

# How destination image and country visitation affects consumer perceptions and preference for a country's products.

A submission for the Award of Doctor of Philosophy (Business)

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*I declare:*

This thesis presents work carried out by myself and does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university; to the best of my knowledge it does not contain any materials previously published or written by another person except where due reference is made in the text; and all substantive contributions by others to the work presented, including jointly authored publications, is clearly acknowledged.

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Jasha Bowe



# Notes on reading this thesis

## Abbreviations

Throughout this thesis a number of abbreviations are used repeatedly. To aid in the readability of this document these commonly abbreviated terms are listed below:

PCI	–	Product Country Image
DCE	–	Discrete Choice Experiment
DMO	–	Destination Marketing Organisation
ANT	–	Associative Network Theory
RUT	–	Random Utility Theory
COO	–	Country of Origin
COI	–	Country of Origin Image
DI	–	Destination Image
WTP	–	Willingness to Pay
SEM	–	Structural Equation Modeling

## Domain clarification

Throughout this thesis the country 'China' is referred to as the consumer domain of interest in the research. Within this thesis 'China' and peoples thereof refers only to the people of Mainland China and not the special administration regions of Hong Kong and Macau. Hong Kong and Macau are considered to have different consumer characteristics than the peoples of Mainland China due to many years of western influence and integration and as such are not the concern of this particular piece of research.

## **Theoretical Positioning**

There are a number of assumptions made within this thesis that accounts for the theoretical positioning of this thesis. In particular it is to be noted that the thesis is largely written from an Ehrenbergian perspective on marketing science, a perspective that often contradicts the dominant paradigm in marketing research and academia. This is referenced throughout the thesis. For more information please read 'How Brands Grow: What Marketers Don't Know' by Byron Sharp, (OUP 2010), and visit [www.marketingscience.info](http://www.marketingscience.info).

## **Financial support and the use of seafood and wine**

This research has received financial assistance from the Australian Seafood Centre for Cooperative Research (CRC) project number 2009/761. This research centre has an interest in understanding the potential of Chinese tourists in generating Australian brand value and promoting Seafood exports to China. At the inception of this project the Australian Grape and Wine Research and Development Corporation (GWRDC), were also interested in financially supporting this study through the University of South Australia and the Ehrenberg-Bass Institute. As a result these two products were chosen for testing in this PhD, rather than any other of Australia's fine international exports. Though it is to be noted that as both a tourist destination and an exporter Australia has many quality attractions and excellent exports.

# Abstract

Tourism is the world's largest service industry, mobilising millions of travellers to visit international destinations every year. Tourists are mobile consumers. Should a country's producers strategically target international travellers as a consumer cohort to drive post-tour exports? This thesis integrates discrete fields of tourist destination and country of origin research to garner a better understanding of consumer preferences for international goods in domestic markets. It measures how Australia's destination image (DI) affects Chinese consumers' evaluation and choice of Australian wine and seafood. Consideration is given to how visiting the country moderates these relationships. It provides stakeholders in the export and tourism sectors greater insight to a country's capacity to leverage exports off its tourism industry.

China is forecast to become Australia's largest tourism source market by 2017, and is forecast to record 860000 visitors by 2020, doubling visitation to the country in just 10 years – 454000 Chinese toured Australia in 2010, a 24 per cent increase on 2009 (Tourism Australia, 2011). At the same time China is the largest growth market for Australian wine, but accounted for only 6% by volume and 12% by value of Australia's total wine exports in 20011-2012 (Wine Australia, 2013). Australian wine only accounts for 13% by volume and 15% by value of the imported wine market in China (Wine Australia, 2013). Similarly, while China holds great potential for the export of Australian seafood products, it currently sits only sixth behind Japan, Hong Kong, Taipei, the United States and Singapore in export value (Australian Government, 2010).

The combination of the increase in Chinese tourists to Australia and the relatively low market share and the awareness of Australian wine and seafood domestically in China means that country of origin perceptions for these products might be developing from a tourism-image related perspective. These product categories are not well advertised in China and thus there would be few initial impressions, which provides a suitable platform to seek answers to the research objectives. In addressing these objectives this thesis compares three methods for eliciting consumer preferences: an attitude-theory

approach, using scales measures and structural equation modeling traditionally used in country of origin and tourism studies; the associative network theory (ANT) approach, operationalised with a free-choice, pick-any survey method utilised in the branding literature; and the discrete-choice experimental approach from the travel demand and economics literature. Each method is applied to the same respondents, enabling analysis within subjects and between methods. The attitude-theory based method is employed to measure the relationship between Australia's destination and country of origin image and how both contribute to the evaluations of its products. This approach is compared to the alternative approaches.

1030 respondents were sourced from the Chinese Special Economic Zones (SEZs), which represent a concentration of Chinese wealth and in and out-bound economic activity. The respondents had to have been on an overnight holiday at least once in the last two years. Ages ranged from 18 to 60 years; 33 per cent were female and 67 per cent were male. While the majority of respondents came from the large cities of Guangdong (Guangzhou), Jiangsu, Shanghai and Beijing, other provinces in the SEZ were well and evenly represented. The respondents came from a diverse range of industries with none particularly over-represented, though overall these industries were of a skilled rather than unskilled nature. Just fewer than half (n=480) of respondents indicated they had visited Australia suiting the need to compare visitors and non-visitors across product categories.

The results generated using the traditional approach to measuring country image influence on product evaluation produces good statistical fit across a number of models using a large sample of consumers. Despite model parsimony, however, the results do not give overly definitive insight into the mind of the Chinese consumer when it comes to forming their product perceptions of seafood and wine from Australia. The models are dominated by country of origin perceptions and seem to have little contribution from destination perceptions – despite other research indicating that a relationship may exist between destination and product image formation. In both categories visitors only slightly, though significantly, evaluate products more favorably than non-visitors –

which is a well-known artifact of image usage bias. At model level the results regarding the moderating effect of visitation are mixed and category specific – they are not ubiquitous. Overall, the analysis of product evaluations as a predictor of future choice behaviour suggests both destination perceptions and visitation have minimal impact on consumer preference.

In contrast, the ANT-based pick-any approach reveals a strong association between Australia's destination image attributes and the evaluative attributes of Australia's wine and seafood. There are semantic linkages apparent with certain product attributes, particularly relating to quality perception (size, freshness, taste) for certain image attributes and product categories which the consumer considers to be in the category of tourism; these linkages are less evident with more traditional country of origin categorizations. Australia's image as a tourist destination prevails - iconic and well-known images of beautiful pristine environments, beaches, sun and surf - and this may well be a significant antecedent of product image formation. Country-of-origin research is generally focused on manufacturing and production capacity, as well as the perceived technological advancement of a country. These images of Australia are not as salient in the minds of the respondents in the study, and not retrieved from memory as often as those of Australia as a laid-back and beautiful country. According to ANT, it is these images that will have the greatest effect on consumer choice. The propensity of Chinese consumers to think of Australian seafood and wine in a purchase situation increases considerably if they have visited Australia when measure with an ANT framework.

These findings are further supported using discrete choice experiments (DCE) and structural choice modeling analysis. Compared to non-visitors, Chinese tourists prefer Australian products more – they are more likely to choose them. These traveling consumers also select Australian products more consistently within and across product categories – they have a correlated choice preference across categories. Not evident from either the attitude or ANT based approaches is the segment of visitors with a latent preference for Australian products. This indicates there is a ubiquitous country of origin effect being exerted across product categories but this is evident only for visitors to

Australia. Overall, visitors are also more concerned with where products originate from, (i.e. place a higher value on the country of origin attribute) and willing to pay a higher price for those products.

Country image, either as representations of Australia as a country of origin or as a tourist destination, is influencing Chinese consumers evaluations and choice of Australia's seafood and wine. However, the results presented in this work find these and the moderating effects of visitation are captured differently by each method. The predominant approach to country of origin and destination image studies, attitude-theory, seems to be less informative than the other two approaches operationalised in this thesis. The prevailing construct-based approach to country of origin and destination image produces different and less definitive outcomes than the two alternative methods that are complementary in their theoretical basis and interpretation. The associative network theory with accompanying measurement methods seems to provide greater insight compared to the traditional construct-based SEM approach to country of origin effects measurement. And the DCE approach gives a greater level of precision to the predication of preferences.

This thesis evaluates substantive theory on country-of-origin effects, develops understanding of the role of tourism in promoting the consumption of Australian made products, and demonstrates new outcomes that can be achieved by applying alternative methods to capturing these effects. The outcomes should be of interest to a broad readership including those interested in, tourism and country of origin research, as well as those interested in a comparison of methods for measuring country image effects in the interest of further advancing the field. Finally, this work should also appeal to practitioners, tour operators and exporters of both agricultural and packaged goods interested in capitalising on the opportunities provided by rapidly expanding Chinese consumer markets.

## **Refereed publications from this thesis**

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Bowe, J., Lockshin, L., Lee, R., & Rungie, C. 2012. Rethinking Country Image Studies? ANZMAC. Adelaide

Bowe, J., & Lockshin, L. 2011. The Influence of Destination image on Chinese consumers' preference for Australian Wine?, 6th AWBR International Conference. France.

Bowe, J., Lockshin, L., Lee, R., & Rungie, C. 2011. Associative Network Theory: Rationalising Tourist Destination Image effects on cross-category Country of Origin product attribute evaluations, ANZMAC. Perth.

Bowe, J., Lockshin, L., Lee, R., & Rungie, C. 2011. Destination image, Associative Network Theory and Product Preference, EMAC. Slovenia

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# 1 Introduction

*“Whether we’re thinking about going somewhere on holiday, buying a product that’s made in a certain country, applying for a job overseas, moving to a new town ... we rely on our perception of those places to make the decision-making process a bit easier, a bit faster, a bit more efficient” (Anholt & Hildreth, 2010, p19).*

Country-of-origin research has found a consumer’s perception of a country influences their behaviours towards its products. Tourism research reports that an individual’s perception of a country determines how many of them will visit it. In both fields a ‘country’ represents an evaluative schema used by consumers to infer or summarise knowledge about the country’s product offerings – be it a car or holiday package (Roth and Diamantopoulos, 2009, Beerli and Martin, 2004).

This thesis aims to bridge the gap between these two areas of research and consider the theoretical and methodological basis on which to do so – providing new insights and directions for other researchers. From a managerial perspective tourism is one of the world’s largest industries mobilising millions of travellers every year. What if exporters could effectively target this travelling consumer cohort? Commercial tour operators, exporters, destination marketing organisations (DMOs) and governments should all be able to benefit from this research.

Irrespective of the conceptual similarities between the evaluative processes that underlie these studies, there has been little crossover. Only a handful of studies have explored empirically how tourists’ perceptions and experience of a country as a travel destination might influence their beliefs about and propensity to choose the destination’s non-tour products (Elliot et al., 2010, Lee and Lockshin, 2011, Papadopoulos and Heslop, 1986). Both the country-of-origin and destination research

literature conceptualise countries as image constructs that have a determined and quantifiable effect on consumer behaviour. Yet, only a handful of studies have looked at the influence of both Destination Image (DI) and product country image (PCI) in influencing product images in the same model. These previous works have either considered each construct separately (Lee and Lockshin, 2011), as being an antecedent of the other (Elliot et al., 2010, Nadeau et al., 2008) or as being causally related to the purchase decision (Josiassen and Assaf, 2013) rather than having a direct effect on specific product evaluations. Intuitively one might suggest that visiting a country would improve the chances of that country's products being chosen by the visitor when they encounter them at home (Gnoth, 2002, Kotler and Gertner, 2002), but little empirical work has been done to support this.

Although it is one of the most studied phenomena in international marketing, country-of-origin research has been criticised by some for being in a state of privileged seclusion from the facts and practicalities of the real world, with authors suggesting the field has grown increasingly disconnected with consumer and commercial concerns (Usunier, 2006) and lacks a sufficiently robust theoretical framework to help inform the market of managerially relevant and actionable outcomes (Samiee, 2010). Destination research has been subject to similar criticisms (Beerli and Martin, 2004). While sharing some of these concerns, others authors are less scathing and offer a more progressive approach to tackling the issues that face the study of country of origin effects (Josiassen and Harzing, 2008). This thesis draws on the sentiment of the latter authors. Believing that both PCI and DI research are still relevant pursuits, this thesis contributes to the theoretical and methodological discourse in the fields as well as presenting some managerially relevant and actionable findings – something called for by contemporary scholars in order for the fields to move forward and continue to be relevant.



## 1.1 Overview of the method

Studies in tourism and country of origin are typically underpinned by attitude-based Likert-scale methodologies and analysed using structural equation models (SEM). The traditional approach used in PCI and DI studies is consistent with the classical models of consumer behaviour, with particular reference to Fishbein and Ajzen's (1975) theory of reasoned action, where it is suggested that intention to act and subsequent behaviour are a function of attitude toward an object. This position dominates country-of-origin research and is prevalent within the tourism studies.

However, an influential body of literature exists which is critical of the way Likert scales are used to measure and interpret data (Kampen & Swyngedouw, 2000; Dolnicar et al., 2004, Jamieson, 2004) and how reliable measures of attitude are in predicting behaviour (Wright and Klj̃n, 1998). In attempting to add knowledge to this area, this thesis considers whether there is an inherent bias imposed by the traditional Likert-based SEM approach to country-image studies that causes certain relationships to be stronger or weaker due to the method. It is postulated in this thesis that this prevailing conceptualisation of country image in the country of origin and tourism literature may be too narrowly focused within each discipline to successfully capture the full range of effects that a country's image may have on consumer perceptions and behaviour. This requires an assessment of alternative methods.

The second approach used in this study conceptualises consumer knowledge as stored and retrieved based on Anderson and Bower's (1973) associative network theory (ANT) of memory. ANT models conceptualise that human memory consists of a network of asymmetrical links and nodes, where pieces of information or nodes (e.g. a country name, product experience) are linked to other nodes (e.g. Australia

and tourism or Australia and wine). It is suggested if there is a 'link' between two nodes it represents a meaningful association in memory.

ANT is best measured by first developing a set of items that consumers could link to the object of interest such as a country or a product, and then using free-choice pick-any surveys and frequency counts to measure the salience of these items – that is, the cognitive or subconscious prominence of attributes in the mind of the consumer (Romaniuk, 2010). Respondents pick items deemed by the researchers or previous research to constitute attributes or concepts that relate to an anchor concept, such as a brand or country. The data is analysed to establish if, and which type of, network links exist in the mind of the consumer, how extensive networks are and which attributes are most salient in relation to the anchor concept. Much of the focus of this technique is to determine whether a brand is actually thought of rather than seeking to determine how favourably it is judged (Driesener and Romaniuk, 2006). As Driesener and Romaniuk (2006, p685) point out, “someone might not choose a brand with the pick-any technique but give that brand a high rating when forced to respond with a rating measure”. Unless a brand is actually thought of in a purchase situation then it does not matter how favourably someone rates the brand on paper.

The study also uses discrete choice experiments (DCEs) to explore Chinese consumers' stated choice preferences (for seafood and wine) as determined by a set of changing attribute conditions (such as country of origin and price) presented in different combinations. This simulation of a purchase or consumption situation also allows for an exploration of products' salient attributes and their interactions with one another. The method is rooted in the neo-classical conceptualisation of consumers and products: products are disaggregated into their attributes and consumers trade off varying combinations of those attributes to maximise their perceived value. The premise is that consumers will try to maximise the utility of their choices, and by analysing a repeated set of products comprised of different attribute levels a utility value can be estimated for those attributes.

Discrete choice experiments are based on random utility theory (RUT) that conceptualises events as random based on probabilities that are fixed for each consumer and vary between consumers. It is not argued that consumers make decisions randomly but rather, as nothing else is known, the process can be operationalised 'as if' random. The consequence of such a theory is that the data analysis only considers how often decisions are made, not how or why. By introducing covariates into the model – such as country visitation in this case – it is possible to estimate the effects of differing conditions that define the populations responding to the experiment. The other approaches and theories used in this study postulate much more on the 'how' and 'why' of the individual's decision-making process, and the choice-based outcome is used in conjunction with the other results.

## 1.2 Research Questions

The purpose of this research is to coherently link two independent, but related, international marketing fields that measure a country's influence on product perceptions and intention to purchase. It also compares different theoretical and methodological approaches to understanding and measuring this. To achieve this the following research questions are considered:

**RQ1:** What influence does a country's destination image (DI) have on the image perceptions of products produced in that country, and what is the relative influence of this in comparison to the traditional product country image (PCI)?

**RQ2:** How does consumers' experience of a country through visitation moderate the PCI and DI effects on product proposed in **RQ1**?

**RQ3:** How does consumers' experience of a country through visitation influence consumers' preference for that country's products?

**RQ4:** What methodological approaches, supported by underpinning theory, can be effectively operationalised to capture the effects posited in **RQ1**, **RQ2** and **RQ3**, and what are the pros and cons of each?

### **1.3 Research context for this study**

It is no secret that China's economy has been expanding rapidly over the past two decades and The World Bank estimates hundreds of millions of citizens have been able to emerge from poverty (Montalvo and Ravallion, 2009). As a result the appetite for consumer goods in China has grown rapidly, evidenced by an expanding prevalence of supermarkets and retail chains in the country (Dickson et al., 2004, Skallerud and Grønhaug, 2010). New-product imports into the Chinese market, particularly in the areas of food and food-related agri-business, have increased substantially over the past decade (Skallerud and Grønhaug, 2010). As with their western counterparts, Chinese consumers are influenced by country of origin information when purchasing retail products – they want to buy foreign goods (Dickson et al., 2004, Skallerud and Grønhaug, 2010, Hansen, 2001). However, the rise in imports cannot yet be directly or firmly attributed to detailed consumer insights, as “specific information about food retailing in China in general, and especially retail buyer behaviour, is still not accessible to foreign food suppliers” (Skallerud and Grønhaug, 2010, p197) and only a limited number of empirical studies to date - in comparison to those of western consumers - explore in detail Chinese import purchase behaviours (Li and Gallup, 1995, Dickson et al., 2004, Chaney and Gamble, 2008). In particular, China holds vast potential for the Australian wine industry with it being the fastest growing export market over the last few years (Wine Australia, 2013). However, it accounted for only 13 per cent by volume and 15 per cent by value of Australia's total wine exports in 2011-2012 (Wine Australia, 2013). Similarly, while China holds great potential for the export of Australian seafood products, it currently sits only sixth behind Japan, Hong Kong, Taipei, the United States and Singapore in export value (Australian Government, 2010).

In conjunction with this China is forecast to become Australia's largest tourism source market by 2017, with a forecast of 2.65 million visitors per annum by 2025 (Department of Industry Tourism and Resources, 2006). The combination of the increase in Chinese tourists to Australia and the relatively low market share and the awareness of Australian wine and seafood domestically in China means that country of origin perceptions for these products might be developing from a tourism-image related perspective. These product categories are not well advertised in China and thus there would be few initial impressions, which provides a suitable platform to seek the answers to the research objectives.

## **1.4 Thesis structure**

This thesis is broken down into the following chapters:

### **Chapter 1: Introduction**

The research problem is stated as a prelude to the research questions. Four research questions are posed. A brief background is provided. The method is conceptualised. The research is summarised.

### **Chapter 2: Literature Review & Conceptual Development**

The foundation literature in the fields of country of origin and destination image research is detailed. Where this thesis sits within it and the contribution to developing this literature is established. The gaps in the relevant literature are highlighted. The theoretical underpinnings and the conceptual approaches operationalized in this thesis are detailed. These approaches speak directly to the research questions posed in the first chapter.

### **Chapter 3: Instrument Development**

The development of an instrument specifically designed for this project is detailed.

### **Chapter 4: Method**

In this chapter the three methods used to address the research questions are detailed. Each has a specific design and procedure for methodically executing the analysis presented in the results and discussion sections. The data set, including its source and limitations, is described. The research process is detailed. The actual methods, including mathematical derivation, calculation, tabular or graphical representation and interpretation are described.

## **Chapter 5: Results**

The results are presented. Following the data handling processes detailed in the methods chapter the outputs generated by each method of analysis are presented. The results will be presented in terms of the three main methods utilised to evaluate each the affect generated by tourist images and visitation on product evaluations and choice propensities.

## **Chapter 6: Discussion & conclusions**

Each of the research questions is addressed. Implications for the Australian tourism and export markets in relation to Chinese consumers will be discussed in conjunction with the outcomes derived from each of the methods employed. Limitations are then identified and potential future streams of research suggested. Concluding remarks regarding the previously discussed research questions are stated and the key concepts of the thesis are revisited. This demonstrates how the overall research need has been addressed.

## **Chapter 7: Limitations and future research**

### **Appendix 1-4**

Appendix 1 – Fully Reported SEMs

Appendix 2 - Pick-any PMaps & Dirichlet reporting

Appendix 3 - Pre-test results

Appendix 5 – Full survey instrument & translation



## **1.5 Summary of the research**

This work builds on a limited but growing number of inquiries into post-holiday travel consumer behaviour. It considers the influence a country's image as a tour destination, and visiting that country, has on the evaluation of and propensity to purchase its export products. It uses a multi-method approach to do this. Managerial implications should be evident for tour operators, destination-marketing organisations (DMOs) and export producers, with a focus on the wine and seafood sectors. The results presented further suggest that academics and practitioners may need to re-think how they approach the impact of a product's origin country on consumer perceptions of those products. The predominate approach in the field may not sufficiently guide managers to make optimal marketing decisions. In short, there should be greater consideration of a country's iconic and stereotypical image attributes, which primarily reside within the realm of tourism research in the case of Australia, when managers are planning forays into international markets – particularly for seafood and wine producers. There is great potential and capacity for the three broad areas of industry, tourism and product exports to align and even cooperate in developing marketing strategies to a mutually beneficial end.

## 2 Literature review & conceptual development

In providing a new contribution to the literature, it is first necessary to review the existing material in the areas of both country-of-origin (COO) and destination image (DI) research, as well as examine the small body of work that has been published combining the two. Further, in developing the conceptual approach to this thesis, consideration is given to the theoretical frameworks used to conceptualise these country image effects as well as the methodologies that will be employed in subsequent chapters to capture and evaluate them. This chapter is divided into the following key sections:

### *Foundation literature*

**§2.1 Country of origin research** - This section discusses contemporary issues and themes in country of origin research, including the development of the field and continued opportunities for research.

