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A formative index of segment
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selection for tourism destinations

Katie Lazarevski
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University of Wollongong

**A FORMATIVE INDEX OF SEGMENT ATTRACTIVENESS:
OPTIMISING SEGMENT SELECTION FOR TOURISM
DESTINATIONS**

A thesis submitted in fulfilment
of the requirements for the award of the degree

DOCTOR OF PHILOSOPHY

from

UNIVERSITY OF WOLLONGONG

By

KATIE LAZAREVSKI

B.COM (MKTG), HONS

SCHOOL OF MANAGEMENT & MARKETING

2009

DECLARATION

I, Katie Lazarevski, declare that this thesis submitted in fulfilment of the requirements for the award of Doctor of Philosophy, in the School of Management & Marketing, University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged below. The document has not been submitted for qualifications at any other academic institution.

Signed: _____

Date: _____

ABSTRACT**A FORMATIVE INDEX OF SEGMENT ATTRACTIVENESS:
OPTIMISING SEGMENT SELECTION FOR TOURISM
DESTINATIONS****By****Katie Lazarevski**

The tourism industry experienced tremendous growth until 2008. Since then, the global financial crisis has impacted upon travel and tourism flows and the industry must learn to adapt to these changes. As people cut back on travel, competition for customers will intensify. Regional tourism organisations are responsible for destination marketing on behalf of smaller tourism operators in their regions. Therefore, tourism organisations must develop strategies to attract tourists. One of these is to find the most attractive segments to target to attract them to their destinations. Market segmentation is used to segment the tourism market into smaller, more manageable groups. A review of existing literature found that while theoretical guidelines exist, managers still have difficulty understanding the market segmentation process. In addition, implementation of segmentation solutions is problematic.

The aim of this thesis is to empower tourism managers by offering a novel, practical tool to assess market segment attractiveness. In particular, three objectives were achieved. First, characteristics of an attractive tourist segment, according to destination management, were determined. Secondly, a formative index of segment

attractiveness was developed. Lastly, this Segment Attractiveness Index was empirically assessed and externally validated. The Segment Attractiveness Index was developed to overcome the difficulties managers currently face in evaluating segment attractiveness.

The study was conducted using a mixed method approach. Qualitative fieldwork was conducted with managers through focus groups and interviews to gain an understanding of the characteristics of attractive tourists. Quantitative fieldwork was conducted using an online panel to collect data to empirically validate the managerial usefulness of the Segment Attractiveness Index.

Interviews revealed that there is a gap between market segmentation theory and practice in assessing segment attractiveness: managers find it difficult to apply theoretical criteria to assess market segment attractiveness. Findings revealed 24 attributes are used by these managers to characterise attractive tourists. Segment Attractiveness is not a naturally occurring construct, therefore, it needs to be conceptualised and operationalised using a formative measurement approach. In conceptualisation, the 24 characteristics of attractive tourists were reduced to six themes that formed the basis of a formative measure. Survey participants were segmented using cluster analysis, based on a number of *a priori* and *a posteriori* segmentation bases. Clustering resulted in 28 usable segments which were assessed using the Segment Attractiveness Index in four different scenarios. In scenario one where all indicators were valued equally, an older, active market had the highest Segment Attractiveness Index score. In the second, third and fourth scenarios, indicators were allocated different weights. In each scenario, segments constructed using *a priori* segmentation bases had

the highest Segment Attractiveness Index score, indicating that the managerial usefulness of the *a priori* segmentation bases should not be underestimated.

The Segment Attractiveness Index was constructed of six indicators: *spending behaviour, moral obligation to behave in an environmentally friendly manner, travel habits, ambassador, reachability via the Internet* and *image match*. The information for each indicator was captured in the quantitative survey.

Limitations of the study included a small sample size for the managerial interviews in the qualitative phase and the nature of the online panel in relation to bias on the internet-specific questions, therefore, future studies would be recommended to adopt the Segment Attractiveness Index in other countries, on a larger scale and apply the proposed indicators to other empirical situations.

This thesis contributes to market segmentation theory by conceptualising and operationalising the concept of segment attractiveness in a way not previously undertaken. The Segment Attractiveness Index offers tourism managers a practical, theoretically grounded tool to detect the most attractive segments for their destination, and better inform their marketing strategy.

The Five-step Guide to assess segment attractiveness bridges the gap between marketing theory and practice by making the segmentation process more managerially-friendly. The Segment Attractiveness Index can be customised to the destination's unique tourism offering and tourism managers can benefit from using the index by focusing their efforts on the segment that best matches their destination strategy. Ultimately, the Segment Attractiveness Index can aid tourism destination managers in creating and maintaining a competitive advantage.

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TABLE OF CONTENTS

| | |
|--|------|
| Declaration | i |
| Abstract | ii |
| Acknowledgements | v |
| Table of Contents | vii |
| List of Figures | xii |
| List of Tables..... | xiii |
| 1. Introduction | 1 |
| 1.1 Tourism | 1 |
| 1.1.1 Changes in the Tourism Market..... | 4 |
| 1.2 The City of Wollongong | 5 |
| 1.3 Purpose of the Study: the Research Problem | 7 |
| 1.3.1 Research Objective 1: Segment Attractiveness in Practice | 9 |
| 1.3.2 Research Objective 2: Conceptualising and Operationalising Segment Attractiveness | 9 |
| 1.3.3 Research Objective 3: Evaluating Segment Attractiveness | 10 |
| 1.4 Significance and Contribution..... | 11 |
| 1.4.1 Contribution to Knowledge..... | 11 |
| 1.4.2 Contribution to Practice | 11 |
| 1.5 Structure of Thesis | 12 |
| 2. Literature Review | 15 |

| | | |
|-------|--|----|
| 2. 1 | Market Segmentation | 15 |
| 2. 2 | Segmentation Bases in Tourism Research | 18 |
| 2.2.1 | <i>A priori</i> segmentation bases..... | 19 |
| 2.2.2 | <i>A posteriori</i> segmentation bases | 20 |
| 2. 3 | Segment Assessment Criteria..... | 30 |
| 2. 4 | Implementation of Market Segmentation..... | 36 |
| 2. 5 | Selecting Segments | 38 |
| 2. 6 | Chapter Summary..... | 41 |
| 3. | Methodology | 43 |
| 3. 1 | Qualitative Stage | 43 |
| 3.1.1 | Purpose..... | 45 |
| 3.1.2 | Fieldwork Administration | 45 |
| 3.1.3 | Instrument | 46 |
| 3.1.4 | Analysis..... | 47 |
| 3. 2 | Quantitative Stage | 49 |
| 3.2.1 | Purpose..... | 49 |
| 3.2.2 | Fieldwork Administration | 49 |
| 3.2.3 | Instrument | 52 |
| 3.2.4 | Pilot Testing | 58 |
| 3.2.5 | Analysis..... | 59 |
| 3. 3 | Authorisation..... | 61 |

| | | |
|-------|---|----|
| 3. 4 | Descriptive Profile of the Sample | 61 |
| 3. 5 | Summary | 64 |
| 4. | Characteristics of Market Segments Attractive to Managers: Qualitative Results and Discussion..... | 65 |
| 4. 1 | Market Segmentation in Regional Tourism Organisations..... | 65 |
| 4. 2 | Identifying Characteristics of the Most Attractive Tourist | 67 |
| 4.2.1 | Spending behaviour..... | 69 |
| 4.2.2 | Moral obligation to behave in an environmentally friendly manner | 71 |
| 4.2.3 | Ambassador..... | 72 |
| 4.2.4 | Travel habits..... | 73 |
| 4.2.5 | Reachability via the Internet | 73 |
| 4.2.6 | Image Match | 73 |
| 4. 3 | Wollongong: An Image-Match Example | 74 |
| 4. 4 | The Use of Traditional Segmentation Attractiveness Criteria | 77 |
| 4. 5 | Discussion | 80 |
| 5. | Conceptualisation and Operationalisation of Segment Attractiveness | 83 |
| 5. 1 | Conceptualisation of Segment Attractiveness..... | 83 |
| 5. 2 | Operationalisation of the Segment Attractiveness Index | 87 |
| 5. 3 | Summary | 96 |
| 6. | Evaluating Segment Attractiveness: A Practical Guide..... | 98 |
| 6. 1 | Identifying Attractive Market Segments: A Five-step Guide | 98 |

| | | |
|-------|--|-----|
| 6. 2 | Step 1: Conduct a Survey | 100 |
| 6. 3 | Step 2: Construct Segments | 100 |
| 6. 4 | Steps 3 and 4: Assess Segment Attractiveness and Profile Segments | 105 |
| 6.4.1 | Scenario 1: Equal weights for all indicators | 106 |
| 6.4.2 | Scenario 2: 100% weight on the <i>moral obligation to behave in an environmentally friendly manner</i> indicator | 111 |
| 6.4.3 | Scenario 3: 100% weight on the <i>travel habits</i> indicator | 113 |
| 6.4.4 | Scenario 4: Identifying attractive tourists for a specific destination | 116 |
| 6. 5 | External Validation of the Segment Attractiveness Index with Tourism Managers | 119 |
| 6. 6 | Discussion | 124 |
| 7. | Summary, Limitations and Recommendations | 127 |
| 7. 1 | Summary of the Study | 127 |
| 7. 2 | Contributions | 130 |
| 7.2.1 | Theoretical implications | 130 |
| 7.2.2 | Practical implications | 131 |
| 7. 3 | Limitations of the Study | 132 |
| 7. 4 | Recommendations for Future Research | 133 |
| | APPENDIX A – Qualitative Research Tool | 152 |
| | APPENDIX B – Qualitative Research Tool | 154 |
| | APPENDIX C – Survey Instrument | 156 |

| | |
|--|-----|
| APPENDIX D – Segment Graphs..... | 168 |
| Segment Descriptions: Vacation Activities..... | 169 |
| Segment Descriptions: Information Sources..... | 176 |
| Segment Descriptions: Benefits of Travel | 181 |
| Segment Descriptions: Image Turnoff | 184 |
| Segment Descriptions: Image Perfect | 188 |

LIST OF FIGURES

| | |
|---|-----|
| Figure 1.1: Structure of the Thesis by Chapters..... | 14 |
| Figure 3.1: Qualitative Fieldwork Design..... | 43 |
| Figure 3.2: State of Residence: Comparison of sample with Australian population | 64 |
| Figure 5.1: Formative model of Segment Attractiveness..... | 86 |
| Figure 6.1: A Five-step Guide to Evaluate Segment Attractiveness..... | 99 |
| Figure 6.2: The “Novelty seekers” Segment Description | 121 |

LIST OF TABLES

| | |
|---|-----|
| Table 1.1: Research stages undertaken in the thesis | 10 |
| Table 2.1: Review of segmentation studies..... | 34 |
| Table 3.1 Regional Tourism Organisations in New South Wales | 44 |
| Table 3.2: Sample Profile..... | 63 |
| Table 4.1: Attributes of a Dream Tourist | 68 |
| Table 4.2: Assessment of usefulness traditional criteria..... | 78 |
| Table 5.1: Operationalisation of the Segment Attractiveness indicator “Spending behaviour” | 89 |
| Table 5.2: Operationalisation of the attractiveness indicator “Moral obligation to behave in an environmentally friendly manner” | 91 |
| Table 5.3: Operationalisation of the attractiveness indicator “Ambassador” | 92 |
| Table 5.4: Operationalisation of the attractiveness indicator “Travel habits” | 94 |
| Table 5.5: Operationalisation of the attractiveness indicator “Reachability via the Internet” | 95 |
| Table 5.6: Operationalisation of the attractiveness indicator “Image match” | 96 |
| Table 6.1: List of Variables for Cluster Analysis | 102 |
| Table 6.2: Percent Uncertainty Reduction for <i>A posteriori</i> Segmentation Bases..... | 104 |
| Table 6.3: ANOVA of Segment Attractiveness Index..... | 107 |
| Table 6.4: Sorted Segment Attractiveness Index score (averages) | 109 |
| Table 6.5: Sorted Segment Attractiveness Index score (100% weight on <i>moral obligation to behave in an environmentally friendly manner</i>)..... | 112 |

| | |
|--|-----|
| Table 6.6: Sorted Segment Attractiveness Index score (100% weight on <i>travel habits</i>) | 114 |
| Table 6.7: Wollongong-specific Indicator Weights | 116 |
| Table 6.8: Sorted Segment Attractiveness Index score (Wollongong scenario)..... | 117 |
| Table 6.9: Expert rating of Segments..... | 122 |

1. INTRODUCTION

1.1 Tourism

Travel has been a popular pastime for many years, and tourism is one of the major service industries in the world economy (Bansal & Eiselt, 2004; Jang, Morrison, & O'Leary, 2004b). The growth of the tourism industry has coincided with a relative decrease in manufacturing, evident since 1960, and an increase in service industries (Iversen & Wren, 1998). Traditionally, tourism has benefited from decreases in international travel costs, increases in disposable income, education and leisure time (Yannopoulos & Rotenberg, 1999).

The importance of the tourism and travel industry is highlighted by the following figures. Historical snapshots of tourist movements indicate that the number of international travellers grew from 25 million to 806 million between the years 1950 to 2005, and worldwide arrivals reached 842 million in 2006 (World Tourism Organization (UNWTO/OMT), 2008). In 2005 the global income generated from international tourist arrivals was calculated at US\$680 billion. According to the World Tourism Organization, international tourist arrivals are predicted to exceed 1.5 billion people in the year 2020 (Tour Operators Initiative for Sustainable Tourism Development, 2009; World Tourism Organization (UNWTO/OMT), 2008).

Tourism is also a key economic driver for the Australian economy. In 2006-07, it directly employed 482,800 persons. In 2006-07, tourism's contribution to Gross Domestic Product (GDP) was AUD\$38,935m, an increase of 7.8% on 2005-06 (Australian Bureau of Statistics, 2008b). International tourists typically travel for longer and spend more money than domestic travellers, averaging AUD\$2,467 per person per trip compared to AUD\$530 for domestic travellers (Tourism Research Australia, 2009).

Interestingly, while international tourists spend more, domestic tourism accounts for 75% of all tourism activity in Australia. In 2008, Australia welcomed 5.2 million international visitors who spent a total of AUD\$16 billion within Australia during their vacation. In the same year, the total economic value of domestic tourism was AUD\$64 billion (Tourism Research Australia, 2009).

Tourism contributed approximately AUD\$20 billion to the Gross State Product (GSP) of New South Wales in 2006-2007 (3.98% of total NSW GSP) (Tourism New South Wales, 2009). Gross State Product is a measure of the total value added by economic production in the States and Territories (ACT Department of Treasury: Economics Branch, 2009). In the state of New South Wales in 2006-2007, the tourism industry was accountable for the direct employment of 4.8% of all persons employed in New South Wales (157,802 persons), and a further 109, 645 indirect jobs (Ho et al., 2008). In this instance, “direct” employment relates to the direct physical or economic relationship between the tourist and the producer, and “indirect” employment relates to the situation in which there is no explicit contact with the tourist but with those who produce the goods and services for those industries with direct contact with the tourists.

The indicator tourism industry gross value added (tourism GVA) is used to signify the “total basic value of Australian produced goods and services consumed by all visitors (international, interstate, intrastate, and outbound) after deducting the costs of goods and services used in the process of production” (Ho et al., 2008). In the state of NSW in the year 2006-2007, a comparison with the 18 main traditional industries in New South Wales shows that the tourism industry was in twelfth position in terms of contribution to the state’s gross value added (3.7% of total gross value added). The

tourism industry's contribution to the state's gross value added was greater than mining (2.6% of total gross value added) and communication services (2.6%) (Tourism New South Wales, 2006).

Of all the states and territories in Australia, New South Wales received the most domestic visitors, the most domestic visitor nights and the most day trips by Australian residents in the year ended September 2008. In the same period, over half of expenditure by domestic overnight and day visitors (52%, 58% respectively) was spent in regional areas (AUD\$23.4 billion, AUD\$8.3 billion respectively) (Tourism Research Australia, 2008).

The tourism product is a unique, multifaceted service product. It is intangible and cannot be examined or experienced before purchase. The tourism product is perishable and cannot be stored for future use. Tourism supply is inelastic as tourism products do not adapt easily to short and long-term changes in demand because they are "dependent on existing superstructures at destinations", for instance, transport and accommodation (Vellas & Becherel, 1999, p. 5). Meanwhile, the tourism product has elastic demand, reacting quickly to changes in the environment, economy and fashion. Complementarity is another unique feature of the tourism product due to its composition of many sub-products. Many different sub-products ensure that the tourism product is heterogeneous, where no two tourism experiences are the same. Inseparability characterises the tourism product, relating to the notion that production and consumption of the tourism product take place at the same time, with no transfer of ownership. In establishing a tourism industry at a destination, initial investment intensity occurs due to high fixed costs. These include items such as accommodation

and transport facilities, along with labour intensity (Vellas & Becherel, 1999). The unique characteristics attributed to the tourism product present difficulties for marketers who are attempting to attract potential tourists to their destinations. Because the tourism industry is multifaceted with many components, operators and products, tourism marketers must understand the market composition if they are to target the right audience and acquire a competitive advantage (Hsieh, O'Leary, & Morrison, 1992).

1.1.1 Changes in the Tourism Market

Until 2008, the travel and tourism industry experienced a decade of steady growth. However, the global recession which began in 2008 has impacted adversely upon the industry's performance with many countries experiencing a contraction in tourism demand. The downturn is expected to continue through 2009 and over the next two years. Forecasts indicated international travel will be affected more than domestic travel because travellers will prefer to cut costs and travel in their own countries (World Travel & Tourism Council, 2009). Smeral (2009) predicted that tourists will select destinations that can be reached by car closer to their homes. He believed the element of surprise would decrease as tourists would seek destinations that are somewhat familiar, providing them with a better expectation of what prices will be like and what quality to expect. If tourism destinations focus more of their efforts on attracting domestic tourists, regional managers will be competing for a market share of a narrower tourism market.

Domestic tourism has traditionally dominated Australia's tourism industry. The majority of Australian tourism operators concentrate their marketing efforts first on domestic tourists, and then market to international consumers once they have acquired a

size of the market at home (Australian Government Tourism Australia, 2005). It is estimated that forty eight cents in every tourism dollar is spent in regional Australia (Australian Government Department of Tourism Industry and Resources, 2006). While this figure represents a substantial portion of the tourism dollar, the number of regional destinations far outweighs the number of metropolitan or city destinations. Therefore, fierce competition for the regional tourism dollar results in a need for effective and efficient marketing strategies that target the most attractive market segment(s) for their destination.

Considering the current economic climate, regional tourism managers face intense competition in attracting tourists to their regional destinations. A total of 15 regional tourism organisations currently exist in the state of New South Wales (Australian Regional Tourism Network, 2008) in addition to the state's tourism organisation, Tourism New South Wales, with its headquarters located in Sydney. It is the role of these regional organisations to provide a tourism strategy that represents the interests of their region's tourism organisations, to conduct marketing to attract tourists to destinations in their regions and to support and develop tourism facilities (Heath & Wall, 1992).

1.2 The City of Wollongong

Wollongong is located on the east coast of Australia in New South Wales and lies approximately 100 kilometres south of the state's capital, Sydney. The city of Wollongong belongs to the region known as the Illawarra, and is the third largest city in the state of New South Wales with a population of 192,402 in 2005 (Australian Bureau of Statistics, 2007). Wollongong was a major industrial base throughout the 1900s due

to the large steel works located south of the city centre at Port Kembla. The Steelworks was established by BHP in 1935. Following World War II, large numbers of migrants were attracted by the opportunities of Wollongong's growing industry, and a multicultural community was established. Deindustrialisation of the economy in the 1980s led to a reduction in the steel works workforce from 22,000 to less than 7,000 (Watson, 1991), with the nearby coal mines experiencing similar labour reductions. City leaders were forced to seek new ways of diversifying the city's economic base. While the City of Wollongong had an association with tourism for many years, it was a small part of the local economy. In the 1990s, the City Council committed to support the development of an image strategy (Valerio, Baker, & Gulloch, 1999). This initiative spurred growth of and interest in the tourism industry, with the development of an increasing number of tourism assets and access to new markets being achieved by local operators and destination managers.

Tourism New South Wales is the tourism body for the state of New South Wales. The state of New South Wales is grouped into 15 regional tourism boundaries. Illawarra Tourism is one of the 15 state-wide regional tourism organisations that connects the regional tourism industry to Tourism New South Wales (Illawarra Tourism, 2006). Tourism Wollongong is the city tourism organisation which operates under Illawarra Tourism. Tourism Wollongong is responsible for the tourism planning activities for the Illawarra region which constitutes five local government areas, Wollongong, Shellharbour, Kiama, Shoalhaven, and Wingecarribee.

Wollongong is a unique combination of 'urban' (Law, 1992), 'seaside', 'escarpment' as well as 'urban-rural fringe' localities (Zhang, Inbakaran, & Jackson,

2006). This diversity creates problems for destination management in choosing between different images. Added to the challenges facing local tourism managers in Wollongong is a negative image of a “steel town” (Dolnicar, Kerr, & Lazarevski, 2007).

Tourism Wollongong represents a regional tourism organisation that is responsible for the marketing of a tourism destination. Like many regional tourism organisations, Tourism Wollongong is attempting to become a bigger player in Australia’s new “service” economy through increased promotion of, and reliance on, tourism. Wollongong can be considered a difficult area in the context of tourism planning because of its disparate characteristics, its small tourism base relative to its proximity to Sydney, and its negative image of a polluted steel town. While its current image campaign slogan promotes the “City of Innovation”, the city of Wollongong does not have a unified or strong tourism image. Tourism marketers for the region have difficulty defining the focus for their target market. Tourism planners have identified the city’s attempt to change its image and its potential to develop due to its close proximity to Sydney and the popularity of coastal holidays.

1.3 Purpose of the Study: the Research Problem

In this economic downturn, the tourism industry faces many challenges in providing innovative and well coordinated tourism products to encourage people to travel. Conducting effective planning and strategy is exceedingly important in order to develop a competitive advantage (Buhalis, 2000; Dolnicar & Grabler, 2003). Marketing research enables the identification of the right target market to approach and the appropriate combination of products and services to attract this market segment (Buhalis, 2000). Tourism destinations cannot appeal to every tourist because “every

tourist is different” (Dolnicar, 2008, p. 129). Managers of tourism destinations must try to attract those market segment(s) whose needs they can best satisfy (Smith, 1956; Wedel & Kamakura, 2000). To do this, the managers have to divide the market into smaller, more homogenous and more manageable market segments. A competitive advantage can then be realised by specialising their tourism product towards the most receptive groups of tourists (Dolnicar, 2008).

Market segmentation techniques have been adopted enthusiastically by marketing academics (See Literature Review, Sections 2.4 and 2.5). The marketing literature suggests a number of theoretical criteria to assess the quality of segmentation solutions (Kotler, Armstrong, Brown, & Adam, 1998; Wedel & Kamakura, 2000). For instance, a market segmentation solution must produce *measurable* segments to allow for the quantification of size and purchasing power. Segments must also be *accessible*, that is, reachable by marketing communications. Segments must be *substantial* in terms of size and profitability, and *actionable*, with the marketing strategy within the organisation’s capabilities. Although these criteria exist, the majority of segmentation studies do not justify their segment choice using these criteria (See Literature Review, Section 2.4). Additionally, marketing managers have difficulty understanding market segmentation principles (Dolnicar & Lazarevski, 2009) and applying segmentation solutions (Dibb, 1998; Dibb & Simkin, 1994, 2001).

Despite the importance of market segmentation in tourism, a comprehensive review of literature reveals that no practical, managerially-oriented measurement instrument has been developed that can be used to assess segment attractiveness.

This thesis proposes a process to assist tourism managers in the selection of suitable segments for the marketing of a destination. This purpose is achieved by identifying and addressing three specific research objectives: (1) to determine which segment characteristics are the most attractive to tourism destination managers; (2) to develop a formative index of Segment Attractiveness; and (3) to empirically validate the Segment Attractiveness Index.

1.3.1 Research Objective 1: Segment Attractiveness in Practice

This objective is addressed by determining which types of segment characteristics are most attractive to managers of tourism destinations. Four specific questions will be addressed in order to achieve this objective:

- (1) How do destination managers segment their potential tourism market?
- (2) Which tourist attributes reflect the ideal or perfect tourist from the point of view of tourism managers?
- (3) Do marketing managers understand or use traditional segmentation attractiveness criteria for the selection of a segmentation solution?
- (4) What evaluative criteria do destination managers use and prefer to distinguish attractive segments for their destination?

1.3.2 Research Objective 2: Conceptualising and Operationalising Segment Attractiveness

Consequently, the aim of this objective is to construct a formative index of Segment Attractiveness. This is achieved by answering the question, “Which practical

and managerially relevant tourist attributes form indicators of the Segment Attractiveness Index?”

1.3.3 Research Objective 3: Evaluating Segment Attractiveness

Segmentation solutions in four scenarios will be evaluated using the Segment Attractiveness Index. The aim of this objective is to determine which segmentation solution results in the most attractive segment in each scenario.

The stages in which these objectives are achieved in the context of this thesis are outlined in more detail in Table 1.1.

Table 1.1: Research stages undertaken in the thesis

| Stages | | Purpose | Section |
|--------|--|--|-----------|
| 1 | Literature review | Market segmentation literature informed the research questions. Investigation of market segmentation literature and tourism segmentation literature uncovered a gap in the practical evaluation of segment attractiveness. | 2.1 – 2.5 |
| 2 | Qualitative data collection: Interviews with managers. | Collection of information from tourism managers. Managers define characteristics of an “attractive” tourist. | 3.1 |
| 3 | Quantitative data collection: Online questionnaire. | Collection of responses from online panel of 1003 participants. | 3.2 |
| 4 | Understanding Managerial Segment Attractiveness (Research Objective 1) | Results of the qualitative phase. Characteristics of market segments to aid development of indicators for the Segment Attractiveness Index. | 4.1 – 4.4 |
| 5 | Conceptualisation and Operationalisation of the Segment Attractiveness Index. (Research Objective 2) | Segment Attractiveness Index design based on responses from managers in Stage 4. Making indicators measurable (operationalising spending behaviour, ambassador, moral obligation to behave in an environmentally friendly manner, travel habits, reachability via the Internet, image match). | 5.1 – 5.2 |
| 6 | Empirical validation of the Segment Attractiveness Index. (Research Objective 3) | Finding segments in the data using the data set collected in Stage 3. Description of segments created. Evaluation of segment attractiveness using the Segment Attractiveness Index. Demonstration of the adaptability of Segment Attractiveness Index using four scenarios. Interviews with 3 regional tourism managers as external validation of the Segment Attractiveness Index to ensure that the index found the most managerially attractive segments. | 6.1 – 6.5 |

1.4 Significance and Contribution

Tourism researchers construct many different segmentation solutions using a variety of segmentation bases. However, tourism managers lack a practical tool to evaluate the attractiveness of the resulting segments. A theory/practice divide thus exists in tourism market segmentation. This research study presents a formative index (Research Objective 2) for the evaluation of segment attractiveness (Research Objective 3) according to destination managers' criteria for attractive segments (Research Objective 1). Through the investigation of the three aims this research makes both academic and practical contributions.

1.4.1 Contribution to Knowledge

This study is the first to conceptualise and operationalise segment attractiveness from a managerial point of view. It provides an objective measure that can be used to assess segments. The Five-step Guide developed in this thesis directs tourism researchers to assess segmentation solutions according to managerially useful criteria. In doing so, difficulties in implementing segmentation solutions in practice are minimised and the link between theory and practice is strengthened.

1.4.2 Contribution to Practice

This study provides insight into dimensions of segment attractiveness important to tourism managers. From a managerial perspective, the Segment Attractiveness Index offers tourism managers a practical, simple and structured process for assessing segmentation solutions. Tourism managers of different destinations can use the Five-step Guide to implement the framework developed in this thesis. This will guide their destination segmentation strategy and enable them to choose the group of tourists most

attractive to their tourism destination. The Segment Attractiveness Index was developed in a way that was believed to capture all factors of segment attractiveness. It has the ability to be customised for different destinations by following the process outlined in this thesis and assigning weights to indicators selected for a destination's unique strategic priorities. When conducting future studies and examining the specific criteria promoted by tourism destination managers of regions outside New South Wales, additional factors may appear because of the nature of different destinations which are shaped by different structural issues and have their own specific regional circumstances influencing tourism strategy.

1.5 Structure of Thesis

This thesis is organised into 7 chapters, as outlined in Figure 1.1.

In Chapter 2 academic literature on the theory of market segmentation is reviewed. The chapter provides a critical analysis of relevant segmentation literature and studies that attempt to assess the managerial usefulness of segmentation solutions, identifying a gap in the literature on segment attractiveness evaluation. Chapter 3 outlines the method, measures and analyses used to investigate the research problem, specifically focusing on a mixed method approach. Chapter 4 presents the results of the qualitative study and discusses these findings. It details the characteristics of managerially attractive tourist segments and investigates the managerial usefulness of traditional segmentation bases. Chapter 5 details the steps undertaken to conceptualise and operationalise the Segment Attractiveness Index. The chapter documents the practical application of this index and reports on the evaluation of the index by tourism managers. Chapter 6 illustrates the empirical validation of the Segment Attractiveness

Index in four scenarios. An external validation of the index is conducted with three destination managers. A practical illustration of the index is provided using one destination as a case example. Chapter 7 summarises findings, highlights the implications for both the tourism industry and marketing research literature, identifies the limitations of the study and potential areas for future research, and outlines the contributions of the thesis.

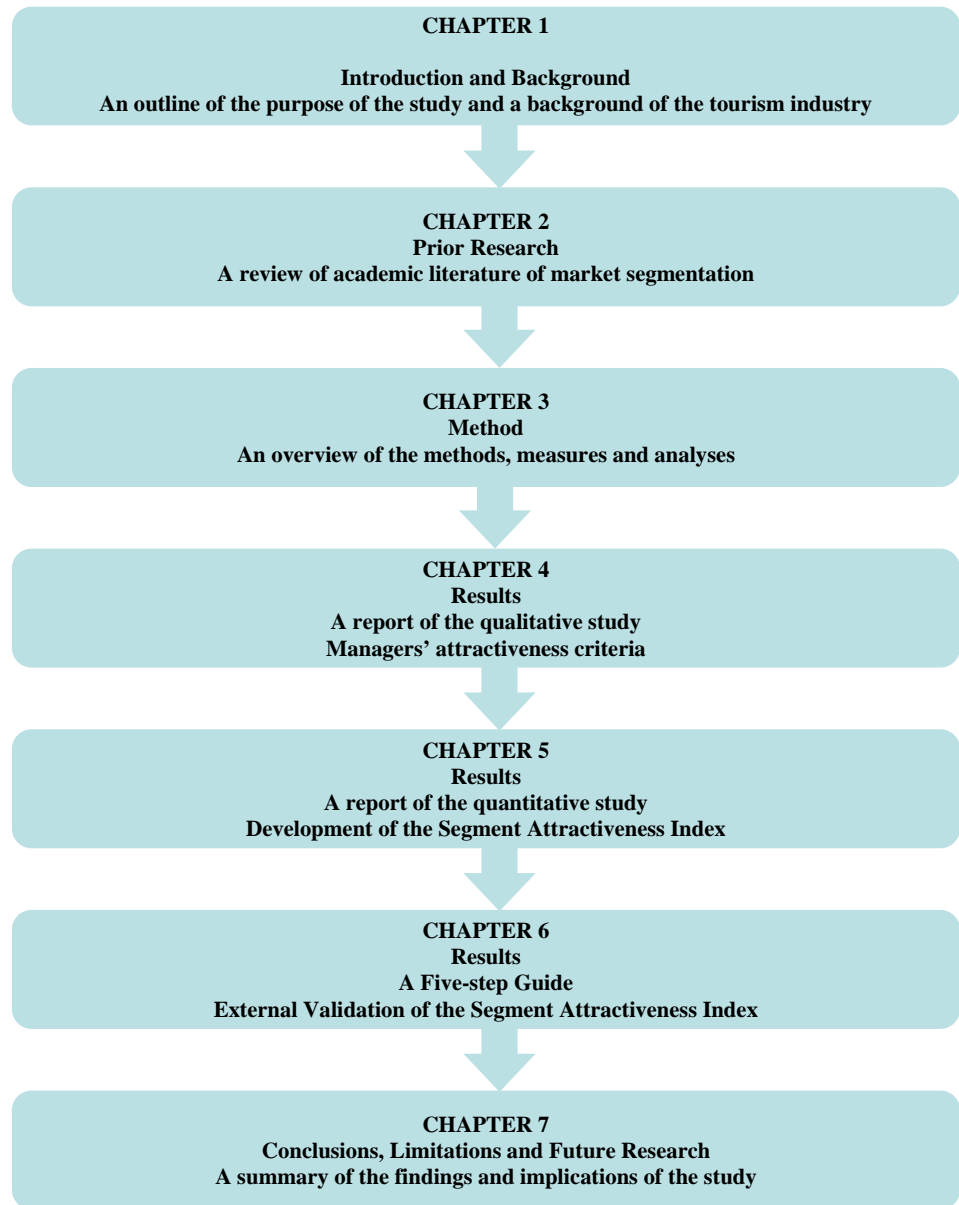


Figure 1.1: Structure of the Thesis by Chapters

2. LITERATURE REVIEW

This chapter is divided into 5 sections. First, the literature on general market segmentation theory is introduced. Secondly, market segmentation applications in tourism literature are reviewed. Thirdly, traditional segmentation criteria are discussed in the context of tourism marketing. Problems identified in the literature associated with practical implementation of market segmentation solutions are discussed in the fourth section. Lastly, studies proposing segment attractiveness measures are assessed.

2.1 Market Segmentation

Prior to the 1950s, a “mass marketing” mentality was dominant in marketing practice where mass production, mass distribution and mass promotion of one product to all buyers characterised marketing (Kotler, Adam, Brown, & Armstrong, 2001). In the 1950s, a change in marketers’ mindsets led to a market-oriented philosophy: customer needs were seen to be heterogeneous (Frank, Massey, & Wind, 1972) rather than homogeneous. Wendell R. Smith drew attention to the differences between people that who comprise markets. Smith (1956) identified the reasons for heterogeneity in consumer demands as stemming from different customs, a desire for variety or exclusiveness, or basic differences in consumer needs. With this insight, he introduced the concept of market segmentation, based on the economic theory of imperfect competition (Wedel & Kamakura, 2000). Imperfect competition ties in the two concepts of *market segmentation* and *product differentiation*:

Market segmentation ... consists of viewing a heterogeneous market (one characterised by divergent demand) as a number of smaller homogeneous markets in response to differing product preferences among important market segments. It is attributable

to the desires of customers or users for more precise satisfaction of their varying wants (Smith, 1956, p. 6).

In the 1960s, the benefits of market segmentation were realised (Clayclamp & Massy, 1968), and in the twenty-first century market segmentation is still considered one of the richest and is one of the most researched areas of marketing science (Wedel & Kamakura, 2000) and one of marketing's core principles (Foedermayr & Diamantopoulos, 2008; Morrison, 2002). Market segmentation has also been described as one of the most crucial strategic marketing analyses, as the process of exploring the markets allows a competitive advantage to be realised (Dolnicar, 2004a).

The practical use of market segmentation is to support managerial decisions to cater to a market's different needs and wants (Clancy & Roberts, 1983). It informs marketing strategy formulation (Choffray & Lilien, 1980) and the customisation of the marketing mix, enabling a firm to appeal to the most attractive segment(s) of the market (Foedermayr & Diamantopoulos, 2008). Conducting a segmentation study allows a richer understanding of customers' needs and enables firms to identify new market opportunities (Hoek, Gendall, & Esslemont, 1996). Ultimately, market segmentation is conducted to focus marketing effort and resources in the most effective way (Morrison, 2002). Segmenting the market into more manageable groups allows for a more efficient allocation of marketing resources and better targeting market objectives and marketing programmes (Hsieh, O'Leary, & Morrison, 1992).

Two principal approaches to classifying the market are *a priori* (Mazanec, 2000) or commonsense (Dolnicar, 2004a) and post-hoc (Myers & Tauber, 1977; Wedel & Kamakura, 2000), *a posteriori* (Mazanec, 2000) or data-driven (Dolnicar, 2004a)

segmentation. In tourism, a number of *a priori* and *a posteriori* segmentation bases are common. In *a priori* segmentation, classification of consumers occurs according to variables of interest which are known to be most relevant prior to segmentation. These factors include demographics, purchase volume and geographic region. This approach guarantees similarity within the segments with respect to the chosen characteristic, for instance, a common approach is to segment tourists according to their country of origin (Dolnicar, 2007b).

A posteriori or data-driven segmentation is conducted if no precise knowledge exists about the typical combinations of attribute characteristics. It requires researchers to choose a segmentation base. Unlike *a priori* segmentation, *a posteriori* segmentation is dependent on the “premises of a multivariate data technique” (Mazanec, 1992, p. 41). Cluster analytic techniques are most commonly used to form segments (Wedel & Kamakura, 2000). The researcher is responsible for making a number of crucial decisions when using cluster analysis, including the type of algorithm for data analysis, the measure of association, and the number of segments (Dolnicar, 2002b). These decisions have a major impact on the results considering that *a posteriori* segmentation is an exploratory process that is more complex than *a priori* segmentation. The identification of useful, meaningful and valid *a posteriori* segmentation solutions is more difficult due to their complex and multifaceted nature (Dolnicar & Leisch, 2004b).

Dolnicar (2004) documented cases in which combinations of different approaches were used. For instance, commonsense followed by the application of an additional commonsense criteria (*a priori* followed by *a priori* segmentation). Alternatively, commonsense segmentation can be followed by data-driven segmentation

(*a priori* followed by *a posteriori* segmentation), or data-driven segmentation followed by data-driven segmentation (*a posteriori* followed by *a posteriori* segmentation), or even data-driven segmentation followed by commonsense segmentation.

2.2 Segmentation Bases in Tourism Research

Characteristics used to divide a market up into groups are called *segmentation bases*. Segmentation bases function as a screen or filter to allow the targeting of desirable segments (Morritt, 2007). Wedel and Kamakura (2000, p. 7) defined a segmentation base as a “set of variables or characteristics used to assign potential customers to homogenous groups”. The segmentation base illustrates why segments differ from other segments, therefore careful selection of the most appropriate segmentation base is required (Foedermayr & Diamantopoulos, 2008). Foedermayr and Diamantopoulos (2008, p. 251) commented that the segmentation variable selection stage is the focus of the vast majority of segmentation studies.

However, “there is no single way to segment a market” (Kotler, Armstrong, Brown, & Adam, 1998, p. 299). In order to find the “best way to view a market structure”, Kotler *et al.* (1998, p. 299) recommended trying “different segmentation variables”. Tourism literature abounds with diverse attributes that form segmentation bases. The following sections present segmentation bases commonly used in tourism literature. The studies are categorised based on whether the design takes an *a priori* or *a posteriori* segmentation approach, which is a mixture of content and method that is common in tourism literature (Dolnicar, 2004a; Mazanec, 2000).

2.2.1 *A priori* segmentation bases

A number of *a priori* segmentation bases have been used in the field of travel and tourism. These include demographics (Collins & Tisdell, 2002; Dodd & Bigotte, 1997; D. Y. Kim, Lehto, & Morrison, 2007), geographic characteristics (Reid & Reid, 1997), nationality (Juaneda & Sastre, 1999), intention to revisit and prior visits to a destination (Hsu & Crotts, 2006), visitation versus non-visitation (Baloglu & McCleary, 1999), the purpose of a trip (Kashyap & Bojanic, 2000; Wilton & Nickerson, 2006), usage levels (Goldsmith & Litvin, 1999), and environmentally responsible tourists (Dolnicar & Leisch, 2008b; Dolnicar & Long, 2007). Geographic and demographic segmentation are the two major *a priori* segmentation bases (Kotler, Hayes, & Bloom, 2002). Geographic segmentation is the “most widely used segmentation base in the hospitality and travel industry” (Morrison, 2002, p. 179) because of its ease of use and measurement. The market is grouped into “geographical entities”, for instance, country of origin (Dolnicar, 2005a), states, regions, postal or ZIP codes, or even density characteristics of regions, such as urban, rural, or metropolitan. Demographic segmentation includes the division of the market on variables such as age, gender, family size, family life cycle, income occupation, religion, and nationality (Kotler, Hayes, & Bloom, 2002).

However, while *a priori* segmentation bases are easy to implement, segments constructed using an *a posteriori* segmentation approach are believed to be more useful, as they can provide a more direct indication of the views towards a product/service category (Myers, 1996). For instance, segmentation based on tourists’ demographics has been criticised for its failure to predict consumer behaviour (Tkaczynski, Rundle-Thiele,

& Beaumont, 2009b). On the other hand, *a priori* segmentation studies do not cause the same implementation difficulties as *a posteriori* segmentation bases. Demographic and geographic segmentation bases are “simpler in terms of statistical analysis and so are easier to do” (Moscardo, Pearce, & Morrison, 2001, p. 32). Furthermore, their results are easy to present to practitioners, and resulting strategies are easy to implement (Wedel & Kamakura, 2000).

