets and other roading may make getting from destination to hotel difficult.

Although many establishments supply maps or information on location, often these can be vague. "Close to the city" can mean different things to different guests, so more specific information should be given.

There are differences in what Industry Management and Potential Guests indicate as the factors affecting selection of occupancy. The question needs to be considered as to how this difference occurs and why management perceives messages different from those that clients perceive they are sending. This research does not give clear reasons for it. However, research conducted on the use of customer comment sheets placed in accommodation rooms where the majority of returned comment sheets are from either 'very happy guests' or 'very unhappy guests' (Lewis & Mitchell, 1990) provides an indication. As a feedback tool this does not show accommodation management what the majority of guests view as important because it appears that only a minority of guests complete these forms. There was also an indication from the research by Lewis & Mitchell (1990) that a limited number of guests will complain over small issues, while others will make no comment even though they are dissatisfied, but will simply not rebook. Management are unable to determine the reasons for not re-booking - it could be that the guest simply only visits the region once, or, they could make repeat visits but re-book with another establishment because they like variety.

#### **6.2.6 External Influences**

The last factor in Figure 6.1 is the external influences impacting on the Accommodation through interaction with the various parts of the model. As discussed in Chapter 2, a large number of external factors influence occupancy. These vary from wars to government policies. The items identified by Industry Management were centred on the exchange rate, government expenditure on promoting New Zealand and the economy. External factors from the Potential Guests were rated low in relation to their effect on selection of accommodation. Out of the 38 questions, exchange rate was rated number 34, company policy was number 36 and finally, government policy was number 37. (The data showed no

major difference between New Zealand and non-New Zealand residents.) These external factors do not necessarily have little impact, for example if the New Zealand dollar falls in value in comparison to other currencies it makes New Zealand a less expensive destination for many overseas visitors.

For Industry Management the external factors that influence an accommodation operation are extremely difficult to control. Although many external factors are out of the control of Industry Management, there are those over which they have some control, such as a member of staff bringing their problems from home to work, and this affecting their performance. For those external factors that they cannot control, Industry Management should carefully monitor and make appropriate plans for best advantage. For example, it can be expected that a falling exchange rate will lead to more business, and thus staff recruitment and training may be enhanced. Continuous data collection must be undertaken so as to be able to effectively respond to new initiatives or policies mooted by national and/or local governments.

### ***6.2.7 Conclusion***

The models and data discussed in Chapters 4 and 5 have been brought together in the meta model of Figure 6-1. This model represents the essence of the previous models showing the overall relationships and interactions between the various components. From this model each of the interactions were discussed and applied to management implications. As emphasised the model highlighted a number of key issues.

The first of these is the difference in opinion among the participants in this research, with an explanation of why these differences may have occurred, especially in relation to price. Suggestions were given on how Industry Management may be able to modify their actions for profitable return, for example, average room rate. The second focused on differences in Potential Guest needs and wants in relationship to Accommodation. The way in which the quality,

number of facilities and service need to be managed was evaluated for particular groups in order to give increased satisfaction, attract new and maintain current guests. A third issue is the interaction between the various parts of the meta model, through marketing and promotions between the Industry Management and the Potential Guest; the communication which the guest has with the Accommodation; and the communication between the Accommodation and Industry Management. The model and these relationships can assist managers in making decisions. The model shows the flow of communication and interaction between the major 'players'. It shows that the Potential Guest has a complex relationship with the Accommodation and Industry Management in the selection of Accommodation and that these relationships do not always assist Industry Management in a complete understanding of the needs of Potential Guests. An awareness of the interactions involved in the accommodation selection process would encourage Industry Management to implement systems whereby the information gathered about guests needs and wants is transmitted to them so they have a basis for sound decision-making. Of particular note in the meta model is the separation of the Industry Management, Accommodation and Potential Guest. This emphasises the differences between these groups as to the key factors influencing accommodation selection, and the incorrect assumptions as they relate to the factors that are important on the part of Industry Management. These incorrect assumptions by Industry Management can have a significant impact on the profitability of accommodation providers as they use price as a major tool in influencing the level of occupancy. However, as demonstrated in this research, price is far less significant than other factors, and the reduced income which discounting rooms causes influences the ability of accommodation providers to supply those factors demonstrated to have a greater influence on selection of accommodation by guests. As identified by one of the industry managers interviewed, "... the worst thing the hotel industry did was to teach the customers about discounting of room rates", and that this had resulted in the industry being its own worst enemy.

The meta model has added to the comprehension and understanding of the

research by emphasising important areas for consideration in the choice of accommodation, giving practical guidelines on the application of the research findings in Chapters 4 and 5. It challenges hotel managers to test their long held beliefs.

### **6.3 Research Limitations**

The following is a discussion of the potential limitations of this research including: innovative aspects of the research, individual perceptions of the research participants, representative aspects of the results and the representative aspects of the research.

#### ***Innovative Nature of the Research***

Issues of client satisfaction have been dominant in the services marketing literature for much of the last three decades, spurred by a debate over the SERVQUAL model (Parasuraman, Zeithamal, and Berry, 1988; Johns and Tyas, 1997; Ryan, 1999). In the hospitality literature specifically, linkages between service, quality, travel patterns and purchase decision as to accommodation bookings has also been examined. However, much of this debate has centred on research that examines clients in isolation from management. The confirmation/disconfirmation paradigm of the consumer gap, and its dominance, has effectively precluded explicit consideration of the interaction between management and clients, and their differing perceptions of messages sent and received. This research has sought to examine this interaction.

#### ***Perception of Subjects in the Various Studies***

Those participating in the various studies can be considered to have a specific point of view; the participants from industry management observe the question from the operation manager's viewpoint, while the research and industry

stakeholders and the potential guests each have their own perspectives, and this colours their responses. An explanation in relation to industry management may come from the type of job they do, much of which is involved with the setting of room prices and staff service quality. Because they deal with these issues all the time, these items are frequently verbalised when asked what is important. This saliency (Myers & Alpert, 1977) needs further investigation in relation to the beliefs of hotel managers.

### ***Representative Aspects of the Research***

The studies undertaken, although not random samples of the population, show consistencies between the various groups. For example the surveys conducted at the various airports have a high level of consistency with the mailbox surveys and between themselves, which was confirmed by statistical tests of reliability. Also there was consistency between the participants in the hotel decision-makers' survey. Analysis was undertaken looking at any significant mean differences such as position of respondent, quality rating and size of establishment; few were found, therefore there is no reason to believe that larger or random samples would produce different results. The statistical analysis indicated there was no demographic bias.

## 6.4 Implications for Further Research

This research has identified those factors (from the perspective of three sources) that have impact upon the guest selection of hotel accommodation. Areas of commonality and difference have been identified between those participating in the research. The management decision model developed aids in the evaluating of those factors, along with giving an indication of the impact of the various factors involved. There are a number of areas of potential areas for further research as outlined:

1. To investigate further the reason for the difference on the supply side, between industry management, and on the demand side, the potential guest.
2. To evaluate the changing needs of potential guests over time and this impact on the hotel accommodation purchase decision.
3. To investigate whether the importance of the factors changes throughout the purchase decision cycle. For example is cleanliness important in the initial selection and then some other factor such as price in the final choice. It would then be possible to make the model more dynamic rather than a simple identification and rating of variables.
4. To further investigate the impact that the culture associated with class and ethnicity of client has on the factors affecting the selection of accommodation.
5. Undertaking cost/benefit analysis to quantify the financial return on belonging to a hotel chain.
6. To use the data to develop a computer simulation model applicable to the accommodation industry. Management would observe various outcomes as the input data was varied, eg the influence of marketing, room price, staff training.

## 6.5 Conclusion

The management of hotel occupancy requires a careful balance between a large number of different factors (Zipser, 1997) as evaluated in this research. Prior to undertaking the research the writer anticipated that price, service and facilities would be the most important factors affecting occupancy. It was also anticipated that there would be many more factors identified, both internal and external, affecting an occupancy model. The limited number of factors is a reflection of the strength of opinion of the participants in the open questions conducted with researchers, industry stake-holders and hotel industry decision-makers. These groups felt that other factors were of little or no importance to the choice of accommodation.

The development of a deterministic model was originally intended where the various factors would show a clear impact value that each has on occupancy. However, the results of the studies moved the model towards a stochastic form.