**§2.2 Information processing in country of origin evaluations** - Considers the underpinning theories driving the field and the way that country of origin research information is processed.

**§2.3 Destination image research** - Considers the studies that have been conducted in the parallel country-centric field of destination image research. It reviews previous studies that include tourism and place and country branding.

**§ 2.4 Crossovers in product country image and destination image** - Discusses the small body of existing literature that has already attempted to merge the fields of PCI and DI. It also discusses how this thesis builds on and furthers this work.

### *Measurement theories and methods*

This section of the chapter gives a detailed review of the measures used in this thesis and the theoretical underpinnings that define their operation:

**§ 2.5 The attitude-theory of consumer behaviour** - examines the method and theory that dominates contemporary COO and DI studies.

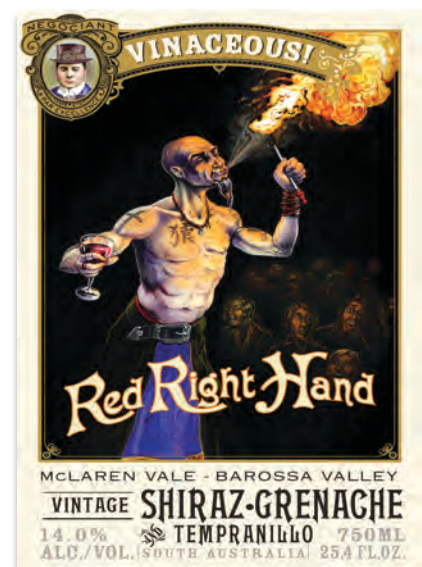
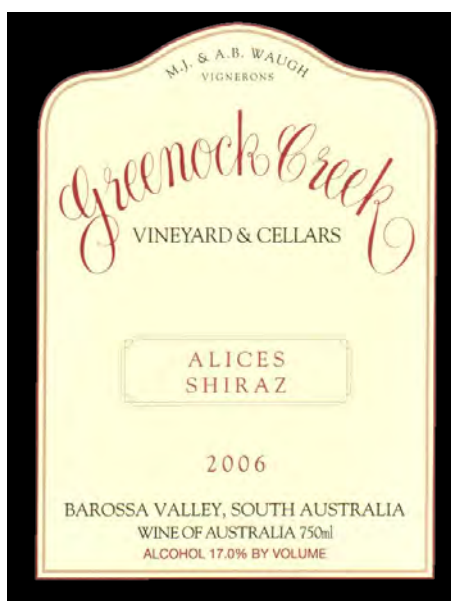
**§ 2.6 The brand salience theory of consumer behaviour** - details an alternative method and model for understanding consumer decision-making, operationalized using pick-any based surveys and an associative network theory (ANT) framework.

**§ 2.7 The economic theory of consumer behaviour** - considers the use of discrete choice experiments and random utility theory (RUT) to evaluate choice-based outcomes.

## 2.1 Country of origin research

In making judgments about products, information is sought, recalled or activated from memory and used to determine which products a consumer *intends* to buy as well as what they *do* buy. Such information can be intrinsic - such as colour, shape, smell, etc., or extrinsic - such as price, or the country from which the product originates, (Maheswaran, 1994a, Rao and Monroe, 1989, Rao and Monroe, 1988). Consumers often rely on extrinsic cues as a substitute when intrinsic information about a product is low, missing or too difficult to ascertain in a purchase situation. (Philippe and Ngobo, 1999, Maheswaran et al., 1996). Alternatively, consumers may append their existing intrinsic knowledge about a product with extrinsic cues to improve their perception of product quality or mitigate the perceived risk inherent in a purchase (Han, 1989, Knight and Calantone, 2000). For example, a wine consumer may use their knowledge of red wine, having consumed from the category before, with the fact that Shiraz from the Barossa region in South Australia are known for being full bodied with rich chocolate and spice notes, though they may not have purchased the particular selection under consideration before.

Figure 2.1 – Australian wine labels with country-of-origin information



Country of origin (COO) information is a well-known extrinsic cue that has an observed, measureable effect on product evaluation and purchase intention (Han, 1989). The COO effect broadly refers to the perceptual and behavioural bias consumers exhibit toward goods and services because of the country from which they originate. Consumers use COO information to either infer or summarise beliefs about products, or a product's attributes from different countries (Roth and Romeo, 1992, Bilkey and Nes, 1982, Verlegh and Steenkamp, 1999, Bloemer et al., 2009). Put simply, "people are likely to evoke differing impressions of cars made in Germany and Russia; of men's suits made in Italy and Spain; or of VCRs made in Japan and Malaysia" (Knight and Calantone, 2000, p127). COO studies have looked at the influence of this effect in a multitude of product categories across many countries over the past four decades.

COO research evolved out of early literature on national stereotypes and perceptions of nations (Roth and Diamantopoulos, 2009). However, COO did not become of significant interest to marketing scholars until the 1960s. Dichter (1962) argued that the successful marketing strategist of the future would have to pay greater attention to the fundamental differences and the equally evident similarities among consumers in different parts of the world. His work sought to expand the perceptual gambit of American marketing managers so as "to think not of a United States customer, nor even of a Western European or Atlantic community customer, but of a world customer" (Dichter, 1962, p113).

The relevance of COO studies has only increased over the past decades as the global marketplace becomes ever more interconnected, as new technologies increase production capacity as well as reducing manufacturing turnaround times, and rapidly growing economies gain access to, and a taste for, imported products. With the volume of international trade growing, consumers now have a wider variety of international goods and services to choose from than ever before (Insch and McBride 2002; Insch and Florek, 2009).

### 2.1.1 COO criticisms and opportunities

Despite the maturity of the of the field, a number of seminal COO texts/studies highlight a general imprecision in COO operationalization and a lack of well-defined measurement constructs as areas of recurrent concern. The field is criticised for being misleading and too narrowly focused, especially for a lack of product specific considerations and a reliance on a simplistic, homogenous understanding of country images. This has created difficulties in generalising results of COO studies. As a result, it is suggested many studies have failed to deliver clear managerial and strategic outcomes, despite evidence, both anecdotal and empirical, that origin effects are a determinant factor in consumer product evaluations.

These issues seemingly stem from a lack of internal and external validity – often as a result of unrealistic survey/experimental environments lacking contextual relevance and a continued reliance on single cue studies. The majority studies have traditionally been disproportionately concentrated in Western Europe and the USA. The lack of cross-cultural understanding of COO effects severely limiting the generalizability of results to a truly international context, particularly given a rapidly globalizing world trade system and the rise of the emerging market economies of Asia and South America. As a result of these, not inconsequential, criticisms, much of the work in the last 20 years appears to have been centred on what 'Country-of - Origin' was *not*, rather than explicitly what it was – an issue that, arguably, has not been resolved to this day.

This has created a great deal more opportunity for research in the field and helped to diversify and specialize subgenres. It called for the reconsideration of the COO research at a fundamental level so that the 'made in' country construct could be expanded to include consideration of where products were designed, or where a particular product might be most associated with in consumers' minds (Papadopoulos et al. 1993a & 1993b). This increased the shift away from simplistic

identifications with a 'made in' country by adding further contextual consideration to the perception of products as well as solidifying the need to consider explicitly the product-centric nature of the 'product-country' evaluation. The work also asked researchers to consider how COO effects might differ across nationalities again broadening the contextual consideration of COO effects, and it highlighted the fact that classical products and services (i.e. cameras, cars and food products) had received much of the attention from researchers while other product types such as whole countries, companies, etc. had been neglected (Askegaard and Ger 1998; Papadopoulos 1993).

The COO literature development, particularly in more recent times, is defined by a diverse increase in studies across a continually expanding landscape. Particular deference is now paid to testing the PCI construct (Askegaard and Ger 1998; Papadopoulos 1993) or, at least, to a more product-country oriented concept of the process of determining origin effects and the cross-cultural nature of COO. Further extension of the multifaceted nature of COO as a concept and COI or PCI as constructs also led to more complex constructs and measurement instruments as well as modelling frameworks which include greater contextual considerations on product evaluations.

The main theoretical advances that are noted in the literature occurred during the formative years of the field's development up until the mid-1990s. There have not been any major theoretical advances *noted* in the literature since the Papadopoulos work of 1993. This is not to suggest there have not been advances in the field, just that the major movements in the literature from this time relate primarily to addressing the concerns raised about the highlighted deficiencies in the field. The majority of studies from this time have either looked at diversifying or reconceptualising COO studies and constructs, or focused on increasingly complex, adaptive models which account for the diverse range of effects and variables

suggested to impact on COO evaluations (see Diamantopoulos and Roth 2009; Knight and Calantone 2000; Eliot et al. 2010).

In an overarching sense what can be clearly established is that COO studies have shifted from the measurement of product evaluations and attitudinal preferences based on the simple notion of nation of origin, to a far more complex consideration of the image of the countries from which the products come and how this interacts with product attributes (Roth and Diamantopoulos, 2009). This shift has allowed researchers to move away from simply determining whether consumers show a preference for a country's products and brands and to consider *why* this is the case (Roth and Diamantopoulos, 2009).

### **2.1.2 The need for further COO research**

Despite the acknowledged importance of the COO effect, literature to date has not reached a consensus on how to best operationalize and conceptualize the various constructs that seek to measure the phenomenon (Laroche et al., 2005). Roth and Diamantopoulos (2009, p726) say this leaves researchers with "little guidance on how to best operationalize the construct in empirical efforts". Other authors say COO findings remain difficult to generalize and they have not had the managerial impact that might be expected of such an intensely researched domain (Dinnie 2004; Askegaard and Ger 1998; Roth and Diamantopoulos 2009).

The vast majority of the work in COO has been conducted from a functionalist attitude theory perspective (Diamantopoulos 2009; Melaware 2011) and this position has to this day dominated the way these studies have been conceptualized and methodologically executed. This, from the perspective of a holistic research agenda, is a serious gap and flaw in the research that has to be addressed if the issues that have been alluded to by researchers for the past three decades are to be adequately addressed (Bilkey and Nes 1982; Papadopoulos et al. 1993; Askegaard and Ger 1998; Diamantopoulos et al. 2009; Osmer and Cauvisgil 1991; Insch and McBride 2002).



### 2.1.3 Operationalizing country of origin

Within the country of origin literature there are a number of constructs that are used to operationalize the effect of country perceptions on product evaluations. While COO is broadly used to describe the incorporation of origin information as part of a model or framework, there are three different constructs that have been used to operationalize this concept: (1) the images of products from a country – product images; (2) general country images – country image (CI); and (3) the images of countries and their products – product-country image (PCI). Each of these conceptualisations has a different focal object, and this may be the cause of some of the different results and interpretations of COO effects demonstrated in the literature (Diamantopoulos et al. 2009). **Figure 2.2** gives a graphical interpretation of these different conceptualisations.

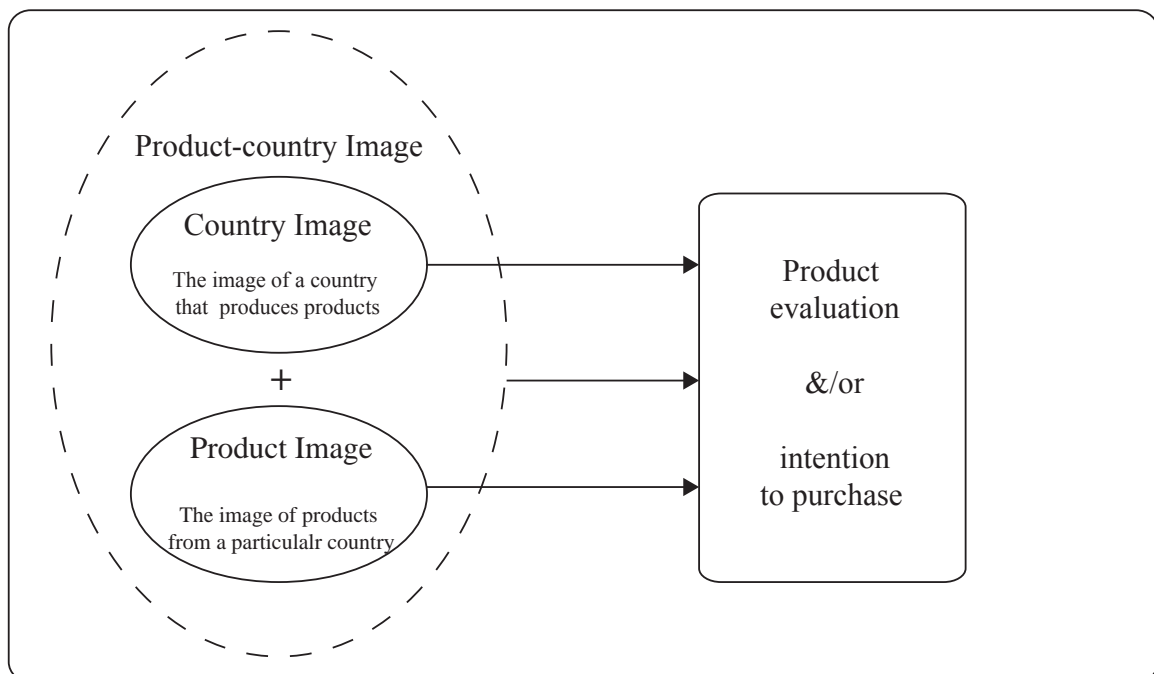
The first group of conceptualizations are the most narrowly focused as it is exclusively defined by the images of the products of a country. Such a specific definition leaves little room for multilevel understanding of origin influences of product perceptions. It really looks at the stereotypical perceptions respondents hold about particular products from a country – i.e. cameras from Japan are high-tech because cameras from Japan are known to be high-tech, not because of factors such as Japan's overall level technological advancement (Nagashima 1970 & 1977).

The second group of conceptualizations suggests that country image is a generic construct defined by generalized images such as “the total of all descriptive, inferential and informational beliefs one has about a particular country” (Martin Eroglu 1993, p193) or “the sum of beliefs and impressions people hold about places” (Kotler 1993, p141). Such conceptualizations refer to cognitive beliefs about a particular country that are derived from representative products from a country as well as the level of technological advancement, the relationships between countries and historical events, cultural similarity/difference, and economic and political

development (Bannister and Saunders, 1978; Desborde, 1990) - the cumulative perception of a country and its products without a specific or clear delineation between country and product components.

The final group of categorizations, and the one which this thesis conceptually embraces, considers that (1) country image and product image are distinct but interrelated concepts, and (2) country images affect the images of products from that country (Diamantopoulos et al. 2009). This categorization of COO effects considers the image of countries and their role as origins of products as well as the evaluation of products they produce. For example, Knight and Calantone (2000, p127) define the construct as “consumer's general perceptions about the quality of products made in a particular country and the nature of people from that country”. And Jaffee and Nebenzahl suggest (2003, emphasis added) “Brand and country images are similarly defined as the mental pictures of brands *and* countries, *respectively*.”

**Figure 2.2** – Country-of-origin conceptualisations



In all three cases researchers have considered the way that cognitive beliefs about a country and/or its products which define the image object are generated by

consumers. It is necessary to consider how researchers consider COO effects are processed as an information cue. To this end, arguments will be presented later in the chapter and in the thesis which suggest that alternative measurement techniques – each with different underpinning theoretical drivers - may help to compensate for this apparent deficiency in the research to date.

## 2.2 Information processing in COO

It has been established in the COO literature that, from an attitude-generating perspective, there are two processing modes that largely account for the effects that country image and product beliefs interact – the halo and processing modes. This was notably first *formalised* in the COO field by Han (1989), though the implication of halo processing dates back to Schooler's (1965) work. In Han's seminal work, which is well cited throughout the literature, the information-processing theories are rooted in social psychology.

### 2.2.1 Halo and summary evaluations

The halo effect was first reported by Thorndike (1927, p 25) as “the extension of an overall impression of a person (or one particular outstanding trait) to influence the total judgment of that person”. Applied to marketing, the literature suggests this effect represents the effect generated toward individual products or the specific product attributes of a product, brand, or country, which influences consumers' propensity to purchase those products (Bloemer et al., 2009, Han, 1989).

Applied to consumer behaviour, the halo effect is considered as the tendency to rely on global judgments rather than carefully discriminating among conceptually distinct and potentially independent attributes when making purchase decisions (Leuthesser et al., 1995). It is suggested that consumers are either incapable (i.e. it is unavailable) or unmotivated to elaborate or elicit product information and that, “under these circumstances, they are likely to make use of product or brand images” (Poiesz and Verhallen, 1989, p. 457). In COO studies the halo effect is used to account for consumers' general perceptions of a country influencing their perceptions of specific products made in that country (Han, 1990; Johansson, 1985).

Consumers will rely on the origin of the product to infer beliefs about the product's

properties and/or quality. This is particularly pronounced where information about the product is missing or unavailable. In contrast to the halo effect, some authors argue that while the halo effect may operate under some circumstances (i.e. when product knowledge is low), as consumers become more informed they utilise the COO cue to form a summary construct (Han, 1989, Knight and Calantone, 2000, Martin and Eroglu, 1993). This means as buyers become more knowledgeable about specific countries, or specific products and categories, the COO cue may help consumers summarize their beliefs and extant knowledge, forming attitudes and driving purchase decisions (Martin and Eroglu, 1993).

Miller (1956) determined that because short-term memory has limited capacity, people tend to chunk or summarize information in a way that makes it easier to store and retrieve in long-term memory. This seminal work was reviewed by Baddeley (1994) and confirmed the continued importance of it to cognitive psychology some 40 years after it was first published. When applied to consumer behaviour, this allows pieces of extrinsic product information, such as brand, price or COO, to function as a summary cue into which consumers consolidate previously acquired product knowledge (Knight and Calantone, 2000). Consumers augment their existing product knowledge with extra information that may enhance or simplify their purchase decision. Clearly, product knowledge has considerable implications for the study of COO effects.

In summation, (a) the halo and summary effects are of significance to the understanding of the COO effect; (b) the halo effect operates in low knowledge situations; and (c) the summary effect operates in higher knowledge situations (Johansson et al., 1985, Knight and Calantone, 2000, Han, 1989). This suggests that one of the key moderating factors of the country of origin effect is consumer product knowledge - consumers have a level of knowledge about products that they intend to purchase. This product knowledge may influence how cognitive cues are sought, recalled and used in making judgments about products (Rao and Monroe, 1989, Rao

and Monroe, 1988, Maheswaran, 1994). When consumers' product knowledge is low, they have few cues from which to infer judgments about a product. In this case, consumers may rely more on extrinsic or affective cues, in the absence of experiential information or other intrinsic cues (Leclerc, 1994; Srinivisan, 2004).

Hence, consumers may rely heavily on the specific images or informational extractions that summarize their beliefs (the summary effect) or alternatively on the overall impression or emotional response (the halo effect) toward a firm, store, brand or country to form conclusions about what to buy (Stern, 2001). This means a purchase decision is often based less on an entity's physical attributes or functional benefits and more on its symbolic inferences, associations or abstractions (Futrell et al., 1976).

The previous studies look primarily at how consumers' product knowledge influences the use of extrinsic information that includes price and country of origin.. Some COO studies have also found there to be an inverse linear relationship between product knowledge and the use of extrinsic cues (Lee and Lee, 2009, Maheswaran, 1994). That is, the more product knowledge a consumer has the less they will rely on COO information to determine quality or define their purchase decision (Lee, 2009; Cordell, 1992; Maheswaran, 1994). However, in contradiction, other COO studies have found that prior knowledge is the catalyst for consumers to elicit more product information to make a product purchase (Lin, 2006; Brucks, 1985). As is the case with the summary processing position, a consumer with existing product knowledge may seek more information to complement their existing information when considering a purchase.

As both of these positions - which Han initially considered mutually exclusive and which Knight and Calanatone later suggest form parts of an adaptive and flexible model - are reliant on cognitive processing, it is important to give some consideration the role that cognition and affect play in COO studies.

### **2.2.2 The role of cognition and affect in COO evaluations**

Past studies of COO suggest its impact on decision making is the result of both cognitive and/or affective information processing (Roth and Diamantopoulos, 2009) Askegaard and Ger 1998; Verlegh 2001). Both positions are consistent with the two predominant camps that operate in the area of attitude theory, namely functional and constructive attitude formation which are addressed in following sections.

However, having previously discussed the halo and summary processing modes, the following discussion concerns the study of cognitive and affective components of COO information.

#### *Cognitive processing*

COO information is often used as part of the conscious evaluation of a product, where the origin acts as an indicator of quality or associated with a particular product attribute . For example, in buying a new car a consumer might consider Japanese cars to be fuel efficient and lightweight, while German cars are seen as heavy and mechanically superior to cars from other countries. These considerations impact on the consumer's final purchase choice in consideration with other factors, such as price.

Cordell (1992) found that there was increased reliance on country of origin cues when the product carried an unfamiliar brand name. Specifically, respondents in their survey indicated a preference for a 'Timex' brand watch made in Germany over one made in Pakistan. This effect was significantly increased when respondents were presented with the choice of an unbranded watch made in Germany and one made in Pakistan. With a reduction in the available product knowledge (Timex), there was an observed increase in the reliance on the country of origin (Cordell, 1992).

By contrast, when consumers' knowledge is high they have more experiential information and intrinsic cues, such as taste, smell or technical information by which to inform their product choices. They may rely less on extrinsic or affective information (Johansson et al., 1985, Maheswaran, 1994a). Maheswaran (1994b) found that when high knowledge subjects (experts) were given strong intrinsic attribute information, such as impressive technical specifications about a personal computer portraying it as clearly superior to a competing choice, they did not utilise the country of origin information that was also provided.

In fact, the high knowledge subjects were not influenced by the country the computer was manufactured in, despite the fact that the country of origin information had both a favourable condition (made in Japan) and a less favourable position (made in Taiwan) (Maheswaran, 1994). The reverse case was found for low-knowledge subjects (novices). Those who had less knowledge about the technical specifications of the computers relied more heavily on the country they were made in, rating the Japanese-made computer higher than Taiwanese product, thus supporting the Cordell (1992) findings.