2.2.2 *A posteriori* segmentation bases

A posteriori or data driven (Dolnicar, 2004a) segmentation bases include psychographic and behavioural segmentation bases. Psychographic segmentation allows a rich understanding about a consumer “as a person” and the underlying reasons for consumer behaviour by collecting motivational information (Wedel and Kamakura, 2000). It is for these reasons that lifestyle segmentation, or its operationalisation, “psychographics”, has become a popular segmentation base. The following sections document psychographic segmentation bases commonly used in tourism studies.

2.2.2.1 Motivations

Prior studies in tourism have illustrated that travel is associated with a wide array of motives (Crompton, 1979b; Iso-Ahola, 1982; Moscardo, Pearce, Morrison, Green, & O'Leary, 2000; Moscardo, Saltzer, Norris, & McCoy, 2004; Pearce & Lee, 2005) and suggest that motives are used as a segmentation base as they initiate travel and the decision processes that precede it (de Guzman, Leones, Tapia, Wong, & de Castro, 2006).

A number of authors have segmented the tourism market on the basis of motivation. Shoemaker (2000) revisited his original study by segmenting the seniors travel market of the 21st century based on reasons for travel; Bieger and Laesser (2002) segmented the Swiss travel market; Johns and Gyimothy (2002) segmented the motivations of visitors to an island; de Guzman *et al.* (2006) investigated the motivations of tourists who continually attend a festival; Cha *et al.* (1995) focused on the Japanese tourism market; and Eftchiadou (2001) segmented urban visitors to Liverpool. Motivations have formed the base for studies investigating festival attendees at a South Korean festival (C.-K. Lee, Lee, & Wicks, 2004), British visitors to Turkey (Andreu, Kozak, Avci, & Cifter, 2005), British and German visitors to Mallorca and Turkey (Kozak, 2002), Japanese visitors to Turkey (Sirakaya, Uysal, & Yoshioka, 2003), Chinese visitors to Singapore (Kau & Lim, 2005), snowmobilers to Wyoming (May, Bastian, Taylor, & Whipple, 2001), and tourists to aboriginal cultural festivals in Taiwan (Chang, 2006). Some studies have used a combination of segmentation bases to segment their participants, one of which was motivation (Dolnicar & Leisch, 2003; Horneman, Carter, Wei, & Ruys, 2002; J. Kim, Wei, & Ruys, 2003).

2.2.2.2 Benefits

In 1968, a marketing consultant, Russell Hayley from Grey Advertising, suggested benefit segmentation as a way to group consumer markets. Under the technical guidance of Hayley, Grey Advertising is said to have “sparked a theoretical and technological revolution in the industry with its applications of ex post facto segmentation” (Clancy & Roberts, 1983, p. 64). This comment refers to their foundational applications of *a posteriori* segmentation bases.

According to Hayley (1968), the rationale behind selecting the benefits segmentation approach is that benefits sought are the fundamental reasons for the existence of true market segments. He believed that benefits sought determine a consumer's behaviour more accurately than other descriptive variables such as demographic and geographic indicators. Furthermore, this segmentation base was believed to have more potential than traditional segmentation bases as it provides a fuller picture of customers which included their motivation, behavioural and socioeconomic description.

Proponents of this segmentation base in tourism claim that benefits are more appropriate for defining destination segments and strategy development as they identify travellers' motivations and also appeal to the satisfaction of specific tourist needs (Ahmed, Barber, & d'Astous, 1998; Jang, Morrison, & O'Leary, 2002; Johar & Sirgy, 1995) as they investigate travel benefits or rewards. Furthermore, the use of benefit segmentation was supported by Wind (1978), who argued that the selection of variables needed to relate to management objectives. Benefit segmentation is reported to better reflect the needs and wants of each market segment (Gitelson & Kerstetter, 1990; Loker & Perdue, 1992).

In some instances, motivations based segmentation studies can be considered to be associated with benefit segmentation due to the mix of both tangible and emotional expectations associated with the nature of the tourism product (Frochot & Morrison, 2000). The wording of these benefit statements tends to be in psychological terms, which may well be due to the belief that benefits are closely related to motivations.

Frochot (2004) believed that benefit segmentation is the segmentation base that has received the most attention. This view is supported by Zins (2008) who reviewed tourism segmentation studies and found benefit segmentation to be amongst the two most prominent segmentation variables along with activities, while benefits feature as one of six popular segmentation bases listed in Hu's (1996) review. Benefit segmentation has been used in a wide variety of contexts including cultural events (Formica & Uysal, 1998), tourist destination choice (Loker & Perdue, 1992; Ryan & Glendon, 1998), visitor attractions (Andereck & Caldwell, 1994), and rural tourists (Frochot, 2005; Kastenholtz, Davis, & Paul, 1999). Segmenting specific markets like visitors to North Carolina (Gitelson & Kerstetter, 1990), near-home tourism markets (Yannopoulos & Rotenberg, 1999), Japanese travellers (Jang, Morrison, & O'Leary, 2002), North American visitors to South America (Sarigollu & Huang, 2005), visitors to historic houses (Frochot, 2004), visitors to Spain (Molera & Albaladejo, 2007) and to Ottawa, Canada (Ahmed, Barber, & d'Astous, 1998) have also been conducted on the basis of benefits sought. However, as with many other segmentation bases, benefit segmentation's performance in comparison to other psychographic techniques is yet to be demonstrated (Frochot, 2005).

2.2.2.3 Values

Values have been defined as abstract beliefs about behaviours that transcend specific situations to guide behaviour or event selection or evaluation (Madrigal, 1995). Madrigal (1995) argued that the majority of research on values in the context of vacation travel has focused on market segmentation, due to the reasoning that personal values are effective segmentation variables because they are more closely related to

behaviour than are personality traits. The Rokeach Value Survey (1973) was based on an individual's value system used for decision making. Participants were asked to rank 18 terminal (beliefs about end-states or goals) value variables and 18 instrumental (beliefs about desirable modes of behaviour) value variables in order of importance (Rokeach, 1979). However, the large number of variables for individuals to rank also presents constraints associated with survey length.

The List of Values (Kahle, 1983) is a shorter (Wilton & Nickerson, 2006), abbreviated scale that is made up of only terminal or individualistic interests (Wedel & Kamakura, 2000). The VALS and VALS2 lifestyle topologies were later developed in 1978 and were also based on the concepts in Rokeach's value scale. Wedel and Kamakura (2000) commented on the use of values in better understanding segments formed using another segmentation base and not on defining market segments alone.

Early studies in tourism using values for market segmentation demonstrated their applicability to tourism. Pitts and Woodside (1986) reported that values were related to actual vacation behaviour. Pizam and Calantone (1987) illustrated that general and vacation-specific values successfully differentiated between segments in their vacation choice. Similarly, Muller (1991) found values could successfully explain differences in participants' ratings of destination's attributes in their selection of importance.

Kamakura and Novak (1992) asserted that many value-segmentation studies rely on a single variable. They took the highest ranked value from each individual's list to identify segments ignoring the basis of Rokeach's theory, which included the use of the entire set of values as a system instead of just one single variable (Schwartz & Bilsky,

1987). More recently, Watkins and Gnoth (2005, p. 231) expressed their concern with the performance of the List of Values (LOV) in cross-cultural research, as values are “socially constructed and inherently cultural”.

2.2.2.4 Emotions

Bigne and Andreu (2004) advocated the use of emotions as a segmentation base for use in tourism research because of the importance of experiences. They conducted a segmentation study based on emotions with tourists visiting theme parks and museums in Spain. They found two segments based on emotions that displayed different levels of satisfaction and behavioural intentions. Chen (2003) also conducted a study into tourists' sentiments, creating four segments, two of which were considered to be actionable by managers. An interesting subset of human emotions, fear (Dolnicar, 2005b) and risk associated with leisure travel (Roehl & Fesenmaier, 1992), have been investigated for their influence on travel decisions. However, emotions as a segmentation base are not widely used in tourism segmentation research (Bigne & Andreu, 2004), despite calls for more critical and systematic research in tourism (Gnoth & Zins, 2009).

2.2.2.5 Personality and Self-Concept

Personality segmentation receives a scant amount of attention as a segmentation base. Five distinct personality type perspectives have been outlined in the literature (psychoanalytic and neoanalytic; trait; cognitive; humanistic/existential; and socio-behaviouristic), however, the definition of personality depends to a large extent on the theoretical orientation the researcher takes (Madrigal, 1995).

The use of personality type as it applies to tourist behaviour was believed to have been first introduced by Plog in 1974 (Madrigal, 1995; Plog, 1974). Personality types were delineated along a continuum ranging from allocentrism (characterised by self-confidence, intellectual curiosity, and preferring exotic and unique destinations to explore independently) to psychocentrism (characterised by insecurity, a non-adventurous personality, and preferring package tour travel). However, whether Plog's (1974) typology is based on flawed research and can therefore only be accepted as a teleology to describe instead of explain behaviour has been debated (Frew & Shaw, 1999; Madrigal, 1995). Furthermore, it was recognised that some personality typologies cannot explain behavioural tendencies (van Raaij & Verhallen, 1994) because the original use of personality types has its foundations in psychology and is used to detect abnormal psychological behaviour. In recognition of these limitations, the five-factor model of personality (Digman, 1990) has been adopted in marketing (J. L. Aaker, 1997).

There has been limited tourism research segmenting the tourism market according to personality. Among these is Frew and Shaw's (1999) investigation of personality types within the vocational environment and Todd's (2001) study using self-concept (which is self perception or how people think of themselves). Todd (2001) highlighted the paucity of research undertaken to understand how tourists feel about their participation in tourist activities, and how they think of themselves in the tourist role. In an attempt to answer the question, "Do all tourists share the same feelings and this common psychological experiences when travelling, or can the market be better served by segmenting individuals on the basis of their psychological 'comfort' level?" she applied self-concept theory to a tourism context (Todd, 2001, p. 184). Findings from

the cluster analysis suggested that self-concept dimensions allowed for enhanced insight into how tourists feel, however, only marginal support for the overall model was indicated. One interesting revelation was that some tourists find it uncomfortable to take a holiday, in contrast to motivational and benefits studies, which assume that everyone wants to be on a holiday (Todd, 2001).

Frew and Shaw (1999) discovered significant associations between the participants' personality type, gender, and tourism behavior for certain attractions, using Holland's personality types (Holland, 1985) which were originally developed in the field of vocational and work guidance, and not for tourism studies.

2.2.2.6 Image and Perceptions

Destination marketers must create a brand image in the minds of their target audience to differentiate their destination from that of competitors. This is achieved by a "sound understanding of tourist perceptions" (Calantone, Di Benedetto, Hakam, & Bojanic, 1989, p. 25). The term "tourist destination image" does not have an exact meaning as it has been used in a variety of contexts. The most commonly cited definition is Crompton (1979a, p. 18), who defined image as the "sum of beliefs, ideas and impressions a person has of the destination".

Leisen (2001) conducted a segmentation study based on destination image. Upon selection of attractive segments, recommendations of image for the destination, New Mexico, were developed and could be translated into useful managerial solutions by helping managers target their approach to the market.

Dolnicar and Huybers (2007) proposed the use of the perceptions based market segmentation (PBMS) method to investigate destination image perception. This exploratory method accounts for differences between people and differences between destinations. The authors highlighted the importance of perceptual differences amongst tourists with regard to different destinations. They called for more studies investigating image perceptions amongst segments based on a posteriori segmentation (Dolnicar & Huybers, 2007).

2.2.2.7 Activities

Segmentation based on leisure activities of tourists is highly practical for the design of holiday packages. Grouping activities into packages can help destination managers and marketing planners to market, plan, and manage their target markets (Hsieh, O'Leary, & Morrison, 1992).

Segmentation studies demonstrating the usefulness of activity-based segmentation have been conducted in the context of the Hong Kong travel market (Hsieh, O'Leary, & Morrison, 1992), cultural tourists (Dolnicar, 2002a), summer vacation tourists (Dolnicar & Leisch, 2004a), activity package preferences of Hong Kong travellers (Choi & Tsang, 1999), the four-wheel drive market (Taylor & Prideaux, 2008), island visitors (Johns & Gyimothy, 2002), adventure markets (Sung, 2004), the senior motorcoach market (Hsu & Lee, 2002), and participants in an international data set (Becken & Gnoth, 2004). This segmentation base is further supported by Moscardo and colleagues (2001) in their evaluation of geographic origin as a segmentation base against activity participation segmentation, and has been used in combination with attitudinal variables by Zins (1999) in an application of self organising feature maps

(SOMs) for a sort of portfolio analysis approach highlighting different vacation styles in a matrix design, with market attractiveness measured by the respondents' stated propensity to visit Austria. This study expands on the Eurostyles typology examined in Mazanec and Zins (1994), where psychographic maps were used to represent segments based on lifestyles.

Other proponents of this segmentation base (Choi & Tsang, 1999; Hsieh, O'Leary, & Morrison, 1992) claim that it is one of the best segmentation bases, as activities can be grouped to appeal to the market, along with the relationship that activities and expenditure share.

2.2.2.8 Information Use

Information used to make decisions has also been applied as a segmentation base (Bieger & Laesser, 2000). Fodness and Murray (1997) offered support for information sources as a segmentation base and reported on the appropriateness of this segmentation base and the necessity of understanding the behaviour of information sourcing by tourists. Beiger and Laesser (2004) segmented the Swiss tourism market based on information sources used before a definite trip decision was made and after. The authors believed an understanding of how the market acquired its information was important for marketing management decisions (Bieger & Laesser, 2004), especially given the intangibility of the tourism product. Adopting a portfolio approach, Hyde's (2007) novel segmentation investigation offered insight into the combinations of information sources used by tourists.

2.2.2.9 Expenditure-based Segmentation

In an attempt to address the issue of increasing the effectiveness and efficiency of marketing programs, Laesser and Crouch (2006) segmented markets according to travel expenses. Very few studies used expenditure as a segmentation variable (Mok & Iverson, 2000) due to the difficulty with recall of actual expenditure in specific categories.

2.3 Segment Assessment Criteria

The realisation that segments are constructed from a “manager’s conceptualization” of the way in which a market is organised and divided, rather than a “structured and partitioned market” based on empirical consumer data, has been acknowledged since the first market segmentation studies (Wedel & Kamakura, 2000, p. 3). Furthermore, the nature of market segmentation as a theoretical concept “involving artificial groupings of customers constructed to help managers design and target their strategies” (Wedel & Kamakura, 2000, p. 5) signifies the crucial importance of the selection of bases and methods used to define these segments. Therefore, the selection of *appropriate* segmentation bases depends on the purpose of the study, and the usefulness to the firm (Wedel & Kamakura, 2000), where different segmentation bases result in different segments. As a consequence, criteria for selecting the most suitable segments are needed.

Kotler *et al.* (2001) used four criteria to assess the usefulness of resulting market segments: measurability, accessibility, substantiality, and actionability. They (Kotler, Adam, Brown, & Armstrong, 2001) categorised their criteria into ways to assess market segments’ “effectiveness”. The term “attractiveness” was used to assess market

segments for targeting, and in particular, in the context of “segment structural attractiveness” (p. 175) which involves the assessment of competitors, substitute products, and the power of buyers and suppliers.

Criteria for the selection of segments were suggested by Frank *et al.* (1972), Kotler *et al.* (2001), Morrison (2002) and Wedel and Kamakura (2000). The criteria endorsed by Wedel and Kamakura (2000) are: identifiability, substantiality, accessibility, responsiveness, stability and actionability. The ability to recognise distinct groups in the market is the criterion referred to as identifiability. Kotler *et al.* (2002) refer to this criterion as “measurability”. To meet the criterion of substantiality, the target segment must represent a large enough portion of the market in order to be profitable. Accessibility relates to the ability to reach the target segment through promotion and distribution, termed “reachability” by Kotler *et al.* (2002). Responsiveness is the ability of the segment to respond uniquely to marketing efforts, included as “differential responsiveness” in Kotler *et al.* (2002). Stability is a criterion that is required for at least a period long enough to enable the identification of the segment and the implementation of the marketing strategy in order to produce results. The last criterion, actionability, specifically relates to the capacity for guidance or direction for the design of marketing instruments consistent with the core competencies of the organisation (Wedel & Kamakura, 2000).

Frochot and Morrison (2000) supported the use of the six criteria listed above, stating that they are central to marketing decision making and resource allocation. They called for investigations into the development of criteria specific to tourism and travel. Earlier work by Mazanec was conducted on the development of decision models to

evaluate market attractiveness in the area of tourism marketing (Mazanec, 1986a, 1986b). Participants were allowed to state the importance of factors and then the decision support system assessed the participants' rating scale values and transformed them into weights. The factors being assessed by the participants (managers) were selected by the author based on industry practice, expertise and literature and not by the managers themselves. The author made a call for future work which integrates managerial judgements in a way that is simple enough and easy to use by practitioners but still has a level of "realworld complexity" (Mazanec, 1986a, p. 632).

Despite employing attractiveness criteria, no study to date has examined the criteria in terms of its ease of operationalisation in the practical sense. In other words, can these criteria be operationalised by tourism practitioners, and more importantly, are there any other criteria that they would find more useful, efficient or easy to implement themselves?

A review of segmentation articles published in *Tourism Management* and the *Journal of Travel Research* between 2004 and 2008 was conducted in order to identify which criteria are typically used by tourism researchers to assess segment attractiveness.

Of the 40 *a priori* and *a posteriori* segmentation studies published during this time, only 17 (43%), explicitly referred to attractiveness criteria (Refer to Table 2.1). Among the 17, the most popular were substantiality (addressed by 65%), distinctiveness (29%), accessibility (29%), and actionability and differentiability (18% each). Measurability (12%), stability (6%) and homogeneity (6%) were used the least. The term "managerial usefulness" was used in the assessment criteria of 29% of the studies, "meaningfulness" in 6% of cases, and "interpretability" in 12% of cases.

Of those 17 studies that assessed segment attractiveness, only two explicitly discussed the problem of practical implementation by alerting readers to the need for segmentation solutions to be useful and actionable by management. Dolnicar's (2004a) study compared segmentation solutions by their managerial usefulness, where the criterion "usefulness" included distinctiveness, substantiality (size of segments), stability, and reachability, which included information sources used, money spent, activities, accommodation chosen and shopping behaviour. Sarigollu and Huang (2005) referred to managerial usefulness by investigating practicality, usability, and the ability to be readily translatable into strategy. The usability criterion included homogeneity and distinctiveness, and "substantial" and "usable" were mentioned (which included demographics, travel behaviour, expectations about various infrastructures, service and cost factors, and personality attributes and interests).

Five other studies loosely refer to "managerially useful segments" by stating that segments must be assessed for interpretability (Molera & Albaladejo, 2007; Weaver & Lawton, 2004), managerial usefulness (G. Lee, Morrison, & O'Leary, 2006; Sung, 2004) and meaningfulness (Bieger & Laesser, 2004); however, the nature of these terms are not discussed in any detail in these studies.

Table 2.1: Review of segmentation studies

| Author/Year | Segmentation base | Criteria | Attractiveness criteria |
|---|---|----------|---|
| Li <i>et al.</i> , 2008 | Repeat visitors vs. first time visitors | No | |
| Fuller & Matzler, 2008 | Lifestyle | No | |
| Dolnicar & Leisch, 2008 | Environmental behaviour | Yes | Measurability, Substantiality, Differentiability, Accessibility, Actionability |
| Spencer & Holecek, 2007 | Activity participation | Yes | Measurability, Substantiality, Differentiability, Accessibility, Actionability |
| Molera & Albaladejo, 2007 | Benefit | Yes | Interpretability, Indices (including the Calinski–Harabasz index or Davies–Bouldin index) |
| Mehmetoglu, 2007 | Activity | Yes | Segment sizes (substantiality) |
| Lee & Sparks, 2007 | Travel behaviour | Yes | Differentiability |
| Koc & Altinay, 2007 | Seasonality and expenditure | No | |
| Kim, Lehto & Morrison, 2007 | Gender | No | |
| Hu & Yu, 2007 | Souvenir shopping and craft selection | Yes | Profitability (substantiality), Accessibility |
| Castro, Armario, & Ruiz, 2007 | Need for variety | No | |
| Brey <i>et al.</i> , 2007 | Level of website permission | No | |
| Beh, & Bruyere, 2007 | Motivation | Yes | Segment sizes (substantiality), Distinctiveness |
| Lee <i>et al.</i> , 2006 | Benefit | Yes | Profitability (substantiality), Managerial usefulness |
| Chang, 2006 | Motivation | Yes | Distinctiveness |
| Frochot, 2005 | Benefit | No | |
| Diaz-Perez, Bethencourt-Cejas, & Alvarez-Gonzalez, 2005 | Expenditure | No | |
| Lee, Lee & Wicks, 2004 | Motivation | Yes | Segment sizes only (substantiality) |
| Hong & Jang, 2004 | Product life cycle | No | |
| Chung <i>et al.</i> , 2004 | Benefit | Yes | Segment sizes only (substantiality) |
| Bloom, 2004 | Neural networks (questions including travel trip, demographics, socio-economics and geographics) | No | |
| Becken & Gnoth, 2004 | Travel behaviour type | No | |
| McKercher, 2008 | Age, household income, education, self-reported level of travel experience and package tour purchase propensity | No | |
| Galloway <i>et al.</i> , 2008 | Sensation seeking | No | |
| Rittichainuwat <i>et al.</i> , 2008 | Geographic/country of origin | No | |
| Litvin, 2008 | Sensation-seeking | No | |
| Dolnicar & Leisch, 2008a | Moral obligation to act in environmentally friendly manner and vacation preferences. | Yes | Managerial usefulness, Actionability, Distinctiveness |
| Hsu & Kang, 2007 | Demographics and travel characteristics | No | |
| Wurzing & | Purpose of trip | No | |

| Author/Year | Segmentation base | Criteria | Attractiveness criteria |
|---|--|----------|---|
| Johansson, 2006 | | | |
| Wilton & Nickerson, 2006 | Expenditure of groups based on purpose of trip and attractions visited | No | |
| Espelt & Benito, 2006 | Behaviour | No | |
| Sarigollu & Huang, 2005 | Benefit | Yes | Homogeneity, Distinctiveness, Substantiality, Managerial usefulness |
| Beldona, 2005 | Age cohorts | No | |
| Zamora, Valenzuela, & Vasquez-Parraga, 2004 | Origin and social status | No | |
| Weaver & Lawton, 2004 | Preferences or attitude | Yes | Interpretability, Segment size (substantiality) |
| Sung, 2004 | Behaviour | Yes | Managerial usefulness, Accessibility |
| Reece, 2004 | Demographics | No | |
| Frauman & Norman, 2004 | Mindfulness | No | |
| Dolnicar, 2004a | Psychographic | Yes | Distinctiveness, Managerial usefulness, Stability Segment size (substantiality), Reachability (accessibility) |
| Bieger & Laesser, 2004 | Information sources | Yes | Meaningfulness |

2.4 Implementation of Market Segmentation

Market segmentation has both practical and theoretical limitations. The decision about how to divide the market and the choice of a segmentation base is difficult, and a balance between the identification of too few or too many market segments to target is difficult to attain (Morrison, 2002). Furthermore, a body of literature has identified several problems in the practical implementation of market segmentation (Dibb & Simkin, 1994; Dolnicar & Lazarevski, 2009; Wind, 1978).

In 1978, Wind reviewed the status of market segmentation research. Of particular interest was an observation about the need to advance market segmentation research and increased effort in “narrowing the gap between the academically oriented research on segmentation and the real-world application of segmentation research” (Wind, 1978, p. 317). More than three decades later, however, this gap is still present (Dibb, 2005; Dibb and Simkin, 1994; Dolnicar and Lazarevski, 2009).

Foedermayr and Diamantopoulos (2008, p. 224) identified implementation problems as “discrepancies in the application of normative guidelines into actual segmentation practice”. This statement supports Wind’s (1978, p. 317) early detection of this problem, as “some discrepancy between academic developments and real-world practice”. Simkin and Dibb (1998) identified the lack of practical guidance in literature on the implementation of market segmentation in firms. They attributed this gap between theory and practice to the differing core aims of two groups of practitioners and researchers: practitioners are interested in segments that they can target with marketing programmes, whereas academics investigate segmentation techniques and methods for their statistical performance. In a study investigating the extent of understanding about

methodological issues related to market segmentation, Dolnicar and Lazarevski (2009) reported that managers' knowledge of market segmentation fundamentals was not strong and was likely to affect their use and implementation of market segmentation. The study's results supported previous findings that managers have difficulty understanding segmentation solutions. Methodology-based misconceptions abounded: 65% of managers in the study had difficulties implementing segmentation solutions, and 68% compared the segmentation process to a "black box" because they were unsure about the procedure that occurs between data going in and the segmentation solution coming out. Poor understanding of segmentation principles has been the cause attributed to most instances of difficulty in implementation of segmentation solutions (Dibb, 1998).

A number of authors have raised concerns about the increased use of market segmentation techniques and the lack of scrutiny in the interpretation of segmentation solutions (Dibb & Simkin, 1994; Dolnicar & Grun, 2008; Dolnicar & Leisch, 2009; Hanlan, Fuller, & Wilde, 2006). The market segmentation literature includes an abundance of studies which examine sophisticated techniques, and although attention in the 1970s was flagged to address the need for research into developing a logical framework to evaluate alternative segmentation strategies (Wind, 1978), there is still a dearth of literature focusing on measurable and practical segment selection criteria.

Wind (1978) suggested that managerial objectives drive the research process, as the segmentation base varies depending on the management issues in question. Wind (1978, p. 318) recommended the segmentation process should begin with a problem definition stage, the first major consideration being "the managerial requirements versus

the requirements proposed by the normative theory of segmentation”. He asserted that when discrepancies between the two occur it can be because of “difficulties in operationalizing the segmentation theory” (Wind, 1978, p. 319). However, “management needs are an obvious but somewhat neglected consideration” in the selection of the segmentation base. More than four decades later, this gap is still present in market segmentation literature. Tkaczynski *et al.* (2009a) found that fewer than 9% of segmentation studies considered stakeholders’ views when developing the questionnaire. Dolnicar (2007c) observed that many data-driven tourism segmentation studies considered the segmentation process as separate to positioning and strategy. The absence of a managerially-oriented segmentation process which emphasises usability signifies a gap in the literature.

Therefore, the problem of segment attractiveness appears to be a managerial one that should be guided by industry needs, involving elements of practicality, usefulness and ability to be implemented (Dibb, 1998).

2.5 Selecting Segments

The choice of segmentation base is a heavily debated issue in the segmentation literature (Moscardo, Pearce, & Morrison, 2001). In response to this debate, Dolnicar and Leisch (2004b) suggested both *a priori* and *a posteriori* segments should be constructed for a thorough evaluation of managerial usefulness. Studies comparing the effectiveness of segmentation bases are relatively scarce (Dolnicar & Leisch, 2005), as are studies comparing the attractiveness of individual segments.

Loker and Perdue (1992) applied three criteria to assess the attributes of benefit segmentation. Profitability, accessibility and reachability were used to rank order each

segment's performance, in a score from 6 to 1. Profitability was assessed using three measures: percentages of total expenditures related to percentage of participants; percentages of total person-nights; and average expenditures per person per night. Accessibility was measured by the types and number of trip planning information sources used and the geographic concentration of the segment. Lastly, reachability was measured by the likelihood of communication efforts in attracting the attention of segment members and generating interest and the desire to travel to the destination. The overall ranking for each segment was calculated by summing scores across the three criteria. While this study aimed to assess the attractiveness of segments, tourism managers had no input in the choice of assessment criteria.

Jang *et al.* (2004a) acknowledged the scarcity of prior research on the evaluation of travel segment attractiveness for target market selection. They attempted to overcome the "lack of precision of the ranking procedure" (Jang, Morrison, & O'Leary, 2004a, p. 23) of prior studies by approaching the issue from an economic viewpoint. They built on prior work by Jang *et al.* (2002) which applied concepts of risk and profitability (via their Risk-adjusted Profitability Index and Relative Segment Size) with the aim of evaluating and selecting target markets. French travel segments were assessed using mean expenditure, expenditure risk, segment size, and segment risk as the evaluation criteria.

Tourism studies that conduct a between-segmentation bases comparison instead of a within-segmentation bases comparison are scarce. Dolnicar and Leisch (2005) and Moscardo *et al.* (2001) compared two different approaches: geographic and vacation activities (*a priori* versus *a posteriori*). Dolnicar and Leisch (2005) took into account

the perspective of a destination manager in order to assess the usefulness of the two approaches, using the concepts of simplicity and understandability, reachability and applicability, relevancy, and homogeneity. The authors highlighted that these criteria needed to be operationalised for a comparative evaluation of the segmentation bases. The authors also pointed to the need for a “methodological toolbox” to enable managers to select the appropriate segmentation technique in hope of bridging the gap between statistical methodology and practice (Dolnicar & Leisch, 2005).

Moscardo and colleagues (2001) used eight criteria to compare the geographic segmentation base with an activity segmentation base: homogeneity, measurability, substantiality, accessibility, defensibility, competitiveness, compatibility, and durability. Overall, the authors recommended that activity segmentation is the “prime organizer of information” with an additional geographic division if the sample size permits (Moscardo, Pearce, & Morrison, 2001, p. 47).

In 1985 (p. 2), McQueen and Miller identified the need for future research into “which segmentation criterion is superior”. They compared 15 segmentation bases on profitability, accessibility and variability in their study set in the Australian state of Tasmania. The authors did not detail exactly which segmentation bases they evaluated, but they concluded that the “Tasmanian experience” segmentation base was the most attractive. It was made up of the combination of accommodation type and previous trips to Tasmania. Their decision was influenced by the resulting segment’s significant variation in intention to return to the destination and expenditure type, and sufficient segment size and dollar contribution. McQueen and Miller (1985) believed that an

additional advantage of the behavioural segmentation base was replicability, as similar attitudes in a study conducted between the 1978 and 1981 were detected.

In conclusion, none of the attempts to compare segmentation bases and assess segment attributes address the issue of segment attractiveness from a managerial perspective. Tourism managers are not included in any of the processes and evaluation criteria remain purely theoretical.

2. 6 Chapter Summary

The aim of Chapter 2 was to discuss segmentation approaches typically used in tourism research and to present problems associated with the assessment of segment attractiveness. Although market segmentation is commonly used in tourism marketing, there are still many unresolved questions. The most pressing of these is that of managerial usefulness. Segment attractiveness has not been conceptualised or operationalised in the tourism context in a managerially-driven manner that would allow for a practical and easy-to-implement strategy. This is disconcerting, considering the abundance of segmentation bases available to tourism researchers. The majority of segmentation studies that address segment attractiveness do not justify their use of the selected criteria. An exception is the Dolnicar and Leisch (2005) study that makes a particular point of including the managerial viewpoint in the study. However, what is lacking is the operationalisation of the managerial criteria suggested. In light of these shortcomings, the present study aims to conceptualise and operationalise an objective and managerially-driven measure of segment attractiveness. This index will be used as a tool to evaluate segmentation attractiveness and to aid tourism managers in the selection

of the most attractive tourism segment(s). Chapter 3 outlines the methods used in this study to conceptualise and operationalise segment attractiveness.

3. METHODOLOGY

Data required for the study were collected using a mixed-method research design (Tashakkori & Teddlie, 2003) that consisted of two stages: (1) a qualitative (exploratory) stage in which managers of tourism organisation were interviewed, and (2) a quantitative stage in which data were collected from tourists via a questionnaire (See Table 1.1).

3.1 Qualitative Stage

A qualitative design was selected because tourist segment attractiveness must be defined by the managers themselves (Veal, 2006). The qualitative stage consisted of interviews with managers of regional tourism organisations (Round 1) in the state of New South Wales, and a focus group with the management team of one regional tourism organisation (Round 2) (See Figure 3.1). After these two rounds were conducted, further information about a certain theme was required and appears in the figure as a follow-up round of qualitative fieldwork with participants of Round 1.

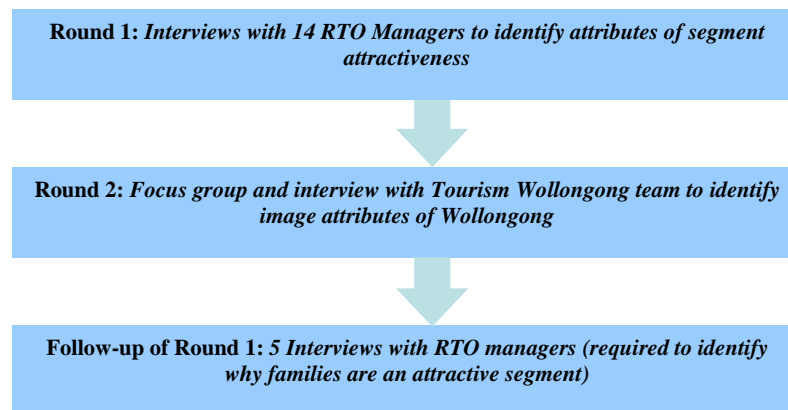


Figure 3.1: Qualitative Fieldwork Design

At the time of data collection, 16 regional tourism organisation groupings existed in the state of New South Wales, including the representative body of the Sydney region (See Table 3.1). The regional tourism organisations are regionally-driven organisations, each with an affiliated board. It is the role of the regional tourism organisation to manage and coordinate the flow of tourism in the regions. Their activities include planning tourism strategies for the region, coordinating marketing campaigns, and conducting public relations activities such as familiarisations in order to generate publicity for their region. Regional tourism organisations have a member base consisting of other tourism retail and hospitality organisations within their regions, such as tour operators, hotel and accommodation businesses, and restaurants. Regional tourism organisations also receive assistance from state and national bodies in the form of funding and information dissemination.

Table 3.1 Regional Tourism Organisations in New South Wales

| Number | Regional Tourism Organisations in New South Wales | Interview Type |
|--------|---|----------------|
| 1 | Blue Mountains | Telephone |
| 2 | Capital Country | Telephone |
| 3 | Central Coast | Telephone |
| 4 | Central NSW | Telephone |
| 5 | The Hunter | No interview |
| 6 | Illawarra | Face to face |
| 7 | Lord Howe Island | Telephone |
| 8 | Mid-North Coast | Telephone |
| 9 | Murray | Email |
| 10 | New England North West | Telephone |
| 11 | Northern Rivers | Telephone |
| 12 | Outback | Telephone |
| 13 | Riverina | Email |
| 14 | Snowy Mountains | No interview |
| 15 | South Coast | Telephone |
| 16 | Sydney | Telephone |

3.1.1 Purpose

Qualitative research was necessary to gain deeper insight into tourism managers' behaviour when evaluating market segments for their destinations. The aim of the interviews with regional tourism organisation managers was to elucidate details of the organisation, the types of decisions made, and in particular, to gain insight into the types of characteristics that make a tourist segment attractive to them. The outcomes of this stage assisted in the development of a questionnaire for the quantitative stage.

A second round of interviewing was conducted with the manager of the Illawarra regional tourism organisation and the executive team of Tourism Wollongong. This second round of qualitative fieldwork was required to identify image attributes for Wollongong, which serves as a case study. In theory, the most attractive segment would be the one that is interested in the characteristics or attractions the particular destination offers. Therefore, the aim of the second round of qualitative research was to determine precisely which attributes would portray the future image of Wollongong. Crucial insight was gained into the future image of the city, the characteristics of the city that will either attract or deter tourists, and specific marketing attributes that will be portrayed in future image campaigns.

3.1.2 Fieldwork Administration

Direct, undisguised semi-structured interviews were conducted with 14 (of 16) managers of the regional tourism organisations. As outlined in Table 3.1, 11 of the 14 interviews were performed via telephone. One interview was conducted face-to-face at the office of the regional tourism organisation manager while two participants

completed the responses via email. These participants were away from their usual office of residence during the data collection period and were unable to be reached by any other means. Data collection for stage one occurred during March 2007. All telephone and face-to-face interviews were digitally recorded.

In the second round of qualitative fieldwork (See Section 3.1.1), an interview with a tourism expert was conducted. The focus group was composed of six members of the Tourism Wollongong executive team. These participants are staff of Tourism Wollongong who are part of the executive team and are deemed to be tourism planning experts directly responsible for regional marketing. The general manager of Tourism Wollongong, the Illawarra regional tourism organisation, was interviewed face-to-face at his office in April 2007. The focus group was also conducted at the offices of Tourism Wollongong, in May 2007.

Initially, the general manager merely observed the responses of his team to the questions posed by the researcher without any input. The manager's input was requested at the end of the discussion. This approach enabled the team to provide their insights into the future image possibilities and opinions during free flowing discussion and a chain-reaction effect (D. A. Aaker, Kumar, Day, & Lawley, 2005), including a focussed topic for exploration (Stewart, Shamdasani, & Rook, 2006).

3.1.3 Instrument

The interview guide was developed to reveal details of the structure of the regional tourism organisations, the research processes they undertake, their decision making activities, and their specific market segmentation practices. The interviews followed a semi-structured format. This approach allowed for all topics and areas to be

addressed and explained, while additionally allowing for a certain degree of flexibility for new information to be revealed in the interview (Ritchie, Burns, & Palmer, 2005). The interview guide is included in Appendix A.

The Tourism Wollongong team was asked one main question, ‘In future, what would you like to be associated with Wollongong in the minds of tourists?’ (See Appendix B). Subsequent questions were listed to elicit further information about future image strategies and the types of messages to which tourists would be exposed. For example, which types of tourist would be attracted to the destination, what tourists would do at the destination, what they would come and see, and what the destination would be known for in the future? Participants were also asked about any negative images the destination may be associated with. This was necessary because of the destination’s history as a coal mining and steel producing industrial city.

3.1.4 Analysis

This researcher was responsible for data collection and fieldwork, acting as the “question-asker” (Rossiter, 2001, p. 7), as well as the one to transcribe and analyse the data, as recommended by Rossiter (2001), in order to improve the validity of results. The interviews and focus group were recorded on a digital device, supplemented with hand written notes. The transcribed recordings were coded into distinct themes. The constant comparative method and grounded theory conventions informed this coding process (Glaser & Strauss, 1967; Punch, 2005). This involved the recognition of conceptual categories in the data and the identification of relationships between categories. Open coding involved an examination of the data for identification or

labelling of conceptual categories and theoretical coding allowed the construction of the categories.

The list of image items suggested by the general manager and the executive team was reduced to a final set of image attributes using content analysis (Neuendorf, 2002). The transcripts were coded for common themes, considering the number of times the image attributes were mentioned in the discussion (Silverman, 2004). In some instances, destination image attributes that were listed as one word were combined with another of the same theme and translated into an image phrase. For example, sun, sand and surf were combined to form the descriptive phrase ‘Long, sandy beaches’. Similarly, escarpment backdrop, coast and sea were combined to form the phrase ‘Coast meets mountains’. Other words were found to be totally transformed into an easier, descriptive or colourful phrase which would transfer a close to tangible image to a participant who might have to assess his or her perception of the city image. The word “escapism” was translated into the expression “Time out to live” because participants explained that they would use this to denote an escape from everyday routine and a chance to “just live” without the responsibilities of everyday routine. The phrase “Space to move” was converted to “Uncrowded” which captures the element of space from the perspective of a tourist who wishes to visit an area that is not totally overrun with other tourists, unlike a congested city.

Participants of the focus group were then presented with the final image set and asked to confirm that these image items, and phrases, were appropriate representations of the future destination image. All members agreed on the image items developed during the focus group. Suggestions were made for different wording and the addition

of items. The final list of image items appears in detail as a complete list included in both Question 35 and 36 of the survey (See Appendix C).

3.2 Quantitative Stage

3.2.1 Purpose

Survey data was needed to empirically validate the Segment Attractiveness Index. A questionnaire was developed based on the findings from the qualitative fieldwork (Refer to Stage 3 of Table 1.1). The segment attractiveness indicators were measured in the questionnaire. In this study, the terms “attractiveness” and “effectiveness” are used to denote the evaluation of segmentation solutions *before* targeting. They are based on an evaluation of their managerial usefulness.

The following sections document how items were constructed to form an index of Segment Attractiveness and which variables were used to form the segmentation bases. The questionnaire is included in Appendix C, with only those parts used in this study included. Other small sections of questions were used for another study which helped fund this research project.

3.2.2 Fieldwork Administration

Data was collected using an internet panel. The sample consisted of Australian residents over the age of 18 years who were registered with a permission-based internet panel. The internet panel recruitment method is multi-sourced, meaning its participants are recruited through a number of different avenues – not only the Internet – to ensure its panel is demographically representative of the Australian population and to avoid

bias associated with limited source recruitment. The panel members are offered incentives (between AUD 2 – 5 dollars for each completed survey as compensation).