The literature as previously discussed indicated that other researchers have identified differences between the views of accommodation managers and potential guests. This research also identified a gap between responses of industry management and potential guests whose views were quite different. One possible solution is that the industry management viewed cleanliness of room as being an accepted fact and one that was not identifiable for advertising or other purposes. However, to the potential guests it was clearly a vital criterion which revealed a difference between the first two studies and the potential guests and therefore this finding represents significant contribution to knowledge. The identification of these differences has raised important questions relating to the understanding by accommodation managers of the factors that influence occupancy, and in particular why such differences occur.

The models and analysis in Chapter 4 and 5 provide an important insight into the factors that influence occupancy (Callan, 1998), and as such assist management

in a greater understanding of those factors. They also add new knowledge in relation to the subject being studied, and the different needs of the various types of guests (Ananth, De Micco, Moreo & Howey, 1992). The use of the models in Chapter 5 to develop a meta model in Chapter 6 brings together the many aspects of the research, clarifying management implications.

The studies illustrated the opinions of stakeholders involved in hotel and motel occupancy, and this research was based on these factors. Many of the more difficult factors such as the impact of the economy were not predominant in the analysis, although some mention of this was made in the in-depth interviews of the researchers and industry stakeholders, and these clearly have large impacts on occupancy (Rushmore, 1998) and require further consideration.

One characteristic, which is well recognised in the literature, is the complexity of the hotel industry and in particular in the maximisation of occupancy. This complexity is in part due to the characteristics of hotels as previously discussed: “Intangibility”, “Inseparability”, “Variability” and “Perishability” along with the assets involved in the industry. Maximising occupancy requires considerable skill and attention on the part of those employed in the hotel industry. Complexities arise from the mix of supply and existing market segments and the interchangeability of users between ‘sets’ of roles, for example business versus recreational, long-stay versus short-stay.

In summary this research has:

- Evaluated relevant prior research into factors influencing occupancy within accommodation providers.
- Researched the factors influencing accommodation selection from both the perspective of the potential guest and industry management.
- Given insight into the different perspectives on the factors affecting occupancy from both potential guest and industry management.
- Presented the factors affecting occupancy as identified in the form of stochastic models.

- Evaluated the applicability of the model in accommodation management decisions.
- Demonstrated the application of this research with the assistance of a meta model in the accommodation management decision process.

And a final word with regard to the question of occupancy -

“For many problems, one [approach] may provide the key to a quick solution. But most problems are like the apartment doors in large cities: they have multiple locks requiring multiple keys.”

Robert Sternberg, *The Triarchic Circle*, p 181.

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## **APPENDICES**

## **APPENDIX A Responses From In-depth Interviews**

Responses to the question “List the five most important factors that you believe have the greatest influence on hotel occupancy”, asked as the first question in the in-depth interviews with researchers and industry stakeholders.

Mr P. Winter. CEO, New Zealand Tourism Board (Wellington)
<ol style="list-style-type: none"> <li>1. Supply and demand</li> <li>2. Health of the originating markets</li> <li>3. Exchange rate</li> <li>4. How proactive the hotel and region is</li> </ol>
Mr D. Comery. Chair, New Zealand Accommodation Council (Auckland)
<ol style="list-style-type: none"> <li>1. Service quality of the staff</li> <li>2. Price</li> <li>3. Facilities</li> <li>4. General standard of the hotel</li> <li>5. Reputation</li> </ol>
Mr G. Norris, CEO, Hospitality Standards Institute (Wellington)
<ol style="list-style-type: none"> <li>1. Guest perception of hotel</li> <li>2. Visitor arrivals (Domestic and International)</li> <li>3. Consistency of product</li> <li>4. Marketing activity</li> <li>5. Competition</li> </ol>
Mr P. Bourey. Owner Operator, Paul Bourey Travel (Wellington)
<ol style="list-style-type: none"> <li>1. Price</li> <li>2. Location</li> <li>3. Facilities offered</li> </ol>
Mr. P. Laury. CEO, Travel and Tourism Association of New Zealand (Wellington)
<ol style="list-style-type: none"> <li>1. Cost</li> <li>2. Location</li> <li>3. Service Value</li> <li>4. Marketing</li> <li>5. Branding</li> </ol>
Mr J. Kenny. General Manager, James Cook Hotel (Wellington)
<ol style="list-style-type: none"> <li>1. The reputation of the establishment</li> <li>2. The quality of service given</li> <li>3. Location</li> <li>4. Economy of the country</li> <li>5. Facilities for the guests</li> </ol>
Mrs A. Legge. General Manager Museum Hotel (Wellington)
<ol style="list-style-type: none"> <li>1. Economy national (within NZ)</li> <li>2. Cleanliness</li> <li>3. Staff behaviour</li> <li>4. Individual economy of company</li> <li>5. Location</li> </ol>
Mr R. Fraser. Hospitality Management Degree Coordinator & Chairman Board of Studies, Central Institute of Technology (Wellington)
<ol style="list-style-type: none"> <li>1. Attractiveness of the location</li> <li>2. Relative tariffs</li> <li>3. Exchange rate – Business confidence</li> <li>4. Range of facilities per tariff</li> <li>5. Style of facilities</li> </ol>
Dr L. Kruel. Visiting Professor from Purdue University (Wellington)
<ol style="list-style-type: none"> <li>1. Rate</li> <li>2. Location</li> <li>3. Marketing</li> </ol>

<ul style="list-style-type: none"> <li>4. Availability of Food and beverage</li> <li>5. Fit of facilities to the needs of the market segment</li> </ul>
Mr C. Panakera. Senior Lecturer & Hotel Owner Operator, Waikato University.
<ul style="list-style-type: none"> <li>1. Price</li> <li>2. Location</li> <li>3. Convenience</li> <li>4. Access to other facilities</li> <li>5. Meet other people</li> </ul>
Mr T. Nang. National Director, Tourism & Leisure Consulting Group. Ernst Young (Auckland)
<ul style="list-style-type: none"> <li>1. Product (size of room, facilities, location)</li> <li>2. Operator (brand name and chain size)</li> <li>3. Visitor Numbers (NZ ability to market itself effectively overseas)</li> <li>4. Other Tourism attractions (satisfaction with needs)</li> <li>5. Infrastructure (airports, flights, transportation)</li> </ul>

## **APPENDIX B Responses from In-depth Survey**

Responses to the second part of the in-depth interviews with researchers and industry stakeholders, in relation to the following questions:

1. What impact does Facilities have on hotel occupancy
2. What impact does Government have on hotel occupancy
3. What impact does Staff and Service Quality have on hotel occupancy
4. What impact does Competition have on hotel occupancy
5. What impact does Marketing have on hotel occupancy
6. What impact does Location have on hotel occupancy
7. What impact does Exchange Rate have on hotel occupancy
8. What impact does Security have on hotel occupancy
9. What impact does Price have on hotel occupancy

CEO, New Zealand Tourism Board (Wellington)
<p>Facilities:</p> <ul style="list-style-type: none"> <li>• Guests have an expectation that they will be satisfied with the facilities available</li> </ul>
<p>Government:</p> <ul style="list-style-type: none"> <li>• Temporary blip is overcome quickly</li> <li>• If things have been building up for some time the scale of correction is large and takes a long time to correct</li> <li>• Health of the local economy is important to encourage growth</li> </ul>
<p>Staff and Service Quality:</p> <ul style="list-style-type: none"> <li>• Quality must meet visitor expectations</li> <li>• The quality of service is directly marketed to visitors</li> </ul>
<p>Competition:</p> <ul style="list-style-type: none"> <li>• Places like Queenstown have a real problem, their bad planning and over supply has affected income significantly</li> </ul>
<p>Marketing:</p> <ul style="list-style-type: none"> <li>• Aimed at those who can afford to come to New Zealand</li> <li>• It is important to market NZ where the best markets are (put the dollars where the fish are)</li> </ul>
<p>Location:</p> <ul style="list-style-type: none"> <li>• Be where the players are</li> </ul>
<p>Exchange rate:</p> <ul style="list-style-type: none"> <li>• Close link between the GDP and the effect of exchange rate</li> <li>• In economies with growth, exchange rate changes not a significant problem</li> <li>• The exchange rate has little impact on those who have decided to visit</li> </ul>
<p>Security:</p> <ul style="list-style-type: none"> <li>• Becoming of much more importance</li> <li>• NZ has generally a good reputation, but this can be spoilt very easily</li> </ul>
<p>Price:</p> <ul style="list-style-type: none"> <li>• Price is very important to the number of guest arrivals</li> <li>• There is a strong link between price and occupancy</li> <li>• Reduced price increases occupancy over time</li> <li>• Some parts of the market are very price sensitive</li> <li>• Perception of NZ as good buying</li> </ul>