### *Affective processing*

In other instances, COO information may alter product perceptions and judgments about which the individual "has information sufficient to allow for an unbiased judgment" (Liu and Johnson, 2005, p. 94), meaning that a gestalt evaluation of goods that does not necessarily follow a linear, cognitive information processing function. Liu et al.. (2005) found that images and evaluations can be inferred spontaneously by simply introducing COO information into the environment, and that this may influence product judgments even if consumers do not intend to base their judgments on COO (Liu and Johnson, 2005). Other studies have found that this effect held even in the face of actual product sampling. Perceptions of the product's attributes (such as quality, value or hedonic perceptions) as inferred or surmised from COO information, remained irrespective of product sampling (Leclerc, 1994).



In one study the French pronunciation of a brand name increased the perceived hedonism of the products, attitudes toward the brand and attitudes toward the brand name (Leclerc, 1994). Although country of origin information, given in consideration with French branding, did not result in increased hedonic perceptions of the products, the incongruence diminished the effect/perception. The study found that even in the face of actual product sampling, the hedonic perceptions of the products inferred by the product names and assumed COO remained (Leclerc, 1994).

In a practical sense, marketers are keen to capitalise on the COO effect to influence consumer perceptions of their products and brands. Marketers will often try to invoke strong COO images though they may have little or no relation to the true origin of the product. Typically this is done with the use of ambiguous or misleading brand names designed to enhance or distinguish brand and product perceptions using inferred country of origin (Thakor, 1997; Heslop, 1993).

The dichotomous nature of these processing modes is consistent with the predominant schools of thought in the area of attitude theory and measurement which underpin the majority of COO studies. In reality, however, depending on the situation and the product category or the country the product originates from, there are likely to be both cognitive and affective components influencing consumer perceptions and intentions.

It is well known and accepted in, and by the pioneers of, attitude theory research that affect plays a role in the attitude generation towards an object. The degree to which these two elements play a role in COO evaluations and interpretation of effects, to a large extent becomes an issue of two interrelated issues: (a.) how the COO construct is operationalized or conceptualised and (b.) how it is measured. Prior to this, however, it is necessary to first discuss the other important country-centric field of

research that prevails in the international business and marketing literature today -  
tourism.

## 2.3 Destination image

For a considerable period, according to the World Travel and Tourism Council (1995), tourism has been the world's largest service industry and the largest generator of employment. Owing to the globalization of the market economy and proliferation of air travel during the past two decades, many countries' economic development is now dependent on successfully cultivating and maintaining inbound tourism because it boosts foreign exchange income, creates employment opportunities, and triggers overall economic growth (Lee and Chang 2008).

The tourism industry has shown itself to be of continuing value, demonstrating great resilience in recovering from recession, war and natural disaster while growing to overtake world gross national product growth rates (Clancy 1998). Consequently, nations compete to find sources of competitive advantage to grow their national tourism industries (Kotler and Gertner 2002). This has made the area one of interest to academics, private industry and governments seeking to benefit from a better understanding of tourism and tourism management.

Hospitality forms one of the world's largest composite industries, and the sheer volume of international trade that tourism generates has seen tour destination image (DI) research become of considerable interest to those in tourism and marketing academia, as well as to industry and government (Fan, 2006; Beerli, 2004; Mossberg, 2005; Qu, 2010). As stated previously, an understanding of DI's importance is derived from its use in motivating tourist purchase intentions, behaviour and decision-making processes, as well as pre, during and post-tour evaluations of tour destinations. As with COO, researchers have found DI to be a complex area of study with a determined effect on consumer choice and evaluation (Fan, 2006; Beerli, 2004; Mossberg, 2005; Qu, 2010).

Looking holistically at the construct, Chon (1990, p3) surmises the core intent of DI studies as having “a crucial role in an individual’s travel-purchase related decision-making and that the individual traveller’s satisfaction/dissatisfaction with a travel purchase largely depends on a comparison of his expectation about the destination, or a previously held destination image, and their perceived performance of the destination”. To this end it is suggested that consumers’ overall perceptions of a destination may be considered either favourable or unfavourable, and that this is a measurable entity of interest to researchers (Milman, 1995). LaPage & Cormier (1977) suggest information available to tourists before they visit a country or tourist region is usually supplemented by their own mental image of that region, and it is likely that the image more than the factual information produces a tourist’s decision on where to travel.

Potential or inbound tourists may have varying levels of knowledge about a destination, and this knowledge is likely to be low if they have not visited the place before (Um, 1992). Tourists may also have some difficulty in obtaining objective measures on the important destination or vacation site attributes. As a result, the tour destination image takes a holistic role in the evaluative process of tourism products (Tapachai and Waryszak, 2000). Clear and strong parallels can be drawn here between how COO and DI are utilised in product evaluations. For example, European resorts may be perceived as typically patronized by upscale tourists, whereas local national park resorts may be perceived as frequently visited by working-class vacationers, while some skiing resorts are viewed as catering mostly to the young and adventurous (Sirgy and Su 2000).

As a consequence, DI and the identification and measurement of images consumers have for a particular tourist destination, and the impact this has on their perceptions and behaviour, is one of the most prolific research topics covered in the tourism literature (Pike 2002). In the same way COO information may be used to infer product dimensions which influence customer perceptions of quality or utility (Liu

and Johnson, 2005), it appears that DIs are utilised in a similar fashion to determine the characteristics of a tour destination.

According to Echtner and Ritchie (1993), tour destination image can functionally be defined on the basis of three semantic differential dimensions:

- Attribute – Holistic
- Functional – Psychological
- Common – Unique

Despite this broad categorisation, DI research seems to suffer from a *prima facie* lack of consistent agreement on which theory actually defines its operation. This is despite the numerous studies into DI and its measurement, formation and uses, and in contrast to COO literature that has a relatively consistent (though not without its detractors – see Saimee, 2009) or accepted theoretical underpinning with the halo and summary processing mechanisms. This situation has been noted by Echtner and Ritchie (1991 & 1993), Gallarza et al. and Pike in his meta analysis of 142 DI papers from 1973 – 2000 (2002).

Gallarza et al. (2002) in their review of papers found more consensus from authors around the lack of theory than of there being one. “Although such studies have become a staple of the tourism research agenda, invariably they have been atheoretical and lacking in any conceptual framework” (Fakeye and Crompton 1991, p10) “researchers have not been successful in completely conceptualizing and operationalizing destination image” (Echtner and Ritchie 1991, p10); “most tourism image research has been piecemeal without a theoretical basis for support” (Gartner 1993, p209).

It is interesting to note of late, however, that authors - in particular Pike who has published prolifically in the area - have begun to focus on Associative Memory

Network theories and brand salience metrics in their works (Pike, 2010, Pike, 2009, Bianchi and Pike, 2010). This shift in the literature will be of some considerable importance to the theoretical assumptions and espousals made in this dissertation.

### **2.3.1 Destination, place and country branding**

As DIs are latent constructs, they have to be operationalized if they are to be of strategic use to governments or industries. Branding, as with other product offerings, has become the strategic mechanism utilized in operationalizing DI for the purposes of tour and place marketing (Gnoth, 2002; Kotler, 2002; Fan, 2006; Qu, et al. 2011). As Pike et al. (2010) point out, unlike country of origin and branding research which can be traced back decades, the first articles relating to tourism destination branding did not appear in the tourism literature until 1998, meaning the study of tourism, place and country brands as they are often interchanged in the literature is still in its infancy.

Ritchie and Ritchie (1998, p108) define a destination brand as “a name, symbol, logo, word, mark or other graphic that both identifies and differentiates the destination; furthermore, it conveys the promise of a memorable travel experience that is uniquely associated with the destination; it also serves to consolidate and reinforce the recollection of pleasurable memories of the destination experience”. If we evaluate this statement in terms of a COO perspective, as previously considered, it is again possible to see the striking similarities in the operationalization of the DI and COO concepts. The aforementioned definition encapsulates both a halo and summary aspect in the processing of the tourism destination brand – it both infers and surmises through tangential image and stored information components, components that indicate how the tourist will process and evaluate a tour experience.

Countries can and do use their tourism 'brand' to elicit inbound tourism and investment as well as exports because “export promotion authorities in many countries recognise that their country’s reputation constitutes an important asset to

be managed” (Kotler and Gertner, 2002b, 253). A carefully implemented and maintained tour destination brand consistently reinforces the image that communicates the country’s benefits, strengths and marketability (Gnoth, 2002a, Kotler and Gertner, 2002b, Fan, 2006, Qu et al., 2010). Significant resources and efforts are put into destination/country brand programmes as many countries launch international advertising campaigns to raise awareness and to create an image of the country as a tourist destination (Mossberg and Kleppe 2005). An excellent example of this is the “100% Pure New Zealand” campaign launched by Tourism New Zealand in 1999. The campaign showcases the country’s diverse landscapes, people, culture and tourism activities (Morgan et al.. 2002). Also the branding clearly incorporates reference to one of New Zealand’s most well known exports, that of premium “100% Pure Wool” products. Which further attests to the interconnected nature of country image/brand and a country’s product offerings.

Tourists often have their DI informed by the tour destination brand a country creates and strategically manages (Foley and Fahy 2004; Gnoth 2002; Kotler and Gertner 2002; Morgan, Pritchard, and Piggott 2002). Clearly countries already utilise tour destination or country branding to actively promote themselves to the world in order to generate inbound tourism (Fan 2006; Gnoth 2002; Kotler and Gertner 2002) which demonstrates the belief governments have in its effect in, and the importance of, generating a quality destination image (Mossberg and Kleppe, 2005). It is the tourism destination brand that countries (private and public entities) use to attempt to strategically manage and promote their country’s DI.

### **2.3.2 Country branding - already in practice but lacking theory**

Fetscherin (2010) notes that, as discussed, while country branding is an interesting and complex phenomenon with a considerable amount of real-world activity, the research field remains in its infancy and lacks any substantive theoretical underpinning. As it would seem with the higher order DI studies, this lack of theoretical base makes this study of considerable importance in contributing a

proposed and tested theory. It is to be noted the area is of growing interest to practitioners and academics alike, and Fetscherin (2010) and Pike (2010 & 2009) are beginning to make incremental inroads into this theoretical void. The advertisement depicted in **Figure 2.3**, promoting one of Australia's Iconic products *Fosters Gold* beer, is taken from a campaign that ran in the United Kingdom. Here the iconic vistas of Sydney Harbour invoke Australia's country/brand imagery to promote the beer.

**Figure 2.3** – Fosters Gold Advertisement from the UK



Destination Image (DI) is a latent construct that has been shown in numerous studies to have an influence on consumer behaviour (Pike, 2010, Pike, 2002). DIs are the sum of emotional qualities like experiences, beliefs, ideas, recollections and impressions that a person has of a destination (Crompton 1979). Such conceptualizations - that a tour destination image is a latent country-centric image concept – suggest a conceptual similarity to Country of Origin Image.



The difference, however, is that the majority of DI-related studies have focused on destination selection, holiday satisfaction/repeat purchase and souvenir purchasing (Fan, 2006; Beerli, 2004; Mossberg, 2005; Qu, 2010), rather than on export product evaluation and post-tour consumption, though interest in this area continues to grow (Heslop, 2005). The DI concept specifically relates to tourists' perceptions, understandings and expectations of a country or place as a tour destination, whereas country of origin images specifically relate to products manufactured in a country and the conditions prevailing in that country that lead to the manufacture of products. As Lee and Lockshin (2010) point out, no DI studies have, until their own (Lee and Lockshin, 2011), attempted to relate product beliefs to images specifically from a tourism perspective. This is an important gap in the literature that demands further attention.

In summary, the preceding sections have reviewed the literature in the fields of country of origin and tourism destination research. They have considered the development of each body of literature and the core tenets that define these disparate but related areas of inquiry. Each literature considers country image to be an informational schema that consumers' use to derive value and meaning in consumption situations, be it for the purchase of a car or for the purchase of a holiday package. The small amount of work that has looked at the crossover between these two streams was also considered. These works demonstrate that both conceptually and empirically these fields are capable of being integrated. Why this is of value to numerous stakeholders will be discussed in later chapters.

Despite the volume of research into DI and tourist purchase behaviours, primarily concerning souvenirs and tour products (i.e. holiday packages, amusement parks and sightseeing activities), only a limited number of studies have explored empirically how tourists' perceptions of a country as a travel destination may influence their beliefs about the destination's export products (Lee and Lockshin, 2011, Elliot et al., 2010).

## **2.4 Crossovers in COO & DI research**

Some academics see that tourism and DI has a function inextricably linked to the facilitation of inbound foreign investment, immigration, international business development and education, and that DI constitutes an important component of a place or country brand (Kotler and Gertner 2002). This dissertation aims to have some impact on both the aforementioned areas of research. Despite the paucity of empirical inquiry into the area of DI's influence on export perceptions and purchase behaviours (and particularly to a link between these two i.e perception and behaviour), some interesting theoretical work has been produced which conceptually proposes a way to address some of these issues.

In his theoretical paper, Gnoth (2002) posits that an effective model for using DI to leverage a country's domestic product sales to tourists, boosting exports in the process, is by making every experience in the country reflects its place branding (Gnoth, 2002). He proposes a model to guide marketers in leveraging a country's image as a tour destination to increase export sales through the strategic implementation of tour destination branding. He suggests this can be achieved via strategically and consistently branding essential tourism services that facilitate the experience of the destination (i.e. throughout the supply chain, tour operators, hire companies). In turn export industries – such as wine and seafood in Australia and New Zealand - should be able to leverage export sales off the consolidated tour destination image resulting from the country's managed branding (Gnoth, 2002).

Irrespective of the apparent conceptual similarities, researchers have shown little interest in learning from the progressions and/or alternative measurement approaches used in each other's respective fields (Papadopoulos, 2004). This is a curious position, particularly in regard to PCI studies, which have a longer history and are held to have stronger theoretical grounding as arguably the last substantial

theoretical contribution to the literature specifically sought to widen the conceptualisation of PCI studies. Papadopoulos et al. (1993) undertook a wide ranging review of PCI studies highlighting a number of issues which needed to be addressed if studies in the area were not to be considered as 'being misleading and too narrow'. They called on researchers to consider whole countries as consumption items. Such a position virtually demands the integration of tourism and PCI studies to provide a more holistic approach to the way country images are used in consumer product evaluations. Other authors have subsequently also called for an integration of these studies (Kotler and Gertner, 2002) and Gnoth (2002) in particular postulated a theoretical framework by which this might be achieved.

Despite this, very few empirical works have been published which test the proposition that perceptions and images of a country as a tour destination may also have an impact on the perceptions of products from that country (Papadopoulos and Heslop, 1986, Josiassen and Assaf, 2013, Lee and Lockshin, 2011, Nadeau et al., 2008). Nevertheless, it is this small body of work that has contributed to the synthesis of this paper by providing the inspiration for, and conceptual basis on which to conduct, this research. What follows is a review of the literature that currently exists in this area.

The first work looking at the interaction between tourism and country of origin is a conference paper by Papadopoulos and Heslop (1986) entitled "Travel as a Correlate of Product and Country Images". This was the pioneer paper in this area as it is the first to attempt to correlate travel to a country with perceptions of the country in terms of its people and products (that is, PCI) by surveying a consumer cohort. The authors hypothesised that consumers who had travelled to a country would have different PCIs about a country than those who had not visited. Many of their findings were, by their own suggestion, somewhat inconclusive. However, in an overall sense, they did find that visiting a country affects consumers' country of origin evaluations by "making him or her more aware of the true conditions that

prevail there" (1986, p199). Despite this initial investigation, this area of interest was not specifically picked up again in earnest for almost 20 years.

In Nadeau et al.'s paper (2008), in conjunction with one of the initial work's authors (L. Heslop), the possibility of integrating the fields of country of origin is re-examined in greater depth. Echoing sentiment offered previously in this chapter the authors (2008, p85) suggest " Product Country Image (PCI) and Tourism Destination image (TDI) are two fields of research that have evolved separately through distinct literature and research communities, yet developments in the former can contribute significantly to the latter." In this paper they acknowledge and identify the areas where country of origin and destination image cross over.

In particular they identify the 'touch points' where naturally and necessarily the fields already overlap, such as place-branding, the promotion of major events and the use of tourism as a control variable for COO research – something utilised in this thesis. They further present an attitude-theory based model integrating the two fields/image constructs, finding that incorporating PCI helps predict tourist intentions.

Closely following the work of Nadeau et al. (2008), Elliot, Papadopoulos and Kim (2010) also advocate for the move to the more inclusive country image conceptualisation that integrates destination and COO studies, again from an attitude theory position. However, they specifically move the terminology toward a more place-based approach, something identified in Nadeau et al.'s work. In "An Integrative Model Of Place Image: Exploring The Relationships Between Destination, Product, and Country Images" the authors again present a model which directly includes measures of product image, country image (from a country of origin perspective) and destination image. In this research, consideration is give to the dual outcomes of destination and product receptivity. They consider the impact that each

of destination and product images, measured as beliefs, will have on the respective receptivity constructs of the other, ie. across domains.

They find a crossover effect between product beliefs and destination receptivity – ‘I like the country’s products and as a result I have a more favourable view of the country as a destination’. But they did not find support for the reverse crossover – ‘I like the country as a destination and as a result I have a more favourable view of its products’. While the first finding supports the work of Nadeau et al.. (2008), an issue not specifically under consideration in this thesis, the second, for which they do not find evidentiary support, is the main substantive area of inquiry in this dissertation.

In contrast, while investigating the direct link between tourism and product evaluations, Lee and Lockshin (2011) posit there does exist a direct positive relationship between the Australian DI and its wine but in the absence of a specific COO or PCI construct. They find that consumers may unconsciously form an image of a country’s products – of which a component is related to the country of origin perceptions of that country (i.e. production capacity) – as a result of the previously mentioned ‘halo effect’. Their results suggest destination image positively influences product evaluations but that this effect is stronger for those respondents who are unfamiliar with Australia – i.e. those who have not been on holiday to Australia. In similar fashion to authors like Han (1989) and Knight and Calantone (2000), they find that a country image influences product preferences indirectly through product beliefs but that this country image was measured through its perception as a tour destination. While this is the first paper to examine this link in this way, the omission of a specific COO or PCI component omits a significant component of the research agenda.

Building on their 2011 work, Lee and Lockshin (2012) further investigate the reverse link between a country’s products and its tourism potential. In a similar finding to Eliot, Papadopoulos and Kim (2010), they find that such a reverse effect can occur,

where respondents seemingly use product beliefs to imbue destination beliefs. However, they add a further finding by the use of a second experiment. Using Chinese tourists to evaluate Australian wine products and their tour destination image of Australia, they find that country familiarity negatively moderates the relationship between product evaluations and destination image. The more (less) familiar a consumer is with a country, the less (more) their product evaluations will influence their destination beliefs. This is largely consistent with the most conclusive of the original Papadopoulos and Heslop (1986) findings.

Finally, Josiassen and Assaf (2013) use a two-study approach to their investigation, the integration of a country of origin measure only appears in the second study, meaning the study is largely a tourism study with a secondary consideration being afforded to the COO aspect. This makes the study fundamentally different to the others previously mentioned. In the Josiassen and Assaf (2013) study the country of origin aspect relates specifically to the choice of airline that tourists consider when planning a holiday. Despite the COO construct not being the main issue under investigation, this study provides an excellent example of the need, importance and seamless integration of COO considerations in tourism studies. This is, however, an artefact of the choice process, not a driver of it.

Having evaluated the existing literature in this area it is possible to make a number of observations. The results and findings of this research, the majority of which appears in top academic journals, is an area of interest for academics and should be an area of interest to practitioners. Unlike in the parent fields of tourism and COO, the findings are in their infancy and the studies too few to generate good generalisations. There is a research need and agenda to address – which is the purpose of this thesis. Plus, the majority of the research that has integrated tourism and COO research has concerned the impact of COO considerations on tourism outcomes, other than Lee and Lockshin (2011) and, partially, Elliot, Papadopoulos and Kim (2010) who found little evidence to support such a link. Finally, as with the

majority of the research in COO and tourism, all these studies have considered this research from an attitude-theory perspective only. This thesis aims to address a number of these issues in contributing to and advancing this field.

In addressing these issues and having reviewed the literature, the following research questions have been generated:

*RQ1: What influence does a country's destination image (DI) have on the image perceptions of products produced in that country, and what is the relative influence of this in comparison to the traditional product country image (PCI)?*

*RQ2: How does consumers' experience of a country through visitation moderate the PCI and DI effects on product proposed in RQ1?*

*RQ3: How does consumers' experience of a country through visitation influence consumers' preference for that country's products?*

Having considered the literature specifically relating to COO and tourism and the crossover of the two, the key considerations of this chapter and this dissertation becomes the theory and measurements that underpin these studies. Understanding and evaluating these will aid researchers in effectively and meaningfully integrating the fields. The following sections consider a number of theoretical positions and their associated measurement techniques that will be used to answer the above research questions. It establishes the different approaches that researchers in the fields of social psychology, marketing and economics take to operationalizing and understanding consumer behaviour.

## 2.5 The attitude-theory of consumer behaviour

*“Marketing researchers and managers alike rely heavily on attitudinal surveys to estimate people’s preferential responses to a range of marketing objects, such as products, brands and advertisements” (Argyriou and Melewar, 2011, p431).*

This is an unequivocal statement for research in marketing in general and within the subgenres of country of origin and tourism research. As a result it is appropriate to look at the seminal principles and schools of thought that define attitude theory and measurement. It will further be of interest to consider alternative approaches to conceptualising and measuring preference elicitation and choice proxies to serve as a counterpoint to this attitude-dominant position within the marketing literature.

In short, the traditional model of consumer behaviour, is predicated on the belief that the intention to perform an action or behaviour – i.e. purchase a product - can be accurately predicted by measuring attitudes toward the action or behaviour (Fishbein, 1967, Calder, 1975). Also, it is believed that understanding these attitudes and, importantly, how to change them through the use of marketing communications, such as advertising, is of strategic use to managers and businesses. The attitude model of consumer behaviour generally posits that product information and marketing communications are processed at high levels of attention and in a largely rational, cognitive fashion.