Online survey data collection has increased in popularity since its introduction in the 1990s (Evans & Mathur, 2005). Major strengths of this method include the wide global reach, flexibility, applicability to both business-to-business or business-to-consumer settings, speed and time, convenience, ease of follow-up, controlled sampling, control of answer order, required completion of answers, response style diversity, knowledge of participant and non-participant characteristics (Evans & Mathur, 2005; Schillewaert & Meulemeester, 2005). Weaknesses can include low response rates, perception as junk mail, privacy issues, unclear answering instructions, lack of participant experience, and possibly skewed attributes of an Internet population (Couper, 2000).

Conducting the data collection through a panel research company overcomes a number of issues typically stated as weaknesses or potential problems with online data collection (Grossnickle, 2001). The offer of an incentive for completion of surveys helps overcome the issue of low response rate, and by contacting registered members participants are less likely to perceive the survey invitation as junk mail. Incentive payments have been shown to be effective in increasing response rates (Deutskens, De Ruyter, Wetzels, & Oosterveld, 2004). Privacy and security issues are overcome by using a trusted company which does not use panel data for any other purposes than research. Furthermore, participants must answer the question in a sequential order and complete each question before they are allowed to be presented with the next question

in the window. This ensures participants complete all questions and do so in the intended order.

A recent study conducted by Dolnicar *et al.* (2009) found that both online and pure paper surveys are subject to bias, and they recommend a bi-modal approach (both paper and online surveys) to ensure different types of participants are captured by both methods. However, this was not possible in this study due to budgetary limitations.

Fieldwork was conducted during October 2007. Panel members were invited by email to take part in the study. The email contained a link to the panel website, informed members that the questionnaire would take approximately 30 minutes to complete and outlined the level of incentive payment.

The sample size for this study was limited to 1000 participants due to budgetary constraints. To achieve a sample size of 1000, invitation emails were sent to 7186 panel members. Invitation emails were sent to a nationally representative group and once a certain quota was filled, for instance, a certain age category or state of residence, participants were screened out of the survey. Quotas ensured representativity of the sample, although, representativity is not required given the objectives of this study. 2139 invitation emails were opened. A total of 626 participants were screened out because their inclusion would have exceeded the maximum quota for each demographic, 415 dropped out, and 88 people were screened out because they had never heard of Wollongong or did not travel. After data cleaning, the final sample size consisted of 1003 participants. The response rate of 66% (1003/1513) was calculated based on the number of opened emails with eligible participants (2139 less 626).

3.2.3 Instrument

After an initial, general introduction on the purpose of the study, the first question was a screening question. It filtered out those participants who had never heard of Wollongong to ensure that image perceptions were gathered from people with some experience or prior knowledge of the destination (See Appendix C).

The “funnel question” (Peterson, 2000) approach to questionnaire development enabled the sequence of general to specific questions on the topic of interest, with personal demographic questions at the end (de Vaus, 2002). General travel questions were placed at the start to introduce the topic of travel and to gradually stimulate recall of vacations past. The general questions led to more specific questions about the participants’ last vacation, which required detailed information related to the Segment Attractiveness Index. The general questions were used to profile resulting segments, such as demographics. They were placed last as they were easy to answer and required limited recall.

Five *a posteriori* and three *a priori* segmentation bases were used to segment the data. The *a posteriori* segmentation bases included benefits, activities, information sources, destination image turnoff and destination image perfect. These segmentation bases were included because of their popularity and high level of support they receive in the tourism literature. Benefits of travel are popular because they are believed to better reflect tourist needs (Gitelson & Kerstetter, 1990; Jang, Morrison, & O’Leary, 2002; Johar & Sirgy, 1995), activities can be grouped to appeal to the market (Choi & Tsang, 1999; Hsieh, O’Leary, & Morrison, 1992) and are related to expenditure share. Information sources are important for targeting the right tourists with an effective

communications strategy (Bieger & Laesser, 2004; Hyde, 2007), and image is essential to differentiate a destination from its competitors (Dolnicar & Grabler, 2004). Using the kind of negative image where image items are investigated as a “turnoff” (or disincentive) for participants has not been studied before but was regarded as an interesting segmentation base and was included in this study. Considering that “traveler’s choice of a given vacation destination depends largely on the favourableness of his or her image of that destination” (Leisen, 2001, p. 49), it is likely that they would avoid places with which they do not identify.

The three *a priori* segmentation bases used to segment the data included: (1) *environmental friendliness* while on vacation, (2) *family life cycle* (children or not), and (3) *income* (annual household income). A priori segmentation bases were included in the study as they are directly observable (Tkaczynski, Rundle-Thiele, & Beaumont, 2009b) have demonstrated ease of use and implementation (Moscardo, Pearce, & Morrison, 2001; Wedel & Kamakura, 2000). Family life cycle was selected because prior studies have demonstrated that different lifestyles affect the travel patterns of individuals (Collins & Tisdell, 2002; Oppermann, 1995) and the family holiday group is an important market segment for tourism destinations (Kang, Hsu, & Wolfe, 2003), environmental friendliness was selected because of the increasing need to incorporate environmental concerns into managerial planning (Dolnicar & Leisch, 2008b), and income was chosen because tourism marketers can package tourism products at different price levels that may be attractive to consumers at different income levels (Kolb, 2006, p. 115). The segmentation variables used to segment the data were included in the survey. Each section of the survey is described in the following sections.

3.2.3.1 Section A: Travel Information

Six questions were included in the survey to measure travel behaviour. Travel frequency was used to determine how often participants travel overseas and how often they travel within Australia during an average year. Seasonality of vacation trips was also included in this section. Participants were asked whether they tend to vacation during the week or on weekends, and whether vacations are generally taken during school or public holidays or outside of these holidays. Two answer options were given for each of these questions and participants were required to select only one option which best reflects their vacation style. Participants were asked whether they tend to return to a destination they are happy with to more clearly understand whether they have a tendency for repeat visitation. Responses were captured with a binary answer option (“Yes” or “No”). A binary answer format was preferred to reduce the burden on respondents and to make the response time faster (Dolnicar & Grun, 2007b).

Participants were then asked to indicate, on a binary scale (“Yes” or “No”), sources they use for vacation planning. The list of possible information sources was adapted from the one used by Bieger and Laesser (2004) (for the full list of items, refer to Appendix C, Part A).

3.2.3.2 Section B: My Last Australian Vacation

The purpose of this section of 11 context-specific questions was to glean information about participants’ last leisure vacation. Geographical questions about their last Australian vacation included which state the destination was in, amount of distance travelled, mode of transport used for travelling to, and mode of transport used while travelling around the destination.

Questions about travel style during the last vacation included whether or not participants took their last vacation during school/public holidays (a seasonality-style question), the duration of their visit (“How many days did you spend on this vacation, including travel to and from the destination?”), how often they take that type of vacation, whether the vacation was part of a packaged trip or independent travel, their travel party size, and who their travel companions were. The type of accommodation was ascertained in this section, as was the method they used to book this accommodation. Options included whether participants used the Internet, a travel agent or booked in person upon arrival.

Questions about spending behaviour focussed on the amount of money spent during the entire vacation (requested in a metric format), the times spent eating out at a restaurant or café for breakfast, lunch, dinner and coffee/morning tea, and the number of times participants went shopping for leisure.

The last two questions of this section asked participants whether they reported their vacation experiences to anyone, such as a partner, friends or family. If so, they were asked to specify how they shared their experiences, for example, by emailing photos, conversations, or updating a web journal.

3.2.3.3 Section C: Reasons for Travel

To measure participants’ reasons for travelling, the benefit statements suggested by Frochot and Morrison (2000) were used in the questionnaire. Participants had the option of selecting either “Yes, applied to me for my last vacation” or “No, did not apply to me for my last vacation”.

Travel activities were listed under the following headings: “Outdoor or nature activities”, “Sports or active outdoor activities”, “Arts, heritage or festival activities”, “Local attractions or tourist activities”, and “Social activities”. Specific activities were listed below each category heading and participants were asked to indicate whether they participated in each activity during their last Australian vacation. The answer options included “No”, “Yes, once”, “Yes, more than once”, and “The activity was the main purpose of the vacation”, to indicate the frequency of participation. The activity list consisted of 45 activities used by Tourism Australia in their International Visitor Survey (Australian Government Tourism Australia, 2005).

Behaviour towards the environment was measured using a list of behaviours that effect environmental resources, for instance, “I littered” and “I switched off the light whenever leaving a room”. The answer options included: “Always”, “Often”, “Sometimes”, “Rarely”, “Never” and “N/A”. The list of environment related behaviours was derived from prior empirical studies that explored pro-environmental behaviour of tourists while on vacation (Corraliza & Berenguer, 2000; Dolnicar & Leisch, 2008a; Johnson, Bowker, & Cordell, 2004; Trumbo & O’Keefe, 2001, 2005).

A question was included to determine how morally obliged a participant felt to behave in an environmentally friendly manner while on vacation, with three answer options (“Not at all obliged”, “Slightly obliged”, and “Strongly obliged”) (Berenguer, Corraliza, & Martin, 2005).

3.2.3.4 Section D: Image of Wollongong

The first question in this section measures how familiar participants are with the city of Wollongong by asking participants whether they have visited the city before.

Section D also contained a list of image items measuring participants' perceived image of Wollongong. Participants were asked, "Listed below are some characteristics that describe vacation destinations. Please indicate those which you think apply to the city of Wollongong. Even if you have not visited Wollongong, still indicate which attributes you think would describe it." The list of image items was chosen because they were specific to the destination of Wollongong, as determined by the regional tourism organisation, and because the range of image attributes is an adequate mix of both functional (physical or measurable) and psychological (abstract) attributes of destination image as recommended by Echtner and Richie (2003). Two binary answer options were available to participants, "Yes, it applies to Wollongong" and "No, it doesn't apply to Wollongong". Once again, a binary scale ("Yes" or "No") was chosen (Dolnicar, 2007a).

3.2.3.5 Section E: My Ideal Vacation

To measure the similarities between the attributes of the city of Wollongong and those of participants' ideal vacation destination, this section measured participants' ideal image perceptions. Participants were asked, "Listed below are attributes of Australian vacation destinations". Answer options were: "Perfect for me", "A turnoff for me", and "I don't care". The image attributes were exactly the same as those used in Question 35. Question 35 stated, "Listed below are some characteristics that describe vacation destinations. Please indicate those which you think apply to the city of Wollongong. Even if you have not visited Wollongong, still indicate which attributes you think would describe it". This question was included to allow investigation of the match between an actual destination and one that is the most desirable.

3.2.3.6 Section F: Personal Information

The last section of the questionnaire asked participants about their age, sex, lifestyle, such as whether they have children and how many, their family (household) size, income, education, and employment status. Media viewing behaviour was also ascertained which included television, radio and newspaper use.

3.2.4 Pilot Testing

The questionnaire was pilot tested by 10 individuals in two waves. The individuals used in the pilot phase reflected the population of interest for the study. Initially, the questionnaire was pretested in a pen-and-paper fashion where participants were asked to explain their understanding of the questions to the researcher. This enabled the detection of questions that were hard to understand and ones that were misinterpreted (Krosnick, 1999).

The questionnaire was then reviewed in an online environment by the researcher and four other individuals for length, time taken to complete the survey, ease of use via the Internet, online flow and the sequence of the question items, question skips, participant interest and attention, online aesthetics such as colours used and layout including the number of questions on each window, questionnaire wording for each item and the instructions provided to the participants (de Vaus, 2002).

The online pilot test was crucial to detect and eliminate errors in the online environment. For instance, checking the logical sequence and flow of the questions and branching (de Vaus, 2002) or filtering directions to particular parts of the questionnaire are properly controlled (Couper, 2000; Evans & Mathur, 2005).

3.2.5 Analysis

Data was delivered in a Statistical Package for the Social Sciences (SPSS) file. Automatic entry avoids errors, like data entry error (de Vaus, 2002). For instance, if the response was outside of the allowable range, participants were automatically prompted to review their answer. Data cleaning and checking procedures were conducted by the data collection company and then by the author.

The following statistical analyses were computed using SPSS version 15.0 for Windows (SPSS Inc, Chicago, IL) and Topology Representing Networks (TRN) extended version 1.0 beta for Windows (Mazanec, 1997).

Factor analysis was conducted prior to cluster analysis to select variables for clustering. To conduct the segmentation analysis, many algorithms can be used (Everitt, Landau, & Leese, 2001), and for this study cluster analysis using the Topology Representing Network (TRN) partitioning algorithm was selected (Martinetz & Schulten, 1994) because it has been shown to outperform similar partitioning algorithms (Buchta, Dimitriadou, Dolnicar, Leisch, & Weingessel, 1997). However, in this instance the algorithm chosen is not crucial because the proposed Segment Attractiveness Index can assess segments independent from the way they were derived. The TRN partitioning algorithm is likened to the popular k-means algorithm. It employs neural networks methodology (Mazanec, 1992) to detect a grouping that represents the data's density structure. TRN is a variant of a data compression technique based on the "neural-gas" algorithm. In this algorithm, a learning process called training occurs. A number of starting points in the data set are selected and every other point in the data set are compared (Dolnicar, 2004a, p. 246). The comparison of distance between participants

and the starting point uses the Euclidian distance measure. Each time the distance between a starting point and a participant is compared, the closest starting point wins. The learning process occurs and updates all other starting points grouping those nearby. This process is iterative and continually updates the grouping of the data points based on the closest combination. The number of clusters or groups is specified at the start of this training process.

Validation of cluster analysis solutions is strongly suggested (Aldenderfer & Blashfield, 1984; Dolnicar, 2006). Validation is conducted using significance tests with independent variables that were not used in the generation of the cluster solution. Finally, Analysis of Variance (ANOVA) was conducted to compare differences between Segment Attractiveness indices for the different segments.

The development of the Segment Attractiveness Index was guided by the findings from the qualitative fieldwork and was constructed using a formative measurement approach. In contrast to the predominant measurement approach, reflective measurement, the formative approach assumes that formative indicators cause or define latent variables (MacCallum & Browne, 1993). In contrast, the reflective measurement perspective assumes that the latent variable affects the indicators. Indicators of the reflective measurement model are interchangeable (Diamantopoulos, 1999), and the latent construct is independent of its indicators (Rossiter, 2002). Cause indicators in a formative model are not interchangeable.

The formative measurement framework (Coltman, Devinney, Midgley, & Venaik, 2008; Diamantopoulos & Winklhofer, 2001) was used to guide the development of the Segment Attractiveness index. It requires three theoretical

conditions to be met. First, the nature of the construct has to be formative, not reflective, whereby the latent variable does not exist naturally, but is in fact formed by the indicators. Secondly, the direction of causality creates a situation where changes in indicators cause a change in the index or latent variable value. Finally, the characteristics of the indicators used to measure the construct are such that the exclusion of one indicator significantly impacts on the latent variables, whereas in the case of reflective constructs indicators are interchangeable (Diamantopoulos, 1999, p. 447).

In the case of the Segment Attractiveness Index, all three conditions are met. Managerial Segment Attractiveness is not a naturally occurring construct. Modification of the indicators will lead to a change in the index and exclusion of indicators will affect the index value. Most importantly, Segment Attractiveness is an attribute that is theoretically “formed” from its components, and is therefore a “formed attribute” (Rossiter, 2002, p. 314).

3.3 Authorisation

Authorisation to conduct this study was granted by the Human Research Ethics Committee of the University of Wollongong, and by participating members of the research panel and the tourism organisations.

3.4 Descriptive Profile of the Sample

The final data set consisted of 1003 participants. A summary of the panel profile is provided in Table 3.2. The sample is representative of the Australian population’s age and state of residence when compared with figures published by the Australian Bureau of Statistics (ABS). At the time of the last census in 2006, males made up 49.4% of the Australian population and females 50.6% of the Australian population (Australian

Bureau of Statistics, 2008a). The comparison of state of residence figures between those of the sample and that of the actual country's population is shown in Figure 3.2.

Table 3.2: Sample Profile

| Variables | | Frequency | Valid Percent |
|--------------------------------|-------------------------------------|-----------|---------------|
| Sex | Female | 525 | 52 |
| | Male | 478 | 48 |
| Age | 19 to 24 | 153 | 15 |
| | 25 to 34 | 179 | 18 |
| | 35 to 44 | 192 | 19 |
| | 45 to 54 | 179 | 18 |
| | 55 or over | 300 | 30 |
| State of residence | New South Wales | 304 | 30 |
| | Victoria | 260 | 26 |
| | Queensland | 195 | 19 |
| | South Australia | 105 | 11 |
| | Western Australia | 93 | 9 |
| | Northern Territory | 3 | 1 |
| | Tasmania | 22 | 2 |
| | Australian Capital Territory | 21 | 2 |
| Household annual income* | Under \$20,000 | 92 | 9 |
| | \$20,000-\$40,000 | 187 | 19 |
| | \$40,001-\$60,000 | 211 | 21 |
| | \$60,001-\$80,000 | 176 | 17 |
| | \$80,001-\$100,000 | 143 | 14 |
| | \$100,001-\$150,000 | 139 | 14 |
| | Over \$150,000 | 55 | 6 |
| Education | Primary school | 4 | 1 |
| | Some secondary school | 70 | 7 |
| | School Certificate (year 10) | 120 | 12 |
| | Higher School Certificate (year 12) | 175 | 17 |
| | TAFE | 194 | 19 |
| | Other college | 114 | 11 |
| | University (undergraduate) | 191 | 19 |
| | University (postgraduate) | 127 | 13 |
| | University (PhD) | 8 | 1 |
| Employment status | Employed full-time | 403 | 40 |
| | Employed part-time | 149 | 15 |
| | Employed casually | 68 | 7 |
| | Unemployed | 50 | 5 |
| | Retired | 173 | 17 |
| | Full-time student | 57 | 6 |
| | Other | 103 | 10 |
| Household size | 1 | 94 | 9 |
| | 2 | 371 | 37 |
| | Between 3 and 5 | 383 | 38 |
| | 5 or more | 155 | 16 |
| Has children | No | 326 | 32 |
| | Yes | 677 | 68 |
| *Amount in Australian dollars. | | | |

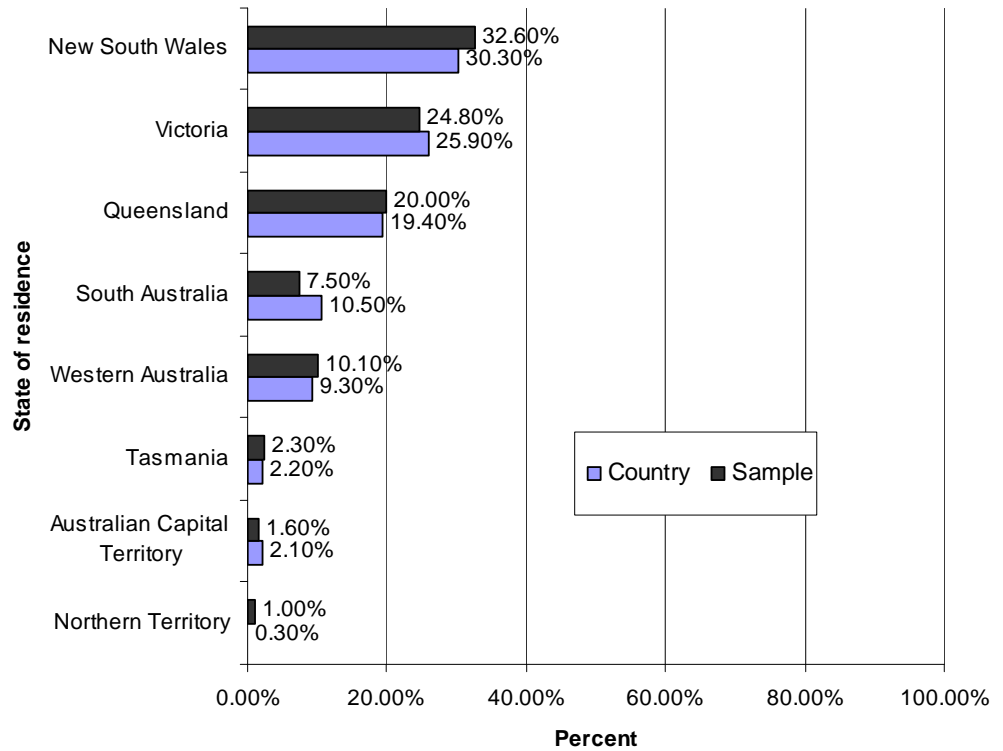


Figure 3.2: State of Residence: Comparison of sample with Australian population

3.5 Summary

Chapter 3 detailed the research methods used in this thesis. The chapter outlined the study design, and described the participants of the qualitative and quantitative stages of the study. Segment Attractiveness is not a naturally occurring construct, so a formative measurement approach will be used to operationalise it. The Results chapters, Chapters 4, 5, and 6, will report on the findings from the qualitative stage, the conceptualisation and operationalisation of the index, and the results of the evaluation of segmentation bases conducted by using the Segment Attractiveness Index.

4. CHARACTERISTICS OF MARKET SEGMENTS ATTRACTIVE TO MANAGERS: QUALITATIVE RESULTS AND DISCUSSION

4.1 Market Segmentation in Regional Tourism Organisations

All 14 regional tourism organisation managers interviewed adopted a market segmentation strategy in order to group the tourism market. Initially, two participants stated that they conducted mass marketing. One of the two participants justified this by stating that “*any tourist is a good tourist and we think our destination suits a number of different people*”. However, through further questioning, it was discovered that a distinct effort to attract certain types of tourists was evident, that is, these participants also adopted a market segmentation strategy even if they did not identify it as such. One of these participants indicated that the destination was only accessible via airplane, so only those tourists able to afford airfares could fly there. More detailed questioning revealed that a lot of adventure tourists were attracted because the destination offered numerous adventure activities:

We think [our destination] is suitable for everyone, except the really old I think, [we] try and cater for all markets, we do get older people. [Our destination] is a place with lots of activities to do: mountains to climb, scuba diving to be done, and fishing and surfing and all sorts of things ... It's really for the more active people. We are working towards that, I suppose, like sponsoring the ProDive stand at the travel expo because you don't get 90 year olds going to the ProDive expo. We try to push the younger market I suppose. It has to be wealthier as well because the airfares are quite high.

Another participant explained that in the past he used a general message because of the poor image of the region, and “[a] *low image meant a low expectation*”. But now

that their destination image had improved he could attract more specific segments. The focus had moved towards attracting the “drive” market, which describes the domestic market that travels by car or any other road-based vehicle.

Generally, the awareness of the need to segment was high:

To give yourself a point of difference these days you have to go along a theme ... you have to stand aside or alone and find your points of difference and in doing so you can't talk about glistening beaches and sun and sex or lovely location solely. You need an experience – that's what people want ... But we can't just do the big tourism market, you must isolate groups. In doing so you must know your market well, who's coming, if numbers are growing and why they are dropping off and to decide to do it all, you'd drown.

While identifying the need for differentiation, participants lacked confidence in describing their preferred market segments. The first reaction was to state that they followed the recommendations of larger national and state tourism organisations, such as Tourism New South Wales and Tourism Australia (Tourism Research Australia, 2006). This reliance was partly because those who wished to attract government funding needed to be in line with the terminology that the funding body used. On the other hand, market segments suggested by national and state tourism bodies are used by many regional tourism organisations because they do not have the resources required to conduct market research of their own.

Follow-up questions were used to discover whether the regional tourism organisations had any other characteristics that they used to differentiate the market.

“There's a whole range [of criteria], obviously the market segmentation we are using is

about psychographics more than anything else ... That's the level at which we base the strategic decisions" stated one participant.

One other regional tourism organisation was quite entrepreneurial in its approach to group the market by sub-segmenting the market to determine the most attractive segment. These were the "Murray Meanderers", defined as domestic travellers, in their late 30s and beyond, who are high spenders, frequent travellers or those who take long trips, and those who partake in activities that align with identified regional product strengths.

4.2 Identifying Characteristics of the Most Attractive Tourist

Participants were asked what type of criteria they used to distinguish between different types of tourists, and more specifically, how they determined which tourist was more attractive than another. The main criteria identified by managers included high expenditure, large size of the potential market, their travel interests, long length of stay, high income, older age brackets, and larger travel groups like families with children. One participant stated that *"we can't reach all of those segments so which are we going to target that will give us the best result for the money invested"*. Another participant explained why travel interest was important. They believed that general travel interest related to the match between the destination as a whole (including the tourism services offered at the destination), and the needs or desires of the tourists.

The key, open-ended question used to determine the characteristics of the most attractive segment required interview participants to describe the *"tourist of their dreams"*. From this question, 24 attributes of the most attractive segments emerged (see Table 4.1). The items are listed in ranked order from most stated to least stated, with the

corresponding percent and the number of participants out of the total of 14 who stated each attribute.

Table 4.1: Attributes of a Dream Tourist

| Dream Tourist Attributes | Rank | No. of Participants (Out of 14) | Percent | Category |
|--|------|---------------------------------|---------|--|
| Wants to experience/explore area | 1 | 9 | 64% | Spending behaviour |
| Behaves in an environmentally friendly manner | 2 | 8 | 57% | Moral obligation to behave in an environmentally friendly manner |
| Gets involved in activities | 3 | 7 | 50% | Spending behaviour |
| Generates widespread expenditure | 3 | 7 | 50% | Spending behaviour |
| Holidays with the entire family | 4 | 6 | 43% | Spending behaviour |
| Connects with the destination | 5 | 4 | 29% | Ambassador |
| Loves good food, coffee and wine | 5 | 4 | 29% | Spending behaviour |
| Spends time in the area | 5 | 4 | 29% | Travel habits |
| Has high expenditure | 5 | 4 | 29% | Spending behaviour |
| Has good disposable income | 5 | 4 | 29% | Spending behaviour |
| Tells their friends | 6 | 3 | 21% | Ambassador |
| Loves the outdoors | 6 | 3 | 21% | Spending behaviour |
| Is a repeat tourist | 7 | 2 | 14% | Travel habits |
| Loves to go shopping | 7 | 2 | 14% | Spending behaviour |
| Has a lot of spare time | 7 | 2 | 14% | Travel habits |
| Can be easily converted to a tourist | 7 | 2 | 14% | Reachability via the Internet |
| Desires match with what the destination provides | 7 | 2 | 14% | Image Match |
| Is after entertainment for the kids | 7 | 2 | 14% | Spending behaviour |
| Wants all trimmings – not worried about cost | 7 | 2 | 14% | Spending behaviour |

As shown in Table 4.1, the 24 attributes were categorised into six themes:

spending behaviour, moral obligation to behave in an environmentally friendly manner, ambassador, travel habits, reachability via the Internet, image match. Column one of Table 4.1 represents the open codes identified in the Phase 1 data set. Themes were developed and refined from these open codes, and are described in more detail in the following sections 4.2.1 – 4.2.6.

4.2.1 Spending behaviour

Eleven of the dream tourist attributes were identified as being related to expenditure. “Wants to experience/explore area” was most frequently identified as the most important indicator of a dream tourist with 64% of participants ranking it first. Exploration equates to becoming involved in activities and a large proportion of activities at a destination require tourists to spend money.

One role of the regional tourism organisations is to satisfy the many affiliated tourism and hospitality operators in their area. This means that the regional tourism organisations must monitor the flow of tourism to their region to ensure that tourism money is distributed in the area and not siphoned into one or a few activities only. The ideal tourist characteristic “generates widespread expenditure” is also related to this theme.

Connected to this theme were those characteristics that related directly to monetary expenditure. For instance, “loves good food, coffee and wine” denoted expenditure on eating out, “has high expenditure” and “has good disposable income” related to the propensity, or capacity, to spend money during their vacation, and “loves to go shopping” also related to the notion of expenditure. Another attribute related to this theme was “wants all trimmings – not worried about cost” that signified high expenditure on travel and travel related activities.

Activity involvement, “gets involved in activities” at the destination, was the third highest ranked characteristic (50%) and the second highest spending characteristic. Tourists exploring the area and getting involved in many activities spend more money

and use a wide variety of local tourism services. Participants were adamant that was a stand-alone issue, separate from pure expenditure, but still related to it.

Managers frequently mentioned families when discussing their ideal tourist. “Holidays with the entire family” was identified by 43% of participants as an attractive characteristic, as was “is after entertainment for the kids” (14%). Five follow-up interviews were conducted to better understand what exactly it was that destination managers found attractive about families. The additional interviews revealed that family status was used as a proxy for expected higher expenditures, image match and a higher likelihood of repeat visitation, all of which were attractiveness criteria that were already revealed independently.

A note should also be made about the difference between size of a segment and their expenditure and the distinction that tourism managers made between the two. While size and absolute tourist numbers are important for tourism destinations, managers were very sceptical about the advantages that tourist numbers bring. They explained that in most cases, the volume of tourists poses more disadvantages than advantages. Common examples of disadvantages offered were traffic congestions, parking restrictions, and accommodation problems. However, their biggest concern was that larger tourist numbers don’t necessarily mean more value in terms of expenditure per person. One manager gave an example of a local tourism event that attracts large numbers of tourists to the destination for a sporting event, a touch football tournament. Families saturate the area in this one long weekend and while it appears a profitable venture initially, a closer investigation into the behaviour of these tourists highlights that they are not as attractive as other segments. They spend all their time at the one

event, in the one complex, they seldom venture out and explore the city, and they channel all their spending, for instance food, in one narrow field (at the sporting complex). The accommodation facilities in the region are all booked out which leaves little choice for other tourists who would be visiting the area for a vacation or another special event, and who would most likely spend their time visiting other attractions and eating out at various outlets.

4.2.2 Moral obligation to behave in an environmentally friendly manner

“Behaves in an environmentally friendly manner” was deemed important by 57% of interview participants, which made it the second highest ranked characteristic (as depicted in Table 4.1). One destination manager explicitly stated that the focus is shifting rapidly towards environmental sustainability:

... we are now starting to focus on it a lot more. We are moving towards reducing our print collateral and integrating new technology as a move to be sustainable. We would like to see more support in nature tourism developments.

This excerpt addresses the efforts of the RTO in making their destination more environmentally conscious, not to their efforts to attract a specific type of tourist (in this case, an environmentally friendly tourist). However, respondents were able to make the connection between attracting a specific type of tourist through certain marketing and destination planning initiatives, and the detection of a suitable type of tourist. However, they found it difficult to operationalise a method of detecting these types of tourists and find cost effective and efficient avenues of advertising to reach them.

It should be noted that interviews with tourism managers were conducted prior to the global financial crisis in 2008. It would be interesting to find out how highly this attribute is valued in the present day.

4.2.3 Ambassador

The item “tells their friends”, was an indication of positive word of mouth and an important characteristic from the regional tourism organisation managers’ point of view. They believed that when tourists are satisfied with their holiday experience they will go home and tell their friends and family about it, acting as advocates for the destination. They hold the belief that word of mouth is much more credible than print or media advertising. “Connects with the destination” was ranked 5th and followed the theme of satisfaction and advocacy. One participant remarked that having tourists really connecting with the destination was the most important criterion:

I think the most important thing is that people have a great experience and connect with the place because it's not just about money and high yield because if you've had a great experience you'll go back ... and tell people "I went to the most amazing restaurant ... and also feel rejuvenated".

This sentiment was repeated three other RTO managers who believed that “Connects with the destination” stirred emotions that would hopefully generate a relationship with the destination and encourage behaviour that reflects advocacy.

4.2.4 Travel habits

Three issues are connected in this theme: (1) a repeat tourist, (2) time spent in the area, and (3) spare time. A “repeat tourist” is attractive to 14 % of participants. Participants valued this attribute because a tourist who is a repeat visitor, or even a second time tourist, would “*know what’s on offer and what they want to explore more deeply*”. The tourist who stays longer will “*connect to the place and have the great experience*” (important to 29% of participants). This concept of length of stay incorporated the frequency at which tourists take vacations and to the concept of a “traveller”, a person who likes to explore and takes frequent vacations. “Has a lot of spare time” (important to 14% of participants) was related to tourists who visit a destination out of peak season. These tourists are attractive because tourism managers wish to spread visitation out over seasons to sustain their tourism operators over the course of the year.

4.2.5 Reachability via the Internet

“Can be easily converted to a tourist” (14%) captured ease of reachability through advertising and high likelihood to win as a visitor using the available media. The medium of primary interest was the Internet because it is seen as the future of tourism advertising, as well as being efficient and less wasteful.

4.2.6 Image Match

“Desires match with what the destination provides” was another important indicator of the dream tourist (indicated by 14%). Managers specified that an attractive tourist should be interested in what the destination has to offer because it implies a

crucial balance between supply and demand. In terms of advertising it indicates that the right tourists should feel attracted to the destination by the brand image conveyed in the destination advertising.

4.3 Wollongong: An Image-Match Example

When asked the question, “In the future, what do you wish to be associated with Wollongong in the minds of tourists?” the Wollongong tourism manager gave an account of both short term and long term plans for the destination image. Answers to this open-ended question were provided in short phrases of image attributes. He replied that in the short term an association would be reinforced between the cities of Wollongong and Sydney, because Wollongong is only an hour from Sydney. An image of an unspoiled environment, with friendly locals, and tourist expectations having being exceeded would be fostered. In the long term, he hoped that Wollongong would be viewed as a hub for short-break holidays with a beachside theme.

The concept of escapism was also considered important as it would tie in to the fact that Wollongong is so close to Sydney, yet it can be a totally unique destination. A city escape leads to notions of a country environment. However, the tourism manager wanted the destination to retain an element of sophistication:

escaping the “hustle and bustle but still [having] the modern facilities that people’s everyday life expectations are – shopping, restaurants, cafés. We would like to be a sophisticated city going forward with a country feel ... still that relaxed country environment where people can sit and talk to each other at night”.

During the focus group, however, team members were doubtful that Wollongong could be labelled or associated with the word “sophisticated” alone. Their concern was that sophistication was something associated with larger, cosmopolitan cities and that Wollongong still possessed a lot of country connotations. Instead, “country charm” was agreed on as the image along with “good value for money” and “friendly people”.

A beachside holiday theme played a dominant role in the future image according to the general manager of Tourism Wollongong. It incorporated the image of tranquillity, meditation, relaxation and the calming aspects of water therapy:

we can't underestimate this beach theme is one of the main reasons people come here... [there] seems to be a relaxing mentality the closer you get to water.

Blue and green featured as significant colours to describe the city of Wollongong. This was due to the green foliage of the mountains which form the escarpment to the west of the city centre and the blue of the ocean which forms the coastline on the east of the city centre. This visual was said to offer “something different”, a unique aspect of a city on the water, with the green escarpment backdrop likened to “*setting the scene for any stage event ... you have a backdrop and the rest of the props in the front*”. Phrases such as “long, sandy beaches”, “blue sky and green trees”, “coast meets mountains”, “peaceful and quiet” and “unspoiled and natural” denoted images of sea, sun and sand, the natural environment and cleanliness.

Similarly, variety in attractions played a large part of the future image of Wollongong. An assortment of attractions was listed, spanning a wide range of activity

types, from an animal park and water park aimed at the family market, to hiking and sky diving, aimed towards the adventure market. The perception that “*you can do more things here*” is “*what it’s all about*”, according to the tourism manager. Appeal of the city’s attractions to a wide audience was also mentioned, with “waterside camping”, “family fun”, and “activities for all ages” concentrated around the notion of family and the activities offered in the region. One participant summed up the image of the destination and some of the themes uncovered in the focus group:

The amazing views, the dramatic coastline meets escarpment, the drive and the experiences along it. It is the Harley ride, the tai-chi at the temple, walking along the beach, going from the hotel to the restaurant, digging your feet in the sand, it is all of that. There is the fact that you have no traffic and you have your space, it’s quiet and relaxed. It’s clean.

“Innovation”, “fun, funky cafes” and “contemporary accommodation” captured the recent hotel, university campus and harbour port developments in the area. “Cultural diversity” was included as the region has been a centre of multicultural diversity from its origin as the site of the largest Australian Steelworks plant that heavily employed migrants, predominantly from European countries, post World War II.

The discussion ended with participants addressing the fact that the destination still possessed negative features that are associated with the origins of the city. This theme prompted other participants to note that Wollongong had been plagued by a depressed economy since the de-industrialisation of the steelworks, and a high youth unemployment rate. “*We are a city which has a stigma of the ‘steel city’ and you can see all the smokestacks*”, exclaimed one focus group participant. “Rundown”,

“polluted” and “steelworks” were negative concepts that captured the notion of the industrial history and identity of the city.

The attributes of the destination image captured in the interview with the destination manager and the focus group discussion with the executive team of Tourism Wollongong were compiled into one list of phrases and words. The image items include: great nightlife, peaceful and quiet, activities for all ages, contemporary accommodation, laid back and relaxed, waterside camping, uncrowded, time out to live, family fun, short-break destination, day-trip destination, good value for money, steelworks, cultural diversity, long, sandy beaches, close to Sydney, blue sky and green trees, rundown in parts, innovation focused, unspoiled, natural environment, fun, funky cafes, friendly people, polluted, country charm, coast meets mountains, and action-packed.

Participants of the focus group were shown the list of image items and all members agreed that the items appropriately captured the future destination image. Suggestions were made for different wording and the addition of items, for instance, the inclusion of items “short-break destination” and “day-trip destination”.

4.4 The Use of Traditional Segmentation Attractiveness Criteria

Managers were asked two questions relating to the attractiveness criteria in marketing literature: (1) had they ever used the six traditional criteria of responsiveness, reachability, substantiality, actionability, identifiability and distinctiveness, proposed by Frank, Massey and Wind (1972), Wedel and Kamakura (2000), and Kotler, Brown, Adam and Armstrong (2001), and (2) did they perceive these criteria as relevant for tourism practice.

There was a tendency among all participants at first to dismiss the criteria. For instance, one participant stated outright that she did not use any criteria to assess different segments. However, after further discussion she realised that the criteria listed by the researcher were quite appropriate:

Not really relevant to us, although in saying this, the criteria are mainly common sense. When we plan marketing campaigns we do ‘identify our target market’, determine if they are ‘reachable’, and so on.

This response was common in many of the interviews. When prompted to describe how they chose their target audience, participants’ descriptions of the process uncovered a close association to some of the theoretical criteria. Table 4.2 provides a summary of these responses and indicates the percentage of participants who used each criterion, and believed it was of managerial relevance, that is, “good”.

Table 4.2: Assessment of usefulness traditional criteria

| Criteria | Used | Perceived as good |
|---|------|-------------------|
| Responsiveness (unique response to marketing efforts) | 92% | 85% |
| Accessibility (reachability through promotional and distribution efforts) | 77% | 62% |
| Substantiality (suitable in size or large enough to ensure profitability) | 77% | 77% |
| Actionability (consistent with goals of organisation) | 77% | 69% |
| Identifiability (measurable) | 69% | 69% |

The criterion “responsiveness” was used for evaluating market segments by 92% of managers. Participants were certain they had used this criterion before and emphasised the fact that this was the only way they knew if their marketing was working. Response rates to specific advertisements were very popular as an indicator of

market segment responsiveness. Eighty five percent agreed that “responsiveness” was important and useful to use as a criterion to evaluate audience response.

“Accessibility” was used by 77% of participants, and was the most easily understood criterion. Some participants did, however, confess that even this criterion was often difficult for them to evaluate. One manager indicated that magazines and caravan and camping shows were traditionally effective avenues of communication to the senior citizen market. He added that a surprising fact he recently learnt was that 40% of this market segment was computer-literate. However, actually communicating with this segment and implementing a campaign to reach them via the Internet was immensely problematic for him as he did not know how to translate this information into effective communication channels that would reach these people. This indicated that regional tourism organisation managers had problems operationalising even the most unambiguous assessment criteria. Sixty two percent of participants agreed that “accessibility” or “reachability” was important or “good”, and one participant stated, simply, *“If you can’t reach them you waste your money”*.

“Substantiality” (suitable in size and profitable) as a market segment criterion was used by 77% of participants. Managers did not use this criterion because they had difficulties understanding what it meant. They believed it was not important that a tourist segment was large in size unless it was profitable. However, they found the size and profitability of each market segment too difficult to assess in all probability because of the far-reaching effects of expenditure.

Seventy seven percent of participants have used “actionability” as a criterion. Among these, financial constraints were cited as the largest barrier to adopting certain

market segments for marketing plans. One manager observed that *“decisions are made in relation to how financially or how it can be achieved with resources, there are places we want to go but can’t because of our resources”*. In terms of importance (“good”), 69% believed that this was a criterion which should be used, a point illustrated by one participant who said that it *“depends on dollars available, as simple as that. All marketing is dollar driven if you had an unlimited budget it would be wonderful”*. In another case, the manager of a World Heritage listed destination was interested in tourists who respected the restrictions on activities that adhered to environmental stipulations. The regional tourism organisation manager stated *“we don’t get football teams ... and we discourage cruise ships”*. Another regional tourism organisation manager stated that he was *“mindful of the product that is available [in the region]. For example, the [region] does not have many, if any, five star resorts in the true traditional sense of the word and therefore [we] don’t do any marketing that would target the demographic that would go to a five star resort”*.

While 69% of participants used the criterion “Identifiability” to assess a market segment, an element of doubt existed for users about how certain they were in actually identifying the market segments. *“I think there are some that are identifiable ... More often than not, it’s not easy to tell”*, stated one manager.