Chair, New Zealand Accommodation Council (Auckland)
<p>Facilities:</p> <ul style="list-style-type: none"> <li>• The facilities are important for repeat business more than for the first time guest</li> <li>• The need for facilities changes with the guest</li> </ul>
<p>Government:</p> <ul style="list-style-type: none"> <li>• The government has an impact on the overall economy which in turn affects the business confidence and the amount that business is will to spend</li> <li>• Taxation can have a negative impact on occupancy</li> <li>• The government should be involved in promoting international tourism</li> </ul>
<p>Staff and Service Quality:</p> <ul style="list-style-type: none"> <li>• Service quality has a very significant impact, particularly on repeat business</li> <li>• The first impression is important</li> <li>• Guests need to feel welcome</li> </ul>
<p>Competition:</p> <ul style="list-style-type: none"> <li>• Competition has a varying impact, it more depends on the overall size and growth potential of the market</li> <li>• Growth in new rooms can have a very detrimental effect on occupancy</li> </ul>
<p>Marketing:</p> <ul style="list-style-type: none"> <li>• Marketing must be undertaken in the correct way, otherwise it becomes an expense waste of money</li> <li>• Money well spent on marketing has an significant impact on occupancy</li> </ul>
<p>Location:</p> <ul style="list-style-type: none"> <li>• Location is related to the purpose of the guest's stay.</li> <li>• To some degree people will travel if the accommodation is good</li> </ul>
<p>Exchange rate:</p> <ul style="list-style-type: none"> <li>• Has varying impacts on international guests and where they are from.</li> </ul>
<p>Security:</p> <ul style="list-style-type: none"> <li>• People are becoming far more security conscious.</li> </ul>
<p>Price:</p> <ul style="list-style-type: none"> <li>• Price does not have a large impact on business guests.</li> </ul>

<b>CEO, Hospitality Standards Institute (Wellington)</b>
<b>Facilities:</b> <ul style="list-style-type: none"> <li>• Facilities in relation to rate charged</li> <li>• The rate charged has a facility expectation connected</li> <li>• Many travellers use only 50% of available facilities</li> <li>• Growing interest in the size of the room</li> <li>• Importance to keep up with the Jones's (the competitive edge)</li> <li>• Hotels are committed to offering facilities, keep a close watch on competing hotels</li> </ul>
<b>Government:</b> <ul style="list-style-type: none"> <li>• Important for NZ to keep spending on international promotion of NZ as a destination (60 million)</li> <li>• Government has an important role in maintaining a climate of sustained investment</li> <li>• Government instability has a large effect on investment, and thus effects the tourism industry</li> </ul>
<b>Staff and Service Quality:</b> <ul style="list-style-type: none"> <li>• Expectation of the guest is well trained staff, who give value for money</li> <li>• The level of personal service in relation to the rate</li> <li>• Consistency of service – less important for first time visitor – but affects repeat business</li> <li>• Quality service is most important in the Reception Desk Areas (first and last point of contact)</li> <li>• Automation might in time have a small impact in some areas of a hotel, but limited (guests like to see and deal with people)</li> </ul>
<b>Competition:</b> <ul style="list-style-type: none"> <li>• Problems arise when there are more beds than used</li> <li>• Competition problems, is often a bed planning problem</li> <li>• Over supply of rooms leads to lower occupancy, increased marketing, and reduced rates</li> <li>• Cutting rates is not a good move, because it increases the price cutting competition</li> </ul>
<b>Marketing:</b> <ul style="list-style-type: none"> <li>• Group hotels have an advantage because of their available marketing budget</li> <li>• Product loyalty is encouraged, this assists with product awareness</li> <li>• Important that the marketing promise is fulfilled, particularly for repeat business</li> </ul>
<b>Location:</b> <ul style="list-style-type: none"> <li>• A matter of ones personal circumstances and desired market outcome</li> <li>• Location and price not an issue</li> </ul>
<b>Exchange rate:</b> <ul style="list-style-type: none"> <li>• Important when marketing attractions</li> <li>• If overseas visitors are going to come to NZ small variations in exchange rates have little or no effect</li> </ul>
<b>Security:</b>

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| <ul style="list-style-type: none"><li>• Important that guests feel safe</li><li>• Little need to promote safety, because it is assumed by guest</li><li>• Expect basic needs to be met</li></ul> |
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Price:
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| <ul style="list-style-type: none"><li>• Competition has a greater effect on price than any other issue</li><li>• Guest expectation of price quality relationship</li></ul> |
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Owner Operator, Paul Bourey Travel (Wellington)
<p>Facilities:</p> <ul style="list-style-type: none"> <li>• This varies depending on the type of hotel</li> <li>• Growing demand for more facilities</li> <li>• Guests have a high level of expectation</li> </ul>
<p>Government:</p> <ul style="list-style-type: none"> <li>• A confidence issue</li> <li>• Unstable government tends to slow down tourism</li> </ul>
<p>Staff and Service Quality:</p> <ul style="list-style-type: none"> <li>• First time visitors, this has little effect – has a greater effect on repeat business</li> <li>• Importance of inviting guest to comment on level of service</li> </ul>
<p>Competition:</p> <ul style="list-style-type: none"> <li>• Competition has a significant effect on price</li> </ul>
<p>Marketing:</p> <ul style="list-style-type: none"> <li>• Promotional material helps with decision</li> <li>• Variance between promotional material and reality is a problem</li> </ul>
<p>Location:</p> <ul style="list-style-type: none"> <li>• 2 distinct groups (Corporate – pay more for location) (Tourist – more price sensitive, location near recreation facilities)</li> <li>• As close as possible for the price</li> </ul>
<p>Exchange rate:</p> <ul style="list-style-type: none"> <li>• Only significant change in exchange rate has a notable effect</li> <li>• Most people decide where they want to go in a price range</li> </ul>
<p>Security:</p> <ul style="list-style-type: none"> <li>• Non business travellers do not always recognise the value of security</li> <li>• Businesswomen travelling, required to interview/entertain look for a junior suite</li> </ul>
<p>Price:</p> <ul style="list-style-type: none"> <li>• For business customers price is not such a high priority</li> <li>• Most travellers are quite price sensitive</li> <li>• Purchase in a price range (and then where would they like to be)</li> </ul>

CEO, Travel and Tourism Association of New Zealand (Wellington)
<p>Facilities:</p> <ul style="list-style-type: none"> <li>• Facilities must meet the needs and expectation of the guest (this varies on purpose of stay)</li> </ul>
<p>Government:</p> <ul style="list-style-type: none"> <li>• Economy, both in NZ and overseas, has a large impact</li> <li>• Government instability affects the investment climate</li> <li>• Government must help to maintain a viable industry</li> </ul>
<p>Staff and Service Quality:</p> <ul style="list-style-type: none"> <li>• Have high expectations of service quality</li> <li>• People want to get as much as they can</li> <li>• Although some automation is coming into the market, the personal contact is essential</li> </ul>
<p>Competition:</p> <ul style="list-style-type: none"> <li>• Supply and demand</li> </ul>
<p>Marketing:</p> <ul style="list-style-type: none"> <li>• Word of mouth is very important</li> <li>• Referred guests</li> <li>• Repeat business</li> <li>• NZ's best approach is to be promoted as a regional destination</li> </ul>
<p>Location:</p> <ul style="list-style-type: none"> <li>• Depend on the reason for the stay</li> </ul>
<p>Exchange rate:</p> <ul style="list-style-type: none"> <li>• Small variations have little effect on guest arrivals</li> <li>• Larger changes, some changes in travel plans will be considered</li> </ul>
<p>Security:</p> <ul style="list-style-type: none"> <li>• People must feel secure</li> </ul>
<p>Price:</p> <ul style="list-style-type: none"> <li>• Most people expect value for money</li> <li>• This may not be such a problem with some commercial travellers</li> <li>• Cutting prices – affects the market badly in the long run</li> <li>• Those that can afford to visit will no matter the cost</li> <li>• Industry is its own worst enemy in cutting prices</li> </ul>
<p>Loyalty:</p> <ul style="list-style-type: none"> <li>• Loyalty means nothing to the guest</li> <li>• Loyalty programmes have a big influence</li> </ul>