While there has been broad use of attitude theory as an explanatory position for much of the work done in academic and commercial marketing research, particularly in the past few decades, the conceptualisation of attitude - what it is, how it is formed and how it does (or does not) influence behaviour – has been an area of some debate. This thesis, however, is not concerned with attitude-theory development and won’t



delve deeper into the argument. Rather, it is the methodological implications arising from these disparate views on attitude formation that are of greatest interest.

### **2.5.1 Measuring attitudes**

One of the main purposes of market research is to measure, quantify and generalise data so that it can be used in a deterministic fashion to address an issue that exists within a market (McFadden, 1980). Reiterating that in marketing at large, and specifically in country of origin and tourism research, the *vast* majority of this research is conducted using attitude-based measures (Roth and Diamantopoulos, 2009, Dolnicar and Grün, 2012) under the assumption that knowing consumers' attitudes toward a product will help marketers understand how to best approach or solve the problem.

### **2.5.2 Measuring image constructs with attitude items**

It is common across numerous disciplines to investigate the structure and effect of unobservable (latent) constructs like extraversion, intelligence or image through the analysis of between-subject-differences data by statistically relating covariation between observed variables to latent variables and constructs. Typically this is done by collecting data using Likert-scale surveys, where forced responses are anchored on statements like 'strongly agree' and 'strongly disagree', with a varying number of scaling points in between.

The data generated from these scales is analysed using confirmatory factor analysis (CFA) and structural equation modelling (SEM), where data is fitted to theorized measurement and structural models that are assessed for fit and intercorrelation. It is important to note that although the fit of the data to the latent variable model might not prove the existence of causality between operationalised latent variables, the model can formulate this as a hypothesis and, as a result, the fit of such models can be offered as evidence supporting the hypothesis (Borsboom, Mellenbergh, & van Heerden, 2003). The data generated for this type of analysis is from forced-response

questions, so respondents must give some rating on the given scale. Structural equation models will not run correctly (or at all) with missing data and this artefact of the process forms one of the key methodological issues under consideration in this thesis.

When studies have a long history of using established scales a researcher may select from a wide range of predetermined scales, each with minor variations from the other but usually well tested and validated with empirical replication. In this case, a researcher can reference previous works that have used various scale compositions to measure latent variables and be relatively confident that the scales are operationalizing correctly the constructs determined in their models. However, when scales and constructs have not been robustly validated by prior research or scholarly work, those scale items and constructs should be validated by the researcher as a proof that they have correctly attributed the correct indicator items to their respective latent constructs.

As this thesis covers an area that, of its own, has only a scant history of empirical testing, such a procedure has to be implemented here. While, individually, tourism and country of origin research have rich histories of prior research with well-established scales for latent constructs (as mentioned previously), these have not been rigorously tested in the same model. It is appropriate to determine that the constructs under investigation have both convergent and discriminant validity when run in the same model. As two-country image-driven constructs will be being assessed for their impact on product perceptions, it is necessary to establish that they are different, discrete constructs.

### **2.5.3 Considering alternatives to attitude-based measures**

Notwithstanding the large and influential body of work done in attitude and attitude measurement in the marketing and psychology literature, a significant body of literature also exists that questions the validity and accuracy of attitude/stated

perceptual-based measures in predicting behaviour (Wright and Kljyn, 1998). One of the seminal works critiquing the antecedent relationship between attitude and behaviour is La Piere's exploration of racial discrimination conducted in the early 1930s (La Piere 1934). The conclusion that he drew from this was that, despite the fact that attitudes could be measured quantitatively, they were on the whole poorly correlated with actual observed behaviour.

This research was largely ignored until the 1960s when the validity and usefulness of attitudes captured through survey instruments became more contentious. Wicker (Wicker, 1969) looked at 47 studies relating to the correlation between attitude and behaviour across a range of topics. He found that overall there existed a relatively low correlation between measured attitudes and behavioural outcomes: most were close to zero and few were over 0.3 (Wicker, 1969, Wright and Kljyn, 1998). Wicker (p75) posited that there is "little evidence to support the postulated existence of stable, underlying attitudes within the individual that influence both his verbal expression and his actions." Since that review there has been much debate about the attitude-behaviour relationship. Wright (1998) notes that despite support for La Piere and Wicker's observations (Kraus, 1995, Foxall, 1993) there continues to be disquiet about the validity and reliability of objective measures of attitudes as they relate to behaviours (Chandon et al., 2005).

This being the case, it is not beyond the bounds of reasonable suggestion that, particularly given the heavy reliance on this form of measurement in country of origin and tourism research, that research should also look at alternative measures as a method of eliciting preference in comparison to looking at measures of attitude as a proxy for or antecedent of behaviour. As researchers we are behoved to investigate different ways of looking at and understanding different phenomena. "Academic research should compare the reliability of different preference elicitation methods to define a set of best practices for the academic and market research communities" (Carson et al., 1994, p357).

## **2.6 The brand salience model of consumer behaviour**

In contrast to the attitude model, the brand salience model of consumer behaviour suggests that consumer decisions are most frequently made intuitively rather than rationally and most marketing communications, such as advertising, are processed at low levels of attention (Ehrenberg et al., 2001, Sharp, 2010). Brand salience advocates draw on studies in neuroscience (see Heath, 2000) to support their position (Trembath et al., 2011), as well pointing out the contentious nature of the correlation between attitude and behaviour mentioned previously (Wright and Klijn, 1998). Brand salience is succinctly and simply defined as 'the propensity of the brand to be noticed or come to mind in buying situations' (Romaniuk & Sharp 2004 (Romaniuk and Sharp, 2004a)).

From a brand salience perspective, marketing communications work by increasing the brand's 'share of mind' in comparison to its competitors. The idea is to nudge the propensity of consumers to consider the brand for purchase, rather than change people's attitude toward the brand – as is the inference of the attitude-theory model. It is suggested that by increasing the likelihood of consideration will be an antecedent of choice, which will lead to a change in beliefs about a brand through consideration and trial. The behaviour will lead to a change in attitude, rather than the other way around as is the case with the attitude model (Ehrenberg, 1997, Trembath et al., 2011).

Rather than considering the choice process as a static and stable linear process across purchase and consumption situations, as is predominantly the case with the attitude-theory based approach, the process is fluid and context dependant. Thus depending on the situational occasion the elicited responses can change, as the theory is based on the activation of asymmetrical links between informational nodes and the situation may influence the relative level of activation (Nedungadi, 1990;

Ratneswar & Shocker 1991; Holden & Lutz 1992). Interestingly, this conceptualisation of the decision process is remarkably similar to the constructivist perspective of attitude-theory. However, as will be discussed shortly, the data collection process the Saliency/ANT based measurement allows for capturing this fluid goal oriented process, in a way that scales cannot.

Keller's (2003) consumer-based brand equity framework posits that this recall has two dimensions - the ease with which a brand is recalled and the ability for the brand to be recalled across a number of differing situations. It is considered representative of how "often and easily the brand is evoked under various situations and circumstances" (Keller, p76). This indicates that brand saliency's primary focus is on the ease with which a brand can be retrieved from long-term memory across differing purchase occasions. The relative size of the brand's associative network - the number and strength of the associations linked to a brand - in the mind of the consumer will influence the consumer's choice of brand (see Romaniuk, 2003, Romaniuk & Sharp, 2003).

The term saliency has also been used in attitude theory, and it is important to note the difference between the way the two literatures treat this concept. Saliency in the attitude theory sense is considered a moderator between beliefs and intention to act (Fazio & Williams, 1986). This refers to attribute saliency or the capacity of a brand to elicit an attribute. In an ANT-based saliency model the concern is with brand saliency, the propensity of the brand itself to be retrieved from memory in a purchase situation. Specifically this has been defined as "the prominence or level of activation of a brand in memory" (Alba & Chattopadhyay, 1986, p. 363).

### **2.6.1 Human memory and network theory**

It is proposed by a number of authors (Keller, 1993, Romaniuk and Sharp, 2004b) that associative network theory (ANT) of memory (Anderson and Bower, 1973) might better represent the mental structures and processes that underlie image processing

in memory, and that this is a reasonable theory to test the coalescence between the two streams of research. Branding, memory and psychology literature supports this proposition.

Drawing on information processing, memory (Anderson and Bower, 1973) and marketing (Keller, 1993) literature, it is widely accepted that human memory is constructed of a bi-directionally interlinked network of information chunks that are used for cataloguing and storing information. These information chunks, which are referred to as nodes, are created in human memory to reduce cognitive effort (Miller, 1956) when encountering a problem-solving situation (i.e. a purchase scenario). The links established between the nodes are said to represent meaningful associations (Nedungadi, 1990). These models conceptualise that human memory consists of a network of nodes interlinked asymmetrically, where pieces of information, or nodes (e.g. a country name, product experience) are linked to other nodes (e.g. Australia and tourism or Australia and wine). ANT defines memory as having two discrete states; working-memory and long-term memory (Romaniuk, 2006, Nedungadi, 1990).

### **2.6.2 Working memory**

Working memory is the place where information is recalled and processed from long-term memory. Long-term memory is suggested to have virtually unlimited storage capacity - that is all information encountered can be processed into long-term memory. However, the propensity of that information to be recalled is determined by a number of factors (Romaniuk, 2006). Working memory usually facilitates the transit of information from long-term memory for a short period of time and is triggered by an environmental cue or stimuli. The temporal nature of short-term memory has been explored in a number of studies that suggest humans can only process between four and eight pieces of information simultaneously in working memory: it has limited capacity (Miller, 1956, Nedungadi, 1990). Working memory is also the centre that determines actions (i.e. deciding to and actually making a purchase) and unless something is activated in working memory it cannot be acted

on. Unless a brand is recalled in a purchase situation there is little chance it will be selected (Romaniuk and Sharp, 2004b).

### **2.6.3 Long-term memory**

Because short-term memory has limited capacity, people tend to chunk or summarize information in a way that makes it easier to store and retrieve from long-term memory (Miller, 1956). Such informational chunks can consist of a mix of semantic, auditory, visual and affective information. In a consumer setting this may result from product experience and/or marketing communications. It allows pieces of product information, such as brand, price or PCI, to function as a cue into which consumers consolidate previously acquired product knowledge. Consumers augment their existing product knowledge with extra information that may enhance or simplify their purchase decision. Keller (1993, 2003) acknowledges that using ANT allows marketers to understand how brands and brand knowledge are created in memory, and these principles are now beginning to be applied in the area of tourism and place branding (Pike, 2010).

According to Romaniuk and Sharp (2004b), the information encountered during brand or product experiences, if processed as posited by ANT, becomes linked to the image of a brand (anchor concept) in a consumer's memory. Associative theories of memory have been applied in a branding context to explain how a brand is represented as an image in memory (Keller, 1993, Keller, 2001, Krishnan, 1996), describing the brand as a group of elements or concepts (nodes) that are meaningfully associated to a target word or anchor (Krishnan and Shapiro, 1996). Brand associations result from this form of information processing. These associations have a multitude of outcomes, including being components of the consumer's overall brand attitude or performing as heuristics for information processing during product selection and consumption situations (Driesener and Romaniuk, 2006). Moreover, they play an important role in a key memory process: information retrieval.

#### **2.6.4 Spreading activation of retrieval**

Collins and Loftus (1975) explain that when retrieving items from memory a source node is activated by an external or environmental cue. Activating one node can result in a flow of activation that spreads through the links (associations) from that node to all of the nodes connected to it. There are two factors that determine whether the image object (i.e. Australia) is retrieved: whether associations with the object exist in memory at all, and if they do, the strength of the associative links between the item in memory in relation to the source or activation node (the stimuli) and relative to other similar associations (that is, their salience). The more salient the attribute in the mind of the consumer, the more likely it is to activate a network of associations (Driesener and Romaniuk, 2006). This implies there is a threshold for node and consequential network activation, and the threshold is context specific and generally held to be heterogeneous between individuals. In all cases, however, the link and node strength has to be sufficient for activation to occur (Collins and Loftus, 1975) which means those images that are the strongest and most easily accessible will deliver the strongest and most consistent influences on behaviour by activating more nodes in a network.

#### **2.6.5 Composition and functioning of memory networks**

Each node represents a unit of information or a concept. Applied to marketing research, a node may denote a brand name (e.g., Penfolds or John West), a product (e.g., rock lobster or wine), an attribute or benefit (e.g., is known to be of high quality due to breeding conditions/growing region or high in omega 3 fatty acids), descriptive information (e.g., is red or smells sweet), purchase/consumption situations (e.g., can be bought in the supermarket/bottleshop or at a travel agency), or evaluative reactions (e.g., I had a great time) (Alba et al., 1991; Holden and Lutz, 1992). Nodes are built up over time through personal experiences such as using particular brands or products, by visiting different locations and/or through exposure to marketing communications, incidental media exposure (e.g., television



reports about a country or a product which may be tangential and either positive or negative) and/or word-of-mouth (Krishnan, 1996).

The basic premise of the ANT model is that linked concepts in the network can cue each other. An important caveat on this is that the retrieval propensity of one cue or node to another is asymmetrical. As such the strength of concept A when cued with concept B is not necessarily the same in the reverse position. Therefore the capacity of the brand (here the country) to evoke an attribute is not the same as the attributes' ability to evoke the brand (Anderson & Bower, 1979; Trembath, Romaniuk, & Lockshin, 2011). Evidence suggests brands with a greater level of activation in memory will be more easily retrieved from long-term memory and have a greater likelihood of entering working memory, the mental activity centre that determines action. Brand salience is, according to Romaniuk and Sharp (2004), a vital precursor to brand choice.

The asymmetry of these links mean that while one node may be inherently linked to, or activated by, another - for example that the brand/word "Coke" may activate the colour "red" in a person's memory given Coke's strong association with the colour red - the same relationship may not be as strong or evident in reverse. That is "red" will be strongly associated with many other things, for example "Stop Signs" or "Ferraris", and "Coke" may not be activated in a person's memory due to these competing associations with the colour "red". Thus marketers are interested in knowing not only the presence of the node or association in the memory but also the relative prevalence or salience of those nodes and associations.

#### **2.6.6 Encoding, processing and retrieval**

When product-related experiences occur, the information must first pass through short-term memory which is best explained as the system in memory primarily concerned with holding and manipulating limited amounts of information for very short periods of time (Baddeley, 2004, Miller, 1956). As information is held in short

term memory only temporarily, it needs to be encoded into long-term memory to be retained in memory for more than a few seconds (Atkinson and Shiffrin, 1971, Craik and Lockhart, 1972). Once a piece of information is encoded into long-term memory it becomes part of a much larger network of information. This allows pieces of extrinsic product information, such as brand, price or COO, to function as a summary need to define this cue into which consumers consolidate previously acquired product knowledge (Knight and Calantone, 2000). Consumers augment their existing product knowledge with extra information that may enhance or simplify their purchase decision.

The Spreading Activation Theories of Retrieval (Collins and Loftus, 1975) explains that when retrieving items from memory the source node is activated with a cue. Activating a node results in a flow of activation that spreads through the links from that node to all of the nodes that are connected to it. Two factors determine whether the image object (Australia) node is retrieved: whether associations with the object exist in memory, and the relative strength of the associations of the item in memory to the source or activation node (the stimuli), relative to other similar associations.

#### **2.6.7 Free choice pick-any surveys for measuring associative networks**

As has been established, the majority of country of origin and tourism studies use semantic or Likert-type scale survey instruments (see Roth & Diamantopoulos, 2009; Dolnicar & Gruin, 2012), which are largely based in attitude theory (Fishbein & Ajzen, 1975). Using these methodologies, an attempt is made to determine purchase intention and preference from amalgamating the data and using such techniques as structural-equation modelling and multiple regression analysis to posit inferential relationships between the attitudinal measures. These attempt to work as proxies for behaviour on the basis that their stated intentions toward an object or product or their elicited image of a product will determine how they act toward the product – i.e. the better my rating/image of a product, the more likely I am to purchase it. There is a significant premise underlying functional assumption between the two

measures: while attitudes measured with scales are generally held to be stable and consistent over time and context, in the salience model this process is presumed to be fluid and context dependant.

The optimal survey method for measuring associative networks, as derived from the brand salience literature (Driesener and Romaniuk, 2006), is a pick-any type instrument, where respondents are able to freely select attributes which they associate with a brand, rather than being forced to rate one or more brands on a scale as with a Likert type survey. The optimal instrument contains a representative range of attributes/cues that could be used to 'think of' a brand. It should measure how a brand is recalled or noticed relative to a set of competitors rather than for a brand alone. This helps to determine how mentally available a brand is compared to its rivals and to establish what nodes and mental networks are associated with a brand. Much of the focus of this technique is to determine whether a brand is actually thought of rather than seeking to determine how favourably it is judged (Driesener and Romaniuk, 2006). Unless a brand is actually thought of in a purchase situation then it does not matter how favourably someone rates the brand on paper.

As Driesener and Romaniuk (2006, p658) point out, "someone might not choose a brand with the pick-any technique but give that brand a high rating when forced to respond with a rating measure". This is an issue in brand image studies. In this study, the brand is actually a country (Australia). It is noted that pick-any surveys are seldom used in COO studies but they are used to some degree in tourism studies (Trembath et al., 2011). Importantly, they are the instrument of choice for tourism industry practitioners for tracking tourism brand image (Dolnicar and Grün, 2012).

## **2.7 The economic model of consumer behaviour**

For this model it is necessary to consider a different theoretical approach, one more consistent with decision rules than attitude formation, an approach based not in psychological theory but economic theory. Selected for this purpose is the discrete choice analysis with multinomial-logit model estimation (Ben-Akiva & Lerman, 1984; Daniel McFadden, 1984). This type of analysis is grounded in random utility theory, which is consistent with neoclassical economics (Louviere, Hensher, & Swait, 2000; Manski, 1977).

In this thesis, discrete-choice experiments are used to measure how country of origin effects may contribute to Chinese consumers' preferences in the product categories of wine and seafood. There are a number of major differences between this method and the other two previously described. Firstly, this method is product rather than category specific. Instead of measuring generalities about the category as a whole, using attitude-based measures, in a DCE respondents are required to, repeatedly, choose a product from a (mutually exclusive) set of alternatives, trading off each alternative in the set against the others. Inferences are then made about their preferences by analysing their choice behaviour rather than from analysing their attitudes.

### **2.7.1 Conjoint and discrete choice**

Choice-analysis techniques have been used in psychology since the 1960s and found favour in marketing research circles in the early 1970s under the guise of conjoint analysis. Academia and industry alike were drawn to this technique because it could tangibly demonstrate the value consumers placed on different attributes that made up an individual product or service. What is now commonly referred to as traditional conjoint was developed in mathematical psychology, utilizing aggregated data-analysis techniques and attribute ranking or rating systems. The popularity of

conjoint analysis surged in the 1970s and 1980s, with an estimated 400 marketing studies a year employing conjoint analysis in the late '70s and early '80s.

To delineate between those choice-analysis techniques rooted in economic theory, the term conjoint is now largely avoided and instead those techniques are grouped under the terms 'choice modelling' or 'discrete choice experiments' (DCE). There is now a general consensus regarding the categorisation of choice techniques based on their theoretical basis, analysis method and experimental design considerations. Discrete-choice experiments (DCEs) are employed to elicit attribute preferences in different purchase situations and under different conditions. DCEs are frequently used in consumer preference studies of wine (Mueller, Osidacz, Francis, & Lockshin, 2010) and seafood (Roosen, Marette, Blanchemanche, & Verger, 2007) and are known to be very successful in predicting consumers' market behaviour by simulating 'real-life' choice (Louviere et al., 2000).

### **2.7.2 Estimating utility**

Estimating utility values for each of the attribute levels allows researchers to construct demand or preference probability models by summing the individual utility values to determine the overall utility (i.e. probability a product will be selected if it has certain properties). To determine a vector of utility values, alternatives and their attribute levels have to be constructed in a way that forces respondents to trade off between them – the compensatory decision-making principle that is drawn from neoclassical economic theory. For example, when considering a seafood purchase a respondent may prefer to buy Australian grown tiger prawns but the lower price of the Vietnamese Vannamei prawns makes them choose differently. When the price attribute level is manipulated so the Vannamei becomes more expensive and the tiger less, an estimable probability exists that the respondent will choose differently. By statistically generating a certain variation in the different options it is possible to see the degree to which each attribute influences the choice of the respondent.

### 2.7.3 DCE assumptions

Three basic assumptions are made about these choices and trade-offs that underlie discrete-choice analysis as derived from random utility theory: 1.) That the choice is a discrete event, an all-or-nothing measure where the individual either chooses or does not choose a particular alternative; 2.) the attractiveness or utility for an alternative varies across individuals and is therefore random; 3.) the individual will choose the most attractive option available on each choice occasion i.e. maximize utility (Hensher, Rose, & Greene, 2005; Louviere et al., 2000). Based in RUT a decision is considered to be deterministic while the utility (individual differences) is random.

The total utility for any alternative in a DCE is divided into two components: those factors that are observed by the analyst, and all the (unobserved) factors that influence the consumer's choice. This takes the form:

$$U_i = v_i + \varepsilon_i \quad (1)$$

Thus the overall purpose of choice modelling is to derive part-worth utilities (relative attractiveness) for each manipulated attribute level of interest. These are represented in the results as  $\beta$  values, derived from the estimation of the logistic function of  $v$ , meaning  $v_i = \beta_i$ . These values are estimated from the unobserved individual utilities for each alternative  $U_{ij}$  and of the probability that the individual  $i$  will choose the alternative  $j$  (Hensher et al., 2005).

Finally, DCEs have another significant advantage over the other methods in that respondents' willingness to pay (WTP) and price elasticities for items can be estimated by including a price attribute in the experiment. This means that a quantifiable dollar value may be associated with manipulating attribute levels. The inclusion of a cost attribute in DCEs is important as it provides it with a special (economic) quality not typically associated with marketing research techniques. It

allows a researcher to indirectly obtain a respondent's WTP for either a good in its entirety or their relative/part-worth value for individual attributes that are used to compose a set of alternatives, a process known in choice modelling as simulation. This is a powerful piece of information, one not possible to elicit using attitude or memory-based measures alone. In turn, a DCE requires a more structured statistical design to be able to generate these values.