4.5 Discussion

Managers acknowledged that a segmentation strategy forms the basis of their decision making. The awareness that a segmentation strategy has certain advantages over a mass marketing strategy was also acknowledged by managers, summed up by one who stated that *“to give yourself a point of difference ... you must isolate groups*

[and] know your market well ... to do it all, you'd drown". Managers created a list of unique items that describe the characteristics of an attractive tourist. These characteristics assist tourism managers in determining the target segments for their destinations. These characteristics were categorised into six themes: (1) spending behaviour, (2) moral obligation to behave in an environmentally friendly manner, (3) ambassador, (4) travel habits, (5) reachability via the Internet, and (6) image match. For the last theme, "image match", an interview and focus group with experts from the city of Wollongong revealed the future image strategy of the destination to be its branding as a natural, beachside destination, modern and close to Sydney but retaining its country charm. Wollongong possessed many unique and appealing attributes, but the brand lacks a central theme and possesses negative image attributes that are linked to its coal and steel history. These image attributes were used in the image analysis in the quantitative stage.

A theory/practice gap was uncovered during the investigation of the use of traditional segmentation attractiveness criteria in regional tourism organisations (Dibb & Simkin, 1994; Dolnicar & Lazarevski, 2009). Interpreting the results from the interviews with regional tourism organisation managers, it can be concluded that the managers demonstrated a lack of understanding about theoretical criteria to assess the attractiveness of market segments and the way they could be used in practice. Many managers perceived the criteria as difficult to implement. The most frequently used criteria were reachability, substantiality and actionability. In all cases the simplest and most practical approaches were used, for example, sizes of segments as reported in industry snapshots, targets of media avenues, and whether the financial situation of the firm allowed the segment to be targeted, rather than the characteristics of the segment.

Managers acknowledged that they saw theoretical criteria as general guidelines only and that they needed more tangible criteria that were easy to understand and easy to measure. Operationalising the individual theoretical criterion into practical and usable marketing strategies was a substantial problem for them.

The following chapter integrates the findings from the qualitative phase and develops an index of Segment Attractiveness. This index is to be used by managers to select one or more target segments.

5. CONCEPTUALISATION AND OPERATIONALISATION OF SEGMENT ATTRACTIVENESS

The qualitative research provided a set of tourist characteristics that managers of regional tourism organisations found attractive. In this chapter, these attributes form the basis of a Segment Attractiveness Index. Indicators of the Segment Attractiveness Index operationalised or made the concept of Segment Attractiveness measurable. Indicators were represented by specific questions in the questionnaire as part of the quantitative phase of the study. The Segment Attractiveness Index was tested on a population of 1003 participants, as outlined in Chapter 3. The following section provides the details of the conceptualisation of the attributes into a formative index, and the operationalisation of indicators of Segment Attractiveness.

5.1 Conceptualisation of Segment Attractiveness

Six themes of attractive segment characteristics that emerged in the interviews and focus groups were explained in Chapter 4: “spending behaviour”, “moral obligation to behave in an environmentally friendly manner”, “ambassador”, “travel habits”, “reachability via the Internet”, and “image match”. This chapter documents the development of the themes into indicators of the Segment Attractiveness Index.

The construct of Segment Attractiveness is formed from six indicators. The six themes identified in the qualitative phase directly transform into the six indicators that make up the Segment Attractiveness Index. Each indicator is briefly described below:

- Interviews with managers revealed that “spending behaviour” was not simply captured adequately by a raw dollar value but was best captured by two sub-indicators: (1) a total dollar value of tourist spend at a destination (*expenditure per capita per day*), and (2) the

range of services that this money is spent on (*breadth of expenditure*). The breadth of expenditure sub-indicators are three different kinds of tourism related expenditures: *activities*, *shopping* and *eating out*. More activities or experiences mean more expenditure in the area and these three activities were the most frequent expenditure-generating activities according to destination managers.

- “Moral obligation to behave in an environmentally friendly manner” captures information about the environmental footprint of a tourist. The presence of this indicator is a demonstration of the increasing awareness of destinations that environmental protection is a pressing issue given the long term view of sustainability.
- Positive word of mouth was another highly attractive attribute of a dream tourist and responses like, “will tell their friends” and “connect with destination” are captured in the indicator labelled “ambassador”. “Ambassador” represents tourists’ power to become a talking billboard and spread good word of mouth to advertise a destination if they are satisfied with their vacation experience.
- “Travel habits” consists of the general travel preferences or behaviours that signified those of an ideal tourist; namely, repeat visitation, the frequency of travel and the penchant for holidaying outside of peak tourist season. Three sub-indicators captured vacation behaviour: (1) repeat visitation, (2) frequency of taking

vacations, and (3) the timing of taking vacations. Repeat visitation is captured through tourists' tendency to visit the same destination again. Information about how often tourists generally undertake vacations in a year captured travel frequency. The timing sub-indicator is captured by determining whether participants tend to take vacations in peak vacation times (weekly or yearly) or in off-peak times.

- “Reachability via the Internet” signifies the ease of communication, and consists of two sub-indicators: (1) use of the Internet to search and (2) use of Internet to book accommodation. This information is critical for the effectiveness and efficiency of advertising messages that target the right audience, specifically through a communication tool that is rapidly increasing in popularity among regional tourism organisations.
- “Image match” was selected as an indicator because the image the destination portrays to the target market must be in line with what the ideal tourist desires from the destination. “Image match” captures information that enables judgement as to whether or not any given tourist is actually seeking what the destination has to offer (an image-perception match). In the scenario of the right image-perception match, the destination attributes are in line or meet the attributes that the tourist perceives are the key attributes of the destination. These are the key attributes highlighted and developed

by the destination's image strategy. Alternatively, the danger in attracting a tourist with a different perception of the area is that disappointment can occur which may lead to negative word of mouth messages if expectations are not met.

The formative measurement model is graphically depicted in Figure 5.1. The model, based on the qualitative data and the literature, illustrates the relationship between each of the indicators, the sub-indicators and the construct of Segment Attractiveness. Each of the indicators must be made measurable to form the Segment Attractiveness index. This process is explained in Section 5.2.

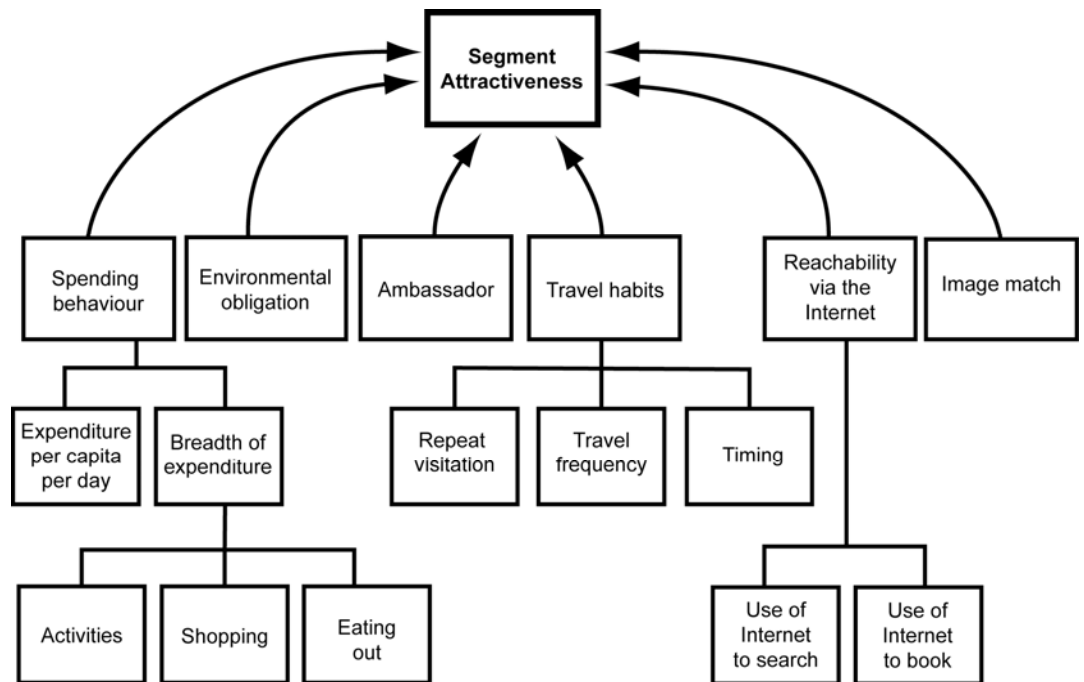


Figure 5.1: Formative model of Segment Attractiveness

The description of how each indicator is operationalised, or made measurable through the use of survey questions is listed in Tables 5.1 to 5.6 (see Results section 5.2).

5.2 Operationalisation of the Segment Attractiveness Index

The model illustrated in Figure 5.1 requires indicators to be made operational (measurable) so that they can be used by tourism destination managers to assess tourist segments more easily (Stage 5 in Table 1.1).

The indicator “Spending behaviour” is computed by combining two measures of equal weight: (1) *breadth of expenditure* and (2) *expenditure per capita per day*, the components of which are illustrated in Table 5.1. *Expenditure per capita per day* is captured as a raw sum of the entire monetary expenditure by tourists for each day of their visit. In the questionnaire, three questions elicited this information: (1) “How many people were in your travel party?” (2) “For the entire vacation, please estimate the total amount of dollars: you, as an individual, spent OR, your travel party spent” and (3) “how many days did you spend on this vacation?” A calculation is first conducted to determine the expenditure per person. Therefore, if the figure of expenditure was stated as that spent by the individual (“you, as an individual, spent”), the sum of expenditure was divided by the number of days spent at the destination. The per person per day figure was rescaled to a number between 0 – 1 and multiplied by 0.5 to give it a weight equal to that of *breadth of expenditure*.

Breadth of expenditure is computed by combining the three items identified in Chapter 4 (see Section 4.2): (1) *activities* (2) *shopping* and (3) *eating out*. *Activities* is calculated as a rescaled 0 – 1 value from a raw value which is the summation of

participation in a total of 45 activities. This item is then multiplied by 0.333 in order to have equal weight with the other two components. *Shopping* is a single item with a continuous raw figure, signifying the number of times the participant went shopping. This information was elicited by including a question in the survey, “How often did you go shopping for leisure?” The measure for this indicator led to another 0 – 1 rescaled value and a weight adjustment of 0.333. The item *eating out* is based on a rescaled expenditure figure formed from the calculation of a sum of the number of times the participant has eaten out. The following question included in the survey captured this information, “How many times did you eat out at a restaurant/café during your vacation?” The times spent eating out were divided into four categories to help simplify the process for participants and enable easier recall. The four categories included: (1), breakfast (2) lunch, (3) dinner and (4) coffee/morning tea/afternoon tea. Therefore, if the estimated average of a dinner out is 40 dollars and the participant has recorded only had two dinners out during the last vacation, the expenditure on dinner would equal a total of 80 dollars. It is this total figure that is rescaled to a number between 0 and 1, and then also multiplied by 0.333 in order to create the third part of the breadth of expenditure component. The *breadth of expenditure* figure is multiplied by 0.5 before being added to the *expenditure per capita per day* figure.

While the aspect of dining expenditure was captured in both *expenditure per capita per day* and *breadth of expenditure* as the *eating out* item, deleting the food or dining expenditure from the *expenditure per capita per day* figure was considered too difficult for participants to have to subtract from their daily expenditure calculations.

Adding the *breadth of expenditure* and the *expenditure per capita per day* sub-components results in the *Spending behaviour* component of the Index which ranges between 0 and 1.

Table 5.1: Operationalisation of the Segment Attractiveness indicator “Spending behaviour”

| Segment Attractiveness indicators | | Survey Questions | Index Metrics | |
|---|--------------------|---|---------------|-----------------------------------|
| Description and Sub-indicators from model | | | Range | Rescaled scores |
| Breadth of expenditure (0.5) | Activities (0.333) | Below is a list of activities which could be undertaken while on vacation. Please indicate whether you participated in each activity during your last Australian vacation <input type="checkbox"/> No <input type="checkbox"/> Yes, once <input type="checkbox"/> Yes, more than once <input type="checkbox"/> This activity was the main purpose of the vacation Full list of 45 statements from the Australian International Visitor Survey, provided in Appendix C. | 0 - 45 | Rescaled variable between 0 and 1 |
| | Shopping (0.333) | How often did you go shopping for leisure? | 0 – 40 | Rescaled variable between 0 and 1 |
| | Eating out (0.333) | How many times did you eat out at a restaurant/café during your vacation? <input type="checkbox"/> For breakfast <input type="checkbox"/> For lunch <input type="checkbox"/> For dinner <input type="checkbox"/> For coffee/morning tea/afternoon tea | \$ 0 - 5000 | Rescaled variable between 0 and 1 |
| Expenditure per capita per day (0.5) | | How many people were in your travel party? For the entire vacation, please estimate the total amount of dollars: You, as an individual, spent OR, Your travel party spent How many days did you spend on this vacation? | \$ 0 - 2667 | Rescaled variable between 0 and 1 |

The indicator “Moral obligation to behave in an environmentally friendly manner” is calculated by asking how morally obliged participants feel to behave in an environmentally friendly manner when on vacation. The question required participants to indicate the extent of their moral obligation (Berenguer, Corraliza, & Martin, 2005). Previous research (Berenguer, Corraliza, & Martin, 2005; Kaiser & Shimoda, 1999) has indicated that moral obligation to behave in an environmentally friendly manner is strongly associated with actual pro-environmental behaviour. This was also assessed for the present data set: an analysis of variance (ANOVA) using the moral obligation to behave question (“How morally obliged do you feel to behave in an environmentally friendly manner when you are on a domestic vacation in Australia?”) and the pro-environmental behaviour question (“Now, for each of the behaviours listed below, please indicate how frequently you carried out that behaviour during your last vacation within Australia”) determined there is indeed a significant association and that therefore the single question about moral obligation can legitimately be used instead of the set of 20 questions about pro-environmental behaviour, thus offering a more parsimonious measure.

Moral obligation was not coded as 0, 1, and 2 because it is likely that the question is affected by social desirability bias. Instead the average actual pro-environmental behaviour for each level of stated moral obligation was used. Six answer alternatives were originally available for a list of 20 pro-environmental behaviour questions (“Always”, “Often”, “Sometimes”, “Rarely”, “Never”, and “N/A”). Average scores of pro-environmental behaviour were computed for participants at all three levels

of moral obligation. The raw average score for “Not at all obliged” was 5.15, for “Slightly obliged” was 5.66, and for “Strongly obliged” was 9.07. To be suitable for inclusion in the Segment Attractiveness Index equation, these raw scores had to be rescaled between 0 – 1. This was done by subtracting 5.15 from 9.07 to get the first value back to a zero. Then, dividing each value by 3.92 to rescale each number to a 0 – 1 value. Table 5.2 illustrates the components of this indicator.

Table 5.2: Operationalisation of the attractiveness indicator “Moral obligation to behave in an environmentally friendly manner”

| Segment Attractiveness indicators | | Survey Questions | | Index Metrics | |
|---|--|--|--|---------------|-----------------------------------|
| Description | | | | Range | Rescaled scores |
| Moral obligation to behave in an environmentally friendly manner (Environmental obligation) | | How morally obliged do you feel to behave in an environmentally friendly manner when you are on a domestic vacation in Australia? | | 0 - 1 | Rescaled variable between 0 and 1 |
| | | <input type="checkbox"/> Not at all obliged <input type="checkbox"/> Slightly obliged <input type="checkbox"/> Strongly obliged. | | | |
| | | Not at all obliged = 0, Slightly obliged = 0.13, and Strongly obliged = 1 | | | |

“Ambassador” is a single item indicator formed from the question exploring participants’ communication with others upon their return from vacation. Five answer options were offered. This indicated their level of advocacy and their ability to be advocates for a destination. The raw figure (out of five) is rescaled to give a value between 0 and 1.

Table 5.3: Operationalisation of the attractiveness indicator “Ambassador”

| Segment Attractiveness indicators | Survey Questions | Index Metrics | |
|--|--|---------------|-----------------------------------|
| Description | | Range | Rescaled scores |
| Will tell their friends, send pictures of trip | <p>After your last holiday, did you share or communicate your experiences with any of the following people? (tick as many as applicable)</p> <p><input type="checkbox"/> Partner</p> <p><input type="checkbox"/> Friends</p> <p><input type="checkbox"/> Family</p> <p><input type="checkbox"/> Colleagues at work</p> <p><input type="checkbox"/> Other</p> | 0 – 5 | Rescaled variable between 0 and 1 |

The indicator “Travel habits” consists of three sub-indicators: (1) *timing*, (2) *travel frequency*, and (3) *repeat visitation*. Each sub-indicator is summarised in Table 5.4. The three questions investigated tourists’ travel habits by gaining an understanding of how often they take vacations, their tendency to return to destinations and the times of the year in which they tend to travel.

Sub-indicator 1, *timing* consists of three measurable items: a tendency to vacation outside of school or public holidays, a tendency to take vacations during the week and whether the last vacation was taken outside of school holidays. Indicating a “Yes” to any of the questions added to a score out of 1 for the *timing* sub-indicator because each item was given a score of 0 or 0.333, adding to a final score of 1 for the sub-indicator. Sub-indicator 2, *travel frequency*, was made up of one item: the average number of domestic vacations taken per year. Data was collected as a continuous number and is rescaled to a 0 to 1 score. Sub-indicator 3, *repeat visitation*, also consists of one measurable item: whether participants return to the same destination for another vacation. The *repeat visitation* data was captured in binary format (0 or 1) and did not require rescaling. Adding the three components of “Travel habits” (*timing*, *travel*

frequency and *repeat visitation*) leads to a raw score between 0 – 3 (an addition of the three component scores) which then needs to be rescaled once again to be between 0 and 1.

Table 5.4: Operationalisation of the attractiveness indicator “Travel habits”

| Segment Attractiveness indicators | Survey Questions | Index Metrics | |
|---|--|---------------|--|
| Description and Sub-indicators from model | | Range | Rescaled scores |
| Timing (0.333) | Generally, do you take your vacations during school holidays/public holidays? <input type="checkbox"/> Most of my vacations are during school/public holidays <input type="checkbox"/> Most of my vacations are outside of school/public holidays. | 0 / 1 | Addition of 3 component scores to create one rescaled variable between 0 and 1 (0.333 each). |
| | Are most of your vacations taken during the week or on weekends? <input type="checkbox"/> Most of my vacations are during the week <input type="checkbox"/> Most of my vacations are on the weekend. | 0 / 1 | |
| | Was this vacation taken in a school or public holiday period? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't remember | 0 / 1 | |
| Travel Frequency (0.333) | On average, how many domestic vacations, within Australia but away from home, (including weekend getaways) do you undertake in a year? | 0 - 50 | Rescaled variable between 0 and 1 |
| Repeat visitation (0.333) | When you are happy with a vacation destination, do you tend to return to the same place for another vacation? <input type="checkbox"/> Yes, I tend to return to the same place for another vacation <input type="checkbox"/> No, I tend to go to a different place for another vacation. | 0 / 1 | 0 or 1 |

The indicator “Reachability via the Internet” is measured using sub-indicators:

(1) *use of the Internet to search* and (2) *use of the Internet to book accommodation*. *Use of the Internet to search* relates to the acquisition of travel information via the Internet.

The only information source of interest for this indicator was the use of the Internet.

Participants indicated to use the internet (“Yes”) or not (“No”). *Use of the Internet to book* related to the use of the Internet to book accommodation for the last vacation

taken. This variable was also measured on a binary scale. The addition of the two sub-indicators was rescaled to lie between 0 and 1 as each was multiplied by 0.5 (each sub-indicator of “Reachability via the Internet” was worth half).

Table 5.5: Operationalisation of the attractiveness indicator “Reachability via the Internet”

| Segment Attractiveness indicators | Survey Questions | Index Metrics |
|---|---|---------------|
| Description and Sub-indicators from model | | Range |
| Use of Internet to search (0.5) | “Below is a list of possible information sources that can be used to help with vacation planning. In general, which information sources do you use to help you with your vacation destination choice?” <input type="checkbox"/> Yes <input type="checkbox"/> No | 0 / 1 |
| Use of Internet to book (0.5) | “Please indicate whether you used any of the following sources to book your accommodation for your last Australian holiday.” <input type="checkbox"/> Yes <input type="checkbox"/> No | 0 / 1 |

The Segment Attractiveness Index indicator “Image match” compares the perceived destination image attributes with the destinations self-assessed image attribute. Both image measurements are binary. Match is calculated by considering when the participant states that the destination has an attribute (for instance, great nightlife) and the destination indeed does have that feature, therefore, the two matching attributes are counted as one total match. The maximum image match is 26 because 26 image attributes were included (the figure of 26 is a summation of the one-to-one matches). The final score is then rescaled to a number between 0 and 1.

For the image perceptions of the ideal vacation destination, participants were asked to indicate if it is a turnoff for them, perfect for them, or something they don’t care about. The same 26 image attributes were used in this question to allow a match between the ideal and real tourism destination.

Table 5.6: Operationalisation of the attractiveness indicator “Image match”

| Segment Attractiveness indicators | Survey Questions | Index Metrics | |
|---|--|---------------|-----------------------------------|
| Description | | Range | Rescaled scores |
| Match between study destination image and ideal destination image | <p>“Listed below are some characteristics that describe vacation destinations. Please indicate those which you think apply to the city of Wollongong. Even if you have not visited Wollongong, still indicate which attributes you think would describe it.”</p> <p>“Listed below are attributes of Australian vacation destinations. For each attribute please indicate if it is a turnoff for you, perfect for you, or something you don't care about, when considering your ideal Australian vacation destination.”</p> <p>List of 26 destination-specific image items developed by consulting destination planners provided in Appendix C.</p> | 0 – 26 | Rescaled variable between 0 and 1 |

Finally, the Segment Attractiveness Index is computed by adding up all indicator scores. Consequently, the Segment Attractiveness Index is a number between 0 and 6. The survey questions that form the indicators of the proposed construct, Segment Attractiveness Index, can be included in any survey with an aim to improve the identification of managerially useful target segments in the context of tourism.

5.3 Summary

This chapter documented the conceptualisation and the operationalisation of the Segment Attractiveness Index. The Segment Attractiveness Index consisted of newly generated indicators developed from interviews with managers (Stage 2, See Table 1.1). Six indicators that form the Segment Attractiveness Index include *spending behaviour*, *moral obligation to behave in an environmentally friendly manner*, *travel habits*, *ambassador*, *reachability via the Internet* and *image match*. These indicators were made measurable and used in a survey to identify tourist groups that are most attractive to regional destination managers. The Segment Attractiveness Index contained only those indicators that were most important to regional destination managers. As such, a

practical, meaningful and user-friendly approach to segmentation was able to be achieved. In Chapter 6, the practical usefulness of the Segment Attractiveness Index will be demonstrated. An empirical validation of the Segment Attractiveness Index will be conducted following the practical procedure that organisations would use when they conduct a segmentation study.

6. EVALUATING SEGMENT ATTRACTIVENESS: A PRACTICAL GUIDE

This chapter illustrates how a tourism destination can use the Segment Attractiveness Index. A step-by-step guide is presented (Figure 6.1). Each step is described in detail using practical examples. Such examples of the Segment Attractiveness Index are illustrated using four scenarios. In the first scenario, all the indicators of the Segment Attractiveness Index are weighted equally. In the second and third scenarios, one indicator is given 100% weighting. In the last scenario, weights are allocated according to a destination manager's preferences. Finally, the Segment Attractiveness Index is externally validated with destination managers.

6.1 Identifying Attractive Market Segments: A Five-step Guide

The Segment Attractiveness Index enables the assessment of a market segment's managerial attractiveness. The steps for using the Segment Attractiveness Index are illustrated in Figure 6.1. Step 5 relates to the development of a marketing strategy for a target market, however, it is beyond the scope of this thesis and is not discussed in detail.

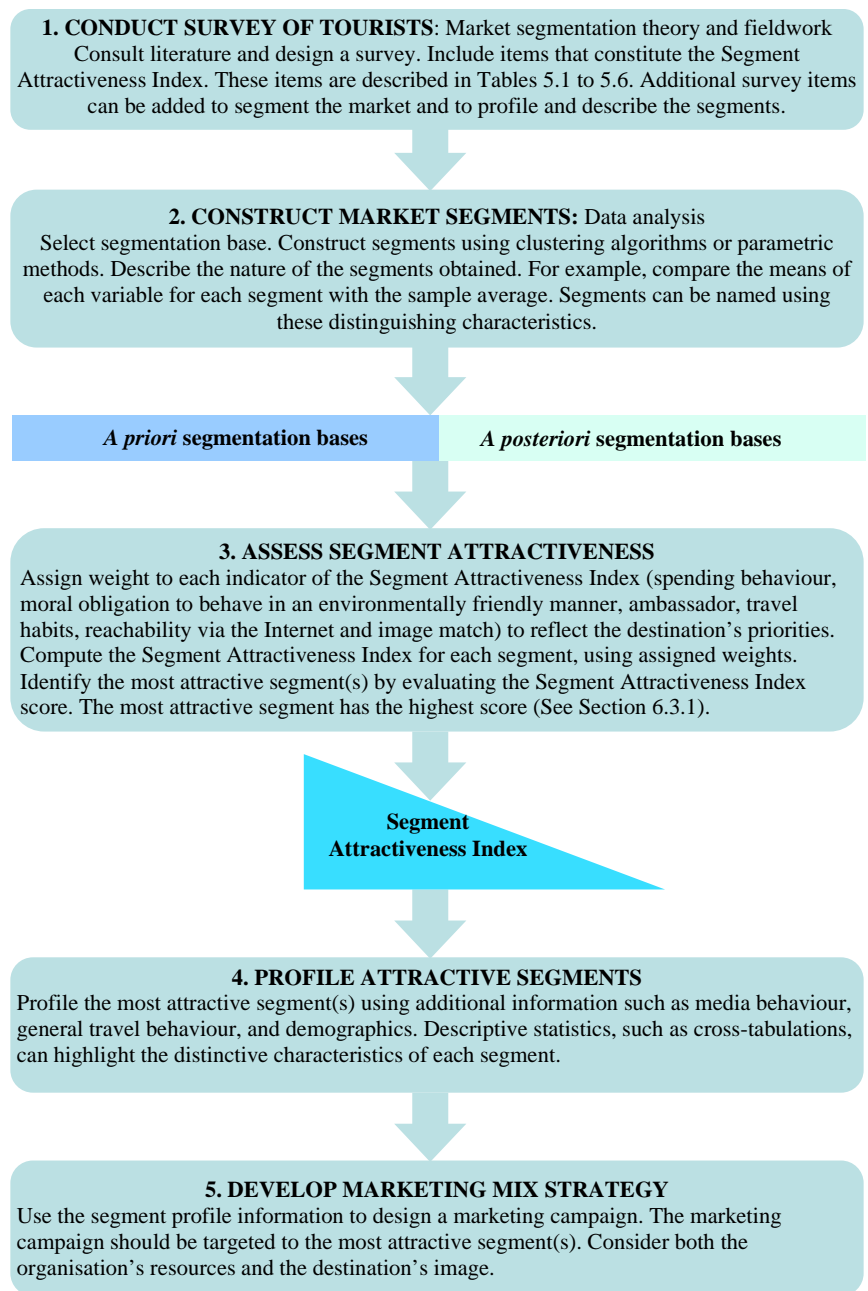


Figure 6.1: A Five-step Guide to Evaluate Segment Attractiveness

6.2 Step 1: Conduct a Survey

Step 1 of the Five-step Guide (See Figure 6.1) requires the collection of a data set. For this study, a survey was designed and data was collected (Refer to Section 3.2). The sample profile is illustrated in Table 3.2.

6.3 Step 2: Construct Segments

Using the survey data, the usefulness of the proposed index was empirically assessed. The data was segmented using five *a posteriori* segmentation bases: (1) *benefits* (advantages of taking a vacation), (2) *activities* (activities undertaken while on their last vacation), (3) *information sources* (sources used in trip planning), (4) *image perfect* (image attributes of the perfect vacation destination), and (5) *image turnoff* (unattractive destination attributes).

Three *a priori* segmentation bases were used to segment the data: (1) *environmental friendliness* while on vacation, (2) *family life cycle* (children or not), and (3) *income* (annual household income).

Prior to clustering, a selection of variables was required because some of the segmentation bases contained more variables than could be clustered considering the available sample size. This was done by assessing the maximum number of variables that could be used with the sample of 1003 participants. While no accepted equation exists to find the exact sample size required for cluster analysis, the following formula by Formann (1984) is recommended (Dolnicar, 2002b). According to the formula for binary data proposed by Formann (1984) the sample size should be at least 2^k , where k represents the number of variables. Given that the sample size is 1003, the maximum number of variables that can be used for each segmentation base is 9, because $2^9 = 512$.

Exploratory factor analysis using the principal components extraction routine with varimax rotation was conducted with all the variables of *a posteriori* segmentation bases. Nine variables were selected from the emerging dimensions. This was independent of the number of dimensions that resulted from the factor analysis, so in some cases one single variable represented a factor, in other cases more than one was used. Raw data from those nine variables were then used to segment the data (an approach used by Dolnicar et al., 2008). The nine variables used in each of the five *a posteriori* segmentation studies are reported in Table 6.1.

Table 6.1: List of Variables for Cluster Analysis

| | | | | | |
|------------------------|---|---|--|--|--------------------------|
| | <i>A priori</i> Segmentation Bases | | | | |
| | Environmental friendliness | | Family life cycle | Income | |
| | Pro-environmental behaviour (Q29 of survey) | "Do you have any children?" (Q45 of survey) | | "What is your combined household income before tax?" (Q41 of survey) | |
| | <i>A posteriori</i> Segmentation Bases | | | | |
| | Activities | Information Sources | Benefits | Image Perfect | Image Turnoff |
| | (Q28 of survey) | (Based on Q7 of survey) | (Q27 of survey) | (Q36 of survey) | (Q36 of survey) |
| Segmentation Variables | Horse riding | Brochures from tour operator | To experience something new | Peaceful and quiet | Good value for money |
| | Snowboarding/Skiing | Brochures from hotels | To experience new cultures/places | Blue sky and green trees | Coast meets mountains |
| | Visiting museums or art galleries | Destination information brochures | To do something different | Laid back and relaxed | Blue sky and green trees |
| | Eat out at reasonably priced places | Information from tourist info centre | To satisfy my curiosity | Unspoiled natural environment | Great nightlife |
| | Camping | TV programs | To be outdoors/in nature | Great nightlife | Activities for all ages |
| | Swimming | Radio programs | To relax | Action-packed | Country charm |
| | Visiting casinos | Information from friends/relatives | To release tensions/stress | Rundown in parts | Rundown in parts |
| | Visiting attractions for kids | Information from work colleagues | To be with others who enjoy the same thing | Family fun | Uncrowded |
| | Watching movies | Slide nights | For my own self-esteem/self-development | Short-break destination | Close to Sydney |

A posteriori segmentation analyses were conducted using topology representing networks (TRNs) (Martinetz, Berkovich, & Schulten, 1993; Martinetz & Schulten, 1994) in the TRN32 software package (Mazanec, 1997). Three to nine clusters were computed for all segmentation bases.

Reproducibility is explored using the repetition function in the TRN package. The selection of the final number of clusters was informed by the stability of segmentation solutions. This is a process known as “reproducible clustering” where “data structure can be used to derive stable, reproducible market segments” (Dolnicar & Leisch, 2009, p. 2). This ensures data solutions are not random. Stability values (or percentage of uncertainty reduction, %UR) are reported in Table 6.2 (Dolnicar, Grabler, & Mazanec, 1999) for each of the five segmentation bases. Each row of the table represents 50 computations (replications), with 100 random trials for initialisation. The algorithm processed each participant 100 times in order to learn the data representation (100 training epochs). The cluster number with the highest improvement in uncertainty reduction was selected, except in the information source segmentation solution (represented by the shading in Table 6.2). In this instance, the six cluster solution was chosen because an eight cluster solution segmented the market too finely. In the activities segmentation base, a six cluster solution was selected as it too had a high %UR and did not segment the market as coarsely as the five cluster solution.

Table 6.2: Percent Uncertainty Reduction for *A posteriori* Segmentation Bases

| Cluster Solution | Number of clusters | %UR | Improvement in %UR |
|---------------------|--------------------|-------|--------------------|
| Information Sources | 3 | 81.56 | - |
| | 4 | 77.85 | -3.71 |
| | 5 | 81.12 | 3.27 |
| | 6 | 84.68 | 3.56 |
| | 7 | 86.04 | 1.36 |
| | 8 | 92.45 | 6.41 |
| Image Perfect | 9 | 93.8 | 1.35 |
| | 3 | 96.56 | - |
| | 4 | 93.62 | -2.94 |
| | 5 | 98.71 | 5.09 |
| | 6 | 94.71 | -4 |
| | 7 | 91.42 | -3.29 |
| Image Turnoff | 8 | 94.9 | 3.48 |
| | 9 | 97.65 | 2.75 |
| | 3 | 99.29 | - |
| | 4 | 93.31 | -5.98 |
| | 5 | 98.25 | 4.94 |
| | 6 | 95.92 | -2.33 |
| Activities | 7 | 96.55 | 0.63 |
| | 8 | 96.24 | -0.31 |
| | 9 | 97.52 | 1.28 |
| | 3 | 69.94 | - |
| | 4 | 77.15 | 7.21 |
| | 5 | 87.25 | 10.1 |
| Benefits | 6 | 91.31 | 4.06 |
| | 7 | 88.91 | -2.4 |
| | 8 | 92.31 | 3.4 |
| | 9 | 92.25 | -0.06 |
| | 3 | 72.06 | - |
| | 4 | 87.84 | 15.78 |
| | 5 | 81.47 | -6.37 |
| | 6 | 79.66 | -1.81 |
| | 7 | 80.32 | 0.66 |
| | 8 | 83.69 | 3.37 |
| | 9 | 85.45 | 1.76 |

A final run of the TRN algorithm was conducted with the selected segment numbers. Final segments were generated through 1000 training epochs and 10,000 initialisations but only one replication. Cluster labels were allocated to each participant based on which segment they belonged to.

A six cluster solution was selected as the final segmentation solution for both the *activities* and *information sources*, a five cluster solution was selected for both the *image perfect* and *image turnoff* segmentation solutions, and a four cluster solution for the *benefits* segmentation solution. The five *a posteriori* segmentation solutions resulted in a total of 26 individual segments. The detailed descriptions of these segments is

provided in Appendix D. Nine segments displayed characteristics of an extreme response style (ERS) tendency and were eliminated from further discussion. Response styles represent a bias and distort results and threaten a study's validity (Dolnicar & Grun, 2007a). Prior to elimination, practitioners may wish to conduct further analysis to investigate the segments' answer patterns in response to other questions to determine whether this group displays a true response style bias, or whether their results simply represent the actual responses of the group to the specific item content.

The three *a priori* segmentation solutions resulted in 11 segments. The environmental friendliness *a priori* segmentation base was calculated by adding environmentally friendly behaviours from Question 29 of the survey (See Appendix C) for each participant. Participants were split into four groups based on their score. Participants in the bottom 25th percentile and the top 25th percentile were used to represent an environmentally unfriendly segment (Segment 1) and an environmentally friendly segment (Segment 2), respectively. The family lifecycle segmentation base divided participants into two groups based on whether they had children (Segment 2) or not (Segment 1). The income segmentation base grouped participants into seven categories based on their household income level.

6.4 Steps 3 and 4: Assess Segment Attractiveness and Profile Segments

In step 3, all 37 segments (11 *a priori* and 26 *a posteriori*) are assessed by the Segment Attractiveness Index for a range of possible scenarios. While it is often the case that multiple segments are chosen by tourism destinations, these scenarios highlight those segments most aligned with the priorities set based on unique destination marketing strategies (represented by individual indicators).

6.4.1 Scenario 1: Equal weights for all indicators

This scenario illustrates the use of the Segment Attractiveness Index with all six indicators weighted equally:

Segment Attractiveness Index score = spending behaviour + moral obligation to behave in an environmentally friendly manner + ambassador + travel habits + reachability via the Internet + image match.

Analysis of Variance (ANOVA) was performed on all segments using the Segment Attractiveness Index as the dependent variable and the segment number as the independent variable. Results are provided in Table 6.3.

Table 6.3: ANOVA of Segment Attractiveness Index

| Segmentation Base | Segment | Segment Attractiveness Index Score (Range = 0 to 6) | ANOVA Test Results |
|----------------------------|---------|---|---------------------------------|
| Information Sources | 1 | 2.73 | $F(5, 1002) = 8.499, p < 0.01$ |
| | 2 | 2.89 | |
| | 3 | 3.14 | |
| | 4 | 2.99 | |
| | 5 | 2.84 | |
| | 6 | 3.11 | |
| Benefits | 1 | 2.91 | $F(3, 1002) = 17.308, p < 0.01$ |
| | 2 | 2.68 | |
| | 3 | 3.12 | |
| | 4 | 3.08 | |
| Activities | 1 | 3.07 | $F(5, 1002) = 10.193, p < 0.01$ |
| | 2 | 3.05 | |
| | 3 | 2.81 | |
| | 4 | 2.91 | |
| | 5 | 2.66 | |
| | 6 | 3.12 | |
| Image Turnoff | 1 | 2.95 | $F(4, 1002) = 5.743, p < 0.01$ |
| | 2 | 2.76 | |
| | 3 | 2.91 | |
| | 4 | 2.44 | |
| | 5 | 3.00 | |
| Image Perfect | 1 | 2.22 | $F(4, 1002) = 36.587, p < 0.01$ |
| | 2 | 2.94 | |
| | 3 | 3.14 | |
| | 4 | 3.07 | |
| | 5 | 3.03 | |
| Environmental friendliness | 1 | 2.67 | $F(1, 514) = 42.515, p < 0.01$ |
| Family lifecycle | 2 | 3.07 | $F(1, 1002) = 15.548, p < 0.01$ |
| | 1 | 2.83 | |
| Income | 2 | 3.02 | $F(6, 1002) = 3.165, p < 0.01$ |
| | 1 | 2.84 | |
| | 2 | 2.84 | |
| | 3 | 2.98 | |
| | 4 | 2.92 | |
| | 5 | 3.11 | |
| | 6 | 3.07 | |
| | 7 | 2.90 | |

As can be seen, segment attractiveness differs significantly across all segmentation bases. Segments were ranked from most attractive to least attractive based on their Segment Attractiveness Index score (depicted in Table 6.4). Arranging the segments in this manner allowed for a closer comparison. For instance, *a posteriori* segments are in the top two positions, but the *a priori* Income segment 5 ranked third. Scores were categorised as high, medium and low. The split between each category was calculated using the range between the highest and lowest score and dividing the number by 3 (because there were 3 categories). This method of ranking and categorising segments is similar for each subsequent scenario. (The shading in Table 6.4 relates to the external validation of the Segment Attractiveness Index in Section 6.5.)

Table 6.4: Sorted Segment Attractiveness Index score (averages)

| Segmentation Base | Segment Number | Segment Name | Segment Attractiveness Index Score | Category |
|----------------------------|----------------|----------------------------|------------------------------------|----------|
| Activities | 6 | Attraction seekers | 3.12 | HIGH |
| Information sources | 6 | Traditionalists | 3.11 | |
| Income | 5 | \$80,001-\$100,000 | 3.11 | |
| Benefits | 4 | Novelty seekers | 3.08 | |
| Income | 6 | \$100,001-\$150,000 | 3.07 | |
| Environmental friendliness | 2 | Environmentally friendly | 3.07 | |
| Image perfect | 4 | Action oriented | 3.07 | |
| Activities | 1 | Family fun-time | 3.07 | |
| Activities | 2 | Seaside break | 3.05 | |
| Image perfect | 5 | Family friendly | 3.03 | |
| Family lifecycle | 2 | Family with children | 3.02 | |
| Information sources | 4 | TV and ads | 2.99 | |
| Income | 3 | \$40,001-\$60,000 | 2.98 | |
| Image turnoff | 1 | Peace seekers | 2.95 | MEDIUM |
| Image perfect | 2 | Country retreat | 2.94 | |
| Income | 4 | \$60,001-\$80,000 | 2.92 | |
| Activities | 4 | Value diners | 2.91 | |
| Benefits | 1 | Escapees | 2.91 | |
| Image turnoff | 3 | City escape | 2.91 | |
| Income | 7 | Over \$150,000 | 2.90 | |
| Information sources | 2 | TV buffs | 2.89 | |
| Income | 1 | Under \$20,000 | 2.84 | |
| Information sources | 5 | Travel agent users | 2.84 | |
| Income | 2 | \$20,000-\$40,000 | 2.84 | |
| Family lifecycle | 1 | No children | 2.83 | |
| Image turnoff | 2 | Hustle and bustle | 2.76 | LOW |
| Environmental friendliness | 1 | Environmentally unfriendly | 2.67 | |
| Activities | 5 | Off-roaders | 2.66 | |

Based on these findings, a destination manager who perceives all indicators of the Segment Attractiveness Index as equally important would choose “Attraction seekers” for targeting. Moving to the next step, Step 4 (See Figure 6.1), Segments must be profiled. Relevant background variables such as demographics, socio-economic, and behavioural information are studied to characterise each segment (Dolnicar, 2004b) and enable efficient targeting using marketing mix tools.