<p><b>General Manager, James Cook Hotel (Wellington)</b></p>
<p><b>Facilities:</b></p> <ul style="list-style-type: none"> <li>• Facilities are important to the selection of a hotel, particularly to business clients</li> <li>• The overall appearance, and quality is important</li> <li>• Room size is becoming more of an issue</li> <li>• Business centre is an extra value added facility</li> </ul>
<p><b>Government:</b></p> <ul style="list-style-type: none"> <li>• The influence of the government is quite large particularly in Wellington</li> <li>• The government policies influence the economy and business, and can reduce overall demand for accommodation</li> </ul>
<p><b>Staff and Service Quality:</b></p> <ul style="list-style-type: none"> <li>• The quality of service is very important especially in quality establishments</li> <li>• Customers have growing expectations on what the service will be like</li> <li>• The quality of service relies on all the staff working together to give the guest a good experience</li> <li>• Empowering staff has been generally a good thing although some staff have abused it</li> </ul>
<p><b>Competition:</b></p> <ul style="list-style-type: none"> <li>• Wellington is a very competitive market; the establishment of new properties can have a market impact on everyone</li> <li>• It is important to develop a niche market, and keep those clients</li> </ul>
<p><b>Marketing:</b></p> <ul style="list-style-type: none"> <li>• Being part of an international group helps with the profile considerably</li> <li>• Maintaining customer loyalty is important for the hotel</li> <li>• The hotel has a good marketing team</li> </ul>
<p><b>Location:</b></p> <ul style="list-style-type: none"> <li>• Location is really important, being situated where we are has a great advantage</li> <li>• The hotel is close to everything</li> <li>• The ability of people to quickly get around is important to them</li> </ul>
<p><b>Exchange rate:</b></p> <ul style="list-style-type: none"> <li>• The exchange rate has an impact on international visitors</li> <li>• Much of our business is either tours or NZ based</li> </ul>
<p><b>Security:</b></p> <ul style="list-style-type: none"> <li>• Has become more important over the last few years, with the increase in the number of women in business</li> <li>• People travelling have a high expectation of security within the hotel</li> <li>• People need to feel safe</li> </ul>
<p><b>Price:</b></p> <ul style="list-style-type: none"> <li>• The business trade is not terribly price sensitive, depending on the economy</li> <li>• Quality at a reasonable price is what people are looking for</li> </ul>

General Manager Museum Hotel (Wellington)
<p>Facilities:</p> <ul style="list-style-type: none"> <li>• Gymnasium not important as they are close to these type of facilities</li> <li>• Watch carefully what other hotels have to offer</li> </ul>
<p>Government:</p> <ul style="list-style-type: none"> <li>• The Government has a large impact on the economy and thus on occupancy</li> <li>• There is a lag to government actions; initially responds quickly to Government actions, but the recovery is slower</li> </ul>
<p>Staff and Service Quality:</p> <ul style="list-style-type: none"> <li>• Cleanliness is important especially for repeat business. Some people complain at things like a small amount of dust on top of the TV.</li> <li>• All comments both written and verbal are responded to often directly by phone and then a letter, this produces a good customer relationship</li> <li>• It takes staff a long time to realise the importance of service to the business, now pay higher than the normal salary to get good people.</li> <li>• Some clients will check out early over very minor service concerns</li> <li>• Staff are empowered to give some sort of consolation gift if a guest is unhappy, this works well</li> <li>• The first 3 second impression is most important</li> </ul>
<p>Competition:</p> <ul style="list-style-type: none"> <li>• If a new 150 to 200 room hotel was built in the region it would have a large impact on the business</li> </ul>
<p>Marketing:</p> <ul style="list-style-type: none"> <li>• No current need to join with international group, current occupancy very high, no justification for the added cost</li> <li>• No need for a loyalty programme, people are not loyal at all, they move from one place to another as time goes past; people like change from time to time</li> <li>• The hotel has a NZ focus for clients, 80-89% occupancy</li> <li>• First hotel in Wellington to have own Internet site</li> </ul>
<p>Location:</p> <ul style="list-style-type: none"> <li>• Location is important, the hotel is better situated for the weekend trade, not well situated for business clients</li> <li>• Being within easy walking distance is a big factor to success</li> </ul>
<p>Exchange rate:</p> <ul style="list-style-type: none"> <li>• Because of the NZ focus of the business, this has little impact</li> </ul>
<p>Security:</p> <ul style="list-style-type: none"> <li>• People have a high expectation of security</li> <li>• If they do not feel safe, they simply will not stay</li> </ul>
<p>Price:</p> <ul style="list-style-type: none"> <li>• The Hotel has two distinct markets, the weekday corporate guest, and the weekend guest . The weekend rate is a lot less than the week rate, and they are looking for something different</li> <li>• 3 hotels have raised their rates this year: themselves, Plaza International and the Parkroyal; other hotels have put rates down. This hotel has put the rate up each year, the current rate is higher than the average</li> <li>• A great deal of research is carried out by each of the hotels to keep track of the</li> </ul>

prices charged by other hotels, this is done by phoning the various hotels, but this normally only gives the rack rate, not what other discounts are being offered

- The economic strength or otherwise of the companies of those who stay have a significant impact on the amount that can be charged
- The front office staff are empowered to vary room rates to achieve maximum occupancy, but they are on a bonus system where although they might have a lot of guests at a lower rate, this gives them a lower bonus than full rack price guests
- Speaking with guests helps to know how the various companies are doing
- It is important to give the guest the perception of value for money, larger rooms, quality of room and facilities
- Basic rates are set on a yearly basis, but these are evaluated on a daily basis to maximise occupancy on that day
- As the price has been increased the clientele has changed
- Price has a perception of quality

Hospitality Management Degree Coordinator & Chairman Board of Studies, Central Institute of Technology (Wellington)
<b>Facilities:</b> <ul style="list-style-type: none"> <li>• The need for facilities depends on length and reason of the stay.</li> <li>• Look at the facilities in the selection of a hotel</li> <li>• Relationship between price and facilities</li> </ul>
<b>Government:</b> <ul style="list-style-type: none"> <li>• Influence on fringe benefit tax and GST, which both influence occupancy</li> <li>• How though the IRD will police expenditure</li> </ul>
<b>Staff and Service Quality:</b> <ul style="list-style-type: none"> <li>• First time visitor no impact</li> <li>• Greater impact on repeat business</li> <li>• Overseas tourists make there selection on price, service quality is not important as they seldom return</li> </ul>
<b>Competition:</b> <ul style="list-style-type: none"> <li>• Reputation and price is important to the decision when there is no significant difference in location</li> <li>• Business people constantly evaluate the situation</li> </ul>
<b>Marketing:</b> <ul style="list-style-type: none"> <li>• Promotion through recognised distributors such as Air New Zealand is important</li> <li>• Most hotels do not market, they sell</li> </ul>
<b>Location:</b> <ul style="list-style-type: none"> <li>• On repeat business the location becomes more important</li> <li>• The decision is based around what you are doing more than the location</li> </ul>
<b>Exchange rate:</b> <ul style="list-style-type: none"> <li>• Exchange rate is important as it puts the cost in local/overseas tourist's currency</li> <li>• If New Zealand is just part of a larger tour, then the Exchange rate is not important</li> <li>• The relative cost of accommodation, food and transportation is important</li> </ul>
<b>Security:</b> <ul style="list-style-type: none"> <li>• Women are more concerned about security</li> <li>• Important not to be concerned about getting to and from the hotel</li> <li>• People are concerned about their security</li> </ul>
<b>Price:</b> <ul style="list-style-type: none"> <li>• Price in relation to the overall attraction is important</li> </ul>