#### **2.7.4 DCE design requirements**

In choice modelling and analysis, experiment design determines the manipulation of attribute levels to allow for rigorous hypothesis testing (Louviere et al., 2000). Orthogonal design plans guarantee that that all main attribute effects of interest are independent of another and, as a result, can be estimated in models independently (Street et al., 2005). This means that the main effects of each attribute (the independent variables) on the choice decision (the dependent variable) can be estimated free of constraint from the other alternatives, allowing for the assessment of the relative attractiveness of the levels of those attributes. This trait of the DCE is an advantage over the other methodologies explored in this thesis, which are more difficult to establish causality with. Further, the same main effects that are associated with variance analysis and multiple-regression can be accurately estimated in a model generated from an orthogonal design – namely mean, variance and regression parameters (Louviere et al., 2000).

#### **2.7.5 Structural choice modelling**

Recent advances in the field of choice modelling and, specifically, the development of structural choice modelling (SCM) as a generalized form of latent variable modelling in choice analysis, has allowed for greater insights to be derived from consideration of multiple DCEs taken by the same respondents. Recent expansion of the work of Walker (2001), Ben Akiva, McFadden et al. (2002) and Ashok, Dillon et al. (2002) on latent variable models for discrete choice has seen the development of SCM (Rungie, Coote et al. 2011, Rungie 2011, Rungie, Coote et al.). While known

issues with scale and omitted covariates restrict the analysis of mean ( $\beta$ ) values between DCEs, using SCM it is possible to combine multiple DCEs into one model and apply random coefficients to selected covariates, to estimate preference consistency across experiments. Unlike other forms of latent variable modelling which have been developed in the analysis of choice, such as scale adjusted latent class (SALCM) and G-MNL, SCM allows for attribute-level factoring and the estimation of correlations between factors both within and across experiments conducted on the same respondents.

While a technical extrapolation of the advances in SCM can be found in a number of papers (see Rungie et al. 2011) this is beyond the scope of the current study. It is necessary explain how these advances allow some of the analysis undertaken in this paper to be performed. In SCM, structure is given to the covariance matrix that is operationalized by higher-order, latent factors. Through this structure the factors are able to regress on each other, with regression coefficients  $\gamma$ , and a vector of independent and standardized error terms  $\delta_n$ , that over the population of decision-makers co-vary through the Cholesky matrix (Rungie et al. 2011). This gives the analysis some of the functionality that is seen in SEM.

Latent variables are used to give parsimonious structure to the covariance matrix of random coefficient models, to operationalize and test hypotheses on the heterogeneity of attributes and to link two or more DCEs completed by the same respondents. Models are evaluated using a range of criteria including correlations and R-squares that are independent of scale and unaffected by the DCEs having different contexts and omitted covariates. This functionality is utilised in this thesis to estimate country of origin effects across different product categories, something that has not traditionally been possible in PCI studies. In fact the inability to estimate PCI effects across categories is one of the criticisms that has been levelled at studies in the field.



While COO research often suggests origin effects are not ubiquitous across categories they are not able to quantify the areas where effects may be category or attribute specific and where they are acting in a gestalt fashion. By correlating these effects across different categories and markets, a more complete picture of how decision makers interact with country information is provided, as well as providing information as to where it is common across categories and where it is not. Using SCM it is now to see how product attribute levels are affected by origin information and to what degree certain effects on choices are consistent or not across multiple product categories. This provides a much greater level of detail to analysts and managers alike as to how country information affects products, product categories and product attributes simultaneously. While traditional analysis in COO would have to estimate these effects separately, SCM allows it to be done in one model. Therefore this ability will constitute an advance in the field.

Having considered three different approaches to eliciting consumer preference information, and the need to address the research questions posed earlier in this chapter, the following additional research question is generated:

***RQ4:** What methodological approaches, supported by underpinning theory, can be effectively operationalised to capture the effects posited in **RQ1**, **RQ2** and **RQ3**, and what are the pros and cons of each?*

## 2.8 Chapter summary

This chapter has detailed the literature that this thesis draws on for conceptual and theoretical support. The detailing of this literature has been incorporated in such a way as to define the conceptual development of the study. Firstly, the area where this study is substantively located - country of origin effects - is addressed. The development of the COO literature, the conceptualisations in the field about country-centric affect on product evaluations and the issues/criticism the field has faced over the past 50 years are detailed. Following this, destination image effects, arising from the tourism literature, are considered. A newer field of study, this section looks at the affective impact of a country's image on consumer's selection and evaluation of countries for visitation. It finds that there are striking similarities between the processing of information in both destination image and country of origin studies.

Then the specific body of literature this thesis contributes to, the crossover in country of origin and destination image evaluations, is considered. This small body of literature highlights an area where disparate literature streams overlap, an issue that has been identified by a number of influential authors in both fields, which has received only limited attention. Nevertheless, the small amount of literature that does exist has primarily been focussed on the impact of country of origin information on tourism outcomes and travel behaviour. Where a country's products have been the dependent variable the results have been inconclusive. One study finds DI does have an affect on product evaluations, while a numbers of others have mixed results. All these studies are predicated on a attitude-theory approach to the issue. However, these studies suggest broadly that DI and COO studies do operate in the same domain, and country visitation does moderate these relationships with products and tourist behaviour.

As this thesis considers different theoretical conceptualisations and methodological approaches to measuring the influence that country-centric information and experience has over product preference and selection, these theorised processes are explored in detail. However, the section resolves with the realisation that when measured in consumer surveys, attitudes are almost always measured using reflective semantic or Likert scale indicators and analysed using regression or regression-based analysis such as SEM. The associative network theory approach to information processing is detailed. Rather than measuring valence, this approach works on the basis of predicting choice in a competitive selection situation, where the strength and breadth (salience) of a network of attributes about an object will determine the likelihood of it being selected for purchase. This method uses pick-any batteries of attribute items in consumer surveys. Finally, random utility theory (RUT), drawn from the neo-classical economic conceptualisation of the consumer, is considered. Being drawn from the economics literature, this approach does not specifically consider the psychological antecedents of a choice, it just looks at the choice behaviour itself. By including different covariates in the analysis, deductions are made about the conditions under which different choices are made, but not how they are made. This theory is the driving force behind discrete choice experiments, from which disaggregated utility values of different product attributes are determined for a given population and subpopulations.

### 3 Instrument development

*“Knowledge development about certain objects or phenomena can only occur if the objects or phenomena are measured validly. The same holds for market research, which is used by the tourism industry to inform strategic and tactical decisions: high quality market research data improves the quality of strategic tourism planning, tourism marketing, and operation of tourism businesses” (Dolnicar & Gruin, 2012, p4).*

This thesis has three main objectives: To consider the effect that tourist image and country visitation is having on consumer product evaluations; To build a nexus between tourism and country-of-origin research where there is currently a gap; To evaluate the methodologies that can help marketers to understand and capitalise on the effects proposed by research questions posed in the introduction chapter.

Survey and experimental response data collected from Chinese consumers and tourists is analysed to achieve this. Respondents from China are deemed appropriate given the great interest companies and governments from many countries have in entering the large Chinese consumer and outbound tourism markets. Two product categories, seafood and wine, are used because they represent growing Australian export markets in China.

A comparison of three methods for measuring country-of-origin effects under different control conditions is undertaken to address the research questions. Five categories of questions are developed to formulate an instrument that captured the required data. Three were used to generate data appropriate for analysis by the different methods under investigation, in addition to demographics questions and selection/control variables (i.e. have you been to Australia, do you purchase wine

etc.). The questions/applications used for each method are detailed in the following sections. A summary of each section is listed below:

**§ 3.1 Attribute elicitation focus groups** - This section establishes a starting reference list of contextually relevant attributes for developing the final survey instrument.

**§ 3.2 Method one: forced-choice scales** - discusses the development of the items presented in the scale section of the survey.

**§ 3.3 Method two: Free-choice pick-any batteries** - discusses the generation of the attribute items presented in the pick-any section of the survey.

**§ 3.4 Method three: Discrete-choice experiments** - discusses discrete-choice experiment design with reference to the two experiments used in this study. The procedure for developing the alternatives used in each choice set is also reported, as well as the rationale for the product selection used in each experiment.

**§ 3.5 Final instrument construction** – details how the final survey was constructed to ensure optimal data generation, with particular consideration given to the reduction of methodological confounds.

**§ 3.6 Pre-test** – details the results of the pre-test in validating the survey instrument. This section details a number of statistical and face validity evaluations that deemed the instrument appropriate for generating the data and analysis presented in the results and discussion sections.

### 3.1 Attribute-elicitation focus groups

*“The critical first step for most instruments used in analysing consumer choice and motivation is the identification of product attributes which are important to the consumer and for which there are differences among the available product alternatives” (Bech-Larsen & Nielsen, 1999, p315).*

A focus-group/attribute elicitation process was undertaken to contextualise and refine the development of the survey instrument used in this thesis. The specific integration of country-of-origin and tourism studies does not have a rich history of prior research, making it appropriate to develop a set of reference attributes for the thesis's four main image/attribute domains – Australia as a tourist destination, general attributes about Australia (from a COO perspective), Australian seafood and wine. Generating an initial set of attribute associations helped refine the methods used later in the study by giving them contextual relevance. Such an approach is consistent with Churchill (1979) in defining marketing scales, though the further use of the attributes elicited are used to define survey items and reference points for the other methods in this thesis.

As pointed out recently in regard to country image studies (tourism context):

*“Qualitative prestudies to destination image surveys are critical to the valid measurement of image in surveys because they provide insight into the associations people have about the destination entity under study. It is unlikely that any standard set of image attributes would apply to any destination” (Dolnicar & Gruin, 2012, p4).*

Chinese consumers who had engaged in some form of tourist activity in Australia were recruited to achieve this. Two attribute-elicitation processes and supplementary focus groups were conducted, one utilising visiting Chinese international students

(n=13) and one utilising older more long-term Chinese visitors or permanent residents (n=9). To determine a range of demographic characteristics of the two samples, a number of preliminary questions were asked in a hardcopy survey, and there was a screening process before the groups were formed. Respondents had to be Chinese nationals, be or have been consumers in China (i.e. not child migrants), have been in Australia for a period longer than three months, and have partaken in at least one tourist activity while in the country. The sample characteristics are summarised in Table 3.1.

**Table 3.1** - Demographic summary of Pre-study participants

<b>Number of respondents</b>	22
<b>Age Range</b>	19 – 40
<b>Cities/Provinces of origin in China</b>	Liaoning Province, Shenyang (Liaoning Province), Shanghai, Jiangxi, Hainan, Nanjing (Jiang Su Province), Shan xi, Xi'an, Shannxi Province, Nanning (Guang Xi province) Dalian (Liaoning Province), Nanning Guang Xi Nanjing, Tianjin, Qing Dao, Xi'an Shaan Xi, Guangdong, Zhaoqing
<b>Time in Australia</b>	4 months – 10 years
<b>Tour destinations in Australia</b>	Sydney, Melbourne, Perth, Queensland (Gold Coast) and the Great Barrier Reef
<b>Number of holiday trips reported</b>	1 – 10

Fifteen Chinese provinces were represented, both rural and urban/major-city areas. Tourist experiences ranged from a single trip to discount shopping centre Harbour Town in the western suburbs of Adelaide, to group tours and individually organised visits to Sydney, Melbourne, Perth and the Great Barrier Reef. This initial research and analysis identifies a set of salient attributes for Chinese consumers with tourism experience of Australia.

### 3.1.1 Free elicitation task

Respondents of each group were asked to freely elicit attributes relating to each of the anchor concepts of interest to the study. They were not prompted in anyway (i.e. unaided recall) other than being given the anchor concept and an abstract example of how attributes could be related to objects, such as “*If you think of the colour red or a black horse when you think of a Ferrari, list the things you think of when Australian tourism comes to mind*”. Respondents completed the exercise individually on paper first for all the anchor concepts. They were requested not to discuss their answers with other members of the group. Following the collection of the attribute lists a focus group was held to discuss the items as a group. The focus groups were undertaken to help clarify concepts generated individually, so in coding the responses from all participants a level of consistency of ideas and higher-order concepts could be determined.

### 3.1.2 Attribute coding

Following the group elicitation process, respondents’ answers were coded by content analysis (Holsti, 1969). The collated lists of the elicited attribute items were analysed for each respondent. These items were then amalgamated, resulting in four lists - one for each of the anchor concepts. In total 106 items were elicited by the two groups. Using footage from the focus groups as a reference, items were coded into a refined set, where items taken to be *meaning* the same thing were given the same generic code/label. It should be noted that one of the observations of the free-elicitation process is that it produces a high number of very similar concepts or attributes (e.g. ‘fresh air’, ‘clear air’, ‘blue sky’) that for analysis have to be collapsed into higher-order abstractions, requiring some level of researcher interpretation. On completion of the process a consultative process with three colleagues not involved with the project was undertaken to reduce possible individual researcher bias. Both original and reduced item lists were provided to each colleague. They considered whether or not they ascribed the same meaning to the original items and the items on the reduced list. This resulted in an agreed list of attributes for each of the anchor



concepts. The full list of uncoded attributes is presented in the index, while **Table 3.2** displays those coded attributes.

This list of attributes (**Table 3.2**) was now appropriate for use in defining the development of a larger survey instrument. The attributes for each concept were *largely* consistent with previous studies in the separate areas of tourism and country-of-origin. For this study, face validity was attributed to items that had already been identified in many other studies such as “produces high-quality products” which appear (Laroche et al., 2005, Papadopoulos and Heslop, 2000). The elicitation process also helped identify specific attributes that can be considered somewhat *more* unique to Chinese evaluations of Australian products, such as “big size” in relation to Australian seafood and “safe to consume” in relation to Australian wine. Some items generated for seafood and wine were not attributes per se but products such as “lobster”, “abalone”, “red wine” and “white wine”. While these were not attributes that would be measured as part of constructs in later analysis, it was decided to leave these items in the attribute lists as these items could be analysed separately to see which type of products were most associated with Australia within each category. It has to be noted early, that respondents found it difficult to elicit items relating to Australia as a Country of Origin. This is evidenced in the items listed in Table 3.2. They had no such problems with any of the other image objects.

**Table 3.2 - Focus group elicited attribute items**

<b>Tourism attributes</b>	<b>Australian general country attributes</b>
Relaxed Atmosphere	Multicultural
Nature and natural attractions	Peaceful
Friendly people	Beautiful clean country / environment
Appealing Climate	A rich cultural heritage
Uncrowded	Good migration country
Famous Cultural Attractions (Harbour Bridge, Gold Coast)	Stress free lifestyle
Cute / unique Animals	Good study environment
Clean unpolluted	Migration country
Variety of holiday entertainment (Casino / Winery / fruit picking)	Good government infrastructure and services
Pristine environment	Don't work too hard
Wine	Known for drinking
Seafood	Produces high-quality products
Shopping	Well educated
	Wealthy

<b>Australian wine attributes</b>	<b>Australian seafood attributes</b>
Variety	Fresh
Expensive	Big size
Good quality	Expensive
Good taste	Lobster / Crayfish
Red wine	I know many Species from Australia
Well-known in China	Unpolluted
Suitable as a gift	Healthy
Well-known wine producing regions	Abalone
Well-known brands	Wild caught
Proper production techniques / made properly	Hard to get in China
Genuine	Unique flavour
White wine	Limited Choice / Availability
Luxury	Good growing conditions
For collecting	
Hard to get in China	

The list of attributes generated in the first phase of the study was used as a reference point from which elements could be included in all three methods and tested in the same instrument. However, for parsimonious measurement, not all of the attribute

items generated for each of the anchor concepts were required for each method individually. Using the statistical or deductive procedures appropriate for each, the final measurement items conform to the conventions relative to the method. These procedures and the final measurement items used for analysis in the results are contained in the methods chapter. This chapter details how the full instrument was developed and presented to respondents prior to any data handling.

### **3.2 Method one: Forced-choice Likert scale**

Attitude measurement in consumer surveys is primarily captured through the use of reflective scale measures. The specific domain of those scales is defined by the research objective. With specific reference to Churchill's (1979) guidelines for developing marketing scales six key steps are identified. 1. Specification of the domain of the constructs – in this thesis defined by the research questions and need. 2. The generation of sample items – the result of the qualitative prestudy. 3. The purification of measures – the adaption of existing scales in the disparate domains of country-of-origin and tourist destination studies. 4. Assessing the data – performed in section 3.6.2 of this chapter. 5. Assessment of construct validity – established in this chapter and further confirmed in Chapter 6. Developing norms, is not used in this thesis.

With specific reference to the Product image dimension items used in this thesis the work done in the leading food perception related journal Food Quality and Preference suggests:

*“Perceived quality in food products is complex and is often operationalized by multi-dimensional constructs, whose measurement requires the designing of sufficiently validated scales. Since the intrinsic characteristics of each individual product are different and the extrinsic attributes can have an effect that differs from expectations, it is necessary to adapt the scale to each considered product.” (Verdu Jover et al., 2002, p453)*

It has to be noted that no such validated scale exists for Australian red wine or seafood perception measurement in a cross-cultural (specifically Chinese) setting. Thus these items have been largely generated by the prestudy presented earlier and adapted as appropriate with general product attributes for the products, as per Verdu Jover et al. (2002).

In the country-of-origin and tourism literature there is no rule of thumb that specifies the number of items to measure a construct but a number of benchmarks have been set by prior studies in other fields to achieve reliable measurement with reference to model parsimony. These measures are addressed full in the methods chapter and define the final list of items analysed in the results section. However, in developing the initial instrument a wider range of items are included for respondents to answer on 7-point Likert scales. The list of scale items, where they were adapted from and where they were appended with focus group generated items is detailed in **Table 3.3**. All questions are specific to Australia only.

**Table 3.3** – Australian tourist destination image items

<i>As a tourist destination Australia is/has</i>	<b>Scale drawn/adapted from</b>
:	
Beautiful natural scenery	E* + Gallarza et al (2002)
A clean environment	E + Baloglu & McCleary (1999)
Famous scenic attractions	E + Baloglu & McCleary (1999)
Unique wildlife	E + Gallarza, et al (2002)
Unique natural environments to explore	E + Gallarza, et al (2002)
A relaxing place to visit	Pike, S. (2010)
Beautiful beaches	Pike, S. (2010)
Friendly local people	Pike, S. (2010)
A variety of recreational activities	E + Gallarza, M. G., et al (2002)
Exquisite cuisine	Baloglu and McCleary (1999)
Pleasant climate	E + Gallarza, M. G., et al (2002)
Good shopping	Pike, S. (2010)
Value for money holidaying	Baloglu & McCleary (1999)
Promoted as a tourist destination in China	Pike, S. (2010)
Not crowded	Pike, S. (2010)

E = generated during elicitation

**Table 3.4 – Australia country-of-origin image items**

<i>In short, I think Australia is/has:</i>	<b>Scale drawn/adapted from</b>
Technologically advanced country	Laroche et al. (2005)
A rich country	Parameswaran & Pisharodi (1994)
Pollution-free	Parameswaran & Pisharodi (1994)
Provides quality international education	Parameswaran & Pisharodi (1994)
Rich in natural resources	Elicitation
Good government infrastructure	Elicitation
Produces high quality goods	Laroche et al. (2005)
A good climate	Parameswaran & Yaprak (1987)
An active participant in international affairs	Parameswaran & Yaprak (1987)
A rich cultural heritage	Elicitation (cultural similarity)
A multicultural country	Elicitation (cultural similarity)

**Table 3.5 – Australian wine and seafood product image items**

<i>I believe Australian wine is:</i>	<i>I believe Australian seafood is:</i>
Good value for money	Fresh
Status product	Large
Stylish	Expensive
Faked/counterfeited	Taste's delicious
HQ wine	Uncontaminated
I know there are many varieties	Wild-caught
Well known in China	Suitable as a gift
Manufactured to a high level of technical specification	Suitable for daily consumption
Suitable for gift-giving	High-quality
Safe to consume	Value for money
Expensive	A status product (rich people buy it)
A luxury	Safe to eat
Uncontaminated	Farmed

### 3.2.1 Presentation of scale questions

As previously discussed the scale questions are presented to respondents on a 7-point semantic differential continuum. They were presented in the following format (in Chinese):

*I believe Australian seafood is:*

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor disagree	Slightly Agree	Agree	Strongly Agree
Fresh	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Large	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expensive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 3.3 Method two: Free-choice pick-any batteries

Salience metrics are most commonly measured and modelled using the discrete count (frequency) of associations for a brand derived from image data. This type of method is generally linked to longitudinal brand-health surveys, where the pick-any attributes related to a brand are repeatedly measured over time to observe changes in the patterns of associations. Pick-any instruments generally use more items than scale questions, up to 30 in some cases.

Although the same statistical or distributional benchmarks do not apply to developing pick-any item batteries as there are for scales, care still needs to be taken in generating valid measures.

While binary variables in consumer surveys are generally coded as 0 and 1, these are generally considered to be arbitrary nominal classifications. The data does not have the same statistically appealing properties as Likert scale data that is considered *as if* continuous interval level data. In consumer/brand tracking surveys this is used to determine the presence or absence of some feature/stimuli as in the measurement of associations ("is associated" or "is not associated").

Unlike method one, this analysis requires a set of complete "brands" be included in the measurement. In country-of-origin evaluations countries are considered analogous to brands (Papadopoulos and Heslop, 2000). Seven countries, South Africa, France, England, USA, Australia, New Zealand and Chile were selected to determine a *range* of both country-of-origin *and* tourist destination perceptions at the macro-level, as well as perceptions at the product category level in regard to wine and seafood. The list is not exhaustive or fully representative of the *universe* of possible choices of holiday destination or country-of-origin for seafood and wine available to Chinese consumers. It is a representative group of countries that are



indicative of possible options where there are more and less familiar (i.e. more and less salient) country images associated with each category, with the overarching aim of establishing what impact holiday visitation in general, and specifically to and regarding Australia, will have on attribute-retrieval propensities and choice determinants. It is worthy of note other countries, such as Thailand or Korea which are more popular and close holiday destinations for the Chinese were not chosen specifically. The seven competitive countries used were all 'similar' countries of origin and destination from a cultural and economic perspective. The purpose was for them solely to act as 'in kind competitors' on that level as their only purpose was to elicit competitive information relating to Australia. This required them being approximately equivalent on all the image levels used in this thesis – this would not be the same for Thailand or Korea, as these are culturally and economically dissimilar countries and thus not suitable for competitive comparison in this case.