For instance, “Attraction seekers” are relatively old (47% are older than 55 years), 72% have children, 26% are retired and 36% are still in paid, full-time employment, 39% have tertiary qualifications, and 33% have a combined household income less than AUD\$40,000. Members from this segment prefer to source their vacation information for planning from destination information brochures (72%), travel agents (62%), travel books (73%) and 93% of this segment also source their information from the Internet. This segment accounts for the most Internet use for accommodation bookings across all four segments (56%). In terms of media, this segment has the highest newspaper readership and television viewing. A relatively large proportion of “Attraction seekers” consider their ideal holiday to be peaceful and quiet (91%), laid back and relaxed (89%), offering time out to live (76%), country charm (85%), blue skies and green trees (95%), that’s good value for money (97%), with cultural diversity (57%) and friendly people (95%). This segment is interested in a vacation that offers escape from everyday life and routine (86%), a chance to do something with their partner (82%), fun (90%), satisfies their curiosity (44%), and has a historical element (41%).

The Segment Attractiveness Index was able to distinguish between the characteristics of different segments. The most attractive segment, “Attraction seekers”, is a valuable segment based on their description. A large proportion of retirees, many of them with children who in all likelihood have families of their own, could indicate a higher proportion of time to travel. This segment is willing to participate in activities considered typical tourist attractions that would generate expenditure. Furthermore, their availability online is attractive for communicating with this segment, and attracting them to a destination.

In reality, instead of considering all indicators equally, destination managers would be more likely to prioritise between indicators based on the marketing strategy of their unique destinations. An illustration of a more realistic example is developed in Section 6.4.4 where importance and weights are attributed to each indicator according to the specific preferences of the destination manager.

6.4.2 Scenario 2: 100% weight on the *moral obligation to behave in an environmentally friendly manner* indicator

Using the same segmentation bases, the Segment Attractiveness Index was customised to include only the *moral obligation to behave in an environmentally friendly manner* indicator by assigning it a weight of 100%. The Segment Attractiveness Index for this scenario, with maximum weights allocated to *moral obligation to behave in an environmentally friendly manner*, is illustrated mathematically using the following equation.

Segment Attractiveness Index score = 0*spending behaviour + 1*moral obligation to behave in an environmentally friendly manner + 0*ambassador + 0*travel habits + 0*reachability via the internet + 0*image match.

This scenario reflects a situation where destination management is interested in determining the most attractive market segment based on their stated moral obligation to behave in an environmentally friendly manner. An ANOVA was conducted with each segmentation base and the Segment Attractiveness Index. Only those segmentation bases with significant differences (p -value less than 0.05) in the mean values are included in Table 6.5.

Table 6.5: Sorted Segment Attractiveness Index score (100% weight on *moral obligation to behave in an environmentally friendly manner*)

| Segmentation Base | Segment Number | Segment Name | Segment Attractiveness Index Score | Category |
|----------------------------|----------------|----------------------------|------------------------------------|----------|
| Environmental friendliness | 2 | Environmentally friendly | 4.97 | HIGH |
| Image Perfect | 2 | Country retreat | 4.72 | |
| Activities | 6 | Attraction seekers | 4.64 | |
| Image Turnoff | 1 | Peace seekers | 4.53 | |
| Family lifecycle | 2 | Family with children | 4.35 | |
| Image Perfect | 5 | Family friendly | 4.27 | |
| Activities | 2 | Seaside break | 4.23 | |
| Activities | 4 | Value diners | 4.17 | |
| Image Perfect | 4 | Action oriented | 4.15 | |
| Image Turnoff | 3 | City escape | 4.02 | MEDIUM |
| Activities | 1 | Family fun-time | 4.01 | |
| Activities | 5 | Off-roaders | 3.98 | |
| Family lifecycle | 1 | No Children | 3.66 | |
| | | Hustle and bustle | | LOW |
| Image Turnoff | 2 | | 3.30 | |
| Environmental friendliness | 1 | Environmentally unfriendly | 2.54 | |

Not surprisingly, results indicate that the most attractive segment is Segment 2 (“Environmentally friendly”), based on the environmental friendliness segmentation base. Using the Segment Attractiveness Index with all the indicators weighed equally, this segment ranked sixth (See Table 6.4). The “Environmentally friendly” segment is distinguished by the following characteristics: 75% of this segment is over the age of 45 years, 28% have a University degree, and 89% watch the television four or more times a week. The benefits which particularly motivated this segment were: to experience tranquillity and solitude (46%), to learn about nature and wildlife (28%), and to engage in physical activities and keep fit (32%). On their last vacation, 20% of this segment enjoyed camping, 28% visited markets, and 75% ate out at reasonably priced places.

This result illustrated the usefulness of the indicators in discriminating between segments and identifying the most attractive target markets for specific marketing strategies. Based on these findings, a manager interested in attracting environmentally friendly tourists would chose to target the “Environmentally friendly” segment. In doing so, the marketing mix would be focused on appealing to the environmentally conscious audience, who are older in age and well educated. This is not a surprising finding, given that environmental factors were considered a priority. However, this finding is useful for the purpose of empirical validation of the Segment Attractiveness Index.

6.4.3 Scenario 3: 100% weight on the *travel habits* indicator

Scenario 3 depicts a situation in which a tourism destination is interested in focusing on the *travel habits* indicator alone. The Segment Attractiveness Index was customised to suit a region that has a marketing strategy entirely focused on identifying tourists who travel frequently, tend to become repeat visitors at destinations they are happy with, and take vacations outside of peak holiday periods.

The indicator *travel habits* was allocated total importance and given a weight of 100%:

Segment Attractiveness Index score = 0*spending behaviour + 0*moral obligation to behave in an environmentally friendly manner + 0*ambassador + 1*travel habits + 0*reachability via the internet + 0*image match.

Results are provided in Table 6.6. Statistical significance of the observed difference within segmentation bases was confirmed using an ANOVA. Only the

activity and the income segmentation bases discriminated significantly within their segmentation solutions (p -values for less than 0.05).

Table 6.6: Sorted Segment Attractiveness Index score (100% weight on *travel habits*)

| Segmentation Base | Segment Number | Segment Name | Segment Attractiveness Index Score | Category |
|-------------------|----------------|---------------------|------------------------------------|----------|
| Income | 2 | \$20,000-\$40,000 | 2.81 | HIGH |
| Activities | 4 | Value diners | 2.80 | |
| Income | 1 | Under \$20,000 | 2.77 | |
| Income | 4 | \$60,001-\$80,000 | 2.69 | |
| Activities | 5 | Off-roaders | 2.67 | MEDIUM |
| Activities | 2 | Seaside break | 2.66 | |
| Income | 5 | \$80,001-\$100,000 | 2.65 | |
| Activities | 6 | Culture seekers | 2.61 | |
| Income | 3 | \$40,001-\$60,000 | 2.57 | |
| Income | 7 | Over \$150,000 | 2.47 | LOW |
| Activities | 1 | Family fun-time | 2.46 | |
| Income | 6 | \$100,001-\$150,000 | 2.42 | |

A tourism destination that is particularly interested in tourists' specific travel behaviour should target Income Segment 2, "\$20,000-\$40,000". If an *a posteriori* segmentation base is chosen, Activities Segment 4, "Value diners" would be selected for targeting. The next step is to profile the segments (Step 4 in Figure 6.1).

Segment 2 ("20,000-40,000") represents the segment with the highest Segment Attractiveness Index score for a destination focused on travel habits. This segment is characterised by: their older age, 30% are aged 55 or over; their family connections, 73% of this segment have children; and their retired status, 34% of this segment are retired. This segment has a high level of internet use to plan its vacations (86% use the Internet). 52% completed their education up to high school (Year 12). Media behaviour indicates that 60% of this segment listen to the radio and 91% watch television more than four or more times a week. This segment is particularly interested in visiting friends and relatives (62% of participants). For their ideal vacation destination, 83%

desire peace and quiet, and 61% a destination suited to family fun, 84% want an unspoiled, natural environment, and 78% are looking for a destination with country charm. Despite being a low income segment, many characteristics make this segment attractive. For instance, the retired status of the majority of members indicates a substantial proportion of time to travel. Additionally, this segment may not be as affected by the timing of their vacations. In comparison to other segments, Income Segment 2 may be more flexible to travel out of peak holiday periods and may not be as influenced by school or public holidays. In this scenario, the timing characteristic is very appealing to tourism destination managers who prefer to spread visitation out between peak and off-peak seasons.

Alternatively, when using an *a posteriori* segmentation base, Segment 4 (“Value diners”) has the highest Segment Attractiveness Index score for a destination focused on travel habits. This segment is mainly interested in eating out at reasonably priced places, visiting casinos and pubs, clubs and discos (See Figure D.3, Appendix D). This segment is also interested in visiting friends and relatives. Over a third of this segment (33%) is under the age of 34 years, and 61% have children. 40% of this segment is in full-time employment, and 25% have a combined household income above AUD\$100, 000. Information about potential vacation destinations is sourced from brochures (70%), the Internet (93%), and work colleagues (53%). 89% of this segment watch television four or more times a week and 19% do not listen to the radio at all (the highest proportion out of all the segments). Image attributes associated with their ideal holiday include great nightlife (30%), contemporary accommodation (67%), fun, funky cafes (59%), and good value for money (94%). This segment differs in comparison to Segment 2 above. Their distinguishing features mean that destination marketers can appeal to the

social and entertainment aspects of a vacation. This is a young segment with a higher household income and many have children which could indicate young families. A tourism destination interested in attracting this segment could offer a package targeted towards escaping and being entertained. Enticing this segment to take a vacation out of peak holiday period may be difficult as many are employed on a full time basis. In this case, destination offers could focus on short-breaks taken on weekends during off-peak times in the year.

6.4.4 Scenario 4: Identifying attractive tourists for a specific destination

Scenario 4 depicts a realistic situation in which a destination manager manipulates the importance of the indicators to match priorities for the destination's marketing strategy. In this scenario, Wollongong is used as a case study. The general manager of Tourism Wollongong was asked to assign indicator weights that correspond to the destination's marketing strategy. Table 6.7 depicts the weights allocated to each indicator by the Tourism Wollongong general manager.

Table 6.7: Wollongong-specific Indicator Weights

| Rank (#) | Importance Weight (%) |
|--|-----------------------|
| Reachability via the Internet | 40 |
| Ambassador | 25 |
| Image | 12 |
| Travel habits | 11 |
| Spending behaviour | 10 |
| Moral obligation to behave in an environmentally friendly manner | 2 |
| Total | 100% |

The Segment Attractiveness Index for this scenario, with weights specified by the tourism manager, is:

Segment Attractiveness Index score = $0.1 \times \text{spending behaviour} + 0.02 \times \text{moral obligation to behave in an environmentally friendly manner} + 0.25 \times \text{ambassador} + 0.11 \times \text{travel habits} + 0.4 \times \text{reachability via the Internet} + 0.12 \times \text{image match}$.

Results are provided in Table 6.8. Statistical significance of the observed difference within segmentation bases was confirmed using an ANOVA. Only those segmentation bases that discriminated significantly were included (p -values for less than 0.05).

Table 6.8: Sorted Segment Attractiveness Index score (Wollongong scenario)

| Segmentation Base | Segment Number | Segment Name | Segment Attractiveness Index Score | Category |
|---------------------|----------------|---------------------|------------------------------------|----------|
| Income | 5 | \$80,001-\$100,000 | 4.68 | HIGH |
| Income | 6 | \$100,001-\$150,000 | 4.52 | |
| Benefits | 4 | Novelty seekers | 4.50 | |
| Activities | 6 | Culture seekers | 4.48 | |
| Activities | 1 | Family fun-time | 4.33 | |
| Income | 7 | Over \$150,000 | 4.29 | |
| Information sources | 6 | Traditionalists | 4.28 | MEDIUM |
| Image perfect | 4 | Action oriented | 4.21 | |
| Image perfect | 5 | Family friendly | 4.20 | |
| Income | 3 | \$40,001-\$60,000 | 4.18 | |
| Information sources | 4 | TV and ads | 4.10 | |
| Activities | 2 | Seaside break | 4.09 | |
| Income | 4 | \$60,001-\$80,000 | 4.02 | |
| Activities | 4 | Value diners | 4.01 | |
| Information sources | 5 | Travel agent users | 3.94 | |
| Image perfect | 2 | Country retreat | 3.93 | |
| Benefits | 1 | Escapees | 3.88 | LOW |
| Information sources | 2 | TV buffs | 3.86 | |
| Income | 1 | Under \$20,000 | 3.62 | |
| Income | 2 | \$20,000-\$40,000 | 3.47 | |
| Activities | 5 | Off-roaders | 3.45 | |

Income Segment 5 (“\$80,001-\$100,000”), was the most attractive segment for the Wollongong scenario, as indicated in Table 6.8. Tourism Wollongong would be encouraged to target this segment and focus their marketing strategy and efforts in

attracting this segment to their destination. This segment is characterised by a majority of segment members (28%) between the age of 35 and 44 years, over half (53%) are in full-time paid employment, 25% of this segment have been trained at a technical college (TAFE), and 20% have postgraduate qualifications. 73% have children. This segment displays a particularly high level of Internet use for booking accommodation for their last vacation accommodation using the Internet (59% of participants) and 95% use the Internet to plan their vacations. 66% listen to the radio four or more times a week. Activities this segment participated in on their last vacation include swimming (44% of participants), playing golf (14%) and visiting attractions for the kids (29%). Vacation benefits this segment is motivated by include experiencing something new (59%) and releasing stress and tension (76%). For their ideal vacation destination, 93% prefer an unspoiled natural environment, 71% are interested in family fun, 64% seek contemporary accommodation, and 76% are interested in activities for all ages.

This segment of people displays characteristics very attractive to Wollongong tourism planners, including the family component, their high Internet use and an interest in a variety of family friendly attractions. However, the differences in the Segment Attractiveness Index scores are small and a number of other segments can also be considered for the destination. For instance, Activity Segment 4, “Novelty seekers” could also be considered as a viable market for this destination.

“Novelty seekers” are relatively old (30% are older than 55 years), have relatively low incomes (27% between AUD\$40,000-60,000), 44% are employed in full-time work (See Figure D.11, Appendix D). Members from this segment source their vacation information for planning from destination information brochures (71%) and

the Internet (95%). Interestingly, this segment accounts for the most Internet use for vacation planning across all four activity segments (34%). Their high level of Internet use is particularly attractive for the Wollongong managers because they ranked *reachability via the internet* as the most important indicator. This segment prefers to communicate their vacation experiences with their friends. A relatively large proportion of “Novelty seekers” consider their ideal holiday to be peaceful and quiet (88%), and to be laid back and relaxed (90%). During their vacation, this segment expresses a relatively high preference for relaxing and doing nothing (80%), eating at upmarket restaurants (49%), and general sightseeing (88%).

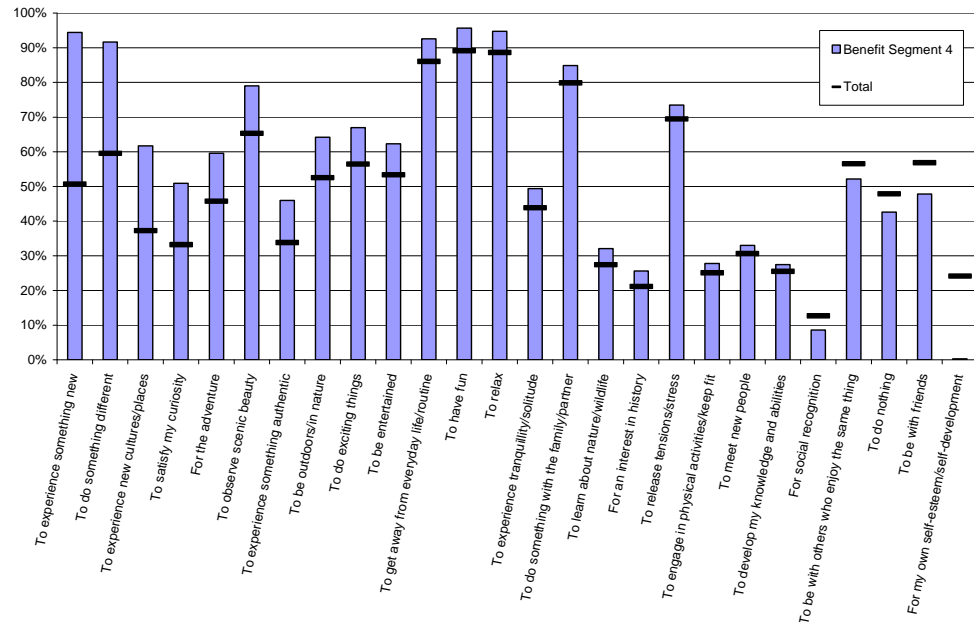
6.5 External Validation of the Segment Attractiveness Index with Tourism Managers

The four scenarios illustrated the different uses of the Segment Attractiveness Index and explained the outcomes based on different destination priorities. This section reports the results of an exercise conducted with managers. The exercise was conducted to validate whether the Segment Attractiveness Index was able to predict managers’ attractiveness assessments correctly.

Three tourism destination managers were consulted. They were from Regional Tourism Organisations in New South Wales. Managers were asked to review three segments and arrange them in order from high attractiveness to low attractiveness, based on information provided. Three different segments were selected to be used in this example, “Novelty seekers”, “Value diners”, and “Off-roaders”; one segment from each category (high, medium and low, according to their Segment Attractiveness Index score, highlighted on Table 6.4). The information provided to managers included the segment’s performance according to the six indicators (*spending behaviour, moral*

obligation to behave in an environmentally friendly manner, ambassador, travel habits, reachability via the internet, image match). An example of the information provided to managers is given in Figure 6.2, where “Novelty seekers” were profiled.

FACT FILE: “Novelty seekers” Market Segment



PROFILE

- Older demographic: a third of this segment are aged above 55 years

EXPENDITURE

- Moderate range of activity participation (average of 14 activities on last vacation)
- Infrequent leisure shoppers, average of 3 shopping trips on last vacation
- Moderate amount of spending on eating out

AMBASSADOR

- Prefer to show photos in person when communicating about their travel experiences
- Communicate with partner and friends about their trip

ENVIRONMENT SUSTAINABILITY

- High environmentally friendly score

TRAVEL STYLE

- Frequent travellers (average of 5 vacations per year)
- Lower rate of return to destination if they are happy with it

REACHABILITY

- Highest use of Internet for vacation planning
- Moderate use of the Internet to book accommodation online

THEIR PERFECT DESTINATION

- | | |
|---|---|
| <input type="checkbox"/> Peaceful and quiet | <input type="checkbox"/> Fun, funky cafes |
| <input type="checkbox"/> Short-break destination | <input type="checkbox"/> Unspoiled, natural environment |
| <input type="checkbox"/> Good value for money | <input type="checkbox"/> Day-trip destination |
| <input type="checkbox"/> Contemporary accommodation | <input type="checkbox"/> Long, sandy beaches |
| | <input type="checkbox"/> Laid back and relaxed |

1. If you were to rank these market segments into an order of most attractive to least attractive, what position would you rank this one? Rank # _____
2. Considering the characteristics of this market segment, please indicate how attractive they are to [insert destination]?

Not Attractive _____ Very Attractive

Figure 6.2: The “Novelty seekers” Segment Description

Tourism destination managers were required to rank each of the segments from most attractive to least attractive using only the profile information. Managers were not provided with the segments Segment Attractiveness Index score. The manager's ranking should reflect the rank of the segments according to the Segment Attractiveness Index. The managers' rankings appear in Table 6.9.

Table 6.9: Expert rating of Segments

| Rank order based on SAI score | Segment name | Participant A's rating | Participant B's rating | Participant C's rating |
|-------------------------------|-----------------|------------------------|------------------------|------------------------|
| High | Novelty seekers | High | High | High |
| Medium | Value Diners | Medium | Medium | Medium |
| Low | Off-roaders | Low | Low | Low |

According to the Segment Attractiveness Index score, "Novelty seekers" is the most attractive segment of the three. All three participants ranked this segment as the most attractive (high) segment. This segment is the most attractive as members get very involved in a broad range of activities while on vacation. This characteristic is related to the "Spending behaviour" indicator of the Segment Attractiveness Index and was a prominent feature in all three interviews. An active tourist who participates in a wide range of activities spreads his/her expenditure across a wide variety of tourism vendors and outlets. This is important for the tourism destination managers because they are responsible for destination marketing, and the prosperity of tourism operators at their destination is a main concern.

The segment "Value diners" is reasonably active and participates in many activities while on vacation. All three participants attributed to them a medium level of Segment Attractiveness. This segment displays qualities of visiting friends and relatives and not spending as much as the "Novelty seekers" on dining out. "This is one of our major markets", said Participant A. She believed this segment represented the visiting

friends and relatives (VFR) market that are hard to track and communicate with because they tend to stay in private accommodation. This segment of travellers displays destination loyalty and willingness to return to a destination they are happy with. Participant A commented this is an attractive feature but it would be hard to motivate this segment to take up promotional offers to encourage higher participation.

The “Off-roaders” segment rates as the lowest segment on the lists of all participants. Referring to the “Spending behaviour” indicator, they would not be of benefit to the destination as they are not big spenders and have very low levels of participation in activities. Additionally, they have low Internet use and would be hard to reach (a poor rating on the “Reachability via the Internet” indicator). Participant B believed that his destination is attractive to this segment but they do not, nor will ever try to attract this segment for the aforementioned reasons related to low spending behaviour.

The findings reflect the rankings based on the Segment Attractiveness Index. The external validation of the Segment Attractiveness Index conducted through interviews with managers indicates that the index can distinguish between managerially attractive and unattractive segments.

A point can be made about the three selected segments related to their nature, namely, that each segment may reflect each category in too obvious a way. While the “Off-roaders” are distinctly lower in attractiveness to the other two segments, they represent the other segments in the low category quite well. However, segment descriptions of the high and medium segments display characteristics not too dissimilar to each other creating more difficulty in determining which segment was more

attractive. Both the “Novelty seekers” and the “Values diners” were older in age, and had a moderate level of travel frequency. The “Novelty seekers” had a higher activity participation average making their *spending behaviour* profile more inviting. On the other hand, the “Values diners” display repeat visitation to a destination increasing their appeal on the *travel habits* profile. Considering that the two top segments have similar profiles, the Segment Attractiveness Index was able to distinguish between these two segments and place them into the top two positions identical to the managers’ rankings.

6.6 Discussion

The Segment Attractiveness Index offers tourism managers a practical tool for the assessment of segment attractiveness.

A step-by-step approach was presented in this chapter to demonstrate the use of the index. Four practical scenarios were presented: (1) all indicators weighed equally; (2) maximum weight allocated to the *moral obligation to behave in an environmentally friendly manner* indicator; (3) maximum weight allocated to the *travel habits* indicator; and (4) indicator weights allocated by a destination manager. The results of the empirical examples provided evidence that the proposed index is a useful tool for destination marketing managers. The indicators used were able to discriminate between segments, thus enabling tourism marketing managers to use them as a tool for the selection of target segments. The index can support tourism managers in selecting target market segments by specifically accounting for the priorities a certain tourism destination identifies.

For instance, in scenario 4, the Wollongong destination manager customised the Segment Attractiveness Index according to his destination’s objectives. Income

Segment 5 (“\$80,001-\$100,000”) was identified as the most attractive segment for this destination. The destination’s marketing strategy could be reassessed to focus on this segment in order to increase the destination’s competitiveness.

Interestingly, three of the four scenarios (Scenarios 2, 3 and 4), *a priori* segments were more attractive than *a posteriori* segments. *A priori* segmentation bases have been discounted by tourism researchers based on the belief that they produce inferior segments to *a posteriori* segmentation bases. However, they are still the segmentation base of choice for destination management. These scenarios illustrate that *a priori* segmentation bases can translate into managerially useful, and attractive, segments and should be seriously considered by destination management.

The Segment Attractiveness Index was externally validated through an assessment by tourism destination managers. The managers ranked three segments in high, medium and low order in the same order they appear according to their Segment Attractiveness Index scores. This result provided preliminary support that the index can distinguish between managerially attractive and unattractive segments.

From a theoretical perspective, the index contributes to an understanding of the attractiveness of different segments when different destination priorities are set. This research moves one step towards bridging the theory practice divide (Dibb, 2005; Dolnicar and Lazarevski, 2009) by offering a practical strategy, grounded in theory, to assess segmentation solutions. Deshpande and Zaltman (1984) highlighted the difficulties in differences between social science researchers and policymakers (managers) in terms of what they value or deem as most important factors. This divide detracts from the usefulness of market research. Developing a formative index of

Segment Attractiveness from a managerial point of view serves both purposes: it helps social science researchers develop more useful segmentation theories and solutions and it guides policy makers in their selection of one or more target segments.

7. SUMMARY, LIMITATIONS AND RECOMMENDATIONS

7.1 Summary of the Study

Tourism is a key economic driver for the Australian economy. Regional tourism destinations are significant players in the tourism industry, with approximately 48 cents in every tourism dollar spent in regional Australia (Australian Government Department of Tourism, Industry and Resources, 2006). Tourism managers need to focus their marketing efforts towards optimal segments for their regions. Market segmentation helps destination managers focus their efforts towards a smaller, more select market group in order to gain a competitive advantage (Dolnicar 2004). A review of segmentation studies (Chapter 2) revealed that the concept of segment attractiveness has not been conceptualised or operationalised in a managerially-driven way. Therefore, many recommendations are not practically relevant or applicable. Consequently, despite the importance of market segmentation and its popularity in the field of tourism, no practical, managerially-oriented measurement instrument exists to assess segmentation bases and segmentation solutions for their managerial usefulness.

This study was undertaken to address this gap, focusing on three objectives: (1) to determine the characteristics of an attractive tourist segment according to destination management, (2) to develop a formative index of Segment Attractiveness, and (3) to empirically validate and assess the usefulness of this formative index of Segment Attractiveness.

The study was conducted using a mixed method design, consisting of qualitative and quantitative components. A qualitative study was conducted with managers of regional tourism destinations. Managers were interviewed about their marketing strategies, market segments they have targeted, and how they identify and define the

most attractive tourist segment. Findings from the qualitative phase revealed that regional tourism destination managers believe that the most attractive tourist segment is one that wants to experience and explore an area, that behaves in an environmentally friendly manner, gets involved in activities, generates widespread expenditure, will tell many people about their vacation, and will be easily accessible via the Internet. Managers also reported difficulties in trying to assess segments for their attractiveness using traditional, or academically-oriented, segmentation effectiveness criteria. The findings from the qualitative phase were used to inform the development of a questionnaire.

In the quantitative stage, a survey was conducted with 1003 participants. The questionnaire collected general travel information, specific reasons for travel, activities that the participants participated in while on their last holiday, information sources consulted during the travel planning phase and general socio-demographic data.

Based on survey data, a formative index of Segment Attractiveness was created and made measurable using questions that were added to the survey to represent indicators. The research study presents the development of the Segment Attractiveness Index for the evaluation of the most attractive segmentation bases according to destination managers' criteria for attractive segments (See Sections 5.1 and 5.2). Six indicators form the Segment Attractiveness Index: (1) *spending behaviour*, (2) *moral obligation to behave in an environmentally friendly manner*, (3) *travel habits*, (4) *ambassador*, (5) *reachability via the Internet*, and (6) *image match*. These were the most important indicators to regional destination managers in NSW, Australia.

In Chapter 6, the Segment Attractiveness Index is used to assess five *a posteriori* segmentation bases (activities, benefits of travel, information sources, image perfect and image turnoff), and three *a priori* segmentation bases (environmental friendliness, family lifecycle and income). A total of 28 usable segments were created using cluster analysis, with a Segment Attractiveness Index score calculated for each individual segment. The score was used to rank the segments. No natural “optimal” segmentation base arose. However, the value of the Segment Attractiveness Index was demonstrated in its application to a number of scenarios.

Four scenarios were used to test the validity and usefulness of the Segment Attractiveness Index. Each scenario presented different weights of the indicators, with equal weights for all indicators in Scenario 1, 100% weight on the *moral obligation to behave in an environmentally friendly manner* indicator in Scenario 2, 100% weight on the *travel habits* indicator in Scenario 3, and different weights for a specific destination in Scenario 4.

In the first scenario, all indicators were valued as equally important. The Segment Attractiveness Index discriminated significantly within all the segmentation approaches. An active market of an older demographic was the most attractive segment in this case. In the second, third and fourth scenarios where indicators were allocated different weights, segments constructed using *a priori* segmentation bases were the most attractive. This indicates that *a priori* segmentation bases should not be underestimated in terms of their managerial usefulness.

Assigning weights to indicators based on different destination priorities demonstrated the practical usefulness of the Segment Attractiveness Index. For

example, the tourism general manager of the city of Wollongong applied weights to each of the six indicators of the Segment Attractiveness Index. The index was sensitive to the preferences of this specific destination, as opposed to a general destination where all indicators were weighed equally. Income Segment 5 (“\$80,001-\$100,000”) was detected as the most attractive segment for Wollongong and a profile was provided to guide targeted marketing efforts towards attracting this segment.

Finally, the index was externally validated with follow-up interviews with three regional tourism destination managers. Three of the 28 usable segments were selected to validate the usefulness of the Segment Attractiveness Index. The managers’ ranking mirrored the ranking according to the Segment Attractiveness Index Score. This finding provides preliminary support for the Segment Attractiveness Index in being able to distinguish between the most and least managerially attractive segments.

7.2 Contributions

Tourism managers have a responsibility to their operators to attract the most appropriate segments to their destinations, however, through interviews with regional tourism managers, it appears that their approach is “ad hoc” or “hit and miss”.

Academic researchers too have a responsibility to conduct segmentation research projects that “reflect management’s information needs” (Myers, 1996, p. 318). This thesis has developed an index that has practical relevance to tourism managers.

7.2.1 Theoretical implications

From a methodological perspective, the study contributes by developing a formative measure for assessing segment attractiveness. The index can be adapted to suit a number of scenarios from the generic segmentation solution where all indicators

are valued equally, into destination specific solutions where indicators are prioritised according to specific marketing strategies.

The Segment Attractiveness Index will assist tourism and other social science researchers seeking to investigate the outcomes of their segmentation studies using an objective measure. Therefore, the Segment Attractiveness Index assists social science researchers in developing more managerially useful and practical segmentation solutions.

The Segment Attractiveness Index thus strengthens the link between theory and practice. The focus on Segment Attractiveness addresses theoretical deficiencies, predominantly attributed to implementation difficulties and a failure to critically assess the managerial usefulness of segmentation solutions. On this note, the development and validation of the Segment Attractiveness Index highlights the importance of simpler, *a priori*, segmentation bases. The findings from this study suggest that tourism researchers should put *a priori* segmentation back on the research agenda and back in the segmentation toolbox. If *a priori* segmentation bases perform equally well, they represent a simpler and more parsimonious model and avoid a number of possible methodological pitfalls that frequently occur with *a posteriori* segmentation studies.

7.2.2 Practical implications

The Segment Attractiveness Index provides managers with a practical tool to detect the most managerially useful segments for their destinations. By targeting the most attractive segments, destinations can enjoy the maximum benefit from a segmented strategy, and ultimately, a competitive advantage from other destinations.

From a managerial perspective, the findings of this research highlight the central importance of managerial attractiveness that segmentation studies must possess to be operational and able to be implemented by destination managers. The Segment Attractiveness Index creates an impetus for tourism practitioners and managers of tourist destinations to consider closely their destination's unique characteristics when applying the index to assess their regional destination strategy. Image strategies differ between destinations, therefore, management must identify their destination's unique attributes in order to understand and develop the "Image Match" indicator.

Findings of this study emphasised the importance of the manager's involvement in the market segmentation planning process. This is particularly important when developing criteria that are easy to understand and relate specifically to local objectives. Accordingly, the development of the criteria in partnership with managers should enable an easier transition when managers implement and use the criteria on a daily basis.

7.3 Limitations of the Study

The limitations of the qualitative study include the small sample size of managers interviewed in the criteria development stage and the focus on only one Australian state, New South Wales. Nonetheless, the nature of the questions and their aim of detecting the most generally attractive tourists would not preclude the findings from being applicable to tourism organisations in other Australian states.

The quantitative study was limited in the following ways. The nature of the online panel may have created a bias on the effect on one of the indicators, "Reachability via the Internet". While the online nature of the data collection would have accessed those in the population more likely to use the Internet, the panel company

do not recruit panel members only through this medium. They attempt to recruit a certain number of participants through a variety of mediums, such as telephone, mail and face-to-face recruitment methods.

Problems may also have arisen when questioning participants about their last trip. Recall bias may have impacted upon results as the last trip may have occurred many years ago, particularly in terms of expenditure values and instances they dined out, or even the number of shopping trips they went on. While this is a possibility, the closed-ended nature of the questions in the survey would have provided sufficient prompts to stimulate memories and gauge a general profile of the participant's last vacation.

7.4 Recommendations for Future Research

In light of the study results and limitations, the following recommendations are made.

The Segment Attractiveness Index was useful in indicating significant differences in the groups according to attractiveness. Future work may apply the proposed indicators to other empirical situations. An interesting extension of this study would be to replicate the use of the Segment Attractiveness Index in other countries, on a larger scale and with different image-match items. Replications in other countries would be warranted to test the index under different situations and in different markets. Similarly, future comparisons could be conducted between different Australian destinations to illustrate the usefulness of the index. The items of interest to other Australian destinations in forming the "Image Match" indicator are also open to future investigation. This would allow an investigation into whether the proposed indicators

can be used for a wide range of alternative priorities set by tourism destinations, in order to achieve increased generalisability. For instance, the *image match* indicator could be modified by customising the *image match* attributes to contain items unique to specific destinations and the specific destination's objectives. These measures could refine and enhance the capabilities of the Segment Attractiveness Index.

Despite illustrating significant differences between segmentation bases, the differences in index scores were relatively small. The list of variables that constitute certain indicators can also be reduced to make the index more parsimonious. For example, the *spending behaviour* indicator list of 45 activity items can be reduced to categories of activities, like "Outdoor and nature activities", "Social activities", and "Arts, heritage or festival activities". Different variables that constitute each indicator may enable more discrimination between Segment Attractiveness Index scores.

Investigations could also focus on the role of other tourism constituents in the local tourism industry of the destination and the importance they allocate to the indicators. For instance, managers of large or popular tourism attractions would have a big role to play in determining who to attract to their destination and which types of tourist groups visit the area. Other tourism stakeholders would include hotels, restaurants, tour operators, government bodies, retail outlets, and transportation companies.

In the increasingly competitive tourism market, regional tourism managers require segmentation solutions that assist them to identify and target optimal market segment(s). However, managers still view market segmentation as a "black-box" (Dolnicar & Lazarevski, 2009), instead needing segmentation solutions that are

practically relevant and simple enough to be integrated into their decision making processes. The Segment Attractiveness Index, a tool that can be customised to a tourism destination's offering and the priorities of management, makes the segmentation process more managerially-friendly. Regional tourism managers, by adopting the Segment Attractiveness Index, can gain more knowledge into potential market segments, target those segments that are the best match to their destination, and thereby improve their region's competitive advantage.

REFERENCES

- Aaker, D. A., Kumar, V., Day, G. S., & Lawley, M. (2005). *Marketing Research*. Milton: John Wiley & Sons, Australia Ltd.
- Aaker, J. L. (1997). Dimensions of Brand Personality. *Journal of Marketing Research (JMR)*, 34(August), 347-356.
- ACT Department of Treasury: Economics Branch. (2009). Gross State Product 2007–08. *Snapshots* Retrieved August, 2009, from www.treasury.act.gov.au/snapshot/GSP.pdf
- Ahmed, S. A., Barber, M., & d'Astous, A. (1998). Segmentation of the Nordic Winter Sun Seekers Market. *Journal of Travel and Tourism Marketing*, 7(1), 39-63.
- Aldenderfer, M. S., & Blashfield, R. K. (1984). *Cluster Analysis*. Beverly Hills, California: Sage Publications Inc.
- Andereck, K. L., & Caldwell, L. L. (1994). Variable selection in tourism market segmentation models. *Journal of Travel Research*, 33(2), 40-46.
- Andreu, L., Kozak, M., Avci, N., & Cifter, N. (2005). Market Segmentation by Motivations to Travel: British Tourists Visiting Turkey. *Journal of Travel and Tourism Marketing*, 19(1), 1-14.
- Australian Bureau of Statistics. (2007). 3218.0 - Regional Population Growth, Australia, 2004-05 Retrieved February, 2008, from <http://www.abs.gov.au/Ausstats/abs@.nsf/Previousproducts/3218.0Main%20Features22004-05?opendocument&tabname=Summary&prodno=3218.0&issue=2004-05&num=&view=>
- Australian Bureau of Statistics. (2008a). 2006 Census QuickStats : Australia Retrieved September, 2008, from <http://www.censusdata.abs.gov.au/ABSNavigation/prenav/ViewData?method=Place%20of%20Usual%20Residence&subaction=-1&producttype=QuickStats&areacode=0&action=401&collection=Census&textversion=false&breadcrumb=PL&period=2006&javascript=t>
- Australian Bureau of Statistics. (2008b). 5249.0 - Australian National Accounts: Tourism Satellite Account, 2006-07 Retrieved January 2009, from <http://www.abs.gov.au/AusStats/ABS@.nsf/Latestproducts/5249.0Main%20Features22006-07?opendocument&tabname=Summary&prodno=5249.0&issue=2006-07&num=&view=>
- Australian Government Department of Tourism Industry and Resources. (2006). Domestic and International Tourism. Retrieved September, 2006, from

<http://www.industry.gov.au/content/itrinternet/cmscontent.cfm?objectID=9B447A73-95F1-495A-A916A0F40D280105>

- Australian Government Tourism Australia. (2005). Tourism Australia. Retrieved March, 2006, from <http://www.tourism.australia.com/home.asp>
- Australian Regional Tourism Network. (2008). New South Wales - Regional Tourism Organisations. Retrieved June, 2009, from <http://www.regionaltourism.com.au/ARTN/rto/nsw.html>
- Baloglu, S., & McCleary, K. W. (1999). U.S. International Pleasure Travelers' Images of Four Mediterranean Destinations: A Comparison of Visitors and Nonvisitors. *Journal of Travel Research*, 38(2), 144-152.
- Bansal, H., & Eiselt, H. A. (2004). Exploratory research of tourist motivations and planning. *Tourism Management*, 25(3), 387-396.
- Becken, S., & Gnoth, J. (2004). Tourist consumption systems among overseas visitors: reporting on American, German, and Australian visitors to New Zealand. *Tourism Management*, 25(3), 375-385.
- Berenguer, J., Corraliza, J. A., & Martin, R. (2005). Rural-Urban Differences in Environmental Concern, Attitudes, and Actions. *European Journal of Psychological Assessment*, 21(2), 128-138.
- Bieger, T., & Laesser, C. (2000). Information Sourcing by Swiss Travelers: A Market Segmentation Approach. *Tourism Analysis*, 5(2-4), 125-131.
- Bieger, T., & Laesser, C. (2002). Market Segmentation by Motivation: The Case of Switzerland. *Journal of Travel Research*, 41(1), 68 - 76.
- Bieger, T., & Laesser, C. (2004). Information Sources for Travel Decisions: Toward a Source Process Model. *Journal of Travel Research*, 42(4), 357-371.
- Bigne, J. E., & Andreu, L. (2004). Emotions in segmentation: An Empirical Study. *Annals of Tourism Research*, 31(3), 682-696.
- Buchta, C., Dimitriadou, E., Dolnicar, S., Leisch, F., & Weingessel, A. (1997). A Comparison of Several Cluster Algorithms on Artificial Binary Data Scenarios from Travel Market Segmentation: Working paper # 7, SFB Adaptive Information Systems and Modelling in Economics and Management Science, Vienna.
- Buhalis, D. (2000). Marketing the competitive destination of the future. *Tourism Management*, 21(1), 97 - 116.
- Calantone, R. J., Di Benedetto, A., Hakam, A., & Bojanic, D. (1989). Multiple Multidimensional Tourism Positioning Using Correspondence Analysis. *Journal of Travel Research*, 28(2), 25-32.