<p>Visiting Professor from Purdue University (Wellington)</p>
<p>Facilities:</p> <ul style="list-style-type: none"> <li>• With the market movement toward extended stay customers, this is becoming more important</li> <li>• Need for basics, desk, computer outlet, modem connection</li> <li>• Overall facilities does not make a great impact on occupancy</li> <li>• Expectation are growing for larger rooms</li> <li>• Extended room properties are becoming more important (rooms with a sitting area, maybe kitchen)</li> </ul>
<p>Government:</p> <ul style="list-style-type: none"> <li>• Important for government to maintain stability</li> <li>• The economy has a cyclical effect on occupancy</li> </ul>
<p>Staff and Service Quality:</p> <ul style="list-style-type: none"> <li>• The staff working in the front office are not as important as those working in the Food and Beverage areas</li> <li>• Travellers more interested in speed than quality of service</li> <li>• The cost of staff is reducing the amount of service offered to guests</li> </ul>
<p>Competition:</p> <ul style="list-style-type: none"> <li>•</li> </ul>
<p>Marketing:</p> <ul style="list-style-type: none"> <li>• Important to ensure you segment your market correctly</li> <li>• Governments have a large impact on marketing a country</li> </ul>
<p>Location:</p> <ul style="list-style-type: none"> <li>• Important to be on the major travel routes</li> <li>• Visibility of the building is important</li> <li>• Parking</li> <li>• Access to the building</li> <li>• Physical appearance</li> <li>• Closeness to primary areas of interest</li> <li>• Proximity to Food and Beverage outlets</li> </ul>
<p>Exchange rate:</p> <ul style="list-style-type: none"> <li>• Little impact on occupancy</li> </ul>
<p>Security:</p> <ul style="list-style-type: none"> <li>• Guests need to feel that they are safe in their rooms, and the hotel in general</li> </ul>
<p>Price:</p> <ul style="list-style-type: none"> <li>• Important to have a good Yield Management scheme</li> <li>• Less impact on occupancy in more expensive hotels</li> <li>• Watch other hotel prices carefully, ensure you stay with the rest of the band</li> </ul>

Senior Lecturer & Hotel Owner Operator, Waikato University.
<p>Facilities:</p> <ul style="list-style-type: none"> <li>• Has good and affordable rooms</li> <li>• Range of attractions</li> <li>• Good management</li> <li>• Services</li> <li>• Size of the room – facilities in the room</li> <li>• Telecommunications the ability to communicate internationally.</li> </ul>
<p>Government:</p> <ul style="list-style-type: none"> <li>• The importance of the government encouraging an investor, to provide an incentive, tax relief on the initial investment</li> <li>• Tax climate may influence the relationship between the government and tour operators</li> <li>• Development of international flight agreements</li> <li>• Inviting people to invest in the country</li> <li>• Develop transportation links</li> </ul>
<p>Staff and Service Quality:</p> <ul style="list-style-type: none"> <li>• Apart from price the staff are rated the highest</li> <li>• People are also influenced by previous experience</li> <li>• Critical of service after departure</li> <li>• Slow service influences repeat business</li> <li>• Most important is the first greeting</li> </ul>
<p>Competition:</p> <ul style="list-style-type: none"> <li>• Hotels working together can broaden the marketing and promotion of all establishments in a group</li> </ul>
<p>Marketing:</p> <ul style="list-style-type: none"> <li>• 20% should be allocated to marketing</li> <li>• Spending less than 5% will not achieve an increase in occupancy</li> <li>• Government could assist with overseas marketing by giving a tax reduction</li> <li>• Small hotels working with larger ones to build in tandem</li> </ul>
<p>Location:</p> <ul style="list-style-type: none"> <li>• Choose a location because of the attractions</li> <li>• Accessibility is very important</li> <li>• Location influences who will come</li> <li>• Accessibility to other attractions in important</li> </ul>
<p>Exchange rate:</p> <ul style="list-style-type: none"> <li>• Close relationship between the amount of disposable income and the effect that the exchange rate has</li> <li>• Can play an important part in the decision process</li> </ul>
<p>Security:</p> <ul style="list-style-type: none"> <li>• People are concerned about the ability to work up the street outside the hotel, and would not stay where this is not possible</li> <li>• Important to inform guests about the hotels security systems</li> <li>• Guests need to feel they have the freedom to move around, and not to be stuck</li> </ul>

in the hotel

Price:

- Room size and price are critical issues in hotel selection
- There is a close relationship between price and marketing

<p>National Director, Tourism &amp; Leisure Consulting Group. Ernst Young (Auckland)</p> <p>Facilities:</p> <ul style="list-style-type: none"> <li>• Size of the room, growing demand for larger rooms. (25-30 sq metres, 4 star hotel 30-32 sq metres)</li> <li>• Suite hotels have better occupancy rates than normal hotels</li> <li>• Standard of the facilities</li> <li>• Importance of segmenting your market, and understanding what their expectations are</li> <li>• Important to have basic facilities, writing desk etc, additional facilities changes the market segmentation (If there was a swimming pool this might move the market segmentation towards tourists, if there was a gymnasium this would move towards business and longer stay guests).</li> <li>• Facilities do not have a large impact on first time stay, but do have a large impact on repeat business</li> </ul>
<p>Government:</p> <ul style="list-style-type: none"> <li>• Destination marketing is important, the effectiveness of this has a big impact on visitor numbers</li> <li>• Government must be aware of the sensitivity of taxation</li> <li>• Government can promote tourism by developing the basic infrastructure, open skies policies, encouraging airport development, and the environment</li> </ul>
<p>Staff and Service Quality:</p> <ul style="list-style-type: none"> <li>• Easier to attract first time customers</li> <li>• Customer service does not have a large effect on occupancy, but is more likely to be a deterrent to customer staying. If staff act in an average way or better they will have little impact on occupancy. People are prepared to put up with minimum service quality. When performance drops below this minimum standard then there is a significant affect on occupancy.</li> <li>• Guest expectations are increasing, therefore the performance needs to be improved to maintain the minimal service satisfaction level</li> <li>• Where service is being marketed as a major part of the package service must meet expectations (Boutique Hotels)</li> </ul>
<p>Competition:</p> <ul style="list-style-type: none"> <li>• Competition has a significant effect on prices particularly</li> </ul>
<p>Marketing:</p> <ul style="list-style-type: none"> <li>• Brand loyalty programmes have a positive effect on occupancy</li> <li>• Brand name is important</li> <li>• Regional offices assist with sales</li> <li>• Important to undertake marketing in the tourist originating areas</li> </ul>
<p>Location:</p> <ul style="list-style-type: none"> <li>• Location relates to the market segmentation, and needs to meet that objective</li> </ul>
<p>Exchange rate:</p> <ul style="list-style-type: none"> <li>• All other things being equal, the exchange rate and air fares have little impact on occupancy</li> </ul>
<p>Security:</p>

**Price:**

- Good planning of the supply of rooms is important
- Good Yield Management is essential to hotel operations, and needs to be managed
- Close relationship between occupancy and the economy and that there is little lag time between these two. In times when the economy is not performing well, guests become more price sensitive, when the economy is good the price is of less concern, they have a close correlation
- High occupancy at low room rate affects the time a facility takes to wear out, and thus there is additional cost of refurbishment, and this in turn reduces the overall profitability of the operation

## **APPENDIX C Hotel Decision-makers Survey**

Note: The following forms have been reduced in size by approximately 15% to fit this page format.

First, please tell me something about your position and establishment, by ticking the appropriate box:

<u>Current Position</u>	General Manager	<input type="checkbox"/>
	Assistant General Manager	<input type="checkbox"/>
	Departmental Manager	<input type="checkbox"/>
	Assistant Departmental Manager	<input type="checkbox"/>
	Other, Specify	<input type="checkbox"/>
<hr/>		
<u>Rating of Establishment</u>	4 or 5 Star	<input type="checkbox"/>
	3 Star	<input type="checkbox"/>
	1 or 2 Star	<input type="checkbox"/>
	Other, Specify	<input type="checkbox"/>
<hr/>		
<u>Location</u>	Inner City	<input type="checkbox"/>
	Outer City	<input type="checkbox"/>
	Commercial Area	<input type="checkbox"/>
	Rural Area	<input type="checkbox"/>
	Scenic area	<input type="checkbox"/>
	Other, Specify	<input type="checkbox"/>
<hr/>		
<u>Type of Establishment</u>	Corporate Hotel	<input type="checkbox"/>
	Corporate Motel	<input type="checkbox"/>
	Tourist Hotel	<input type="checkbox"/>
	Tourist Motel	<input type="checkbox"/>
	Other, Specify	<input type="checkbox"/>
<hr/>		
<u>Size of your Establishment</u>	More than 40 but Less than 60 rooms	<input type="checkbox"/>
	More than 60 but Less than 80 rooms	<input type="checkbox"/>
	More than 80 but Less than 100 rooms	<input type="checkbox"/>
	More than 100 but Less than 150 rooms	<input type="checkbox"/>
	More than 150 rooms	<input type="checkbox"/>