**Table 3.6a – DI pick-any**

<b>Destination image items</b>
A holiday destination
Natural scenic beauty
Famous attractions
Unique wildlife
Multicultural
Pleasant climate
Beautiful beaches and seaside
Good shopping
Value for money for holidaying
An exciting place to visit
International sporting events
A safe place to visit
Fine cuisine
Relaxing place to visit
Interesting cultural heritage
A clean pristine environment
Activities and holiday entertainment
Unique environments to explore
Promoted in China
Accepting of visitors
Friendly people

**Table 3.6b – PCI pick-any**

<b>Product country image items</b>
Are technically advanced
Are wealthy
Has unpolluted environment
Is renowned for providing quality education
Is rich in natural resources
Has good government infrastructure
Produces high quality products
Produces poor quality products
Produces good value for money products
A polluted environment
Participates positively in international affairs
Good trading partner with China

**Table 3.6c – Wine image pick-any**

<b>Wine product image items</b>
Grape wine you can buy in China
Grape wine that is suitable for collecting
Grape wine produced using proper techniques
Varieties of grape wine I know
Brands of grape wine I know
Unpolluted grape wine
High quality grape wine
Grape wine that can be given as a gift
Red grape wine
White grape wine
Good value for money grape wine
Grape wine that conveys high status
Grape wine that is difficult to get in China
Grape wine that safe to drink
Grape wine that is stylish
Expensive grape wine
Grape wine that is often faked
Grape wine that is a luxury item

**Table 3.6d – Seafood image pick-any**

<b>Seafood product image items</b>
Seafood you can buy in China
Fresh seafood
Wild caught seafood
Unpolluted seafood
Seafood that can be given as a gift
Abalone
Lobster
Seafood that safe to eat
Frozen seafood
Oysters
Salmon
Expensive seafood
Seafood that is large in size
Seafood that is farmed
Good value for money seafood
Seafood that conveys high status
Seafood that is difficult to get in China

### 3.3.1 Presentation of the pick-any instrument

This format lists all attributes for each country-of-origin/destination and asks respondents to tick those attributes that they associate with a country. Each image/concept area – tourism, country-of-origin, seafood and wine – has a pick-any battery. Ticking a box indicates the respondent associates an attribute with the country. Not ticking the box indicates that they do not associate the attribute with the country. In presenting the pick-any batteries a number of possible formats are available. According to the review by Dolnicar & Gruin (2012) it is possible to present the batteries as either fully free format, where the respondent is not required or forced to choose any attributes for any object or forced binary where respondents must choose either yes or no to an object having a particular object.

These are very different in terms of their underpinnings. While the free choice pick-any is the best approximation of free associations, they produce less response data and are highly susceptible to respondent avoidance. On the other hand forced binary puts an artificial constraint on the association process and is, as with forced choice scales, requiring respondents to indicate an agreement with a statement or proposition that they would not necessarily have considered in a choice situation. As this thesis considers in part the difference between forced choice scales and free choice pick-any, the forced binary questions were deemed inappropriate. However, to avoid respondent avoidance the overall response statements were required to have some response. The questions could not be avoided to move forward in the survey. Respondents could choose a “none of these” option, maximizing the response potential without forcing the consideration of specific attribute-country associations. This produces a data record for at least one response for each attribute item, per respondent – “none of these” is a mutually exclusive option. The pick-any batteries were presented in the following format (in Chinese):

*Which countries do you associate with the following seafood attributes?*

	South Africa	France	England	United States	Australia	New Zealand	Chile	None of these
Fresh	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wild	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Abalone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### **3.4 Method three: Discrete-choice experiments**

In the discrete-choice experiments, competing countries' products had to be included as alternatives to the Australian products so that country-of-origin choice preferences could be estimated. This required a set of representative countries be included in each experiment, but a smaller number of countries that were more specifically related to the product category. These were drawn from the initial set of seven selected for the pick-any batteries. There were two experiments, one for each product category, meaning all the countries used in the pick-any battery could be utilised in the DCE, ensuring further robust testing of the within-subject evaluation of the methods in the thesis and general consistency through the study.

#### **3.4.1 DCE design**

As the researcher is not a native Chinese speaker it was decided for simplicity's sake that the choice experiment would be primarily of a visual nature. Aside from the relatively simple task of having the country and fictional brand name being translated into Chinese, all elements manipulated in the experiment were visual (see Lockshin et al., 2010).

A D-optimal orthogonal main-effects design (Street and Burgess, 2007) has been used to structure each of the experiments. This type of plan is suitable for this type of experimental application because it only accounts for main effects (Street and Burgess, 2007) and not interaction effects between the attributes (one of the statistical features of the full factorial). As the experiments here are used specifically to identify the main effects of price and country-of-origin etc. and establish how these effects vary for different cohorts, such a design is more than adequate.

Having specified an appropriate design, consideration has to be given to the first practical (rather than statistical) design question for the DCE: *What alternatives*

*(products in this case) are being tested and what attributes are the alternatives comprised of?*

The categories of wine and seafood are determined by the research objectives, but within those product categories suitable products had to be selected to facilitate the running of the experiments. As there are two product categories there are two experiments, each with their own design.

For the wine experiment, France, Chile, Australia and China were chosen on the basis of France and Australia being the two major exporters of bottled and branded red wine to China, followed by Chile which is the largest exporter of bulk red wine to China (Aust. Government 2011). China was included to explore the country-of-origin effect relative to a domestic selection. For the seafood experiment, USA, South Africa, Australia and China were used. USA has major exports of Maine lobster to China (US Govt. 2011), South Africa exports significant quantities of fresh and dried abalone (SA Govt. 2011), and Australia has valuable markets in both rock lobster and abalone (CRC report). Again China was included as a way of exploring preference for foreign versus local produce. A full description of the construction of the discrete choice experiments (impetus for product selection, design and implementation) is developed in the last section of this chapter.

### **3.4.2 Experimental design plans**

The attribute structure was the same for each experiment - four attributes, two with two levels and two with four levels ( $2^2 + 4^2$ ). The manipulation of each plan was different because the base product in the seafood experiment (abalone or lobster) was being manipulated, but in the wine experiment it was not. Both plans are included in the Appendix. Because respondents were required to complete two experiments as well as the rest of the survey, the experiments were divided into two to reduce the possibility of fatigue, using balanced incomplete block designs (BIBD). This is a common procedure in DCEs for reducing experiments so respondents do not have to be exposed to extended numbers of repetitive choice sets. Each block is designed so

the full factorial design is split evenly between cohorts and, when aggregated, produces meaningful experiment results for the whole sample.

Once the plans were finalized, the visual representations of the alternatives had to be created using graphic-design software. Photo-realistic base images were sourced for the creation of each alternative - a red-wine bottle, a braised abalone on Chinese greens and a whole cooked lobster presented in restaurant style. The attribute information was applied and manipulated through design package Adobe Creative Suite 5.5. Images for the base products were manipulated so that all treatments were applied in the same visual style to all of the alternatives. It was achieved by 'layering' the attribute levels on top of each other in Photoshop, turning them on or off according to the design plan, and then exporting each alternative ready for import into the survey instrument. This ensured that all the alternatives looked exactly the same, except for the change in the attribute level that occurred in the same place every time. An example of each alternative is provided on the following page.

### **3.4.3 Data generation**

The alternatives produced for each experiment were imported into the survey structure as described previously. Following the appropriate design plans, choice sets of four alternatives were placed in survey blocks so, for each part of the experiment, respondents were exposed to a single choice set at a time. From the set, respondents were required to choose one alternative, each time being asked: "If you are ordering in a restaurant and you had the following options, which one would you choose?" Following the BIBD, each respondent saw 8 choice sets for each experiment. Each respondent saw the choice sets from each block in a randomised order, and within each choice set the order of the alternatives was also randomised. This generated a data set with 8 discrete values per experiment per respondent.

### 3.4.4 Wine experiment

#### *Base product and context selection*

Australia is the second largest supplier of wine to China after France, making the category suitable as there is a high-probability chance that consumers will be aware that Australia produces wine available in China, particularly if they drink/buy wine that represented 90% of the sample (Lui & Murphy, 2007). In China, red is the most popular *grape* wine type (as distinct from traditional rice wine) and was chosen as the fixed element of the alternatives from which respondents would consequently choose. The experiment is constructed to assess the impact, and changing nature, of country-origin-effects on product selection, not the product or possible variants of it per se. It was considered appropriate to use the most popular type of product in the category, red wine. To avoid any brand-usage effects, the wine had to be given a fictional brand name, "Happy Valley Wines", which would be displayed on the label in simplified Chinese.

In determining the experimental context, consideration was given to the tendency of Chinese consumers to purchase imported wine for a special occasion, as a gift or to serve at a restaurant banquet to impress guests. Respondents were asked to consider if they were purchasing wine for the table at a restaurant, which wine would they purchase? Respondents were then posed a follow-up question with each choice set, asking if they would choose that option in 'real life' to establish if any of the alternatives in the choice set were suitable. This additional extra question allows for the analysis of the data from the whole cohort on the 'most preferred' alternative, or on the most likely to be truly chosen in a choice situation by excluding respondents who consistently indicate a 'not in real life' choice option. Having established the base profile for the alternatives, and the context of choice situation, the attributes to be manipulated in the experiment had to be defined.



### *Attribute selection*

**Country-of-origin:** It was determined that this attribute would have four levels, for two reasons: Firstly, this number of attributes allowed for testing alternatives from the biggest bottled red wine exporter to the Chinese market, France; the second-biggest market participant, Australia; an alternative supplier in Chile, the largest bulk red wine exporter to China; and from China's domestic product. Secondly, from a visual design perspective, four alternatives fit comfortably on a computer screen at various resolutions. This creates a desirable choice set because respondents would not need to scroll to other pages, which might have introduced a response bias.

**Price:** Price levels had to be defined to take advantage of the DCE's capacity to determine WTP estimates and price elasticity. This was primarily done by desk research looking at the wine lists of restaurants in China, to define an upper and lower bound for premium/imported red wines. When this was established the other price levels were determined by the requirement that price levels in DCE be equidistant, and the fact that a maximum of four alternatives would be viewed at one time by respondents. Given these constraints and the need to have a representative range of indicators, price also had four levels: 200RMB, 400RMB, 600RMB and 800RMB.

At this point a relatively simple experiment of two attributes each with four levels ( $4^2$ ) could be designed. However, in an attempt to make the experiment more interesting and realistic, two more attributes each with two levels could be added without increasing the size or relative complexity of the experiment. This was possible because there was still capacity in the design, as a  $4^2$  factorial design would produce 16 choice sets of four alternatives, adding another  $2^2$  attribute levels would not increase the size of the design as two-level attributes would only require eight choice sets to be exhausted across the experiment.

**Label and closure type:** Consistent with other wine-related DCE research, the other attributes included for manipulation were bottle closure type and label colour. In selecting the attribute levels for bottled wine, closure type only required two levels - cork or screw cap - while label type required further consideration (Marin et al., 2007, Wolf and Thomas, 2007). Given the prominence of the colour red in Chinese culture (Jacobs et al., 1991), the impact that a red label may have on choice propensity was of interest, requiring the selection of a simple alternative – white, a colour commonly used in wine labelling.

Figure 3.2 -Wine DCE choice set example

如果你在餐厅订购一个红色的葡萄酒，您有以下选项，你会选择哪一个？

	¥ 600
	¥ 200
	¥ 400
	¥ 800

Each wine bottle in the choice set features a label with a cluster of grapes and the text '快乐葡萄酒' (Happy Wine). The labels specify the origin: '智利的产品' (Chilean product), '法国产品' (French product), '中国产品' (Chinese product), and '澳大利亚产品' (Australian product). The bottles are displayed against a dark background with a light-colored horizontal bar at the bottom containing four radio buttons for selection.

### 3.4.5 Seafood experiments

#### *Base product and context selection*

The process for developing the seafood DCE was much the same as the wine experiment – but with an additional level included to give greater consideration to the generalisability of the results to the category. Australia’s two most valuable seafood exports to China are rock lobster and abalone (Wood et al., 2008). While China is only fifth for Australia in terms of seafood export value, Hong Kong is number one and it is known that “grey channels” - quasi black markets and distribution routes relatively free from government regulation - exist between Hong Kong and mainland China that distribute high-value agricultural imports, such as Australian seafood (Collins & Sun, 2010). This suggests there is a high probability that consumers will be aware that Australia produces abalone and lobster that is available in China. With the USA and South Africa also sustaining high-value markets for these products in China, they make good candidates for use in a choice experiment.

While the impact of country-origin effects on product selection was still paramount, a product variation could be included here - the choice between two types of seafood, abalone *or* lobster. Both products, particularly when imported, are considered delicacies in China. Consideration was given to whether individual taste preference would have an impact on the selection of lobster or abalone, or if country-of-origin (or another attribute) would play a more prominent role. As such delicacies are common at celebrations and banquets, respondents were asked to contextualise the choice in that setting.

#### *Attribute selection*

**Species:** Consideration was given to the layout of the final survey, with the same visual display dimensions to be applied as in the wine experiment - four alternatives would be included per choice set. By selecting abalone and lobster as products to test

in the DCE, attributes and level were already determined. To be consistent with the wine DCE, price and country-of-origin were also predetermined as attributes.

**Price:** In selecting prices the same procedure was used as for wine, by reviewing menu prices and determining reasonable upper and lower bounds, with consideration given to individual dishes with a particular weight of product, as well as to banquet dishes. Price had four levels: 300RMB, 500RMB, 700RMB and 900RMB. For the seafood experiment, different competing countries were selected. Each of the competitors has a sizeable market in China - USA with Maine lobster, South Africa with fresh and dried abalone, and China supplying its domestic market as the world's largest seafood producer.

**Rearing environment:** The final attribute included in the experiment was the rearing/catch environment – whether the seafood was wild caught or farmed. In China, as with many countries, a premium is placed on wild-caught seafood and this was considered likely to have an impact on consumers' choice preference. China has also had a chequered history with regard to food safety and farmed produce in recent years, so it was of interest to discover whether this was manifest in the results generated by the experiment, under the assumption that wild-caught is likely to represent a “safer” option to farmed seafood.

Figure 3.3 - Seafood DCE choice set example

<p>美国野外捕获的 红烧鲍鱼产品</p>  <p>¥700 每份</p>	<p>南非野外捕获的 龙虾产品</p>  <p>¥300 每份</p>
<p>Abalone 900 Australia Farmed</p> <p>澳大利亚 红烧鲍鱼,人工 养殖产品</p>  <p>¥900 每份</p>	<p>Lobster 500 China Farmed</p> <p>中国 人工养殖 龙虾产品</p>  <p>¥500 每份</p>

### **3.5 Full survey construction**

This thesis is concerned with the evaluation of different method types on the same respondents. It was important that the instrument be constructed in such a way that one method would not confound another. In particular, it was necessary to give consideration to the fact that the survey's country of origin would be come obvious to respondents. So the multi-country methods (pick-any and DCE) preceded the scale questions that only related to Australia. Careful ordering and randomisation of questions and experimental designs were used to ensure as far as practicable that the discrete nature of each method was maintained.

Consideration was given to respondent fatigue and reducing any possible response bias that might result. Initially the instrument was tested with all methods appearing sequentially for all country and product-image categories – i.e. the entire batteries of pick- any questions, followed by both discrete-choice experiments and then all scale questions. However, via feedback through internal testing and further consideration post pre-test, it became evident that this format was somewhat monotonous for respondents, as the survey presented a long list of the same-format questions one after another. To make the overall instrument less tedious and flow better with alternating tasks, it was decided to subdivide the survey on product-category lines while maintaining the hierarchical properties previously mentioned but, now, within a product category-specific order. This meant the final survey was blocked in such a way that respondents were routinely changing the type of questions they were being asked.

As the survey was already relatively long - taking 25 to 30 minutes to complete - and involved a number of tasks with changing cognitive complexity, asking scale questions for all the countries was: a.) not feasible because of how much it would have extended the survey, and b.) it was unnecessary, because the thesis is looking at

Australia in particular and this method does not require the consideration of competing alternatives. This battery of questions was placed last, for the fact that only Australia was being asked about may have indicated where the survey was from if the questions appeared earlier in the survey. With this set of questions placed last and given the format of the preceding questions, respondents would likely have expected questions about other countries also following those about Australia. There was no opportunity for respondents to go back during the survey and it terminated following the scale questions dedicated to Australia.

### **3.5.1 Selection and control variables**

The selection-variable questions drew on the seven competitive countries, primarily to obscure the survey's country of origin while eliciting specific information about Australia. Questions were asked about whether respondents had visited Australia, USA, France, Chile or South Africa and, if so, how long ago. For wine and seafood purchase, the selection-variable questions included those countries included in the DCEs relative to their product category, as well as macro-level questions – 'do you buy wine' and 'do you buy seafood'. All the selection-variable questions were randomised within a response block so that they were asked at the same time but in a different order for each respondent.

A brief set of questions was included at the start of the survey to determine the socio-demographic characteristics of the respondents. It contained what would be considered fairly standard questions – age range, gender, location of residence in China (province only), industry employed in and salary range. With all relevant question types having been defined and developed, a pre-test was required prior to the final construction and implementation of the survey. As the survey instrument was relatively complicated in terms of structure it is appropriate to give an indication of the process that was undertaken in its construction (the final instrument is contained in the Appendix).



## **3.6 Pre-test**

A pre-test was performed to validate that the various instruments explained above were working correctly from an operational perspective. That is, that the online survey was correctly recording data from the respondents, that there were no unusual response patterns or missing data (where applicable) and that characteristics of the sample used by the provider were suitable for the final data collection process. Each set of response data was then subjected to a number of statistical tests attesting to the functionality and validity of the instrument and the methods. These are presented in the following sections.

### **3.6.1 Sample**

An initial sample of 153 respondents drawn from the online panel was used to test the instruments. The data generated by the pre-test determined that the instrument could be validated on the following grounds: Firstly, the data was being collected correctly through the online interface. This was determined by checking the data being recorded against the questions being asked of respondents to ensure the response type for each question (i.e. either 0,1 or between 1 and 7) was correct. After this fundamental step the sample demographics were assessed for their appropriateness. These characteristics are summarised in table 3.7.

**Table 3.7 - Pre-test demographics summary**

<b>Number of respondents</b>	153
<b>Age Range</b>	18 – 60
<b>Provinces of origin in China</b>	Guangdong, Fujian, Hainan, Liaoning, Hebei, Tianjin*, Shandong, Jiangsu, Shanghai*, Zhejiang, Guangxi, Beijing*, Hunan
<b>Been to Australia</b>	No – 90 (59%), Yes 64 (41%)
<b>Number of times been to Australia</b>	Ranged from 1 to 5+
<b>Industry</b>	Accounting/Finance, Supervision/Admin, Advertising/Media, Construction, Arts/Graphic Design, Biology/Science, Service Industry, Engineering, Senior Executive/Management, Food/Hotel Management, Government (official), Healthcare/Nursing, HR, IT, Law, PR, Volunteer, Sales/retail, Software/ Business admin, system/network engineer, Teacher, Agri/Forestry
<b>Income</b>	900RMB – 8000RMB
<b>Been to Australia as a tourist</b>	63 (41%)

Following the analysis of the demographic information, the data recorded for each method was tested for consistency and suitability for analysis. The data for each method was tested with the statistical procedures deemed appropriate by the literature supporting each; the test themselves are detailed in the following section.

### **3.6.2 Method one: Scale question responses**

For method one the assessment of the results is based on whether the scale items appear to be measuring the correct constructs, if there are statistically significant differences between tourist and non-tourist evaluation of those items and if the items relate to the same constructs across both groups. Achieving this requires establishing the convergent validity of the scale items through an exploratory factor analysis (EFA) and assessing the internal consistency of those measures by generating a

Cronbachs  $\alpha$  statistic. An additional check for face validity is achieved by correlating the factorised results for the EFA with a single item global measure that purports to directly measure the construct. As discussed previously, single item indicators are frequently included in studies as a fall back metric, and here it has been included as a metric to help with the assessment of the face validity of the constructs being tested. The logical *a priori* assumption is that the global measure should be well correlated with the factor assessing the same construct.

### *Summary of pre-test results*

All the DI items demonstrate high factor scores individually for both groups. Collectively they account for between approximately 70% of the variance in the construct. They show good internal consistency with high  $\alpha$  values ( $>0.95$ ). The factor score is well correlated with the global measure.

All the PCI items demonstrate high factor scores individually for both groups. Collectively they account for between approximately 63% of the variance in the construct. They show good internal consistency with high  $\alpha$  values (0.94). The factor score is well correlated with the global measure.

All the wine items demonstrate high factor scores individually for both groups, except for the belief that Australian wine is “Often Faked/Counterfeited”. Collectively they account for between approximately 65% of the variance in the construct. They show good internal consistency with high  $\alpha$  values ( $>0.92$ ). The factor score is well correlated with the global measure.

All the seafood image items demonstrate high factor scores individually for both groups, except for the belief that Australian seafood is “Expensive”. Collectively they account for between approximately 61% of the variance in the construct. They show good internal consistency with high  $\alpha$  values (0.94). The factor score is well correlated with the global measure.

### **3.6.3 Method two: Pick-any battery responses**

The data generated by the pick-any batteries of associations is first aggregated into counts, for each respondent for each association for each country. From this a contingency table of the number of associations for each attribute for each country is established. This determines whether the necessary conditions for correct salience measurement are being met. From a methodological perspective a representative range of competing countries need to be present in the instrument to create a competitive environment for association retrieval. This means both large and small “brands” – countries associated with salient associations in different domains in this instance. Those countries that are strongly associated with a category should have more respondents giving them more associations more often and vice versa – that is the data should demonstrate a double jeopardy pattern.