- Cha, S., McCleary, K. W., & Uysal, M. (1995). Travel Motivations of Japanese Overseas Travelers: A Factor-Cluster Segmentation Approach. *Journal of Travel Research*, 34(2), 33-39.
- Chang, J. (2006). Segmenting tourists to aboriginal cultural festivals: An example in the Rukai tribal area, Taiwan. *Tourism Management*, 27(6), 1224-1234.
- Chen, J. S. (2003). Market segmentation by tourists' sentiments. *Annals of Tourism Research*, 30(1), 178-193.
- Choffray, J.-M., & Lilien, G. L. (1980). *Market planning for new industrial products*. New York: Wiley.
- Choi, W. M., & Tsang, C. K. L. (1999). Activity Based Segmentation on Pleasure Travel Market of Hong Kong Private Housing Residents. *Journal of Travel and Tourism Marketing*, 8(2), 75-97.
- Clancy, K. J., & Roberts, M. L. (1983). Toward an Optimal Market Target: A Strategy for Market Segmentation. *The Journal of Consumer Marketing*, 1(1), 64-73.
- Clayclump, H. J., & Massy, W. F. (1968). A Theory of Market Segmentation. *Journal of Marketing Research (JMR)*, 5(4), 388-394.
- Collins, D., & Tisdell, C. (2002). Gender and Differences in Travel Life Cycles. *Journal of Travel Research*, 41(2), 133-143.
- Coltman, T., Devinney, T. M., Midgley, D. F., & Venaik, S. (2008). Formative versus reflective measurement models: Two applications of formative measurement. *Journal of Business Research*, 61(12), 1250-1262.
- Corraliza, J. A., & Berenguer, J. (2000). Environmental Values, Beliefs, and Actions: A Situational Approach. *Environment and Behavior*, 32(6), 832-848.
- Couper, M. P. (2000). Web Surveys: A Review of Issues and Approaches. *The Public Opinion Quarterly*, 64(4), 464-494.
- Crompton, J. L. (1979a). An assessment of the image of Mexico as a vacation destination and the influence of geographical location upon that image. *Journal of Travel Research*, 17(4), 18-23.
- Crompton, J. L. (1979b). Motivations for pleasure vacation. *Annals of Tourism Research*, 6(4), 408-424.
- de Guzman, A. B., Leones, J. D., Tapia, K. K. L., Wong, W. G., & de Castro, B. V. (2006). Segmenting Motivation. *Annals of Tourism Research*, 33(3), 863-867.
- de Vaus, D. A. (2002). *Surveys in Social Research* (5 ed.). St. Leonards: Allen & Unwin.

- Deshpande, R., & Zaltman, G. (1984). A Comparison of Factors Affecting Researcher and Manager Perceptions of Market Research Use. *Journal of Marketing Research (JMR)*, 21(1), 32-38.
- Deutsdens, E., De Ruyter, K., Wetzels, M., & Oosterveld, P. (2004). Response Rate and Response Quality of Internet-Based Surveys: An Experimental Study. *Marketing Letters*, 15(1), 21-36.
- Diamantopoulos, A. (1999). Export performance measurement: reflective versus formative indicators. *International Marketing Review*, 16(6), 444-457.
- Diamantopoulos, A., & Winklhofer, H. M. (2001). Index Construction with Formative Indicators: An Alternative to Scale Development. *Journal of Marketing Research (JMR)*, 38(2), 269-277.
- Dibb, S. (1998). Market segmentation: strategies for success. *Marketing Intelligence and Planning*, 16(7), 394-406.
- Dibb, S., & Simkin, L. (1994). Implementation Problems in Industrial Market Segmentation. *Industrial Marketing Management*, 23(1), 55-63.
- Dibb, S., & Simkin, L. (2001). Market Segmentation: Diagnosing and Treating the Barriers. *Industrial Marketing Management*, 30(8), 609-625.
- Digman, J. M. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology*, 41, 417-440.
- Dodd, T., & Bigotte, V. (1997). Perceptual Differences Among Visitor Groups to Wineries. *Journal of Travel Research*, 35(3), 46-51.
- Dolnicar, S. (2002a). Activity-based market subsegmentation of cultural tourists. *Journal of Hospitality and Tourism Management*, 9(2), 94-105.
- Dolnicar, S. (2002b). A Review of Data-Driven Market Segmentation in Tourism. *Journal of Travel and Tourism Marketing* 12(1), 1-22.
- Dolnicar, S. (2004a). Beyond "Commonsense Segmentation": A Systematics of Segmentation Approaches in Tourism. *Journal of Travel Research*, 42(3), 244 - 250.
- Dolnicar, S. (2004b). Towards more thorough data-driven segmentation in tourism - a tracking framework for exploring segment development. In G. Crouch, R. R. Perdue, H. J. P. Timmermans & M. Uysal (Eds.), *Consumer Psychology of Tourism, Hospitality and Leisure* (pp. 245-252). New York: CABI.
- Dolnicar, S. (2005a). Empirical market segmentation: What you see is what you get. In W. Theobald (Ed.), *Global Tourism, The Next Decade* (3rd ed., pp. 309-325). Oxford: Butterworth-Heinemann.

- Dolnicar, S. (2005b). Understanding barriers to leisure travel: Tourist fears as a marketing basis. *Journal of Vacation Marketing*, 11(3), 197-208.
- Dolnicar, S. (2006). *Data-driven Market Segmentation in Tourism – Approaches, Changes Over Two Decades and Development Potential*. Paper presented at the 15th International Research Conference of the Council for Australian University Tourism and Hospitality Education (CAUTHE), Australia.
- Dolnicar, S. (2007a). Accepted Standards Undermining the Validity of Tourism Research. In A. Woodside (Ed.), *Advances in culture, tourism and hospitality research* (Vol. 1, pp. 131-182). New York: JAI Press.
- Dolnicar, S. (2007b). Management Learning Exercise and Trainer's Note for Market Segmentation in Tourism. *International Journal of Culture, Tourism and Hospitality Research*, 1(4), 289-295.
- Dolnicar, S. (2007c). Market Segmentation in Tourism. In A. Woodside & D. Martin (Eds.), *Tourism Management: Analysis, Behaviour and Strategy* (pp. 592). Cambridge: CABI.
- Dolnicar, S. (2008). Market Segmentation in Tourism. In A. Woodside & D. Martin (Eds.), *Tourism Management, Analysis, Behaviour and Strategy* (pp. 592). Cambridge: CABI.
- Dolnicar, S., Crouch, G. I., Devinney, T., Huybers, T., Louviere, J. J., & Oppewal, H. (2008). Tourism and discretionary income allocation. Heterogeneity among households. *Tourism Management*, 29(1), 44-52.
- Dolnicar, S., & Grabler, K. (2003). *Evaluating geographical target markets – an aggregated portfolio approach for improved managerial decision- making*. Paper presented at the Proceedings of the 9th Annual Conference of the Asia Pacific Tourism Association (APTA), University of Technology, Sydney.
- Dolnicar, S., & Grabler, K. (2004). Applying City Perception Analysis (CPA) for Destination Positioning Decisions. *Journal of Travel & Tourism Marketing*, 16(2/3), 99-112.
- Dolnicar, S., Grabler, K., & Mazanec, J. A. (1999). Analyzing Destination Images: A Perceptual Charting Approach. *Journal of Travel and Tourism Marketing*, 8(4), 43-57.
- Dolnicar, S., & Grun, B. (2007a). Cross-cultural differences in survey response patterns. *International Marketing Review*, 24(2), 127-143.
- Dolnicar, S., & Grun, B. (2007b). How constrained a response: A comparison of binary, ordinal and metric answer formats. *Journal of Retailing and Consumer Services*, 14(2), 108-122.
- Dolnicar, S., & Grun, B. (2008). Challenging "Factor-Cluster Segmentation". *Journal of Travel Research*, 47(1), 63-71.

- Dolnicar, S., & Huybers, T. (2007). Different tourists – different perceptions of different places: Accounting for tourists' perceptual heterogeneity in destination image measurement. *Tourism Analysis*, 12(5/6), 447-461.
- Dolnicar, S., Kerr, G., & Lazarevski, K. (2007, 12–14 February). *Harvesting Micro-Geographic Heterogeneity to Increase Community Acceptance of Tourism*. Paper presented at the Council for Australian University Tourism and Hospitality Education (CAUTHE) Conference 2007, University of Technology Sydney, Australia.
- Dolnicar, S., Laesser, C., & Matus, K. (2009). Online Versus Paper: Format Effects in Tourism Surveys. *Journal of Travel Research*, 47(3), 295-316.
- Dolnicar, S., & Lazarevski, K. (2009). Methodological reasons for the theory/practice divide in market segmentation. *Journal of Marketing Management*, 25(3-4).
- Dolnicar, S., & Leisch, F. (2000). *Getting More Out of Binary Data: Segmenting Markets by Bagged Clustering*. Unpublished manuscript, Vienna University of Economics and Business Administration, and Vienna University of Technology, Vienna.
- Dolnicar, S., & Leisch, F. (2003). Winter Tourist Segments in Austria - Identifying Stable Vacation Styles for Target Marketing. *Journal of Travel Research*, 41(3), 281-292.
- Dolnicar, S., & Leisch, F. (2004a). Delivering the right tourist service to the right people - a comparison of segmentation approaches. *The Journal of Quality Assurance in Hospitality and Tourism*, 5(2-3-4), 189-207.
- Dolnicar, S., & Leisch, F. (2004b). *Geographical or behavioural segmentation? The pros and cons for destination marketing*. Paper presented at the 13th International Research Conference of the Council of Australian University Hospitality and Tourism Education.
- Dolnicar, S., & Leisch, F. (2004c). Segmenting Markets by Bagged Clustering. *Australasian Marketing Journal*, 12(1), 51-65.
- Dolnicar, S., & Leisch, F. (2005). Delivering the Right Tourist Service to the Right People: A Comparison of Segmentation Approaches. In M. Thyne & E. Laws (Eds.), *Hospitality, Tourism, and Lifestyle Concepts: Implications for Quality Management and Customers Satisfaction* (pp. 189-207): Haworth Hospitality Press.
- Dolnicar, S., & Leisch, F. (2008a). An Investigation of Tourists' Patterns of Obligation to Protect the Environment. *Journal of Travel Research*, 46(4), 381-391.
- Dolnicar, S., & Leisch, F. (2008b). Selective marketing for environmentally sustainable tourism. *Tourism Management*, 29(4), 672-680.

- Dolnicar, S., & Leisch, F. (2009). Evaluation of structure and reproducibility of cluster solutions using the bootstrap. *Marketing Letters*, in press, DOI: 10.1007/s11002-009-9083-4.
- Dolnicar, S., & Long, P. (2007). *Beyond Ecotourism: The Environmentally Responsible Tourist in the General Travel Experience*. Paper presented at the Travel and Tourism Research Association Europe 2007 Annual Conference.
- Echtner, C. M., & Ritchie, J. R. B. (2003). The Meaning and Measurement of Destination Image. *The Journal of Tourism Studies*, 14(1), 37-48.
- Eftichiadou, V. (2001). A Multi-Motive Segmentation of Urban Visitors: The case of Liverpool. *The Journal of Tourism Studies*, 12(1), 2-10.
- Evans, J., R., & Mathur, A. (2005). The value of online surveys. *Internet Research*, 15(2), 195-219.
- Everitt, B. S., Landau, S., & Leese, M. (2001). *Cluster Analysis*. London: Arnold.
- Fodness, D., & Murray, B. (1997). Tourist information search. *Annals of Tourism Research*, 24(3), 503-523.
- Foedermayr, E. K., & Diamantopoulos, A. (2008). Market Segmentation in Practice: Review of Empirical Studies, Methodological Assessment, and Agenda for Future Research. *Journal of Strategic Marketing*, 16(3), 223 - 265.
- Formann, A. K. (1984). *Die Latent-Class-Analyse: Einführung in die Theorie und Anwendung*. Weinheim: Beltz.
- Formica, S., & Uysal, M. (1998). Market Segmentation of an International Cultural-Historical Event in Italy. *Journal of Travel Research*, 36(Spring), 16-24.
- Frank, R. E., Massey, W. F., & Wind, Y. (1972). *Market Segmentation*. Englewood Cliffs, NJ: Prentice-Hall.
- Frew, E. A., & Shaw, R. N. (1999). The relationship between personality, gender, and tourism behavior. *Tourism Management*, 20(2), 193-202.
- Frochot, I. (2004). An investigation into the influence of the benefits sought by visitors on their quality evaluation of historic houses' service provision. *Journal of Vacation Marketing*, 10(3), 223-237.
- Frochot, I. (2005). A benefit segmentation of tourists in rural areas: a Scottish perspective. *Tourism Management*, 26(3), 335-346.
- Frochot, I., & Morrison, A. M. (2000). Benefit Segmentation: A Review of Its Applications to Travel and Tourism Research. *Journal of Travel and Tourism Marketing*, 9(4), 21-45.

- Gitelson, R. J., & Kerstetter, D. L. (1990). The Relationship Between Sociodemographic Variables, Benefits Sought and Subsequent Vacation Behavior: A Case Study. *Journal of Travel Research*, 28, 24-29.
- Glaser, B., & Strauss, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York: Aldine de Gruyter.
- Gnoth, J., & Zins, A. H. (2009). Emotions and Affective States in Tourism Behavior. In M. Kozak & A. Decrop (Eds.), *Handbook of Tourist Behavior: Theory & Practice* (pp. 267). New York: Routledge.
- Goldsmith, R. E., & Litvin, S. W. (1999). Heavy Users of Travel Agents: A Segmentation Analysis of Vacation Travelers. *Journal of Travel Research*, 38(2), 127-133.
- Greenleaf, E. A. (1992). Improving Rating Scale Measures by Detecting and Correcting Bias Components in Some Response Styles. *Journal of Marketing Research (JMR)*, 29(2), 176-188.
- Grossnickle, J. (2001). *Handbook of online marketing research*. New York: McGraw-Hill.
- Haley, R. I. (1968). Benefit Segmentation: A Decision-oriented Research Tool. *Journal of Marketing (pre-1986)*, 32(3), 30-35.
- Hanlan, J., Fuller, D., & Wilde, S. (2006). An Evaluation of How Market Segmentation Approaches Aid Destination Marketing. *Journal of Hospitality and Leisure Marketing*, 15(1), 5-26.
- Heath, E., & Wall, G. (1992). *Marketing Tourism Destinations: A Strategic Planning Approach*. Toronto, Canada: John Wiley and Sons, Inc.
- Ho, T. V., Spurr, R., Pambudi, D., Forsyth, P., Dwyer, L., & Hoque, S. (2008). Tourism Satellite Accounts 2006–07: New South Wales. Retrieved June, 2009, from <http://www.crctourism.com.au/>
- Hoek, J., Gendall, P., & Esslemont, D. (1996). Market segmentation. A search for the Holy Grail? *Journal of Marketing Practice: Applied Marketing Science*, 2(1), 25-34.
- Holland, J. L. (1985). *Making vocational choices: A theory of vocational personalities and work environments*. Englewood Cliff, New Jersey: Prentice-Hall.
- Horneman, L., Carter, R. W., Wei, S., & Ruys, H. (2002). Profiling the Senior Traveler: An Australian Perspective. *Journal of Travel Research*, 41(1), 23-37.
- Hsieh, S., O'Leary, J. T., & Morrison, A. M. (1992). Segmenting the international travel market by activity. *Tourism Management*, 13(2), 209-223.

- Hsu, C. H. C., & Crotts, J., C. (2006). Segmenting Mainland Chinese Residents Based on Experience, Intention and Desire to Visit Hong Kong. *International Journal of Tourism Research*, 8, 279-287.
- Hsu, C. H. C., & Lee, E.-J. (2002). Segmentation of Senior Motorcoach Travelers. *Journal of Travel Research*, 40(4), 364-373.
- Hu, C. (1996). Diverse developments in travel and tourism marketing: a thematic approach. *International Journal of Contemporary Hospitality Management*, 8(7), 33-43.
- Hyde, K. F. (2007). Contemporary Information Search Strategies of Destination-Naïve International Vacationers. *Journal of Travel & Tourism Marketing*, 21(2), 63-76.
- Illawarra Tourism. (2006). Illawarra Tourism. Retrieved June, 2009, from <http://www.illawarratourism.com.au/>
- Iso-Ahola, S. E. (1982). Toward a social psychological theory of tourism motivation: A rejoinder. *Annals of Tourism Research*, 9(2), 256-262.
- Iversen, T., & Wren, A. (1998). Equality, Employment, and Budgetary Restraint: The Trilemma of the Service Economy. *World Politics*, 50(4), 507-546.
- Jang, S., Morrison, A. M., & O'Leary, J. T. (2002). Benefit segmentation of Japanese pleasure travelers to the USA and Canada: selecting target markets based on the profitability and risk of individual market segments. *Tourism Management*, 23(4), 367-378.
- Jang, S., Morrison, A. M., & O'Leary, J. T. (2004a). A Procedure for Target Market Selection in Tourism. *Journal of Travel and Tourism Marketing*, 16(1), 19-33.
- Jang, S., Morrison, A. M., & O'Leary, J. T. (2004b). The Tourism Efficient Frontier: An Approach to Selecting the Most Efficient Travel Segment Mixes. *Journal of Travel & Tourism Marketing*, 16(4), 33-46.
- Johar, J. S., & Sirgy, J. M. (1995). Using Segment Congruence Analysis to Determine Actionability of Travel/Tourist Segments. *Journal of Travel and Tourism Marketing*, 4(3), 1-18.
- Johns, N., & Gyimothy, S. (2002). Market Segmentation and the Prediction of Tourist Behavior: The Case of Bornholm, Denmark. *Journal of Travel Research*, 40(3), 316 - 327.
- Johnson, C. Y., Bowker, J. M., & Cordell, H. K. (2004). Ethnic Variation in Environmental Belief and Behavior: An Examination of the New Ecological Paradigm in a Social Psychological Context. *Environment and Behavior*, 36(2), 157-186.
- Juaneda, C., & Sastre, F. (1999). Balearic islands tourism: a case study in demographic segmentation. *Tourism Management*, 20(4), 549-552.

- Kahle, L. R. (Ed.). (1983). *Social Values and Social Change: Adaptation to Life in America*. New York: Praeger.
- Kaiser, F. G., & Shimoda, T. A. (1999). Responsibility as a Predictor of Ecological Behaviour. *Journal of Environmental Psychology*, 19(3), 243-253.
- Kamakura, W. A., & Novak, T. P. (1992). Value-System Segmentation: Exploring the Meaning of LOV. *Journal of Consumer Research*, 19(1), 119.
- Kang, S. K., Hsu, C. H. C., & Wolfe, K. (2003). Family Traveler Segmentation by Vacation Decision-Making Patterns. *Journal of Hospitality & Tourism Research*, 27(4), 448-469.
- Kashyap, R., & Bojanic, D. C. (2000). A Structural Analysis of Value, Quality, and Price Perceptions of Business and Leisure Travelers. *Journal of Travel Research*, 39(1), 45-51.
- Kastenholz, E., Davis, D., & Paul, G. (1999). Segmenting Tourism in Rural Areas: The Case of North and Central Portugal. *Journal of Travel Research*, 37(4), 353-363.
- Kau, A. K., & Lim, P. S. (2005). Clustering of Chinese tourists to Singapore: an analysis of their motivations, values and satisfaction. *International Journal of Tourism Research*, 7(4-5), 231-248.
- Kim, D. Y., Lehto, X. Y., & Morrison, A. M. (2007). Gender differences in online travel information search: Implications for marketing communications on the internet. *Tourism Management*, 28(2), 423-433.
- Kim, J., Wei, S., & Ruys, H. (2003). Segmenting the market of West Australian senior tourists using an artificial neural network. *Tourism Management*, 24(1), 25-34.
- Kolb, B. M. (2006). *Tourism Marketing for Cities and Towns-Using Branding and Events to Attract Tourists*. Amsterdam, Boston: Elsevier/Butterworth-Heinemann.
- Kotler, P., Adam, S., Brown, L., & Armstrong, G. (2001). *Principles of Marketing*. Frenchs Forest: Pearson Education Australia.
- Kotler, P., Armstrong, G., Brown, L., & Adam, S. (1998). *Marketing* (Fourth ed.). Australia: Prentice Hall, Pearson Education.
- Kotler, P., Hayes, T., & Bloom, P. N. (2002). *Marketing professional services : forward-thinking strategies for boosting your business, your image, and your profits*. Paramus, NJ: Prentice Hall Press.
- Kozak, M. (2002). Comparative analysis of tourist motivations by nationality and destinations. *Tourism Management*, 23(3), 221-232.
- Krosnick, J. A. (1999). Survey Research. *Annual Review of Psychology*, 50(February), 537-567

- Laesser, C., & Crouch, G. I. (2006). Segmenting Markets by Travel Expenditure Patterns: The Case of International Visitors to Australia. *Journal of Travel Research*, 44(4), 397 - 406.
- Law, C. (1992). Urban Tourism and its Contribution to Economic Regeneration. *Urban Studies*, 29(3/4), 599-618.
- Lee, C.-K., Lee, Y.-K., & Wicks, B. E. (2004). Segmentation of festival motivation by nationality and satisfaction. *Tourism Management*, 25(1), 61-70.
- Lee, G., Morrison, A. M., & O'Leary, J. T. (2006). The economic value portfolio matrix: A target market selection tool for destination marketing organizations. *Tourism Management*, 27(4), 576-588.
- Leisen, B. (2001). Image segmentation: the case of a tourism destination. *The Journal of Services Marketing*, 15(1), 49 - 66.
- Loker, L. E., & Perdue, R. R. (1992). A Benefit-Based Segmentation of a Nonresident Summer Travel Market. *Journal of Travel Research*, 31(1), 30-35.
- MacCallum, R. C., & Browne, M. W. (1993). The Use of Causal Indicators in Covariance Structure Models: Some Practical Issues. *Psychological Bulletin*, 114(3), 533-541.
- Madrigal, R. (1995). Personal values, traveler personality type, and leisure travel style. *Journal of Leisure Research*, 27(2), 125.
- Martinetz, T. M., Berkovich, S. G., & Schulten, K. J. (1993). "Neural Gas" network for vector quantization and its application to time-series prediction. *IEEE Transactions on Neural Networks*, 4(4), 558-569.
- Martinetz, T. M., & Schulten, K. J. (1994). Topology Representing Networks. *Neural Networks*, 7(3), 507-522.
- May, J. A., Bastian, C. T., Taylor, D. T., & Whipple, G. D. (2001). Market Segmentation of Wyoming Snowmobilers. *Journal of Travel Research*, 39(3), 292-299.
- Mazanec, J. A. (1986a). Allocating an advertising budget to international travel markets. *Annals of Tourism Research*, 13(4), 609-634.
- Mazanec, J. A. (1986b). A decision support system for optimizing advertising policy of a national tourist office model outline and case study. *International Journal of Research in Marketing*, 3(2), 63-77.
- Mazanec, J. A. (1992). Classifying Tourists into Market Segments: A Neural Network Approach. *Journal of Travel & Tourism Marketing*, 1(1), 39-59.
- Mazanec, J. A. (1997). TRN32. Retrieved November, 2007, from <http://www.wu-wien.ac.at/itf/downloads/software/trn32>

- Mazanec, J. A. (2000). Market Segmentation. In J. Jafari (Ed.), *Encyclopedia of Tourism*. London: Routledge.
- Mazanec, J. A., & Zins, A. H. (1994). Tourist behaviour and the new European life style typology. In W. Theobald (Ed.), *Global Tourism: The next decade* (pp. 199-216). Oxford: Butterworth-Heinemann.
- McQueen, J., & Miller, K. E. (1985). Target Market Selection of Tourists: A Comparison of Approaches. *Journal of Travel Research*, 24(1), 2-6.
- Mok, C., & Iverson, T. J. (2000). Expenditure-based segmentation: Taiwanese tourists to Guam. *Tourism Management*, 21(3), 299-305.
- Molera, L., & Albaladejo, I. P. (2007). Profiling segments of tourists in rural areas of South-Eastern Spain. *Tourism Management*, 28(3), 757-767.
- Morrison, A. M. (2002). *Hospitality and Travel Marketing* (3rd ed.). Albany, New York: Delmar.
- Morritt, R. (2007). *Segmentation Strategies for Hospitality Managers: Target Marketing for Competitive Advantage*. Binghamton, New York: Haworth Press.
- Moscardo, G., Pearce, P., Morrison, A., Green, D., & O'Leary, J. T. (2000). Developing a Typology for Understanding Visiting Friends and Relatives Markets. *Journal of Travel Research*, 38(3), 251-259.
- Moscardo, G., Pearce, P., & Morrison, A. M. (2001). Evaluating Different Bases for Market Segmentation: A Comparison of Geographic Origin versus Activity Participation for Generating Tourist Market Segments. *Journal of Travel and Tourism Marketing*, 10(1), 29-49.
- Moscardo, G., Saltzer, R., Norris, A., & McCoy, A. (2004). Changing patterns of regional tourism: implications for tourism on the Great Barrier Reef. *Journal of Tourism Studies*, 15(1), 34-50.
- Muller, T. E. (1991). Using Personal Values to Define Segments in an International Tourism Market. *International Marketing Review*, 8(1), 57-70.
- Myers, J. H. (1996). *Segmentation and positioning for strategic marketing decisions*. Chicago, Illinois: American Marketing Association.
- Myers, J. H., & Tauber, E. (1977). *Market structure analysis*. Chicago: American Marketing Association.
- Neuendorf, K. A. (2002). *The Content Analysis Guidebook* Thousand Oaks: Sage Publications.
- Oppermann, M. (1995). Travel life cycle. *Annals of Tourism Research*, 22(3), 535-552.

- Pearce, P. L., & Lee, U. I. (2005). Developing the Travel Career Approach to Tourist Motivation. *Journal of Travel Research*, 43(3), 226-237.
- Peterson, R. A. (2000). *Constructing Effective Questionnaires*. Thousand Oaks, California: Sage Publications.
- Pitts, R. E., & Woodside, A. G. (1986). Personal Values and Travel Decisions. *Journal of Travel Research*, 25(1), 20.
- Pizam, A., & Calantone, R. (1987). Beyond psychographics - values as determinants of tourist behavior. *International Journal of Hospitality Management*, 6(3), 177-181.
- Plog, S. C. (1974). Why destination areas rise and fall in popularity. *The Cornell Hotel and Restaurant Administration Quarterly*, 14(4), 55-58.
- Punch, K. F. (2005). *Introduction to Social Research. Quantitative and Qualitative Approaches*. (2 ed.). London; Thousand Oaks, California: Sage Publications.
- Reid, L. J., & Reid, S. D. (1997). Traveler Geographic Origin and Market Segmentation for Small Island Nations: The Barbados Case. *Journal of Travel & Tourism Marketing*, 6(3), 5-21.
- Ritchie, B. W., Burns, P., & Palmer, C. (Eds.). (2005). *Tourism Research Methods: Integrating Theory with Practice*. Wallingford, Oxfordshire: CABI.
- Roehl, W. S., & Fesenmaier, D. R. (1992). Risk Perceptions and Pleasure Travel: An Exploratory Analysis. *Journal of Travel Research*, 30(4), 17-26.
- Rokeach, M. (1973). *The Nature of Human Values*. New York: Free Press.
- Rokeach, M. (1979). Change and Stability in American Values Systems, 1968-1971. In M. Rokeach (Ed.), *Understanding Human Values: Individual and Societal* (pp. 322). New York: Free Press.
- Rossiter, J. R. (2001). *Qualitative research in marketing: how should its validity and reliability be assessed?* Unpublished manuscript, Faculty of Commerce, University of Wollongong, Australia.
- Rossiter, J. R. (2002). The C-OAR-SE procedure for scale development in marketing. *International Journal of Research in Marketing*, 19, 305-355.
- Ryan, C., & Glendon, I. (1998). Application of leisure motivation scale to tourism. *Annals of Tourism Research*, 25(1), 169-184.
- Sarigollu, E., & Huang, R. (2005). Benefits Segmentation of Visitors to Latin America. *Journal of Travel Research*, 43(3), 277-293.

- Schillewaert, N., & Meulemeester, P. (2005). Comparing response distributions of offline and online data collection methods. *International Journal of Market Research*, 47(2), 163-178.
- Schwartz, S. H., & Bilsky, W. (1987). Toward a Universal Psychological Structure of Human Values. *Journal of Personality and Social Psychology*, 53, 550-562.
- Shoemaker, S. (2000). Segmenting the Mature Market: 10 Years Later. *Journal of Travel Research*, 39(1), 11-26.
- Silverman, D. (Ed.). (2004). *Qualitative research: theory, method and practice* (2nd ed.). London: Sage Publications.
- Simkin, L., & Dibb, S. (1998). Prioritising target markets. *Marketing Intelligence and Planning*, 16(7), 407-417.
- Sirakaya, E., Uysal, M., & Yoshioka, C. F. (2003). Segmenting the Japanese Tour Market to Turkey. *Journal of Travel Research*, 41(3), 293-304.
- Smeral, E. (2009). The Impact of the Financial and Economic Crisis on European Tourism. *Journal of Travel Research*, DOI: 10.1177/0047287509336332, 1-11.
- Smith, W. R. (1956). Product Differentiation and Market Segmentation as Alternative Marketing Strategies. *Journal of Marketing (pre-1986)*, 21, 3 - 8.
- Stewart, D. W., Shamdasani, P. N., & Rook, D. W. (2006). *Focus Groups: theory and practice* (2 ed.). California: Sage Publications.
- Sung, H. H. (2004). Classification of Adventure Travelers: Behavior, Decision Making, and Target Markets. *Journal of Travel Research*, 42(4), 343-356.
- Tashakkori, A., & Teddlie, C. (2003). *Handbook of mixed methods in social & behavioral research* housand Oaks, California: SAGE Publications.
- Taylor, A., & Prideaux, B. (2008). Profiling four wheel drive tourism markets for desert Australia. *Journal of Vacation Marketing*, 14(1), 71-86.
- Tkaczynski, A., Rundle-Thiele, S. R., & Beaumont, N. (2009a). Destination Segmentation: A Recommended Two-Step Approach. *Journal of Travel Research*, in press, DOI: 0047287509336470.
- Tkaczynski, A., Rundle-Thiele, S. R., & Beaumont, N. (2009b). Segmentation: A tourism stakeholder view. *Tourism Management*, 30(2), 169-175.
- Todd, S. (2001). Self-concept: A tourism application. *Journal of Consumer Behaviour*, 1(2), 184-196.
- Tour Operators Initiative for Sustainable Tourism Development. (2009). What is Sustainable Tourism? Retrieved June, 2009, from <http://www.toinitiative.org/index.php?id=82>

- Tourism New South Wales. (2006). Tourism New South Wales. Retrieved March 2006, from <http://www.tourism.nsw.gov.au/home/>
- Tourism New South Wales. (2009). The size and shape of the NSW tourism industry. Retrieved August, 2009, from http://corporate.tourism.nsw.gov.au/Sites/SiteID6/objLib40/Size+ShapeOfTourism_Factsheet.pdf
- Tourism Research Australia. (2006). An assessment of the Australian domestic tourism market. Retrieved June, 2006, from www.tra.australia.com.au
- Tourism Research Australia. (2008). Quarterly Results of the National Visitor Survey. September. Retrieved January, 2009, from <http://www.tra.australia.com/domestic.asp?sub=0034>
- Tourism Research Australia. (2009). International Visitors in Australia - December 2008, Quarterly Results of the International Visitor Survey. Retrieved June, 2009, from <http://www.tra.australia.com/content/documents/IVS/IVS%20December%202008.pdf>
- Trumbo, C. W., & O'Keefe, G. J. (2001). Intention to Conserve Water: Environmental Values, Planned Behavior, and Information Effects. A Comparison of Three Communities Sharing a Watershed. *Society & Natural Resources*, 14(10), 889-899.
- Trumbo, C. W., & O'Keefe, G. J. (2005). Intention to Conserve Water: Environmental Values, Reasoned Action, and Information Effects Across Time. *Society & Natural Resources*, 18(6), 573-585.
- Valerio, P., Baker, B., & Gulloch, G. (1999). *Wollongong Image Strategy*. Wollongong: Wollongong City Council, Ed.
- van Raaij, W. F., & Verhallen, T. M. M. (1994). Domain-specific Market Segmentation. *European Journal of Marketing*, 28(10), 49-66.
- Veal, A. J. (2006). *Research Methods for Leisure and Tourism. A Practical Guide* (Third ed.). England: Prentice Hall.
- Vellas, F., & Becherel, L. (Eds.). (1999). *The International Marketing of Travel and Tourism: A Strategic Approach*. London: MacMillan Press Ltd.
- Watkins, L., & Gnoth, J. (2005). Methodological issues in using Kahle's list of values scale for Japanese tourism behaviour. *Journal of Vacation Marketing*, 11(3), 225-233.
- Watson, S. (1991). Gilding the smokestacks: the new symbolic representations of deindustrialised regions *Environment and Planning D: Society and Space*, 9, 59-70.

- Weaver, D. B., & Lawton, L. J. (2004). Visitor Attitudes toward Tourism Development and Product Integration in an Australian Urban-Rural Fringe. *Journal of Travel Research*, 42(3), 286-296.
- Wedel, M., & Kamakura, W. (2000). *Market Segmentation: Conceptual and Methodological Foundations* (Second ed.). Boston: Kluwer Academic Publishers.
- Wilton, J. J., & Nickerson, N. P. (2006). Collecting and Using Visitor Spending Data. *Journal of Travel Research*, 45(1), 17-25.
- Wind, Y. (1978). Issues and advances in segmentation research. *JMR, Journal of Marketing Research*, 15(3), 317.
- World Tourism Organization (UNWTO/OMT). (2008). Why Tourism? Retrieved 15 May, 2008, from <http://www.unwto.org/index.php>
- World Travel & Tourism Council. (2009). Travel & Tourism Economic Impact 2009. Retrieved July, 2009, from http://www.wttc.org/bin/pdf/original_pdf_file/exec_summary_2009.pdf
- Yannopoulos, P., & Rotenberg, R. (1999). Benefit Segmentation of the Near-Home Tourism Market: The Case of Upper New York State. *Journal of Travel and Tourism Marketing*, 8(2), 41-55.
- Zhang, J., Inbakaran, R., J., & Jackson, M., S. (2006). Understanding Community Attitudes Towards Tourism and Host-Guest Interaction in the Urban-Rural Border Region. *Tourism Geographies*, 8(2), 182-204.
- Zins, A. H. (1999). Destination Portfolios Using a European Vacation Style Typology. *Journal of Travel & Tourism Marketing*, 8(1), 1-23.
- Zins, A. H. (2008). Market segmentation in tourism: A critical review of 20 years' research efforts. In C. Kronenberg, S. Muller, M. Peters, B. Pikkemat & K. Weiermair (Eds.), *From the "old" to the "new" tourism: Managing change in the tourism industry* (pp. 289-301). Berlin: Erich Schmidt Verlag.

APPENDIX A – QUALITATIVE RESEARCH TOOL

Interview Guide for Regional Tourism Organisation Experts and Managers

YOUR ROLE AND DECISION MAKING ACTIVITIES

1. What is your role and position in your organisation?
2. What type of decisions do you make in your position?
3. Are you responsible for strategic marketing issues?

NOTE: If so, right person to talk to. If not, who is? Talk to them instead.

SPECIFIC MARKET SEGMENTATION STRATEGIES

4. Do you cater for the entire tourism market [PROMPT: If so, why?] or do you divide your potential customers into groups? [PROMPT: If so, how are these groups determined OR how do you determine the characteristics of the individuals who make up each group?]

PROMPT: Can you describe this process or your decision?

5. What criteria do you use to distinguish between different types of tourists?
6. Generally, what criteria do you use to evaluate which type of tourist is more attractive than another?
7. What criteria do your colleagues use?
8. How would you describe your “Dream Tourist” in terms of tourist attributes...For example, what would the most attractive tourist for the destination look and act like?
9. Do you take environmental sustainability into account when defining your optimal segments?

PROMPT: If so, how?

INFORMATION/DATA COLLECTION

10. Where do you collect your general tourism information from (information which you use for strategic planning)?
11. Where do you collect data about your tourists, which you will use for segmentation, from?
12. How do you analyse this data to arrive at certain segments?
13. Once a segment is defined, which additional tourist information do you need to describe and target these tourists? [NOTE: after more specific information, e.g. age etc.]
14. Some regional tourism organisations like to retain identified target segments for a number of years. Others conduct continual reviews and change these segments regularly. If you have identified segments to target, which organisation is yours most similar to?

AIDED RESPONSE

Some academics have provided criteria to evaluate segments of tourists and assess them for managerial usefulness. These theoretical criteria have never been cross-checked with actual managers.

I will read out the criteria one at a time and please tell me, (1) whether you have used to assess a certain tourist group for their attractiveness, and (2) whether you would say it is a good criterion to assess tourist groups in terms of attractiveness?

| Criteria | Used | Good |
|---|------|------|
| Identifiable | | |
| Reachable (accessible) | | |
| Suitable in size (substantial) | | |
| Responsive | | |
| Actionable (can be used on a target market) | | |

APPENDIX B – QUALITATIVE RESEARCH TOOL

Interview: The future destination image of Wollongong

1. In future, what would you like to be associated with Wollongong in the minds of tourists?
2. If you could paint a picture in my mind of what tourism will be like in Wollongong in the future what would it be like?
 - a. What would people do?
 - b. What would they come and see?
 - c. What type of tourists would you have here?
 - d. Where will they come from?
3. What types of changes in advertising messages will occur in future?
4. If you were to design a poster for an advertisement, what type of message would it give out to its audience?

APPENDIX C – SURVEY INSTRUMENT

Survey instrument, page 1 of 11

UNIVERSITY OF WOLLONGONG: TRAVEL SURVEY

I am a PhD student from the University of Wollongong and I am very interested in your opinions on travel and vacations. I would be extremely grateful if you would take the time to complete this questionnaire because I need your data to finish my research thesis. Please be assured that your responses will remain completely anonymous and your honesty is very much appreciated.

1. Have you ever heard of the city of Wollongong?
☐ Yes (*Please continue*)
☐ No (*Thank you for your time, however, you do not qualify to answer this survey*)

A. TRAVEL INFORMATION

2. On average, how many domestic vacations, within Australia but away from home, (including weekend getaways) do you undertake in a year? _____
3. On average, how many overseas holidays do you undertake in a year? _____
4. Generally, do you take your vacations during school holidays/public holidays?
☐ Most of my vacations are during school/public holidays
☐ Most of my vacations are outside of school/public holidays
5. Are most of your vacations taken during the week or on weekends?
☐ Most of my vacations are during the week
☐ Most of my vacations are on the weekend
6. When you are happy with a vacation destination, do you tend to return to the same place for another vacation?
☐ Yes, I tend to return to the same place for another vacation
☐ No, I tend to go to a different place for another vacation
7. Below is a list of possible information sources that can be used to help with vacation planning. In general, which information sources do you use to help you with your vacation destination choice? (tick as many as are applicable)

| | Yes | No |
|--|--------------------------|--------------------------|
| Destination information brochures | <input type="checkbox"/> | <input type="checkbox"/> |
| Brochures from hotels | <input type="checkbox"/> | <input type="checkbox"/> |
| Brochures from tour operator | <input type="checkbox"/> | <input type="checkbox"/> |
| Information from travel agent | <input type="checkbox"/> | <input type="checkbox"/> |
| Information from tourist info centre | <input type="checkbox"/> | <input type="checkbox"/> |
| Advertisements in newspapers/journals | <input type="checkbox"/> | <input type="checkbox"/> |
| Travel guides/books/journals | <input type="checkbox"/> | <input type="checkbox"/> |
| Information given by friends and relatives | <input type="checkbox"/> | <input type="checkbox"/> |
| Information given by work colleagues | <input type="checkbox"/> | <input type="checkbox"/> |
| Radio programs | <input type="checkbox"/> | <input type="checkbox"/> |
| TV programs | <input type="checkbox"/> | <input type="checkbox"/> |
| Internet | <input type="checkbox"/> | <input type="checkbox"/> |
| Exhibitions/fairs | <input type="checkbox"/> | <input type="checkbox"/> |
| Slide nights | <input type="checkbox"/> | <input type="checkbox"/> |
| Others (please specify) _____ | <input type="checkbox"/> | <input type="checkbox"/> |
| Don't need any information | <input type="checkbox"/> | <input type="checkbox"/> |

Survey instrument, page 2 of 11

B. MY LAST AUSTRALIAN VACATION

Now, I would like to know a few things about your *last vacation within Australia*. When answering the following questions, please think of the very last leisure vacation you took in Australia.