In your opinion what are the five most important factors affecting Guest Room Occupancy:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

Please rate your level of Agreement or Disagreement with the following statements by placing an '✱' on the horizontal line.		Strongly Disagree	Neutral			Strongly Agree		
		1	2	3	4	5	6	7
		↓	↓	↓	↓	↓	↓	↓
Eg	Price has a greater impact than facilities offered on increasing occupancy	✱						
1	Price has a greater impact than facilities offered on increasing occupancy	_ _ _ _ _ _ _						
2	Motivated front line staff have a greater impact than facilities on increasing occupancy	_ _ _ _ _ _ _						
3	Location is more important than quality of service on increasing occupancy	_ _ _ _ _ _ _						
4	Increasing the amount of training given to front line staff increases occupancy	_ _ _ _ _ _ _						
5	Front line staff have no effect on level of occupancy	_ _ _ _ _ _ _						
6	The sales ability of front line staff can increase occupancy	_ _ _ _ _ _ _						
7	Changes in government policies have no effect on occupancy	_ _ _ _ _ _ _						
8	Front line staff that are motivated have an effect on the number of guests re-booking	_ _ _ _ _ _ _						
9	Reputation of an establishment has a greater impact on occupancy than price	_ _ _ _ _ _ _						
10	The quality of food in a restaurant has a greater impact on occupancy than price	_ _ _ _ _ _ _						
11	Company policy influences occupancy more than hotel quality	_ _ _ _ _ _ _						

*Assuming your Establishment has None of the Listed Facilities:*

- A. In the Priority column indicate the priority to add the facility, by using the number 1 to 5 (1 being low priority and 5 being high priority).
- B. Then, indicate by marking with an “\*”, what you believe the effect of having each facility would have on occupancy.

**Example:** If you believe that having a TV in each room is a high priority you would put a 4 in the Priority Column. If you believe that having a TV in each room makes little or no effect on occupancy place a “\* “ under the number 1, as in the first example.

		A.	B.									
		Priority	Effect on Occupancy									
			Small		Medium			Large				
			1	2	3	4	5	6	7			
			↓	↓	↓	↓	↓	↓	↓			
Eg	TV in each room	4	*									
12	TV in each room											
13	Video player in each room											
14	Business Centre, with fax, computers, copiers											
15	Fax machine in each room											
16	Computer in each room											
17	Email in each room											
18	Internet in each room											
19	Sky television in each room											
20	Pay for movie in each room											
21	Swimming Pool											
22	Spa Pool or Sauna											
23	Gymnasium											
24	Electronic Room Security											
25	Restaurant (European)											
26	Restaurant (Ethnic)											
27	Snack Bar											
28	Casino close to your establishment											
29	Comprehensive room service											
30	Tea/Coffee making facility in each room											

*What Encourages Repeat Business*

In your opinion what are the reasons why guests stay more than once at your establishment.

1. In the Priority column indicate the priority of the reason, 1 being low priority and 5 being high priority.
2. Then indicate what you believe the effect on repeat business each item has.

**Example:** If you believe that the facilities offered by the hotel have a very high priority to those rebooking put a 5 in the Priority Column. If you believe that the facilities have a very small effect on re-booking, place an “\* ” under the column marked 1.

		Priority	Effect on Occupancy									
			Small		Medium			Large				
			1	2	3	4	5	6	7			
			↓	↓	↓	↓	↓	↓	↓			
Eg	Facilities offered by your establishment	5	*									
31	Facilities offered by your establishment											
32	Guests being called by name by the staff											
33	Quality of the food in the Restaurant											
34	Friendliness of the staff											
35	Motivation of staff to give quality service											
36	Central business location											
37	Company decision on use of establishment											
38	Competition from other establishments											
39	Cost of staying											
40	Safety issues (Security)											
41	Reputation of the establishment											
42	The size of the room											
43	Facilities available for guests											
44	Restaurants available to guests											
45	Closeness to main highways											
46	Size of the guest rooms											

47. What areas in the training of front line staff have the greatest effect on occupancy? Indicate with the numbers 1 to 5 (5 being the highest and 1 the lowest)

1. Service skills
2. Customer relations skills
3. Time management skills
4. General staff motivation skills
5. Personal appearance skills

48. What attributes are considered when employing front line staff that could affect occupancy. Indicate with the numbers 1 to 5 (5 being the highest and 1 being the lowest)

1. Understanding of the profitability of your business
2. General grooming and appearance
3. Ability to get along with guests
4. Operations skills
5. Enthusiasm in the job

49. Which of the following affects front line staff motivation the most. Indicate with the numbers 1 to 5 (5 being the highest and 1 being the lowest)

1. The rate of pay
2. Recognition of performance
3. Incentive payments
4. Aspiration for promotion
5. Good working environment

50. Which of the following has the greatest impact on occupancy. Indicate with the numbers 1 to 5 (5 being the highest and 1 being the lowest)

1. Location
2. Staff
3. Facilities
4. Price
5. Reputation

Indicate what you believe the change in occupancy would be by placing an “\*” on the horizontal line in each of the following situations:

		Decrease in Occupancy				Increase in Occupancy			
		20%	10%	5%	0%	5%	10%	20%	
		↓	↓	↓	↓	↓	↓	↓	
Change in Room Tariff – What effect do you think changes in Room Tariff have on Occupancy?									
Eg	20% average increase in room tariff	-----*-----							
51	20% average increase in room tariff	-----							
52	10% average increase in room tariff	-----							
53	5% average increase in room tariff	-----							
54	5% average decrease in room tariff	-----							
55	10% average decrease in room tariff	-----							
56	20% average decrease in room tariff	-----							
Changes in Local/Regional Advertising – What effect do you think changes in Local/Regional Advertising have on Occupancy?									
57	20% increase in expenditure on local/ regional advertising and promotion	-----							
58	10% increase in expenditure on local/ regional advertising and promotion	-----							
59	5% increase in expenditure on local/ regional advertising and promotion	-----							
60	5% decrease in expenditure on local/ regional advertising and promotion	-----							
61	10% decrease in expenditure on local/ regional advertising and promotion	-----							
62	20% decrease in expenditure on local/ regional advertising and promotion	-----							
Changes in International Advertising and Promotion – What effect do you think changes in International Advertising and Promotion have on Occupancy?									
63	20% increase in expenditure on international advertising and promotion	-----							
64	10% increase in expenditure on international advertising and promotion	-----							
65	5% increase in expenditure on international advertising and promotion	-----							
66	5% decrease in expenditure on international advertising and promotion	-----							
67	10% decrease in expenditure on international advertising and promotion	-----							
68	20% decrease in expenditure on international advertising and promotion	-----							



## **APPENDIX D Cover Letter Accompanying Hotel Decision-makers Survey**

Cover letter sent to accompany the survey of Hotel Decision-makers.



**The University of Waikato**  
Studies  
Te Whare Wānanga o Waikato

The School of Management

Te Rauapapa

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Private Bag 3105, Hamilton, New Zealand.  
T Lockyer – Hospitality & Tourism Management  
Telephone: +64 - (07) 843 3191  
Office: MS 5.05

Date

«FirstName» «LastName»

«JobTitle»

«Company»

«Address 1» «City»

Dear «FirstName»

Room occupancy in Hotels and Motels is very important to the profitability of an establishment. Within New Zealand and internationally very little research has been conducted in this important area specifically relating to the factors that affect the level of occupancy. Because of your standing as a professional in the industry your opinions are of value in helping to better understand this important question.

Attached are a group of questions which are designed to record your opinions on a number of important occupancy issues - it would be appreciated if you would take a little time to record your opinions. To respond, quickly go through the questions marking what you believe to be the appropriate answer (there are instructions with each question set). You may be assured of complete confidentiality. The questionnaire has an identification number for mailing purposes only. All those who return the papers will receive a summary of the findings. Results will be submitted for publication in the New Zealand Hospitality Magazine.