Reiterating that it is only the analysis of Australia that is pertinent to this thesis, the other countries used here are in essence dummy variables, which determine the correct framework for the valid measurement of the Australian results. Once the count statistics for all the countries are established, the Australian-only data can be extracted. The Australia-only data is then disaggregated by visitation as with method one. Unlike method one there is not an equivalent statistical procedure for the association count data. However, it is possible to look at the split sample differences between those who have been and those who have not. Drawing on ANT, an a priori assumption is that visitors will have more associations about Australia than non-visitors.

#### ***Summary of pre-test results***

The pre-test results confirm that there are different response patterns for visitors and non-visitors and as with the results for method one these differences are generally of a statistically significant nature (see Appendix 1). Overall, visitors to Australia have more associations about Australia and its products than those who have not been to

the country. France is the most highly associated with the wine category which is consistent with its market share in the Chinese imported wine market., with Australia second which is its position in the same market. Australian seafood, a highly regarded delicacy in China, is the leader in the category and this is again consistent with real market conditions. These outcomes, according to ANT, are consistent with what would be expected and as such it validates the use of the pick-any method for further use in addressing the research questions.

#### **3.6.4 Method three: Choice experiment responses**

The results of the discrete-choice experiments - once recoded (as explained further on) - could be used to specify functioning discrete-choice models that produced logical and acceptable utility estimates. Logic and acceptability were defined by assumptions drawn from 'real' market information about each of the products' markets and known patterns in DCE research – such as France being the most popular country of origin on aggregate for wine in China, and price being the strongest/important choice determinate on aggregate in each experiment.

##### *Summary of pre-test results*

The pre-test results for the DCE component of the survey are also consistent with what would be expected when considering real market conditions. For wine, French wine is the most often chosen product, followed by Australia then Chile and China. This follows market share order (for imported grape wine), with France having the largest market share in the Chinese market and Australia being the second largest and Chile the third – China is expected to be chosen least given the relatively embryonic nature of China's wine producing industry and the general trend of products from western markets being preferred over domestic products for emerging markets like China. Likewise, for seafood Australia is most preferred to all the other options. There are even preferences for both abalone and lobster – both delicacies frequently ordered together for banquet tables in restaurants, and a strong preference for wild caught seafood (considered by the Chinese to be larger and

tastier) over farmed (considered smaller and less of a delicacy). With both sets of results being consistent with known patterns of consumption (and the initial results from the pick-any data) the DCEs are both reporting results that indicate they are valid. The full results can be seen in Appendix 3.

### 3.7 Chapter summary

This chapter has outlined the process of generating the survey instrument that is used to investigate the research questions under investigation in this thesis. It has further validated the measures used to form the instrument. While a small body of literature exists that links country of origin and destination image research, the field is very small. One of the product categories, wine, has been investigated in one study using Chinese tourist/consumers, but the other, seafood, has not. Therefore existing scales or attribute batteries specific to the research were not available for use later, and needed to be developed. A qualitative pre-study was used to define and refine the items used for capturing the antecedents of and propensities for, choice as well as confirming the product categories as appropriate for testing in a choice based experimental situation. This chapter also details the steps taken to include all the components required to capture the data needed to address the research questions. As this thesis is a multi-method investigation, particular care has been taken to make sure the sub-instruments have been kept as discrete as possible so as to avoid confounds such as the priming influences of other question types. The instrument used to generate the data analysed in the following chapters has been constructed to allow for a rigorous investigation of the research questions. The individual measures and the instrument as a whole have been validated with a full pre-test, which returned logical and market reflective results, confirming the instrument as appropriate for meaningfully facilitating the research agenda of this thesis.

## 4 Research Methods

This chapter presents the methods of data handling and analysis used in the results chapter of this thesis. The chapter is divided up by method, and consideration is given to the procedures required for each to produce robust results. The sections are as follows:

**§ 4.1 Sample descriptives** – reports the basic characteristics of the final sample and presents validation and justification as to the suitable nature of the sample in addressing the research objectives.

**§ 4.2 Method 1: Modelling latent variables using forced-choice scales** - covers in detail the process of latent construct validation using forced-choice scales and the scale items used in the data capture for this thesis. Also discusses the specification procedure and analysis for structural-equation modelling as operationalised in the results chapter.

**§ 4.3 Method 2: Modelling salience metrics using free-choice pick-any batteries** - covers free-choice pick-any item evaluation and Romaniuk's procedure for modelling brand salience, which has been adapted for use in this study. This section describes the process by which the pick-any items have been selected for analysis and modelled in the results chapter.

**§ 4.4 Method 3: Modelling choice preference using discrete-choice experiments** – Discusses the procedural and statistical the processes for analysing and reporting the data as it appears in the results chapter. Specifically it discusses the model specifications used and the process of evaluating the fit of the models.



## 4.1 Sample selection and descriptives

Over two weeks in September 2011, a consumer research panel company, Cross-Tab Marketing PTY, provided 1030 respondents to take part in an online survey, completed individually on personal computers (i.e. in-home or office). The sample comprised of general members of the Chinese population, sampled randomly from Cross-Tab's database. The survey took approximately 15 minutes to complete - 1000 were requested and 30 extra were supplied due to over sampling. Respondents were remunerated by the panel provider for participating. In particular, respondents were sourced from the Chinese Special Economic Zones (SEZs) and Coastal Development Areas, representing a concentration of Chinese wealth and in and out-bound economic activity (World Bank, 2011). These 13 provinces/city-(party)states\* - Guangdong, Hainan, Liaoning, Hebei, Tianjin\*, Shandong, Jiangsu, Shanghai\*, Zhejiang, Fujian, Guangxi, Beijing\*, Hunan - were selected specifically for their socio-demographic composition. Participating in international tourist travel and purchasing expensive foreign imports (relative to domestic products) clearly requires a requisite level of economic capacity. As the purpose of this thesis is to generalise findings to a population of possible international tourists, selecting provinces with a concentration of wealth (where residents are more likely to have the capacity to be an international tourist and buy imported products) was deemed appropriate for the purpose of the study.

Other than the sample's selection being restricted to the SEZs and Coastal Development Areas, respondents were required to have been on an overnight holiday (anywhere, not specifically internationally *or* Australia) at least once in the past two years. There were no criteria related to travel to Australia, and respondents could participate whether they had travelled to Australia or not. The survey was unmarked (no university branding etc.) and respondents were not informed as to, and could not determine, which country the survey originated from. The survey was presented in simplified Chinese, following a back-translation procedure. A native Chinese speaker, originally from Beijing but now living in Australia, was used as a primary translator. The translator was provided with a questionnaire in English to translate into Chinese. A number of weeks later he was

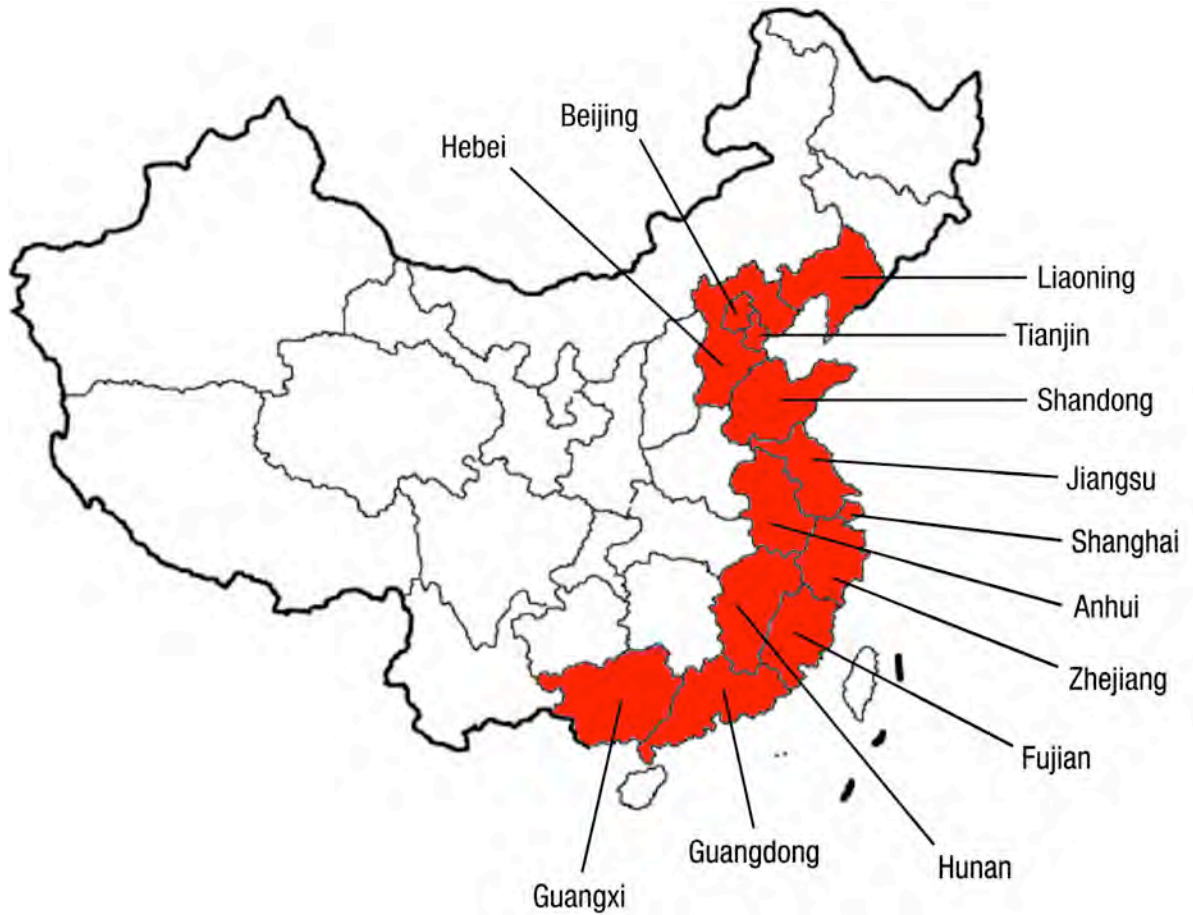
supplied with the Chinese survey and asked to translate it back into English – without reference to the first survey. The original and back-translated surveys were then cross-referenced for accuracy. For clarification of any discrepancies, a third-party Chinese speaker - one of the supervisors of this thesis - was consulted with the aim of making the process as discrete as possible.

All survey respondents were exposed to the same questions so a within-subject analysis of the results could be performed. It was, however, necessary to randomise the order of the questions to reduce response bias. With the discrete-choice experiment, respondents were evenly and randomly assigned to two survey blocks, so the whole cohort was exposed to a full experiment but broken down into two balanced, incomplete block designs (Louviere et al., 2000). The division of the sample into the two blocks occurred at the beginning of the survey without respondents knowing. All other questions remained the same except for the DCEs.

#### **4.1.1 Demographic information**

Respondents' ages ranged from 18 to 60 years, with 32 per cent of the sample female and 68 per cent male. While the majority of respondents came from the large cities of Guangzhou (Guangdong province), Jiangsu, Shanghai and Beijing, other provinces in the SEZ and Coastal Development Areas were all well and evenly represented. The respondents came from a diverse range of industries with none particularly over-represented, though overall these industries were of a skilled rather than unskilled nature. Just fewer than half (n=480) respondents indicated they had visited Australia. The full demographic descriptives are presented in Table 4.1.

**Figure 4.1 – Respondent’s Locations in China.**



**Table 4.1a – Sample age & sex**

<b>Gender</b>	<b>n</b>	<b>%</b>
Male	700	68
Female	330	32
<b>Total</b>	<b>1030</b>	<b>100</b>
<b>Age</b>	<b>n</b>	<b>%</b>
18 – 25	121	11.7
26 – 30	245	23.8
31 – 35	275	26.7
36 – 40	184	17.9
41 – 45	106	10.3
46 – 50	56	5.4
51 – 55	24	2.3
56+	19	1.8
<b>Total</b>	<b>1030</b>	<b>100</b>

**Table 4.1b – Sample location: China**

<b>Province</b>	<b>n</b>	<b>%</b>
Guangdong	190	18.4
Beijing	157	15.2
Fujian	43	4.2
Guangxi	19	1.8
Anhui	3	0.3
Hebei	41	4
Hunan	56	5.4
Jiangsu	104	10.1
Liaoning	70	6.8
Shandong	71	6.9
Shanghai	190	18.4
Tianjin	28	2.7
Zhejiang	58	5.6
<b>Total</b>	<b>1030</b>	<b>100</b>

**Table 4.1c – Income statistics**

<b>Monthly Income</b>	<b>Frequency</b>	<b>%</b>
¥0 - ¥999	34	3.3
¥1000 - ¥1999	29	2.8
¥2000 - ¥3499	268	26
¥3500 - ¥4999	144	14
¥5000 - ¥6499	182	17.7
¥6500 - ¥7999	177	17.2
¥8000 +	196	19
<b>Total</b>	<b>1030</b>	<b>100</b>

**Table 4.1d – Employment**

<b>Industry</b>	<b>Frequency</b>	<b>%</b>
Accounting / Finance	61	5.9
Advertising / Media	7	0.7
Agriculture and Forestry	17	1.7
Building	58	5.6
Business Administration	23	2.2
Engineering	106	10.3
Government	48	4.7
Graphic Design	4	0.4
Health / Care	13	1.3
Hotel / Hospitality	12	1.2
Human Resource Management	36	3.5
Information Technology	102	9.9
Legal	13	1.3
Mining	7	0.7
Other	193	18.7
Public Relations	6	0.6
Sales / Retail	88	8.5
Science	22	2.1
Seafood Industry	20	1.9
Senior Executive / Management	90	8.7
System / Network Engineering	36	3.5
Teacher	58	5.6
Tourism Industry	6	0.6
Volunteers	4	0.4
<b>Total</b>	<b>1030</b>	<b>100</b>

#### **4.1.2 Suitability of the sample**

During pretesting of the instrument, detailed in **Chapter 3**, it was evident from the sample selection conditions that on self-report around 40 per cent of the sample had visited Australia. It was confirmed (post pretesting) and consequently reconfirmed (pre final questionnaire implementation) with the panel provider that sample was selected only on the criteria set forth by the research brief, and that no indication had been given inadvertently about travel to Australia.

As the final sample would be drawn from the same panel provider database this negated the need for a screening question or quota allocation regarding travel to Australia in the implementation of the final questionnaire. This sample therefore adequately suited the need to compare wine and seafood product perceptions of visitors to those of non-visitors to Australia.

## 4.2 Method 1: Modelling latent variables using scale data

As per Chapter 3 Instrument development, respondents were exposed to a battery of semantic-scale questions relating to Australia (see tables 3.3-3.5). From the data generated by the survey instrument, a final set of items was defined and analysed as follows:

### 4.2.1 Construct validation

The determination of construct validity for DI, PCI and product image - for seafood and wine - required undertaking exploratory and confirmatory factor analyses, and performing statistical tests on the data. The scale items assigned to each construct (as defined in the previous section) were tested for their factor loading and communality coefficients by running a maximum likelihood EFA with varimax (orthogonal) rotation using SPSS 20. Orthogonal rotation is used because each construct is being tested separately and it is desirable that the factor solution isolate items not correlated to the construct if they exist, which is the assumption orthogonally. The items for each construct are loaded on to a single factor without the need to force a one-factor solution. This was a good initial result but not necessarily unexpected, having used established scales appended with relevant items from the elicitation process. While there was more variation in the communality coefficients, at the pre-test stage none was sufficiently low to warrant excluding them from the analysis.

As a general rule, latent variables will tend to be constructed of fewer measurement items than this for model parsimony, though there is no specific limit placed on the number of items allowed. The premise is that if the scales are *sufficiently* measuring the construct with a few items, then it is not necessary, or desirable, to have more items (as per Sweeney & Soutar, 2001). The communality scores generated in an exploratory-factor analysis (EFA) can be used to reduce indicator item numbers (Comrey & Lee, 1992). Communality scores are the estimates of the shared variance between the indicator item and the factor it relates to – i.e. how much of the indicator

is indicative of the factor. Following the benchmark set by Lee and Comrey (1992), the absolute value 0.63 was set as a cut-off score for both the communality and factor-loading coefficients for each item. This deemed that at a *minimum* all items measuring each construct fell into the “very good” and above category. This ensures a tight factor construction and eliminates a great deal of the unique variance (or error) associated with each item which indicates the item is consistently measuring the construct across respondents.

#### **4.2.2 Exploratory factor analysis**

While virtually all the items measured for each construct loaded well on single factors in terms of factor-loading scores, when observing the communalities there were a number of items that did not meet the 0.63 cut-off threshold. The items were removed from the final analysis. This generated a final list of attributes that is considered for analysis in the results sections.

**Table 4.2** - Forced-choice scale items used in this study

<b>Cov.</b>	<b>Items</b>	<b>M</b>	<b>SD</b>	<b>Com</b>
	<b>Destination Image</b>			
DI <sub>1</sub>	Australia is a relaxing place to visit	5.69	1.26	0.79
DI <sub>2</sub>	Australia has a clean environment	5.74	1.22	0.78
DI <sub>3</sub>	Australia has beautiful beaches	5.85	1.26	0.76
DI <sub>4</sub>	Australia is value for money for holidaying	5.67	1.26	0.75
DI <sub>5</sub>	Australia has beautiful natural scenery	5.89	1.22	0.74
DI <sub>6</sub>	You can explore unique natural environments	5.84	1.22	0.74
DI <sub>7</sub>	Australia has a pleasant climate	5.73	1.22	0.73
DI <sub>8</sub>	Australia has famous scenic attractions	5.78	1.24	0.72
DI <sub>9</sub>	Australia has friendly people	5.58	1.26	0.69
DI <sub>10</sub>	Australia has unique wildlife	5.80	1.32	0.67
	<b>Country of Origin</b>			
PCI <sub>1</sub>	Australia produces high-quality goods	5.51	1.17	0.72
PCI <sub>2</sub>	Australia has good government infrastructure	5.67	1.13	0.70
PCI <sub>3</sub>	Australia is a wealthy country	5.69	1.12	0.68
PCI <sub>4</sub>	Australia is a multicultural country	5.66	1.17	0.67
PCI <sub>5</sub>	Australia provides quality education	5.45	1.19	0.67
PCI <sub>6</sub>	Australia is technologically advanced	5.37	1.20	0.63
	<b>Australian Wine</b>			
WI <sub>1</sub>	Australian wine is high quality	5.39	1.14	0.78
WI <sub>2</sub>	Australian wine represents status	5.24	1.22	0.77
WI <sub>3</sub>	Manufactured to high technical specification	5.32	1.16	0.74
WI <sub>4</sub>	Australian wine is very stylish	5.28	1.16	0.72
WI <sub>5</sub>	Australian wine is well known in China	5.08	1.34	0.72
WI <sub>6</sub>	Australian wine is suitable for gifts	5.41	1.19	0.71
WI <sub>7</sub>	Australian wine is safe to drink	5.53	1.12	0.68
WI <sub>8</sub>	Australian wine is a luxury	4.97	1.29	0.68
WI <sub>9</sub>	Australian wine is uncontaminated	5.47	1.15	0.65
	<b>Australian Seafood</b>			
SI <sub>1</sub>	Australian seafood is high quality	5.61	1.09	0.77
SI <sub>2</sub>	Australian seafood is safe to eat	5.68	1.08	0.76
SI <sub>3</sub>	I believe that Australian seafood is unpolluted	5.6	1.15	0.74
SI <sub>4</sub>	Australian seafood is delicious	5.67	1.08	0.73
SI <sub>5</sub>	Australian seafood is fresh	5.6	1.14	0.72
SI <sub>6</sub>	Australian seafood is wild-caught	5.46	1.15	0.71
SI <sub>7</sub>	I believe Australian seafood is suitable as a gift	5.53	1.14	0.71
SI <sub>8</sub>	Australian seafood is large	5.57	1.11	0.68
SI <sub>9</sub>	Australian seafood is value for money	5.47	1.16	0.68



### 4.2.3 Internal consistency measures

The items were then subjected to Joreskog's Rho and Cronbach's Alpha tests for internal consistency. The factors presented good indications of convergent validity, with no factor scoring less than 0.9 on either test, where scores higher than 0.7 acceptable and close to 1 optimal (Hair, 2010). These results suggest the factors have convergent validity - their indicator items are reflective of the construct.

**Table 4.3** – Convergent validity measures

Measure	Wine			Seafood Congeneric		
	PCI	DI	PI Wine	PCI	DI	PI Seafood
J. Rho	0.91	0.95	0.92	0.92	0.96	0.91
A	0.90	0.95	0.92	0.90	0.95	0.92

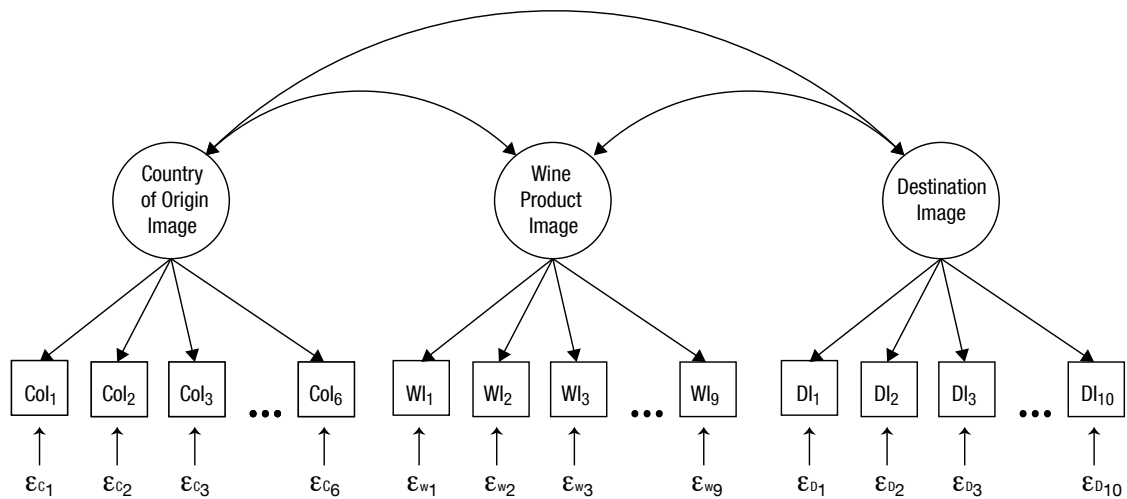
### 4.2.4 Confirmatory factor analysis

To establish discriminant validity requires specifying a measurement model that includes all the constructs that are to be tested in the structural model. This is primarily because a.) the constructs have not been rigorously tested in the same model before and b.) it is expected there will be a relatively high level of correlation between the two country-image factors – they are both measuring factors relating to representations of Australia.