10. Where did you spend your last Australian vacation?
(If multiple places were visited, list the place where you spent the *most* time) _____
- a. In which state/territory is this destination?
- | | | | |
|--|-----------------------------------|---|---|
| <input type="checkbox"/> New South Wales | <input type="checkbox"/> Victoria | <input type="checkbox"/> South Australia | <input type="checkbox"/> Western Australia |
| <input type="checkbox"/> Queensland | <input type="checkbox"/> Tasmania | <input type="checkbox"/> Australian Capital Territory | <input type="checkbox"/> Northern Territory |
11. Was this vacation taken in a school or public holiday period?
- ☐ Yes ☐ No ☐ Don't remember
12. How many days did you spend on this vacation? (including travel to and from the destination)
_____ days
13. Who did you travel with? (tick as many as are applicable)
- ☐ On my own
- ☐ With a partner (husband, wife, girlfriend, boyfriend)
- ☐ With friends
- ☐ With my children
- ☐ With parents
- ☐ With other relatives
- ☐ With organised group/club
- ☐ With business colleagues
- ☐ Other (please specify) _____
14. How many people were in your travel party? _____
15. For the entire vacation, please estimate the total amount of dollars...
- b. you, as an individual, spent: \$AUD _____ **OR,**
- c. your travel party spent: \$AUD _____
16. Was this vacation a packaged trip or independent travel?
- ☐ Packaged trip ☐ Independent travel
17. How many times did you eat out at a restaurant/café during your vacation?
- For breakfast: _____ times.
- For lunch: _____ times.
- For dinner: _____ times.
- For coffee/morning tea/afternoon tea: _____ times.
18. How often did you go shopping for leisure? _____ times
19. Please indicate which modes of transport you used when travelling from your home to your last Australian vacation destination. (tick as many as are applicable)
- ☐ Private vehicle – Car
- ☐ Private vehicle – Motorbike
- ☐ Private vehicle – 4WD
- ☐ Rented/hire vehicle
- ☐ Plane
- ☐ Train
- ☐ Bus/Coach
- ☐ Passenger lines/Ferry
- ☐ Other water transport (private boat/yacht, cruise, etc)
- ☐ Campervan/Motor home
- ☐ Other (please specify) _____
20. Approximately how many kilometres did you travel from your home to your destination? _____ km

Survey instrument, page 3 of 11

21. Please indicate which modes of transport you used when travelling around during your last Australian vacation destination. (tick as many as are applicable)

- ☐ Private vehicle – Car
- ☐ Private vehicle – Motorbike
- ☐ Private vehicle – 4WD
- ☐ Rented/hire vehicle
- ☐ Plane
- ☐ Train
- ☐ Bus/Coach
- ☐ Passenger lines/Ferry
- ☐ Other water transport (private boat/yacht, cruise, etc)
- ☐ Tram
- ☐ Campervan/Motor home
- ☐ Bicycle
- ☐ Walking
- ☐ Other (please specify) _____

22. How often would you take this type of a vacation? (please tick only one)

- ☐ Multiple times a year (regular break)
- ☐ Every year (typical annual vacation)
- ☐ Once every few years (special vacation)
- ☐ Once-in-a-lifetime (dream vacation)

23. Which accommodation type did you mainly use during your last holiday? (please specify the main one only)

- ☐ Luxury hotel/resort (4 or 5 star)
- ☐ Standard hotel/motel (below 4 star)
- ☐ Serviced apartment
- ☐ Private property (own or friends/relatives – no payment required)
- ☐ Guest house / Bed and Breakfast
- ☐ Commercial boat (e.g. cruise ship)
- ☐ Caravan park
- ☐ Camping
- ☐ Backpacker/visitor hostel
- ☐ Other (please specify) _____

24. Please indicate whether you used any of the following sources to book your accommodation for your last Australian holiday. (tick as many as applicable)

| | Yes | No |
|---|--------------------------|--------------------------|
| Internet | <input type="checkbox"/> | <input type="checkbox"/> |
| Phone | <input type="checkbox"/> | <input type="checkbox"/> |
| Booked on arrival at destination | <input type="checkbox"/> | <input type="checkbox"/> |
| Travel Agent | <input type="checkbox"/> | <input type="checkbox"/> |
| Other (please specify) _____ | <input type="checkbox"/> | <input type="checkbox"/> |
| Someone else in my travel party booked it | <input type="checkbox"/> | <input type="checkbox"/> |

25. After your last holiday, did you share or communicate your experiences with any of the following people? (tick as many as applicable)

| | Yes | No |
|------------------------------|--------------------------|--------------------------|
| Partner | <input type="checkbox"/> | <input type="checkbox"/> |
| Friends | <input type="checkbox"/> | <input type="checkbox"/> |
| Family | <input type="checkbox"/> | <input type="checkbox"/> |
| Colleagues at work | <input type="checkbox"/> | <input type="checkbox"/> |
| Other (please specify) _____ | <input type="checkbox"/> | <input type="checkbox"/> |

Survey instrument, page 4 of 11

26. In which of the following ways did you communicate this information? (Tick as many as applicable)

| | Yes | No |
|---|--------------------------|--------------------------|
| Conversations | <input type="checkbox"/> | <input type="checkbox"/> |
| Showing photos in person | <input type="checkbox"/> | <input type="checkbox"/> |
| Updated a web journal or website | <input type="checkbox"/> | <input type="checkbox"/> |
| Updated/posted a blog (online diary) or network tool (e.g. MySpace or Facebook) | <input type="checkbox"/> | <input type="checkbox"/> |
| Emailed photos | <input type="checkbox"/> | <input type="checkbox"/> |
| Written emails (no pictures) | <input type="checkbox"/> | <input type="checkbox"/> |
| Video footage | <input type="checkbox"/> | <input type="checkbox"/> |
| Other (please specify) _____ | <input type="checkbox"/> | <input type="checkbox"/> |
| I didn't talk about it | <input type="checkbox"/> | <input type="checkbox"/> |

C. REASONS FOR TRAVEL

27. Now, I would like to ask you about your reasons for going on your last vacation. Below is a list of reasons for going on vacation. Please indicate whether each was a reason for you choosing your last vacation destination.

| | Yes, applied to me for my <u>last</u> vacation | No, did not apply to me for my <u>last</u> vacation |
|--|--|---|
| To get away from everyday life/routine | <input type="checkbox"/> | <input type="checkbox"/> |
| To be with friends | <input type="checkbox"/> | <input type="checkbox"/> |
| To do something with the family | <input type="checkbox"/> | <input type="checkbox"/> |
| To relax | <input type="checkbox"/> | <input type="checkbox"/> |
| To develop my knowledge and abilities | <input type="checkbox"/> | <input type="checkbox"/> |
| To experience something new | <input type="checkbox"/> | <input type="checkbox"/> |
| To engage in physical activities/keep fit | <input type="checkbox"/> | <input type="checkbox"/> |
| To be with others who enjoy the same thing | <input type="checkbox"/> | <input type="checkbox"/> |
| To release tensions/stress | <input type="checkbox"/> | <input type="checkbox"/> |
| To be outdoors/in nature | <input type="checkbox"/> | <input type="checkbox"/> |
| To experience something authentic | <input type="checkbox"/> | <input type="checkbox"/> |
| To have fun | <input type="checkbox"/> | <input type="checkbox"/> |
| To do exciting things | <input type="checkbox"/> | <input type="checkbox"/> |
| To be entertained | <input type="checkbox"/> | <input type="checkbox"/> |
| For social recognition | <input type="checkbox"/> | <input type="checkbox"/> |
| To meet new people | <input type="checkbox"/> | <input type="checkbox"/> |
| For the adventure | <input type="checkbox"/> | <input type="checkbox"/> |
| For my own self-esteem/self-development | <input type="checkbox"/> | <input type="checkbox"/> |
| To satisfy my curiosity | <input type="checkbox"/> | <input type="checkbox"/> |
| To experience tranquility/solitude | <input type="checkbox"/> | <input type="checkbox"/> |
| To do something different | <input type="checkbox"/> | <input type="checkbox"/> |
| For an interest in history | <input type="checkbox"/> | <input type="checkbox"/> |
| To do nothing | <input type="checkbox"/> | <input type="checkbox"/> |
| To observe scenic beauty | <input type="checkbox"/> | <input type="checkbox"/> |
| To experience new cultures/places | <input type="checkbox"/> | <input type="checkbox"/> |
| To learn about nature/wildlife | <input type="checkbox"/> | <input type="checkbox"/> |

Survey instrument, page 5 of 11

28. Below is a list of activities which could be undertaken while on vacation. Please indicate whether you participated in each activity during your last Australian vacation.

| | No | Yes, once | Yes, more than once | This activity was the <u>main</u> purpose of the vacation |
|--|--------------------------|--------------------------|--------------------------|---|
| Outdoor or nature activities | | | | |
| Bush or rainforest walking | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Visiting the beach (including swimming and sunbathing) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Visiting farms/touring countryside | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Whale/dolphin watching (in the ocean) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Visiting botanical or other public gardens | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Camping | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Sports or active outdoor activities | | | | |
| Swimming (beach, pool or river) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Snowboarding/Skiing (e.g. snow activities) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Playing tennis | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Horse riding | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Cycling | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hiking/climbing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Exercising (e.g. gym) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Playing golf | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fishing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Scuba diving/snorkelling | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Surfing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Four wheel driving | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Adventure activities (e.g. bungee jumping, hang gliding, white water rafting etc) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other water sports (e.g. sailing, windsurfing, kayaking, waterskiing/wakeboarding etc) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Arts, heritage or festival activities | | | | |
| Attending theatre, concerts or other performing arts | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Visiting history/heritage buildings, sites or monuments | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Experiencing aboriginal art/craft and cultural displays | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Attending festivals/fairs or cultural events | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Visiting museums or art galleries | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Local attractions or tourist activities | | | | |
| Visiting amusements/theme parks | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Charter boat/cruise/ferry riding | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Visiting a health or beauty spa/getting a massage | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Going for scenic walks or drives/general sightseeing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Going to markets (street/weekend/art/craft markets) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Going on guided tour or excursion | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Visiting industrial tourism attractions (e.g. breweries, mines, wineries) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Visiting wildlife parks/zoos/aquariums | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Visiting attractions for the children | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| General sightseeing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Survey instrument, page 6 of 11

| | No | Yes, once | Yes, more than once | This activity was the <u>main</u> purpose of the vacation |
|--|--------------------------|--------------------------|--------------------------|---|
| Social activities | | | | |
| Visiting friends & relatives | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Going to pubs, clubs, discos, etc. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Going on picnics/BBQ's | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Going shopping (for pleasure) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Eating out in reasonably priced places | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Eating out in upmarket restaurants | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Watching movies | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Visiting casinos | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Relaxing/doing nothing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Attending an organised sporting event | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Survey instrument, page 7 of 11

29. Now, for each of the behaviours listed below, please indicate how frequently you carried out that behaviour during your last vacation within Australia.

| | Last vacation within Australia | | | | | |
|---|--------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | Always | Often | Sometimes | Rarely | Never | N/A |
| I switched off the light whenever leaving a room | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I switched off the heating / air-conditioning in unoccupied rooms | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I sealed doors and windows to avoid heat / coolness escape | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I littered | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I picked up litter that was not my own | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I saved water | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I repaired leaks or drips | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I looked for ways to reuse things | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I recycled newspapers | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I recycled cans or bottles | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I composted food scraps | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I bought products that protect the environment | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I purchased refillable products | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I purchased bio-degradable products | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I took bags from home when going shopping | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I walked instead of using the car | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I used public transport instead of the car | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I reused my bath/shower towel | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I damaged trees or shrubs | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I read nature or environmental magazines | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

31. How morally obliged do you feel to behave in an environmentally friendly manner when you are on a domestic vacation in Australia? (Please tick one only.)

- ☐ Not at all obliged
☐ Slightly obliged
☐ Strongly obliged

Survey instrument, page 8 of 11

D. IMAGE OF WOLLONGONG

34. Have you ever visited Wollongong?

☐ Never before ☐ Yes, once ☐ Yes, 2-3 times before ☐ Yes, more than three times before ☐ Yes, I live there35. Listed below are some characteristics that describe vacation destinations. Please indicate those which you think apply to the city of Wollongong. Even if you have not visited Wollongong, still indicate which attributes you think would describe it. (Tick as many as applicable)

| | Yes, it applies to Wollongong | No, it doesn't apply to Wollongong |
|--------------------------------|-------------------------------|------------------------------------|
| Action-packed | <input type="checkbox"/> | <input type="checkbox"/> |
| Long, sandy beaches | <input type="checkbox"/> | <input type="checkbox"/> |
| Close to Sydney | <input type="checkbox"/> | <input type="checkbox"/> |
| Blue sky and green trees | <input type="checkbox"/> | <input type="checkbox"/> |
| Rundown in parts | <input type="checkbox"/> | <input type="checkbox"/> |
| Innovation focused | <input type="checkbox"/> | <input type="checkbox"/> |
| Unspoiled, natural environment | <input type="checkbox"/> | <input type="checkbox"/> |
| Fun, funky cafes | <input type="checkbox"/> | <input type="checkbox"/> |
| Friendly people | <input type="checkbox"/> | <input type="checkbox"/> |
| Polluted | <input type="checkbox"/> | <input type="checkbox"/> |
| Contemporary accommodation | <input type="checkbox"/> | <input type="checkbox"/> |
| Laid back and relaxed | <input type="checkbox"/> | <input type="checkbox"/> |
| Waterside camping | <input type="checkbox"/> | <input type="checkbox"/> |
| Coast meets mountains | <input type="checkbox"/> | <input type="checkbox"/> |
| Peaceful and quiet | <input type="checkbox"/> | <input type="checkbox"/> |
| Activities for all ages | <input type="checkbox"/> | <input type="checkbox"/> |
| Uncrowded | <input type="checkbox"/> | <input type="checkbox"/> |
| Time out to live | <input type="checkbox"/> | <input type="checkbox"/> |
| Family fun | <input type="checkbox"/> | <input type="checkbox"/> |
| Short-break destination | <input type="checkbox"/> | <input type="checkbox"/> |
| Day-trip destination | <input type="checkbox"/> | <input type="checkbox"/> |
| Good value for money | <input type="checkbox"/> | <input type="checkbox"/> |
| Steelworks | <input type="checkbox"/> | <input type="checkbox"/> |
| Cultural diversity | <input type="checkbox"/> | <input type="checkbox"/> |
| Country charm | <input type="checkbox"/> | <input type="checkbox"/> |
| Great nightlife | <input type="checkbox"/> | <input type="checkbox"/> |

Survey instrument, page 9 of 11

E. MY IDEAL VACATION

36. Listed below are attributes of Australian vacation destinations. For each attribute please indicate if it is a turnoff for you, perfect for you, or something you don't care about, when considering your ideal Australian vacation destination.

| | Perfect for me | A turnoff for me | I don't care |
|--------------------------------|--------------------------|--------------------------|--------------------------|
| Great nightlife | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Peaceful and quiet | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Activities for all ages | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Contemporary accommodation | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Laid back and relaxed | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Waterside camping | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Uncrowded | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Time out to live | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Family fun | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Short-break destination | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Day-trip destination | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Good value for money | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Steelworks | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Cultural diversity | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Long, sandy beaches | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Close to Sydney | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Blue sky and green trees | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Rundown in parts | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Innovation focused | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Unspoiled, natural environment | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fun, funky cafes | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Friendly people | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Polluted | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Country charm | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Coast meets mountains | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Action-packed | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Survey instrument, page 10 of 11

F. PERSONAL INFORMATION

Finally, we have a few questions about yourself and your lifestyle.

38. Sex: ☐ Male ☐ Female
39. What is your year of birth? _____
40. What is your post code? _____
41. What is your combined household income before tax?
- ☐ Under \$20,000 ☐ \$20,000-\$40,000 ☐ \$40,001-\$60,000 ☐ \$60,001-\$80,000
- ☐ \$80,001-\$100,000 ☐ \$100,001-\$150,000 ☐ Over \$150,000
42. Which describes your level of education?
- ☐ Some secondary school ☐ School Certificate (year 10) ☐ Higher School Certificate (year 12)
- ☐ TAFE ☐ Other college ☐ University (undergraduate)
- ☐ University (postgraduate) ☐ Other
43. Which of the following describes your employment status?
- ☐ Employed full-time ☐ Employed part-time ☐ Employed casually
- ☐ Unemployed ☐ Retired ☐ Full-time student
- ☐ Other
44. Including you, how many people live in your household? _____
45. Do you have any children? ☐ No (go to next question) ☐ Yes
- d. How many of your children are less than 12 years of age? _____
- e. How many are between 12 and 18 years of age? _____
- f. How many are over 18 years old? _____
46. How strong is your feeling of belonging and attachment to the region you live in?
- ☐ Strong
- ☐ Moderate
- ☐ Weak
- ☐ Non existent
47. Which cultural / ethnic background do you most identify with? _____
48. How Australian do you feel?
- ☐ 0% ☐ 10% ☐ 20% ☐ 30% ☐ 40% ☐ 50% ☐ 60% ☐ 70% ☐ 80% ☐ 90% ☐ 100%
49. Which language do you speak with your parents? _____
50. How important is religion in your life?
- ☐ Very important
- ☐ Important
- ☐ Not so important
- ☐ Absolutely not important
51. On how many days a week do you usually read the newspaper?
- ☐ None at all ☐ Once ☐ 2 to 3 times ☐ 4 or more times
52. Which newspaper do you read most often?
- ☐ Regional newspapers
- ☐ Capital city broadsheet, for example, the Sydney Morning Herald
- ☐ National broadsheet, for example, the Australian or Australian Financial Review
- ☐ Other (please specify) _____

Survey instrument, page 11 of 11

53. On how many days a week do you usually watch TV?

☐ None at all ☐ Once ☐ 2 to 3 times ☐ 4 or more times

54. Which television channel do you watch most often?

- ☐ Regional programs on national channels (e.g. regional news)
- ☐ Channel 7 (National)
- ☐ Channel 9 (National)
- ☐ Channel 10 (National)
- ☐ ABC (National)
- ☐ SBS (National)
- ☐ Pay TV
- ☐ Other (please specify) _____

55. On how many days a week do you usually listen to the radio?

☐ None at all ☐ Once ☐ 2 to 3 times ☐ 4 or more times

56. Which radio station do you listen to most often?

- ☐ ABC (National)
- ☐ ABC (Local)
- ☐ Commercial station
- ☐ Community station
- ☐ Other (please specify) _____

Thank you for your time. Your participation in my student research project is much appreciated.

APPENDIX D – SEGMENT GRAPHS

The graphs in Appendix D describe segments in detail and are based on how segment members answer to each segmentation base variable (Dolnicar, 2004b). The graphs highlight how the segments differ from the rest of the population. In the graphs, the thick black horizontal lines depict the total sample average across all segments, and the blue columns represent the segment average. The large distances between the total sample value and the segment's value portray distinctions, and are used as "marker variables" (Dolnicar & Leisch, 2004c). Marker variables play the role of "characterizing the segment very well, usually by deviating from either the overall mean or from other segments" (Dolnicar & Leisch, 2000, p. 3). They are important because they indicate how the segment differs to the overall population. The items in the graphs are sorted according to the largest marker value to the smallest to allow characteristics of each segment to be identified easier.

Some segments displayed answer-style tendencies in their responses to the questions. Systematic tendencies such as these can create answer bias because of patterns to answer questions in the same way. This could be due to socially desirable answers (Greenleaf, 1992). Those segments that display answer-style tendencies are not discussed in detail in the following segment descriptions.

Segment Descriptions: Vacation Activities

Activity Segment 1 contains 145 members (or 14% of the total sample) who indicated the activities they participated predominantly in: swimming at the beach, pool or river, visiting attractions for the children, visiting wildlife parks, zoos and aquariums, visiting amusement and theme parks, and visiting the beach. Fishing and going on

picnics and barbeques are also popular activities enjoyed by this segment. This segment is referred to as “Family fun-time” (Refer to Figure D.1).

Activity Segment 2 ($n = 238$, 24% of the total sample) comprises tourists who enjoy visiting the beach and swimming more than any other segment. The members of this segment also go to markets and on scenic walks, go to pubs, clubs and discos, and relax and do nothing. This segment is labelled “Seaside break” (Refer to Figure D.2).

Activity Segment 4 members (233 in total, 23% of the sample) display a high tendency to eat out at reasonably priced places (Refer to Figure D.3). They also like to visit casinos, go to pubs, clubs and discos and visit friends and relatives. This segment is labelled the “Value diners”.

Activity Segment 5 members comprise 170 members (and constitute 17% of the total sample) who participated in less than the average rate in all activities except camping and four-wheel driving. This segment is called the “Off-roaders” (Refer to Figure D.4).

The 180 members (18% of the total sample) of Activity Segment 6 participated in visiting museums and art galleries, and historical sites and monuments. Visiting farms and touring the countryside, and visiting industrial tourism attractions, visiting botanical gardens, and experiencing aboriginal cultural displays as well as attending festivals and attending theatre are the distinguishing characteristics of this segment. This segment is labelled “Attraction seekers” (Refer to Figure D.5).

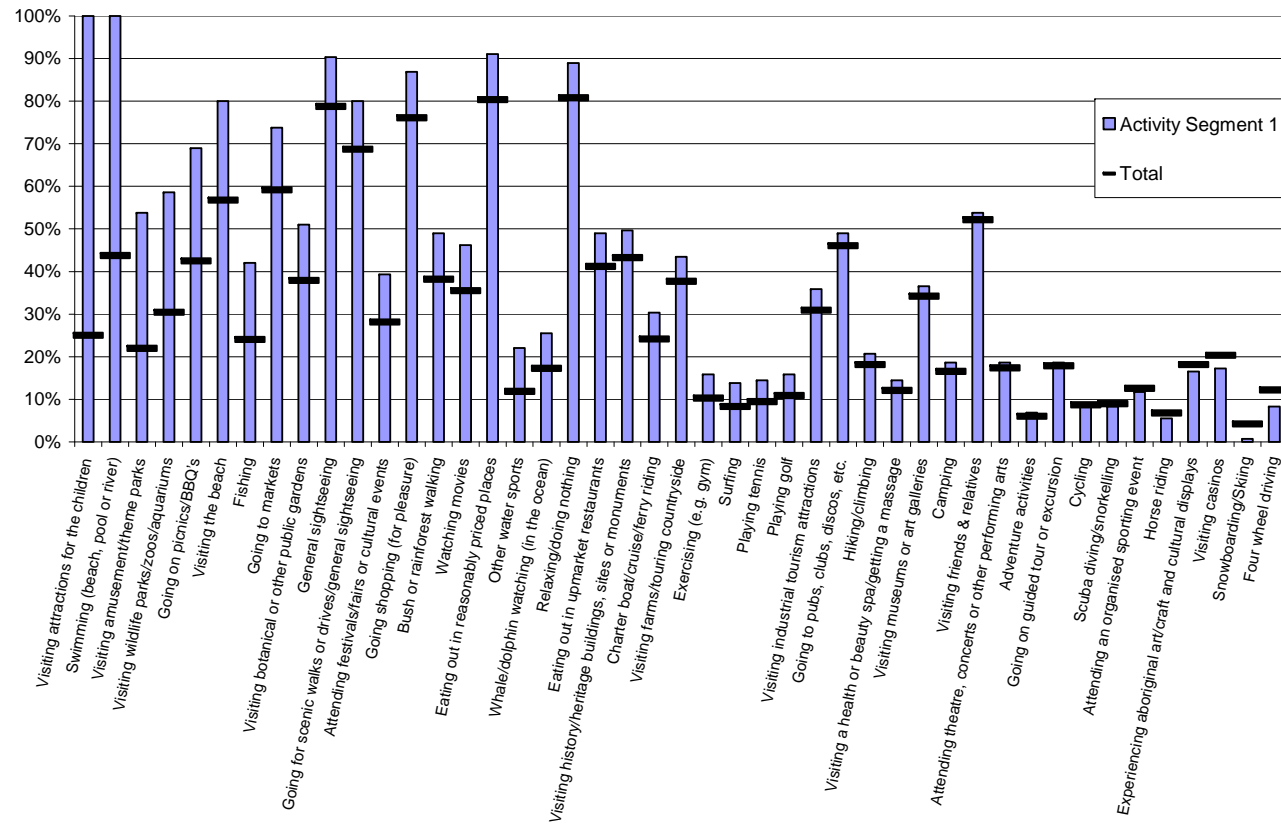


Figure D.1: Activity Segment 1 – Family fun-time

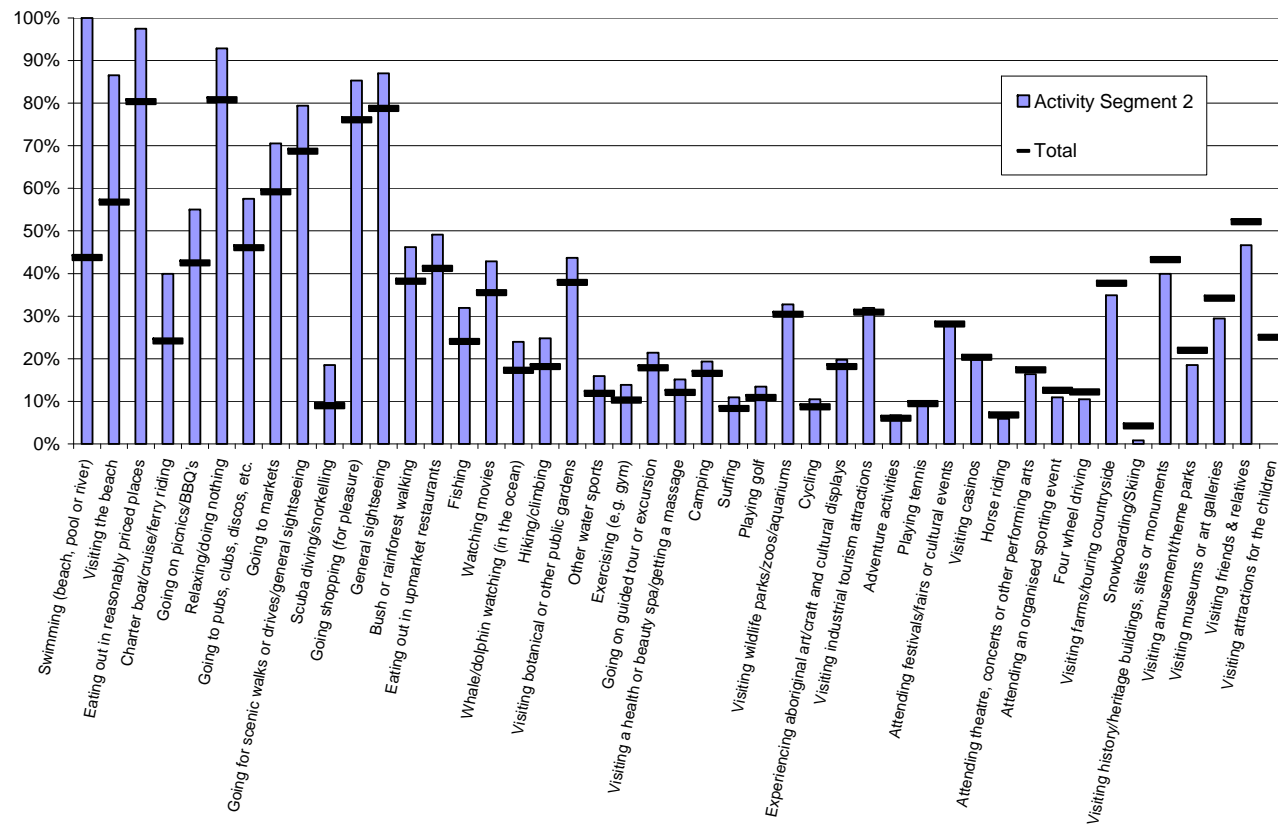


Figure D.2: Activity Segment 2 – Seaside break

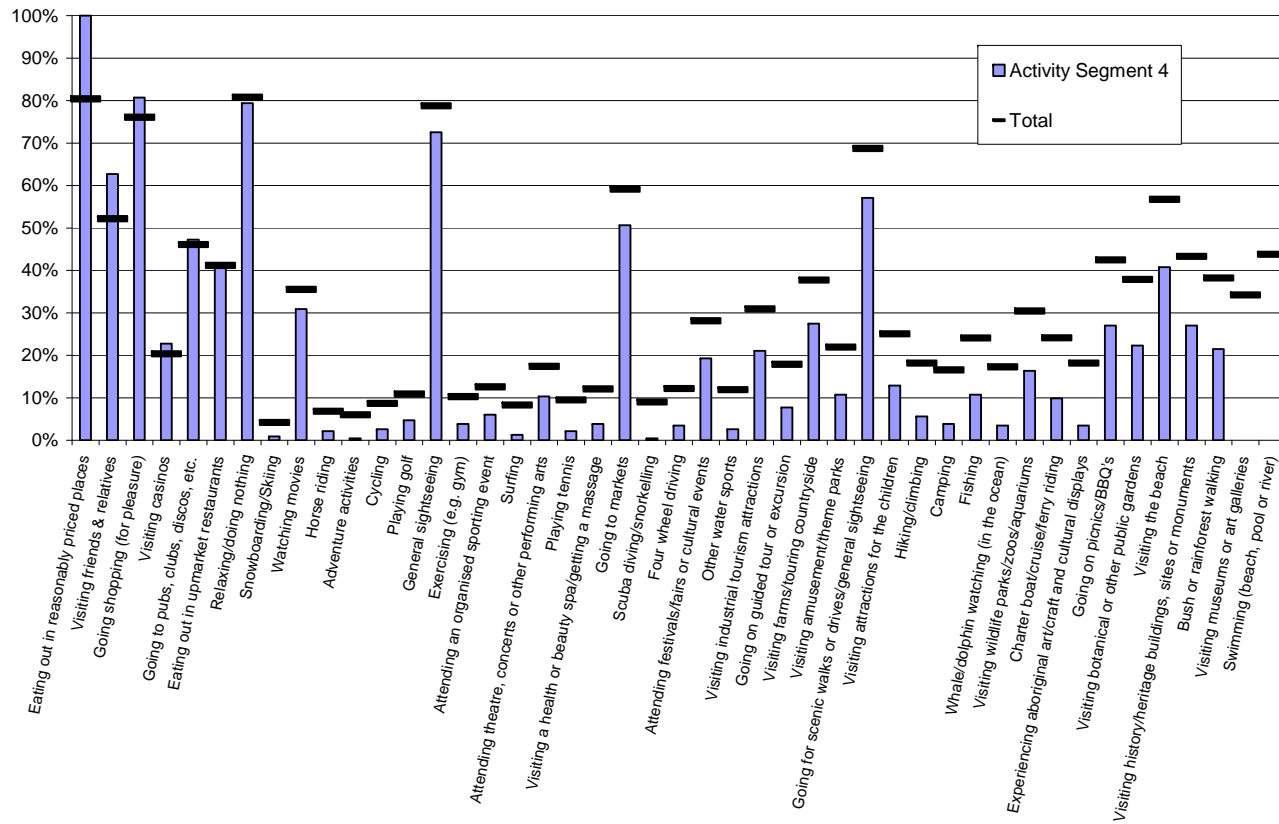


Figure D.3: Activity Segment 4 – Value diners

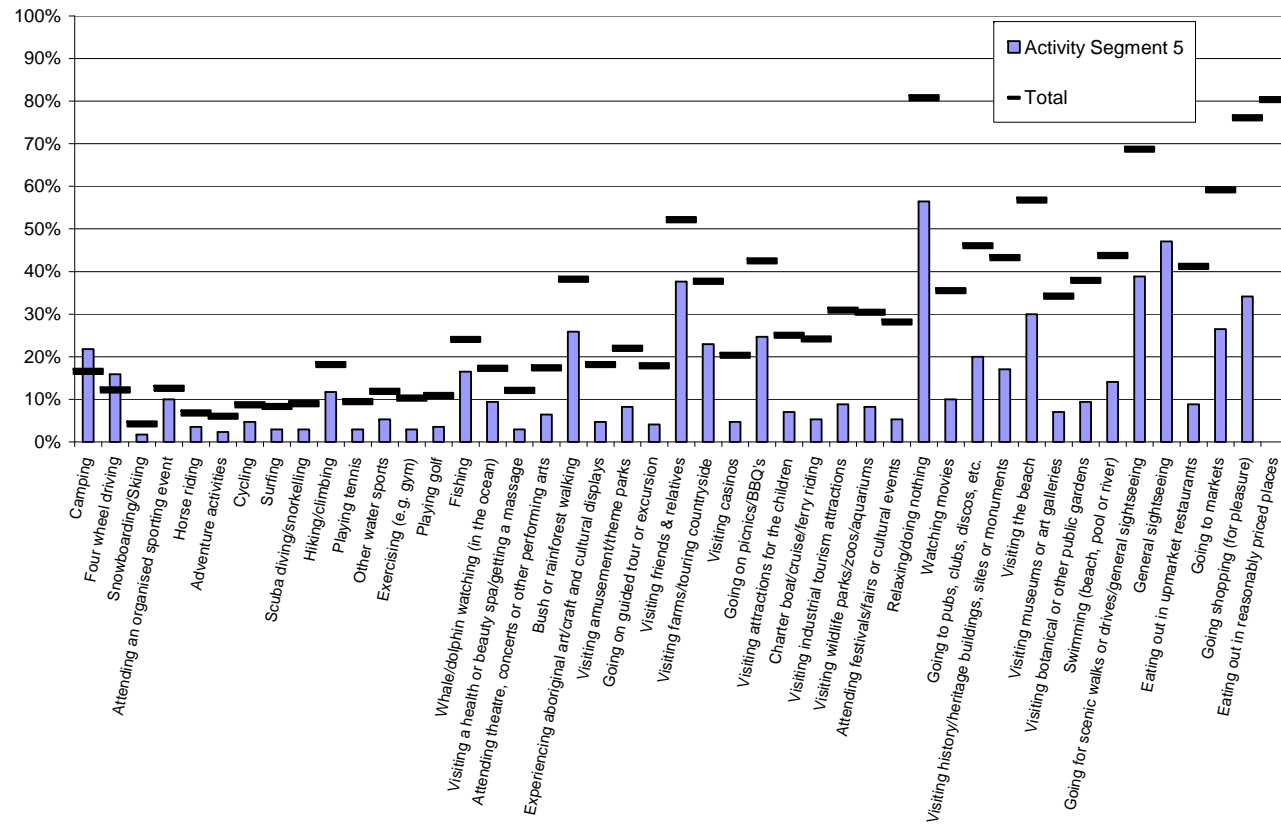


Figure D.4: Activity Segment 5 – Off roader

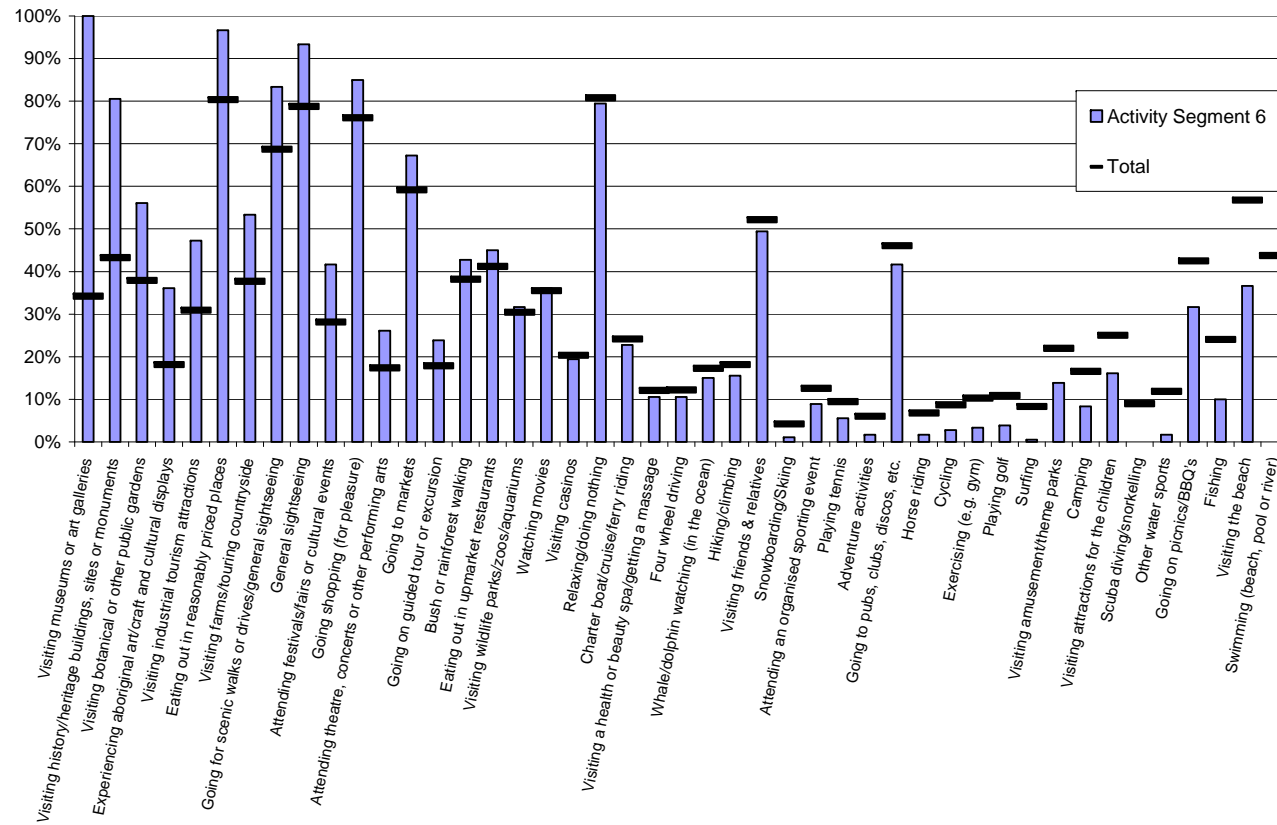


Figure D.5: Activity Segment 6 – Attraction seekers

Segment Descriptions: Information Sources

Information Segment 2 (“TV buffs”, sample size of 155, or 15% of the total sample) members use television programs more than the average participant (Refer to Figure D.6).

Information Segment 4 contains 204 participants (20% of the total participants) (Refer to Figure D.7). Members use: (1) advertisements in newspapers and journals, and (2) the television substantially more than average. This segment is labelled the “TV and ads”.

Information Segment 5 consists of 131 participants (13% of the total participants), all of whom use travel agents as their information source, more than the average (Refer to Figure D.8). Due to this, this segment has been named the “Travel agent users”.

Information Segment 6 (n = 167, or 17% of the total) members prefer information to be obtained from a tour operator, travel agent, television programs, destination information brochures and brochures from hotels, tourist information centres, and travel books and journals (Refer to Figure D.9). This segment is labelled the “Traditionalists” as the segment is characterised by using information channels commonly associated with informing travel plans.