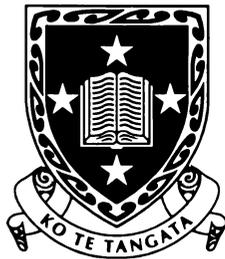
On completion please return the papers in the enclosed self-addressed envelope. I would be most happy to answer any questions you might have. Please write or call.

Thank you for your assistance.

Yours sincerely  
Tim Lockyer

## APPENDIX E First Follow up Letter Sent to Hotel Decision-makers

First reminder post card sent to Hotel Decision-makers one week after the initial letter was sent.



«FirstName» «LastName»  
«JobTitle»  
«Company»  
«Address1 »  
«City»

---

Date

Last week a questionnaire seeking your opinion about Hotel/Motel occupancy was mailed to you. Your name was selected as a professional in the New Zealand Hospitality industry.

If you have already completed and returned it, please accept my thanks. As soon as possible I will produce a summary and send a copy to you. If you have not yet completed it, please complete the questionnaire today.

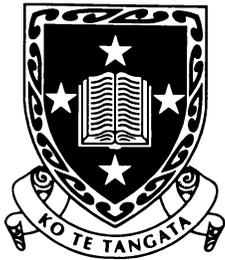
Because the questionnaire has been sent to only a small but representative group in the industry, it is extremely important that your response be included in the study if the results are to accurately represent the opinions of industry professionals.

If by some chance you did not receive the questionnaire, or it was misplaced, please call me right now, collect (07 843 3191) and I will send out another copy in the mail to you today.

Thank you for your assistance

Tim Lockyer

## APPENDIX F Letter Sent to Hotel Decision-makers thanking respondents



«FirstName» «LastName»  
«JobTitle»  
«Company»  
«Address1»  
«City»

---

Date

Thank you so much for promptly returning the questionnaire seeking your opinion about Hotel/Motel occupancy.

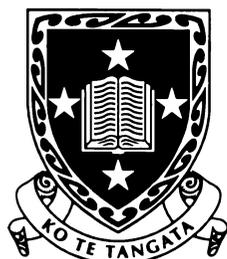
As soon as possible I will produce a summary and send a copy to you.

Because the questionnaire has been sent to only a small but representative group in the industry, it was extremely important that yours be included in the study to have the results accurately represent the opinions of industry professionals. Your prompt return has enabled this to happen.

Your assistance is very much appreciated!

Tim Lockyer

## APPENDIX G Reminder Sent to Hotel Decision-makers after 3 Weeks



«FirstName» «LastName»  
«JobTitle»  
«Company»  
«Address1»  
«City»

---

Date

Three weeks ago a questionnaire seeking your opinion about Hotel occupancy was mailed to you. So far I have received a very good response, and the analysis of the data is going very well.

Because the questionnaire was sent to a small but influential group of professionals in the industry, it is extremely important that your views are included to give the research validity.

If you have already completed and returned it, please accept my thanks. If you have not yet completed it, please complete the questionnaire today.

If by some chance you did not receive the questionnaire, or it was misplaced, please call me right now, collect (07 843 3191) and I will send out another copy in the mail to you today. Should there be any other reason why you are unable to complete the questionnaire please also call me collect.

Thank you for your assistance

Tim Lockyer

## **APPENDIX H Job Title and Companies contacted for Hotel Decision-makers Survey**

(Note: personal names have been removed from this list)

<b>JobTitle</b>	<b>Company</b>	<b>Address1</b>	<b>City</b>
Front Office Manager	Angus Inn	PO Box 30-458	LOWER HUTT
General Manager	Angus Inn	PO Box 30 458	LOWER HUTT
Hotel Manager	Angus Inn	PO Box 30-458	LOWER HUTT
General Manager	Barrycourt Motor Inn and Conference Centre	10-20 Gladstone Road, Parnell	AUCKLAND
Assistant Manager	Bay Plaza Hotel	PO Box 9470	WELLINGTON
General Manager	Bay Plaza Hotel	PO Box 9470	WELLINGTON
General Manager	Cargills	678 George Street	DUNEDIN
General Manager	Carlton Hotel	cnr Mayoral & Vincent Sts	AUCKLAND
Acting Front Office Manager	Carlton Hotel	cnr Mayoral & Vincent Sts	AUCKLAND
General Manager	Centra Auckland Hotel	128 Albert St	AUCKLAND
Front Office Manager	Centra Auckland Hotel	128 Albert St	AUCKLAND
Human Resource Manager	Christchurch City Travelodge	356 Oxford Terrace	CHRISTCHURCH
General Manager	Christchurch City Travelodge	356 Oxford Terrace	CHRISTCHURCH
Assistant General Manager	Christchurch City Travelodge	356 Oxford Terrace	CHRISTCHURCH
Front Office Manager	Christchurch City Travelodge	356 Oxford Terrace	CHRISTCHURCH
General Manager	City Life Lambton Quay	PO Box 10-315, The Terrace	WELLINGTON
General Manager	City Plaza	189 Main Street	UPPER HUTT
Front Office Manager	Elms Hotel	456 Papanui Road	CHRISTCHURCH
General Manager	Elms Hotel	456 Papanui Road	CHRISTCHURCH
General Manager	First Imperial Hotel	131-139 Hobson St	AUCKLAND
General Manager	Heritage Motor Inn	349 Fenton Street	ROTORUA
General Manager	Hotel Raffaele	360 Oriental Parade	WELLINGTON
General Manager	Hyatt Regency Auckland	Cnr Waterloo Qdt & Princes St. PO Box 3938	AUCKLAND
Assistant General Manager	Hyatt Regency Auckland	Cnr Waterloo Qdt & Princes St. PO Box 3938	AUCKLAND
Front Office Manager	Hyatt Regency Auckland	Cnr Waterloo Qdt & Princes St. PO Box 3938	AUCKLAND
Front Office Manager	James Cook Centra	PO Box 2429	WELLINGTON
Executive Housekeeper	James Cook Centra	PO Box 2429	WELLINGTON
Rooms Division Manager	James Cook Centra	PO Box	WELLINGTON
General Manager	James Cook Centra Hotel	PO Box 2429	WELLINGTON
General Manager	Museum Hotel	PO Box 400	WELLINGTON
General Manager	Noah's Hotel	PO Box 1318	CHRISTCHURCH
Front Office Manager	Noah's Hotel	PO Box 1318	CHRISTCHURCH
General Manager	Park Towers Hotel	3 Scotia Place	AUCKLAND
Front Office Manager	Park Towers Hotel	3 Scotia Place	AUCKLAND
General Manager	Plaza International	PO Box 1843	WELLINGTON
Front Office Manager	Plaza International Hotel	PO Box 1843	WELLINGTON
Rooms Division Manager	Plaza International Hotel	PO Box 1843	WELLINGTON
Front Office Manager	Portland Towers Hotel	24 Hawkestone Street	WELLINGTON
Front Office Manager	Portland Towers Hotel	24 Hawkestone Street	WELLINGTON
General Manager	Portland Towers Hotel	P O Box 12442	WELLINGTON
Assistant Manager	QH Oriental Bay	PO Box 9555	WELLINGTON
Front Office Manager	Quality Hotel	PO Box 3272	AUCKLAND
General Manager	Quality Hotel	Cnr Adelaide St and Frankton Road	QUEENSTOWN
General Manager	Quality Hotel Logan Park	187 Campbell Rd	AUCKLAND
General Manager	Quality Hotel Logan Park	187 Campbell Rd	AUCKLAND
Front Office Manager	Quality Hotel Oriental Bay	PO Box 9555	WELLINGTON