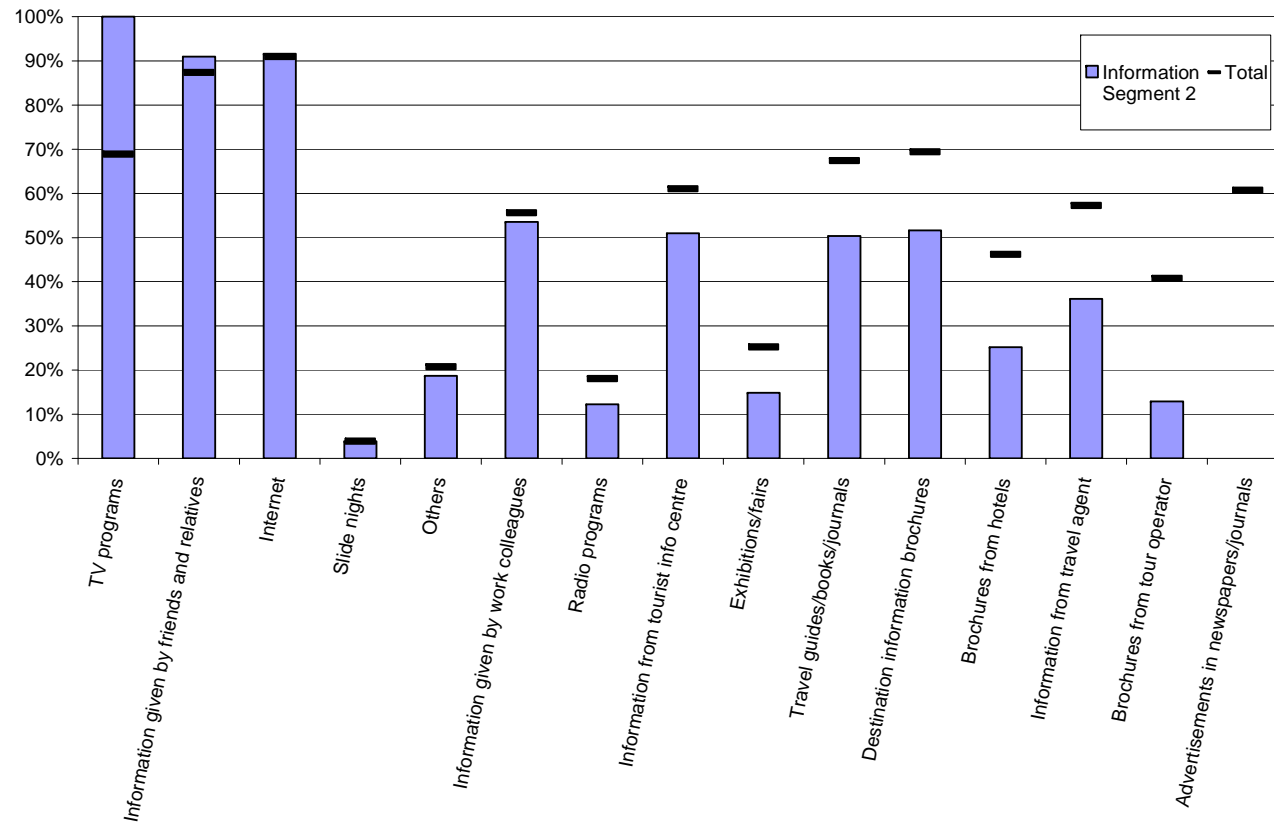


Figure D.6 Information Segment 2 – TV Buffs

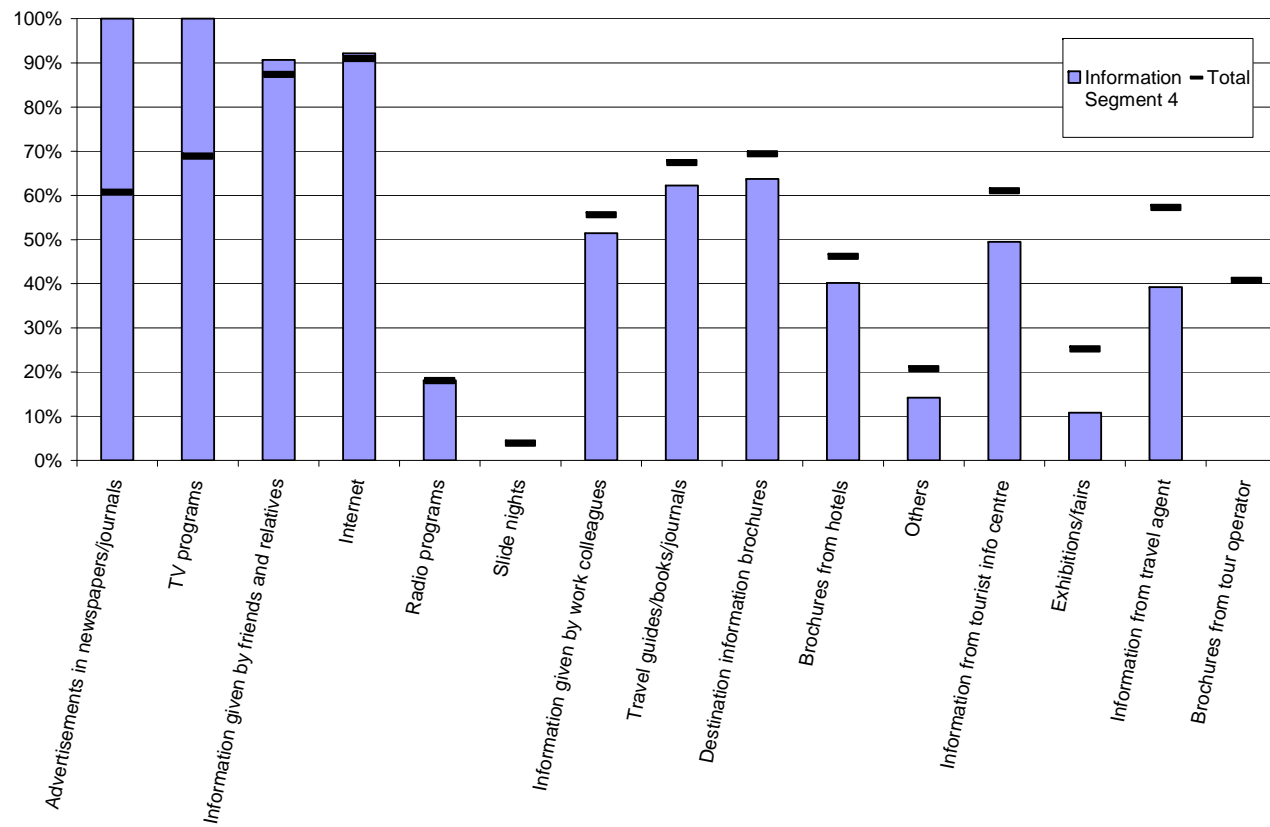


Figure D.7 Information Segment 4 – TV and ads

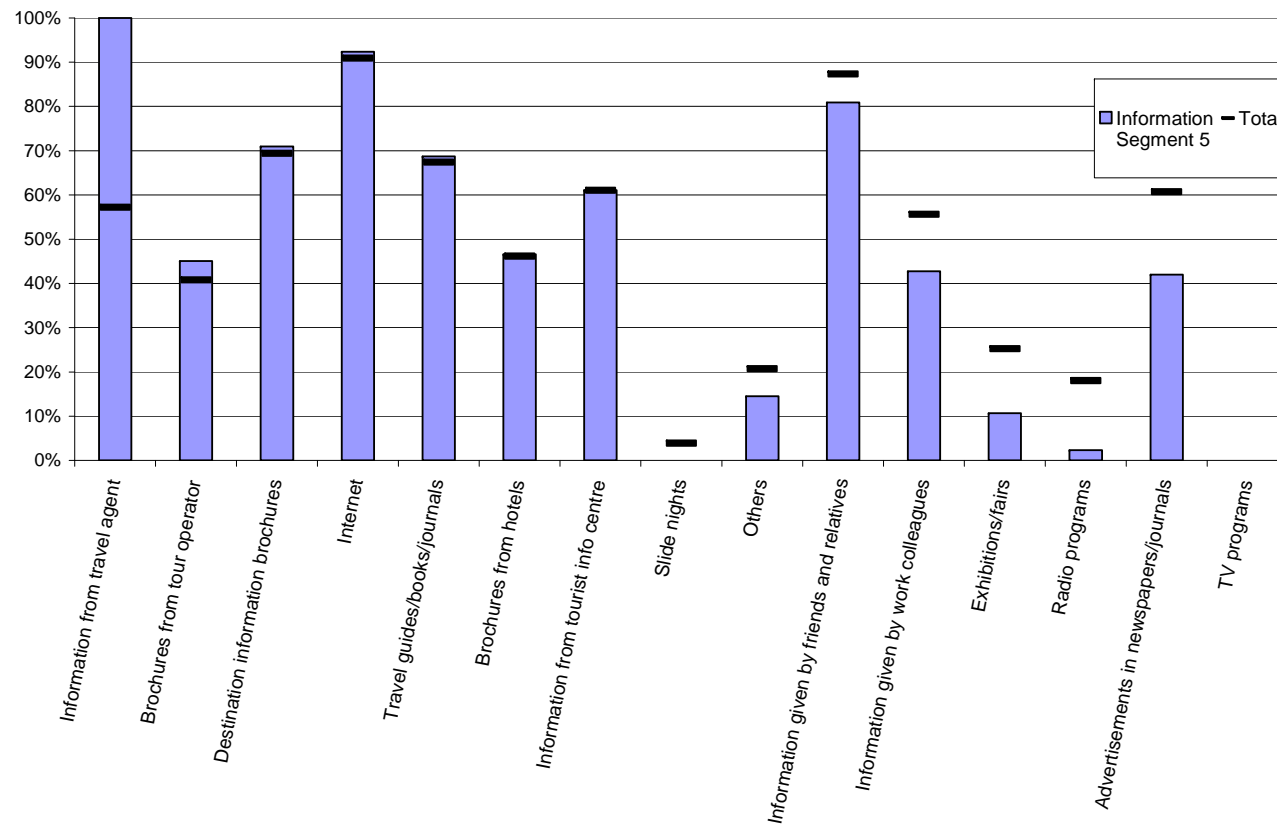


Figure D.8 Information Segment 5 – Travel agent users

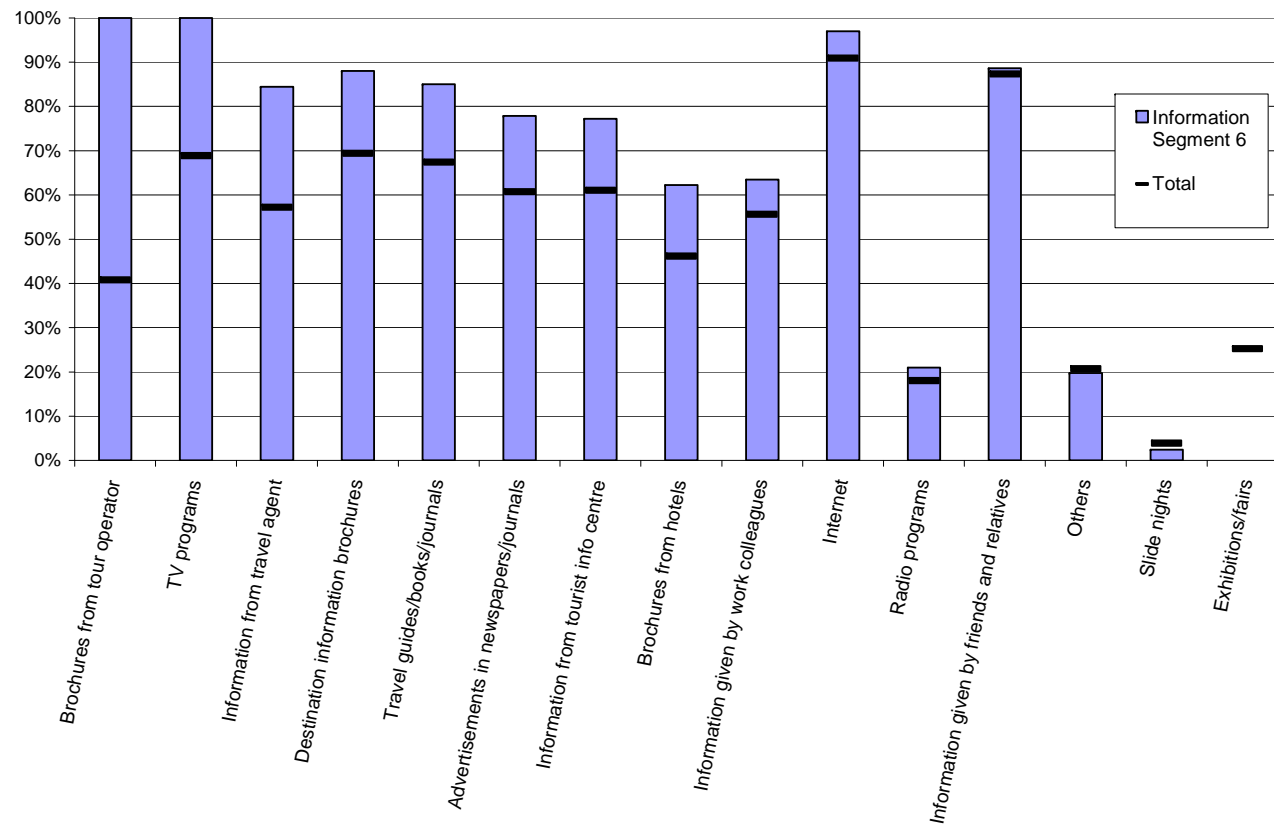


Figure D.9 Information Segment 6 - Traditionalists

Segment Descriptions: Benefits of Travel

Benefit Segment 1 (n = 290, 29% of the total sample) members are particularly interested in travelling in order to release tensions and stress, relaxing, and doing nothing (Refer to Figure D.10). This segment is also motivated by the opportunity to get away from everyday life and routine and to be with friends, more than average. This segment can be referred to as the “Escapees”.

Benefit Segment 4 (n = 324, 32% of the total sample) displays a particular interest in experiencing something new, doing something different, and experiencing new cultures and places, while also wishing to observe scenic beauty and is labelled “Novelty seekers” (Refer to Figure D.11).

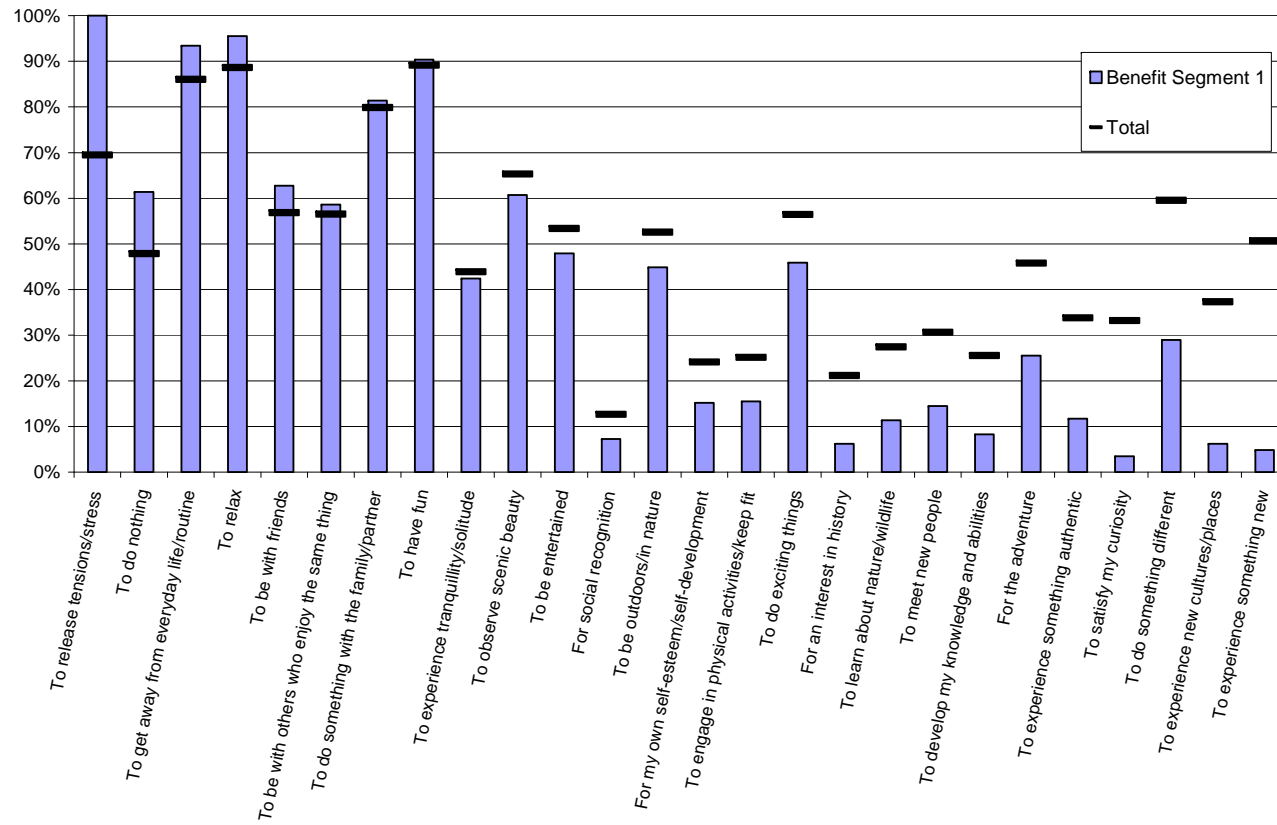


Figure D.10 Benefit Segment 1 - Escapees

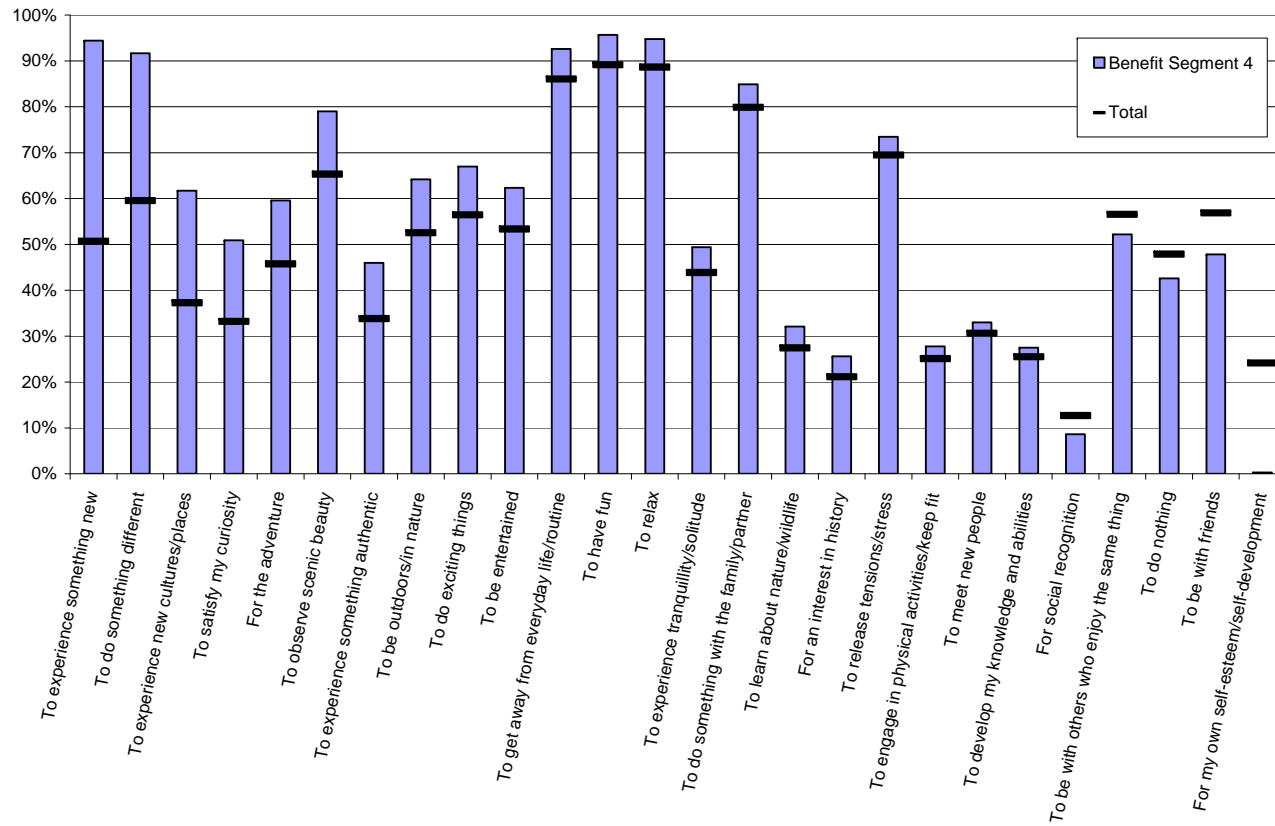


Figure D.11 Benefit Segment 4 – Novelty seekers

Segment Descriptions: Image Turnoff

The items used in this segmentation study consisted of the 26 image items developed through interviews with destination managers of Wollongong.

Image Turnoff Segment 1 (n = 97, 10% of the total sample) members dislike a tourist destination with a thriving nightlife. The other attributes of a tourism destination that would be considered a turnoff for this group is an action packed area, funky cafes, close proximity to Sydney, a polluted destination, one rundown in parts and containing a Steelworks plant. This segment is labelled “Peace seekers” (Refer to Figure D.12).

Image Turnoff Segment 2 contains 39 members (4% of the total sample) who find a destination that is not crowded a turnoff. They also indicated that an area that is peaceful and quiet or laid back and relaxed is undesirable. A destination that has country charm, where the coast meets mountains, has long sandy beaches, has cultural diversity and has waterside camping is also not desirable. Among some of the image attributes considered less of a turnoff are “Close to Sydney”, “Action-packed” and “Innovation focused”. This segment is labelled “Hustle and bustle” (Refer to Figure D.13).

Image Turnoff Segment 3 contains 108 members (11% of the total sample) who have specified their main dislike is in the form of the proximity to Sydney city. Along with this, the obvious three turnoffs are also stated: the Steelworks, pollution and rundown parts of a destination. This segment is labelled “City escape” (Refer to Figure D.14).

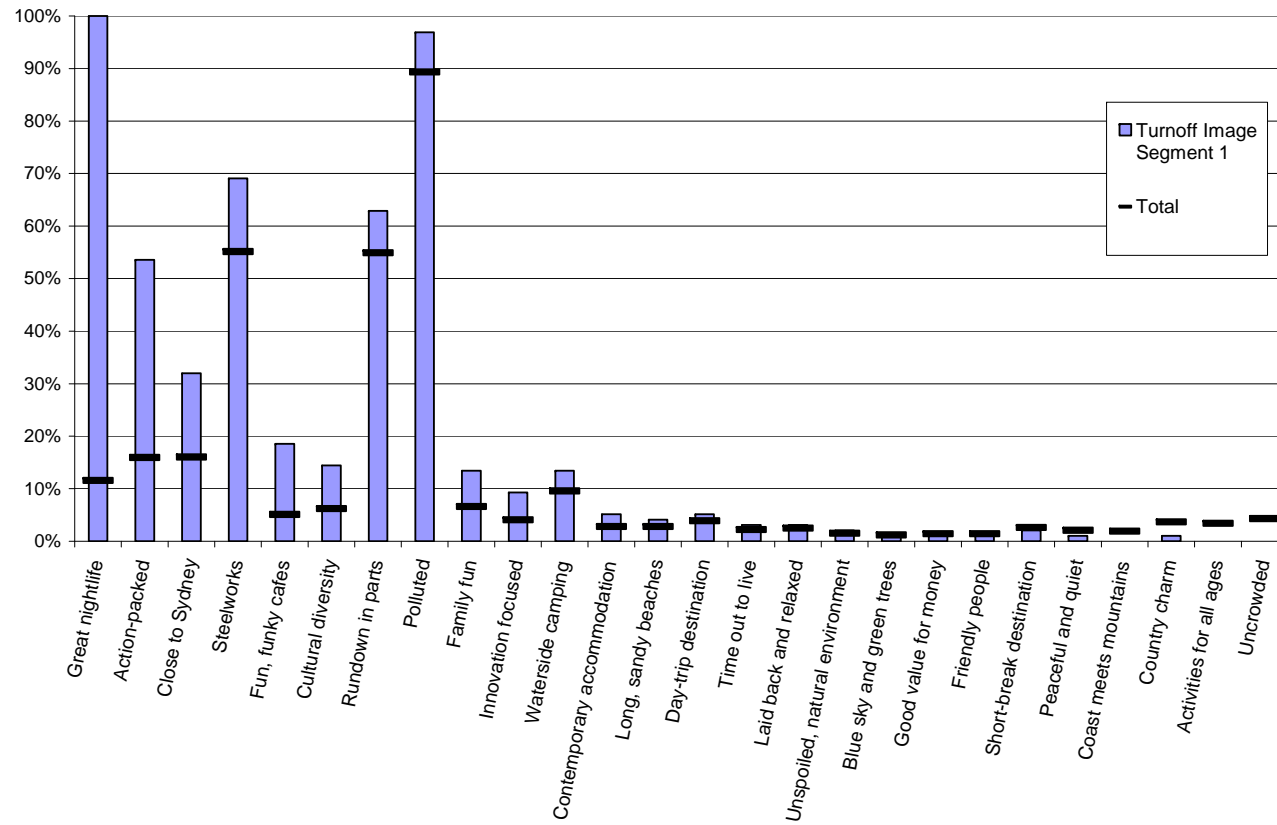


Figure D.12 Image Turnoff Segment 1 – Peace seekers

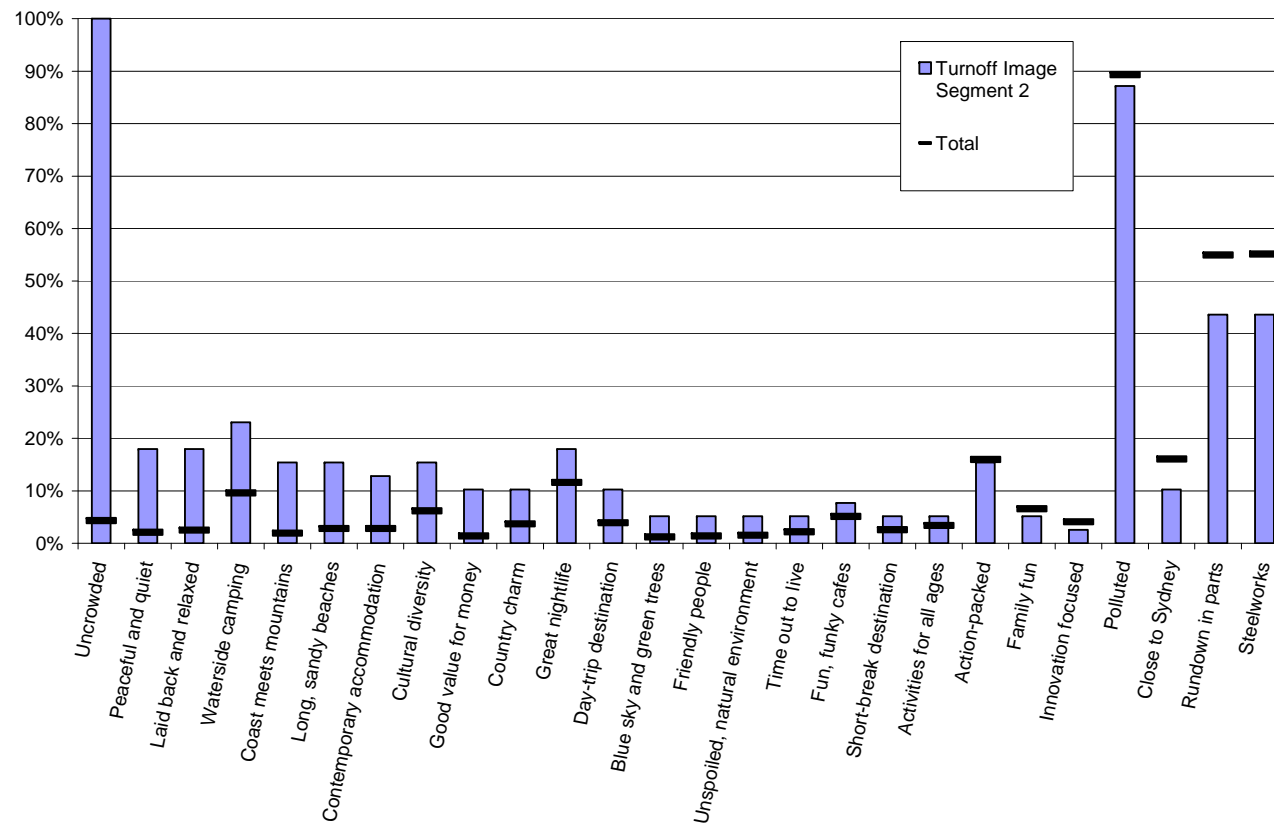


Figure D.13 Image Turnoff Segment 2 – Hustle and bustle

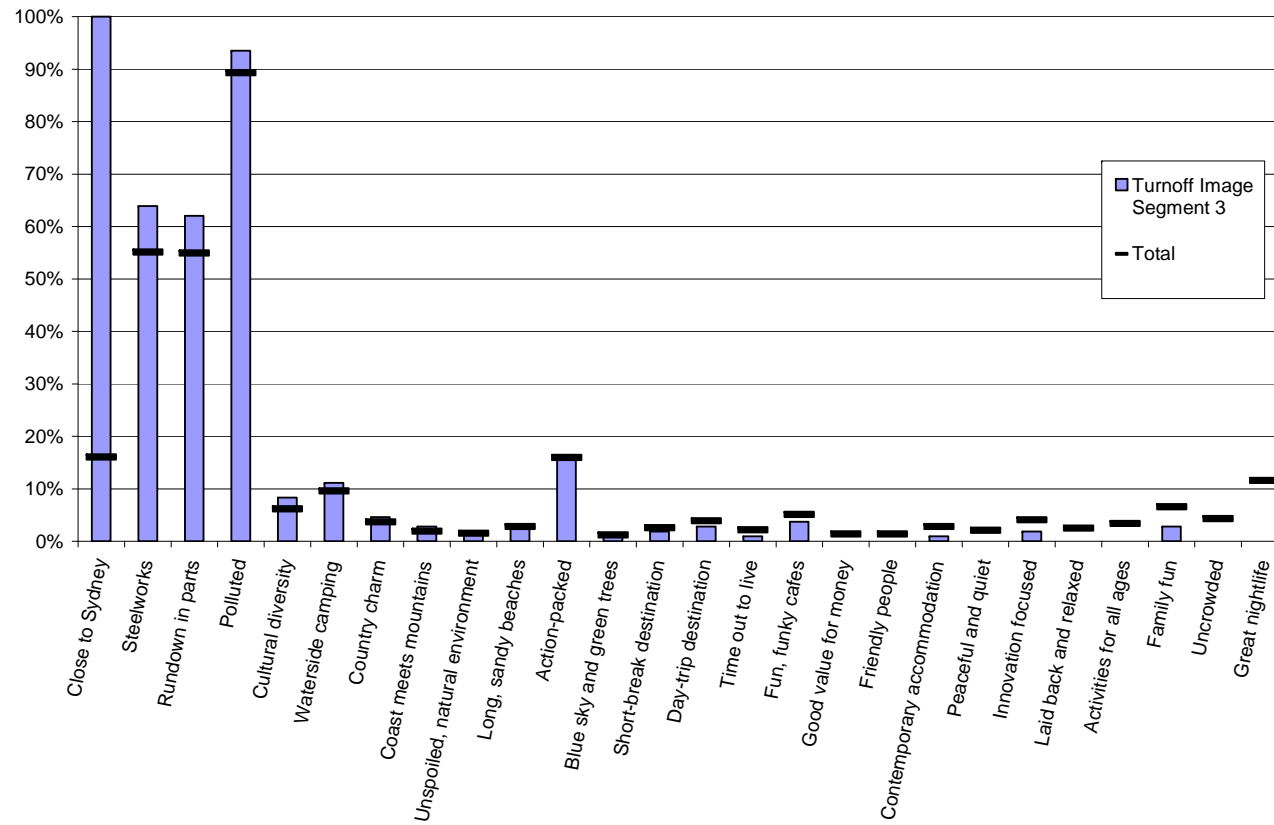


Figure D.14 Image Turnoff Segment 3 – City escape

Segment Descriptions: Image Perfect

The items used in this segmentation study also consisted of the same 26 image items used in the Image Turnoff segmentation study. Responses were coded to highlight only those positive desires of participants.

The 232 members (23% of the total sample) of Image Perfect Segment 2 indicated the following characteristics make up their ideal destination: country charm, peaceful and quiet, laid back and relaxed, uncrowded, good value for money and blue sky and green trees, and natural environment. Therefore, this segment is labelled “Country retreat” (Refer to Figure D.15).

Image Perfect Segment 4 (n = 142, 14% of the total sample) consists of members who find an action packed destination attractive but have no tolerance of nightlife. This segment believes a destination with any of the following features is perfect: family fun, long, sandy beaches, a laid back and relaxed destination, country charm, coast meets mountains and activities for all ages. This segment also considers cultural diversity and innovation perfect for them. This segment is labelled “Action oriented” (Refer to Figure D.16).

Image Perfect Segment 5 (n = 313, 31% of the total sample) places the greatest value on family fun, more than any other segment. This segment also places higher importance on activities for all ages, long, sandy beaches, blue sky and green trees, good value for money, or a short-break or day trip destination. They believe a destination that is peaceful and quiet, laid back and relaxed, and has country charm is perfect for them. This segment is labelled “Family friendly” (Refer to Figure D.17).

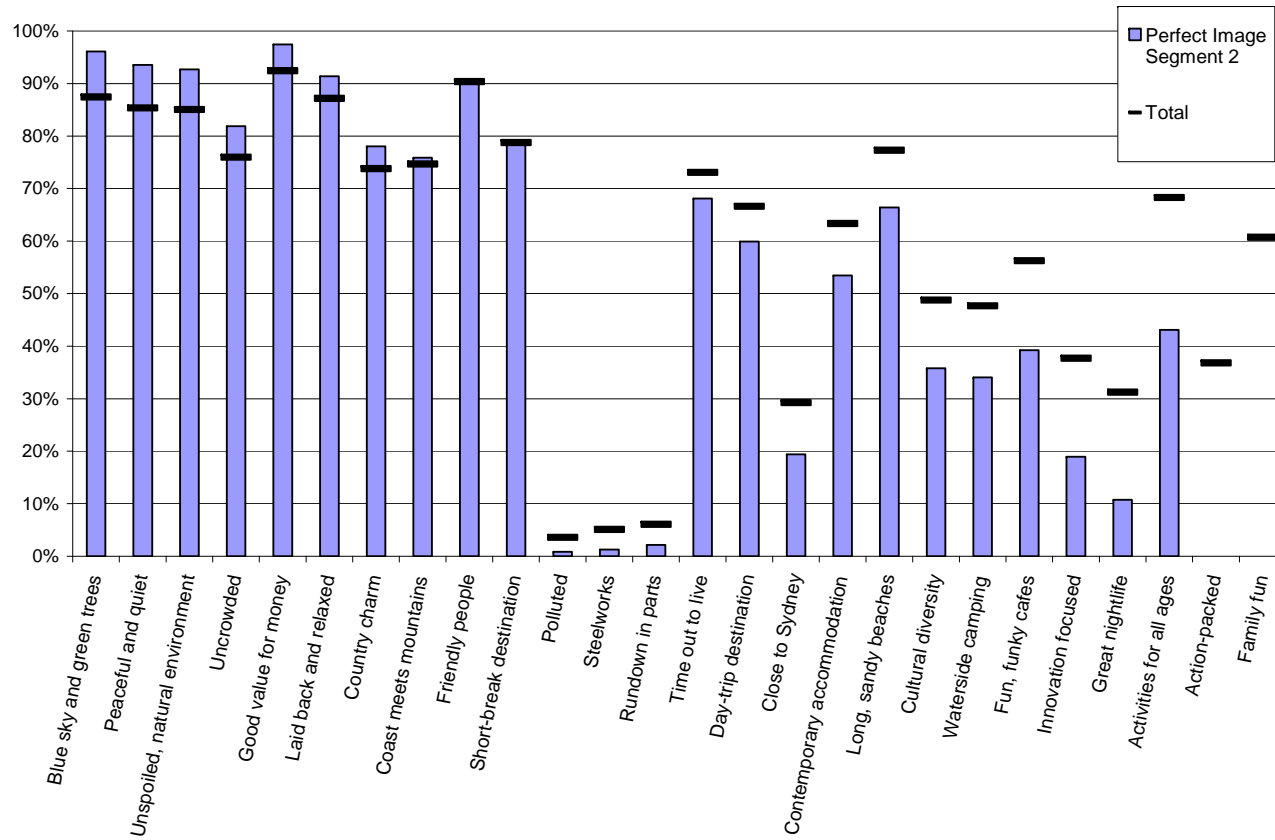


Figure D.15 Image Perfect Segment 2 – Country retreat

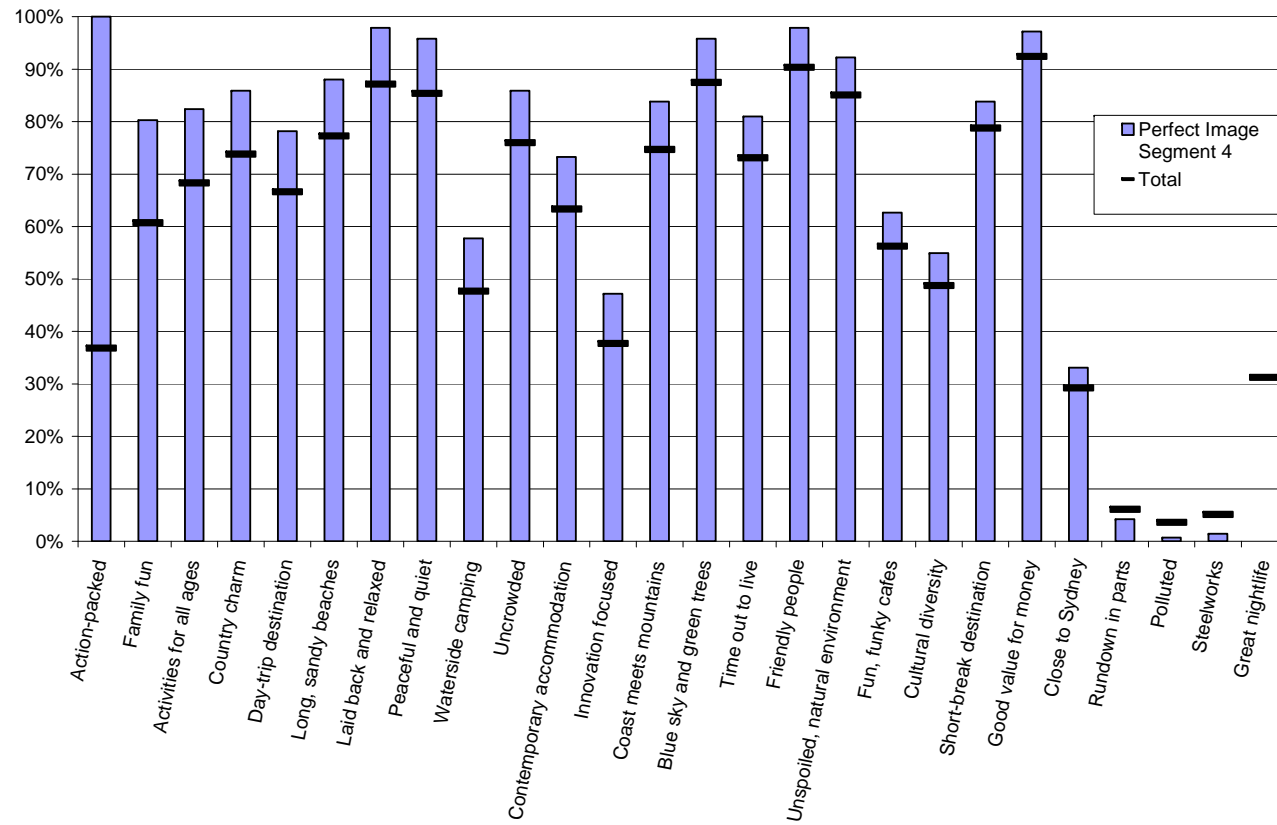


Figure D.16 Image Perfect Segment 4 – Action oriented

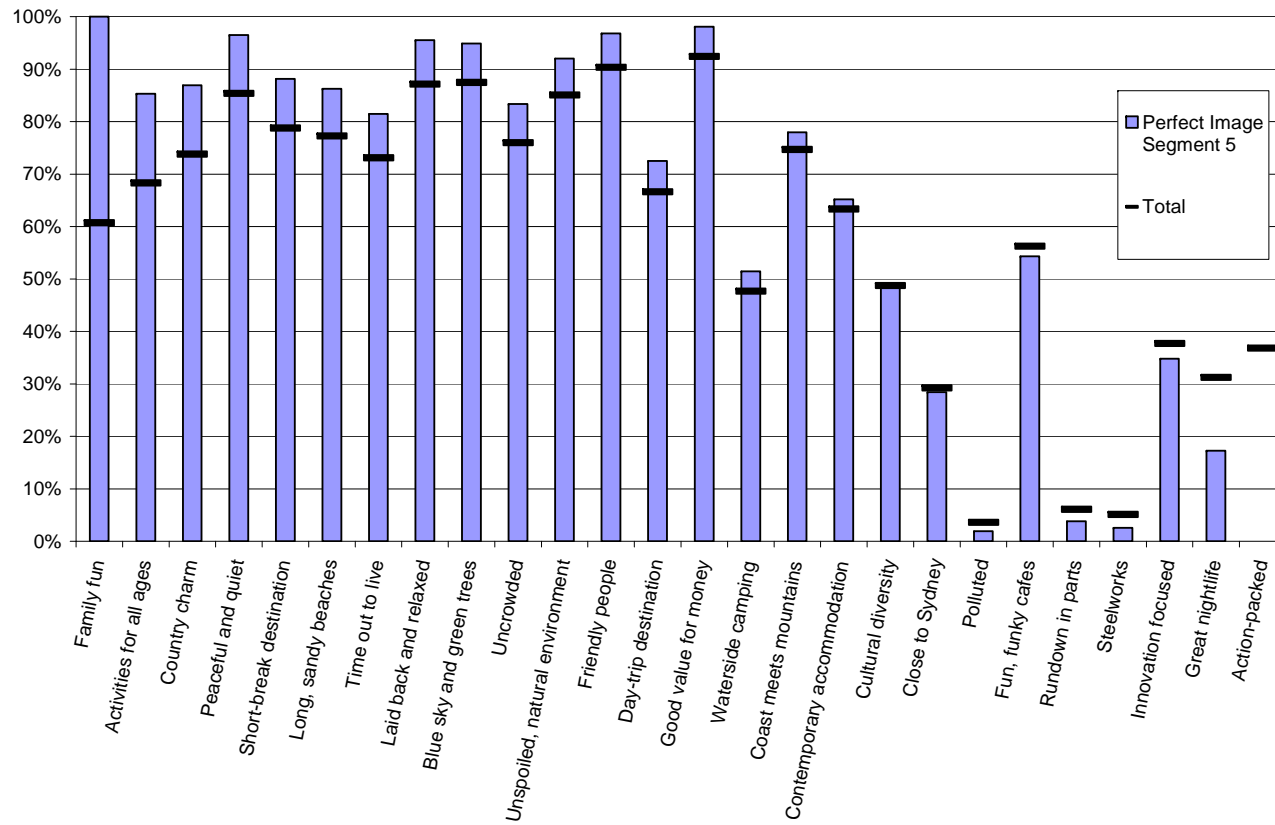


Figure D.17 Image Perfect Segment 5 – Family friendly