<b>JobTitle</b>	<b>Company</b>	<b>Address1</b>	<b>City</b>
General Manager	Quality Hotel Oriental Bay	PO Box 9555	WELLINGTON
Front Office Manager	Quality Hotel Plimmer Towers	PO Box 10 148	WELLINGTON
General Manager	Quality Hotel Plimmer Towers	PO Box 10 148	WELLINGTON
Front Office Manager	Quality Hotel Rose Park	92-102 Gladstone Road	AUCKLAND
General Manager	Quality Hotel Rose Park	92-102 Gladstone Road	AUCKLAND
General Manager	Quality Resort Terraces	PO Box 155	QUEENSTOWN
Rooms Division Manager	Quality Resort Terraces	PO Box 155	QUEENSTOWN
General Manager	Sheraton Auckland Hotel	cnr Symonds St & City Rd	AUCKLAND
Assistant General Manager	Sheraton Auckland Hotel	cnr Symonds St & City Rd	AUCKLAND
Front Office Manager	Sheraton Auckland Hotel	cnr Symonds St & City Rd	AUCKLAND
Restaurant Manager	Sheraton Rotorua Hotel	PO Box 983	ROTORUA
General Manager	Sheraton Rotorua Hotel	PO Box 983	ROTORUA
General Manager	Sky City Hotel	Cnr Victoria & Federal Streets	AUCKLAND
Assistant General Manager	Sky City Hotel	Cnr Victoria & Federal Streets	AUCKLAND
Front Office Manager	Sky City Hotel	Cnr Victoria & Federal Streets	AUCKLAND
Human Resources Manager	The Grand Chateau	c/- The Post Office	MT RUAPEHU
Front Office Manager	The Heritage	PO Box 177	CHRISTCHURCH
Managers	The Plymouth International Hotel	Private Bag 2057	NEW PLYMOUTH
General Manager	Waipuna International	PO Box 14-164	PANMURE
Executive Assistant Manager	Wellington Parkroyal	PO Box 175	WELLINGTON
General Manager	Wellington Parkroyal	PO Box 175	WELLINGTON
Front Office Manager	West Plaza Hotel	PO Box 11 648	WELLINGTON
General Manager	West Plaza Hotel	PO Box 11 648	WELLINGTON
General Manager	Auckland Peninsula Hotel of Avondale	18 Elm Street, Avondale	AUCKLAND
General Manager	Champion International Hotel	28-36 Robert Street, Ellerslie	AUCKLAND
General Manager	Ellerslie Highway Motel	384 Ellerslie-Panmure Highway	AUCKLAND
General Manager	Ellerslie International Motor Inn	Cnr. Ellerslie/Panmure Highway, Ellerslie	AUCKLAND
General Manager	Kiwi International Hotel	411 Queen Street	AUCKLAND
General Manager	Manor Inn	13-17 Alpers Avenue, Newmarket	AUCKLAND
General Manager	The Surrey Hotel & Conference Centre	465 Great North Rd, Grey Lynn	AUCKLAND
General Manager	Gateway Hotel	206 Kirkbride Road, Mangere	AUCKLAND
General Manager	Manukau Camelot Arms	525 Great South Road, Papatoetoe	AUCKLAND

## APPENDIX I Potential Guest Survey

Note: The questionnaire has been reduced in size by approximately 15%, the original was on Foolscap paper.

### Demographic Information

	<b>The University of Waikato</b> <b>The School of Management Studies</b> <b>Te Whare Wananga o Waikato</b>						
	This questionnaire is designed to ask you what factors would affect your future choice in Hotel/Motel accommodation. Please answer all questions, fold as indicated on the other side, and mail (no postage is required).						
I am answering from the perspective of : (Choose One)	Business accommodation Vacation accommodation						
My Choice would be: (Choose One)	Motel	1 Star	2 Star	3 Star	4 Star	5 Star	Other
	Hotel	1 Star	2 Star	3 Star	4 Star	5 Star	Other
Are you directly involved in the selection of your accommodation: (Choose One)	Yes						
	No						
Gender:	Male						
	Female						
Are you a New Zealand Resident:	Yes						
	No						
<b>Age</b>							
18-25	26-35	36-45	46-55	56-65	Over 66		
<b>Yearly Salary or Wages</b>							
\$0 to \$30,000	\$30,001 to \$40,000	\$40,001 to \$50,000	\$50,001 to \$60,000	\$60,001 to \$70,000	Greater Than \$70,001		

## Questions

Mark in the box how important the following factors are to your future selection of Hotel/Motel accommodation		Not Relevant to Decision	Importance in selection of accommodation				
			Very Unimportant	Unimportant	Neither (Neutral)	Important	Very Important
1	Price						
2	Discount offered personally or to company						
3	Exchange rate						
4	Sky television in room						
5	In-room movies (video)						
6	Facilities over all						
7	Size of room						
8	Decorations/ambience						
9	Good Security						
10	Spa pool						
11	Comfortable Mattress and Pillow						
12	Swimming Pool						
13	Business centre						
14	Fax machine in room						
15	World Wide Web/Email in room or available						
16	Tea and Coffee available in room						
17	Cooking facility in room						
18	Quiet room						
19	On premises parking						
20	Close to business areas or attraction						
21	Closeness to Highway						
22	Closeness to Airport						
23	Quality of staff service						
24	Friendliness of staff						
25	Staff calling you by name						
26	Speed of check-in and out						
27	Always stay in the same place						
28	Company policy to stay in particular establishment						
29	Part of a chain or group of establishments						
30	Ease of booking						
31	Government policies						
32	Cleanliness of the Room						
33	Good quality bath towels and washcloths						
34	Well maintained furnishings						
35	Good reputation of establishment						
36	Free newspaper						
37	Family Restaurant						
38	Amenities in Bathroom (hair dryer, shaver outlet etc)						

Your assistance is **very** much appreciated

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Thank You!!!

## APPENDIX J Coding used in entering Potential Guest Survey Data

Coding used in Data Entry of the Potential Guest Survey		
Question	Alternatives	Code
I am answering from the perspective of : (Choose One)	Business accommodation	1
	Vacation accommodation	2
My Choice would be: (Choose One)	Motel	0
	Motel 1 Star	1
	Motel 2 Star	2
	Motel 3 Star	3
	Motel 4 Star	4
	Motel 5 Star	5
	Hotel	10
	Hotel 1 Star	11
	Hotel 2 Star	12
	Hotel 3 Star	13
	Hotel 4 Star	14
Hotel 5 Star	15	
Are you directly involved in the selection of your accommodation: (Choose One)	Yes	1
	No	2
Gender:	Male	1
	Female	2
Are you a New Zealand Resident:	Yes	1
	No	2
Age	18-25	1
	26-35	2
	36-45	3
	46-55	4
	56-65	5
	66 or Over	6
Yearly Salary or Wages	\$0 to \$30,000	1
	\$30,001 to \$40,000	2
	\$40,001 to \$50,000	3
	\$50,001 to \$60,000	4
	\$60,001 to \$70,000	5
	Greater Than \$70,001	6

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**Coding of Other Questions in Potential Guest Survey**

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Not Relevant to Decision	0
Very Unimportant	1
Unimportant	2
Neither (Neutral)	3
Important	4
Very Important	5

## APPENDIX K Neural Network Analysis “CATPAC”

This Appendix gives additional information on how Neural Network and specifically a piece of software called CATPAC is used in data analysis. This type of software simulates what happens in the human brain where there is estimated to be a billion cells or neurons. Each neuron contains a complex electrochemical micro-data-processing and transmitting system, which is about the size of a pinhead. Each neuron has an octopus-like structure with numbers of tentacles ranging from tens to thousands (dendrites), each of a length of 1-1.5 meters. Along and around its length are small mushroom-like protuberances called dendritic spines and synaptic buttons. Each dendritic spine/synaptic button contains bundles of chemicals, which are the major message-carriers in the human thinking process (Buzan & Buzan, 1993).

Of particular interest in relation to neural network software is that as messages, thoughts or re-lived memories pass from brain cell to brain cell, a biochemical electromagnetic pathway is established (memory tracks). Every time there is a thought within the brain the biochemical/electromagnetic resistance along the pathway carrying that thought is reduced. The more patterns or maps of thought are repeated, the less resistance there is to the links being developed. As a result the brain is very good at pattern recognition (Caudill & Butler, 1990). Neural network software mimics this function; CATPAC establishes patterns within written text. The software can read rows of text and learn the underlying concepts of clusters of meaning which it reports graphically (Hample, 1996). CATPAC reads and analyses text by using a neural pathway; this is achieved by running a scanning window through the text. This scanning window consists of  $n$  consecutive words (default  $n = 7$ )<sup>6</sup>. The window slides to the right through the text so that for an  $n$  of 7, the window will first contain words 1 to 7, then 2 to 8 and so

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<sup>6</sup> The size of the scanning window can be varied along with other parameters during data analysis.



strong relationship between “Facilities, Hotel, Location, Price, Service, Marketing and Product”; similarly there is a strong relationship between “Market and Needs”.

The dendogram gives an indication of the factors that those being interviewed believed to be important in the selection of hotel rooms, their strength, and the relationships between the factors.