The CFA measurement models can be seen in Figures 4.2 and 4.3. Here it is a comparison of average variance explained (AVE) values for each construct, relative to the squared correlation between the constructs in the measurement model. The Fornell-Larcker (1981) criterion for discriminant validity states that the shared variance between constructs, defined as the square of the correlation between them, should not be greater than the AVE for any of the correlated constructs. In this case, the highest correlation across both models was between PCI and DI in the wine-specific model at 0.76, and the smallest AVE was 0.64 for PCI. The shared variance in this instance is 0.58 (0.76<sup>2</sup>). All the AVEs are in excess of any squared correlations between any constructs in any model. This measure is to ensure that no construct

explains more variance in any other construct than that construct's indicator items. The AVEs and squared correlations between constructs are detailed in table 4.4. Further to the AVE and squared correlations, composite reliability should also be tested before claiming the validity of the construct. Composite reliability is calculated by squaring the standardised item loadings for each construct and dividing this by the squared standardised item loadings plus the sum of the indicator error terms. A construct score of greater than 0.6 indicates composite reliability. As can be seen in table 4.6, all constructs achieve scores above this threshold. Construct validity was confirmed using all the items for all constructs generated during the initial research phase.

**Figure 4.2–** Wine specific measurement model



**Table 4.4 -** Construct correlations &  $\sqrt{\text{AVEs}}$  for Wine

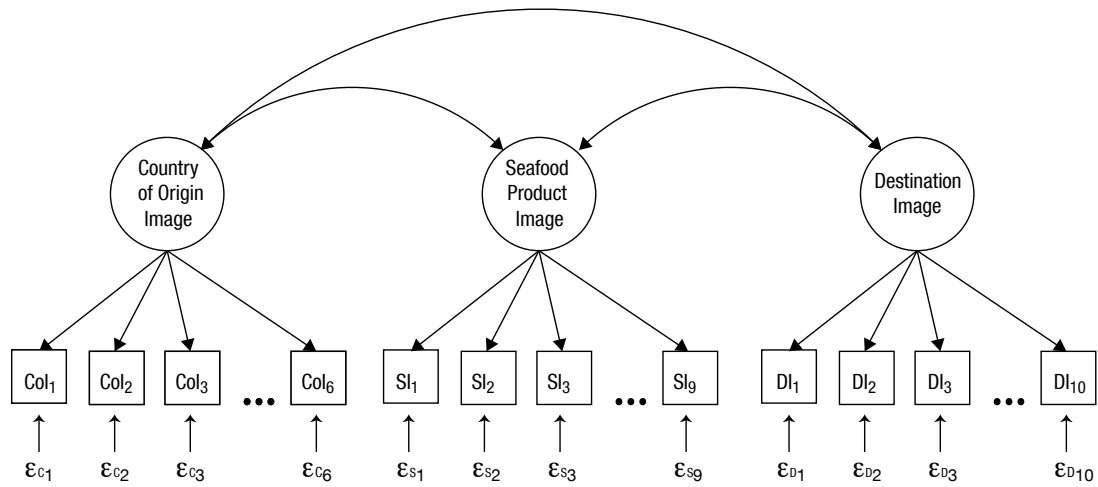
$\varphi$	PCI	DI	PI Wine
PCI	0.86		
DI	0.71	0.87	
PI Wine	0.75	0.56	0.84

\* $\sqrt{\text{AVEs}}$  on diagonal

**Table 4.4a –** CFA chi-square & global fit measures (wine)

$X^2$	$df$	$p$	$X^2/df$	TLI	RMSEA	SRMR
1111.6	249	<0.001	4.46	0.96	0.058	0.054

**Figure 4.3 – The seafood specific measurement model**



**Table 4.5 - Construct correlations &  $\sqrt{AVE}$ s for seafood**

$\varphi$	<b>PCI</b>	<b>DI</b>	<b>PI Seafood</b>
<b>PCI</b>	0.86		
<b>DI</b>	0.71	0.87	
<b>PI Seafood</b>	0.74	0.65	0.87

\* $\sqrt{AVE}$ s on diagonal

**Table 4.5a – CFA chi-square & global fit measures (seafood)**

$X^2$	$df$	$p$	$X^2/df$	TLI	RMSEA	SRMR
838.4	272	<0.001	3.08	9.8	0.045	0.033

**Table 4.6 - Composite reliability check**

PCI	DI	PI Wine	PCI	DI	PI Seafood
0.94	0.97	0.96	0.94	0.97	0.97

Having verified the convergent and discriminant validity of the final set of indicator items to be used in the analysis of the data for this method, consideration of how this data is aggregated and analysed is required.

#### 4.2.5 Assessing the fit of measurement an of structural models

This study uses SPSS AMOS Graphics version 20 to estimate the various structural models investigated (Arbuckle & Wothke, 1997). In examining the fit of the proposed models, with relative stability and insensitivity to sample size (Gerbing & Anderson, 1993), three fit key indices and a chi-squared test should be used to assess overall

model fit (Haire et al 2010, p672). The goodness of fit indicators are: the comparative fit index (CFI); standardised root mean residual (SRMR); and root mean square error of approximation (RMSEA). The thresholds determining good fit in a structural equation model are not fixed, and are determined with consideration to sample size and the number of observed variables. All models presented here have between 12 and 30 observed variables (depending on the structure of the model) and have samples between  $n=480$  and  $n=1030$ . The indicator thresholds for a good fit are: Std.  $\chi^2 < 5$  with an associated significant *p-value*; CFI above 0.92; SRMR of 0.08 or less; and RMSEA with values  $< 0.07$ . Both the SRMR and RMSEA values are contingent on the CFI being more than 0.92.

To compare results across models and between groups, the path weights have to be standardised, relative to sample size, and associated with a significance (*p*) value which determines if the coefficient has statistical importance. These path coefficients take the same form as a  $\beta$  value in a regression analysis. In testing overall model differences between groups (i.e. a multi-group SEM) as is done in this thesis, model invariance has to be calculated by using a chi-square test of difference. This test establishes if, at the model level, two groups differ significantly from each other or if they are invariant. Though there are a number of ways for testing for model invariance (both measurement and structural) in this thesis, the structural model invariance will be tested because the between-group differences of the structural model are of greatest interest. The model is run across both groups but constrained so the structural paths are equal. Then, relative to the degrees of freedom in the model, a chi-square difference test is performed. If the constrained models are not significantly different it can be said that the structural model is invariant between the groups – i.e. the structural relationships are not statistically different between groups. However, if the constrained models are significantly different, it suggests a moderating effect on the structural relationships in the model, and this effect varies by group. This thesis is investigating the moderating role of visitation on product-country evaluations.

### **4.3 Method 2: Modelling salience pick-any data**

Romaniuk (2012) draws on the properties of the Negative Binomial Distribution for standardising measures of attribute salience. This is an adaptation of a process which has been used extensively for modelling brand performance in, among others, FMCG, financial, subscription and services markets (Grahn, 1969; Sharp, Driesener, & Rungie, 2006). As a result the salience-modelling technique is able to generate a range of metrics analogous to brand-performance metrics (BPMs). A set of standardised indices is generated that can be modelled using Dirichlet theory (Goodhardt, Ehrenberg, & Chatfield, 1984; Sharp et al., 2012), and meaningful and expected patterns of association can be identified in the data. Dirichlet parameters can then be estimated to infer the fit of the data to the model as well as highlighting and explaining a number of known patterns in this type of binary data that are drawn primarily from studies modelling repeat-purchase information (Goodhardt et al., 1984; Kearns, 2002; Sharp et al., 2012). The first step in this process of mapping 'mental market share' is achieving a representative range of attributes (J. Romaniuk, 2012).

#### **4.3.1 Determining representative attributes**

According to Romaniuk (2012), the range of brand attributes to be included for salience measurement should be reduced through the following conditions:

- (i) Not including over-correlated attributes;
- (ii) Not including evaluative and descriptive attributes; and
- (iii) the frequency distribution of resulting associations (for each brand) follows a Negative Binomial Distribution (NBD).

#### **4.3.2 Eliminating overlapping mental structures**

Attributes that represent overlapping mental structures must be isolated from the attributes included for salience measurement because they are likely to skew the

underlying distribution of retrieval propensities by tapping into the same concept. To accomplish this, according to Romaniuk (2012), requires the researcher to verify the response patterns - the frequency of associations - for the included attributes are highly correlated by running a number of two-tailed Kendall's Tau-b correlations. Kendall's Tau-b, unlike Pearson's, is a nonparametric correlation test because the presumption - which has subsequently been proved correct repeatedly over time and many categories - is that the data will skew toward the lower end - i.e. more people with fewer associations, fewer people with more associations.

As per Stocchi (2011), the typical output of this analysis provides, at brand (country) level, a set of double-entry tables of the correlations across all attributes and their level of statistical significance. From this the averages of the correlations are calculated and the values used to populate a category-level double-entry table displaying, for each attribute, the deviation from the average correlation. A positive difference of 0.15 to 0.20 from the average is indicative, in terms of use for this application, of a set of over-correlated attributes (Stocchi, 2011). If two or more attributes show a *positive* and significant correlation across all brands, it is possible to infer that those attributes are tapping into very similar memory constructs (e.g. wine that is "uncontaminated" and "safe to drink"). Only one of each set of over-correlated attributes should be included in the salience measurement (J. Romaniuk, 2012; Stocchi, 2011).

#### **4.3.3 Eliminating descriptive and evaluative attributes**

When considering salience measurement, two robust empirical patterns have been identified frequently as defining brand-image data: a.) the relationship between brand usage and the provision of brand associations, known as brand usage bias (Bird, Channon, & Ehrenberg, 1970; Jenni Romaniuk, Bogomolova, & Dall'Olmo Riley, 2012); and b.) a double-jeopardy effect (A. S. Ehrenberg, Goodhardt, & Barwise, 1990; Winchester, 2006). Brand-usage bias indicates that a respondent's propensity to suggest a brand has a particular attribute depends to a significant

degree on whether or not they buy the brand. In this study, however, brand users are defined as visitors versus non-visitors.

Romaniuk (2012) contends that an accurate measurement of brand salience requires identifying overly evaluative and descriptive attributes and eliminating them from the sub-set finally used for measurement because they would alter retrieval propensities across all brands (countries) and the overall level of salience for the category. To identify evaluative and descriptive attributes requires the establishment of a 'normal' usage bias for each attribute. The associations for individual attributes provided by users and non-users are cross-tabulated, allowing for the proportion of associations provided by users and non-users of a brand to be calculated. These proportions are used in a linear regression by plotting the responses of users against non-users and calculating a line of best fit. This allows the theoretical or expected proportion of responses for non-users to be estimated using the b-coefficients (Stocchi, 2011).

Deviations between the observed and expected level of response for non-users greater (smaller) than five per cent suggest that the attribute is deviating from the usage-image constraint and should not be included in the set of attributes to be used for salience measurement (J. Romaniuk, 2012). Large negative deviations represent overly evaluative attributes, and large positive deviations represent descriptive attributes. If deviations are consistent across all brands, the deviating attribute must be removed from the subset used for salience measurement (J. Romaniuk, 2012). This process was undertaken here, and the final list of attributes reduced for use in the analysis are presented below.

#### **4.3.4 Fitting the NBD to the frequency of brand associations**

On removing the attributes that overlap and deviate from the usage-image pattern it is necessary to determine how many attributes should be included in the range for salience measurement. The number of attributes should be sufficient to describe

propensity for all brands to be recalled from the respondent's network of association (J. Romaniuk, 2012).

This minimum requirement is to ensure that smaller brands are sufficiently represented, particularly as larger brands tend to be over-represented in image surveys (Sharp, 2010). It is common within a number of literature fields in marketing and economics to apply a frequency distribution to assess the ideal number of items required to describe a full range of propensities (C. Rungie, Laurent, Dall'Olmo Riley, Morrison, & Roy, 2005). Romaniuk and Stocchi (2009) found that the negative binomial distribution or NBD is particularly effective in predicting the incidence of attribute associations in brand image data. The key inputs for fitting the NBD to brand image data are: the observed average number of associations for an individual brand given the sub-set of attributes obtained after eliminating over-lapping and descriptive/evaluative attributes; and the observed proportion of people providing at least one association, given the identified sub-set of attributes (J. Romaniuk, 2012; Stocchi, 2011).

By comparing the deviations between estimates and observed values (e.g. calculating Mean Absolute Deviations, MADs or Mean Percentage Errors MAPEs) it is possible to appraise whether the NBD 'fits' and if the number of attributes included in the set is suitable to describe brand associations of all brands. Fit is based on a benchmark of MADs smaller than 5 per cent (J Romaniuk & Stocchi, 2009). Small MAD values (between 0 and 1 per cent) or MAPEs (less than 20 per cent) indicate that the number of attributes appears adequate to capture retrieval propensities for a brand. By repeating this for all individual brands assessed in a brand-image survey it is possible to understand if the number of attributes is suitable for measuring brand salience for all brands. The full set of data fitting can be found in the Appendix. Having reduced the attribute numbers as per Romaniuk's procedure, all the remaining attributes for each country for each category fitted within the above



thresholds. Through this process of attribute elimination, a final list of attributes is determined for use in the final analysis. The attributes are:

**Table 4.7a - Saliency Attributes**

<b>Tourism attributes (12)</b>
A safe place to holiday
A variety of holiday entertainment & activities
Beautiful beaches
Exciting to visit
Exquisite cuisine
Famous tourist attraction
Friendly local people
Good shopping
Pleasant climate
Promoted as a holiday destination
Unique natural environment to explore
Unique wildlife

**Table 4.7c - Saliency Attributes**

<b>Wine product attributes (11)</b>
Produces wine available in China
Wine suitable for collection
Wine manufactured to high technical specifications
I know the different varieties of wine
I know that different brands of wine
Uncontaminated
High-quality wine
Wine suitable as a gift
Wine represents status
Stylish wine
Luxury wine

**Table 4.7b - Saliency Attributes**

<b>Country-of-origin attributes (9)</b>
Technologically advanced
A wealthy country
Pollution-free environment
Provides high-quality education
Rich in natural resources
Produces high quality goods
Active participation in international affairs
A good trading partner with China
Attention to detail when manufacturing

**Table 4.7d - Saliency Attributes**

<b>Seafood attributes (8)</b>
Safe to eat
Fresh
Wild caught
Suitable as a gift
Large in size
Uncontaminated
Expensive
A status product

A mental market share analysis follows the identification of those items that are salient and not salient for Australia in the mind of Chinese consumers. The purpose is two-fold: a.) it allows for the production of a standardised set of measures to discern the competitive nature competition for Chinese consumers' "share of mind" in the different image/product categories; and, perhaps most importantly, by fitting the image data to a set of standardised norms with fit criteria it is possible to assess whether the image data correctly fits known patterns in this type of analysis. In this way it can be shown that for this type of analysis the data for Australia is sufficiently representative of each image construct. This is analogous, in theoretical terms, to establishing convergent validity in a construct/SEM setting, though the processes are different. A good fit suggests the attribute items are representative of the higher-order construct being measured. Such a rigorous process is important – the aim is to directly compare alternative measures (scale and pick-any) in a structural environment so, as far as practicable, the processes undertaken in one preparation of the data should be replicated on a theoretical level with the other.

#### **4.3.5 Deriving mental market share metrics**

Fitting the Dirichlet model to salience metrics involves: a.) inputting the observed salience metrics (namely Salience Penetration and Association Rate) for individual brands (ranked according to the % of Brand Salience) and for the overall category in the Excel software for Dirichlet analysis by Kearns (Kearns, 2002); and using the Means and Zeroes estimation approach (Goodhardt et al., 1984; Morrison & Schmittlein, 1988) to form an estimate of the parameters of the Dirichlet model distributions and, as a result, the *mental market share* metrics.

### *Standardized salience metrics*

A set of salience metrics is calculated from the reduced set of attributes:

- *Salience* – the percentage share of associations for each country in the category relative to competing countries. This is akin to Market Share in brand performance metrics (BPMs);
- *Salience Penetration* - the percentage of respondents providing at least one association for a specific country. This is analogous to Market Penetration in BPMs;
- *Association Rate* - the average number of associations for a specific brand. Akin to Average Purchase Frequency; and
- *Share of Mind* – the percentage share of associations held by those with at least one association to a specific brand, in relation to competing brands. Akin to Share of Category Requirements.

This part of the analysis is important, as the process of defining the image items is similar in its drive to the factor structure process that was undertaken in the first part of the chapter – though rooted in a different conceptualisation of how consumers use information. By completing this step both data types have undergone a rigorous process of defining and refining the items and attributes that make up the image constructs and anchors which are under enquiry in this study. Ensuring the “Mental Market Share” models are a good fit is analogous to determining convergent validity in the measurement process of the first method.

#### **4.3.6 Model fit indices**

Comparing observed and theoretical values produced from estimating the Dirichlet model using Kearns software (2002) allows for the generation of a set of fit statistics.

These are the same indices used for evaluating behavioural metrics in the NBD fitting and determine the MADs and MAPEs for each category model. Romaniuk successfully applied Dirichlet modelling to brand-salience metrics for multiple product categories (J. Romaniuk, 2012). The author reported that the model shows good fit statistics for various product categories, as well as for the individual brands analysed within the categories. As a result, the model is deemed suitable for predicting the theoretical equivalents of the observed brand-salience metrics. Figure 4.4 shows an example of the modelling output when the Dirichlet is fitted to country-product image (seafood in this example) salience metrics.

**Figure 4.4** - Example of country-product image salience modelling; Seafood

	Salience %		Salience Penetr. %		Association Rate		Share of Mind %	
	O	T	O	T	O	T	O	T
AUS	33	33	82	78	4.8	5.1	31	32
NZ	19	18	65	66	3.5	3.4	18	19
FRA	12	12	53	55	2.7	2.7	15	14
USA	11	11	49	51	2.6	2.5	13	13
SA	9	9	41	47	2.6	2.3	12	12
UK	9	9	41	46	2.6	2.3	13	12
CHIL	7	8	37	42	2.4	2.1	10	11
<b>Average</b>	<b>14</b>	<b>14</b>	<b>53</b>	<b>55</b>	<b>3.0</b>	<b>2.9</b>	<b>15</b>	<b>16</b>

Fit statistics

	Salience	Salience Penetr.	Association Rate	Share of Mind
<i>MADs</i>	0 %	2 %	0.1	2 %
<i>MAPEs</i>	1 %	5 %	5 %	9 %

#### 4.3.7 Identifying salient attributes for Australia

The mental market share analysis, however, is an aggregate or category specific analysis where aggregate attribute counts and association shares are calculated for all the competitive countries/brands and does not specifically isolate those attributes most salient for specific countries. To establish those items specifically salient or not

in regard to Australia a further procedure is required. That is, those items most commonly associated with Australia from a within-subject perspective. This is a proxy measurement for individual networks of associations about Australia, its tourist image, country-of origin image and seafood and wine. By establishing the most-salient items for respondents across the sample and image categories it is possible to discern the items most commonly activated and associatively linked.

To measure the propensity of the respondents to associate the *i*-th element of *z*-th country image or product dimension to the *j*-th country, the formula below calculates the deviation from the expected value a *i*-th element of the *z*-th product dimension would receive from the respondents with regards to the *j*-th country (Corsi, Lockshin, & Mueller, 2011):

$$\%Dev_{izjk} = \left[ \frac{Count_{izjk} - \left( \frac{\sum_{i=1}^n Count_{izjk} * \sum_{j=1}^m Count_{izjk}}{\sum_{i=1}^n \sum_{j=1}^m Count_{izjk}} \right)}{n_k} \right] * 100$$

Where:

$Count_{izjk}$  = number of times the *i*-th element of the *z*-th country image or product dimension has been associated to the *j*-th Country by the respondents belonging to the sample *k*;

$n_k$  = number of respondents in the sample.

Similar to the concept of statistical significance, all the *i*-th deviations greater than 5 per cent from the expected value are considered important and characterise the most salient perceptions relating to a specific country (Corsi et al., 2011). Then a within-subject cross-tabulation is carried out with those attributes most salient (greater than  $\pm 5\%$  deviation) for the country-image anchors (DI, PCI) against the most salient

product-image attributes for wine and seafood, to discern linked association patterns.

#### **4.3.8 Extending the analysis – structural modeling of salience data**

What the previously described procedures do not do - and nor were originally designed to - is directly establish structural links *between* the image categories. It establishes only the relative salience and share of mind accounted for by each country *within* the image category. While interesting and meaningful inferences can still be drawn from the results (Results and Discussion chapters), in a “pound for pound” assessment of the method in comparison to the others, this analysis technique by itself does not establish direct correlational relationships between the categories (previously defined as constructs in method one). Though inferences about the relationships can be made to test the statistical properties or likelihood of those inferences, a further step is required - the data generated by the pick-any method will be subjected to structural modelling as denoted in method one.

It is noted that SEM analysis is generally performed using indicator variables that are operationalised using scales, considered as continuous measures. While the technique has been optimised for the use of scale data, it is entirely possible and feasible to estimate models using other types of data such as binary, categorical and count variables (Hair 2010, Yu, 2002). Particularly with the advances in modern SEM software, dummy variable and dichotomous data can be imputed into working structural models – as has been done here.

It is also noted that using count indicators in the maximum likelihood driven standard AMOS 21 estimation is slightly problematic. Count variables have a known non-normal frequency distribution (as defined by the previous steps in estimating accurate image items for salience data) the data has a negative binomial distribution. A continuous measure with normal distribution is one of the underlying assumptions of maximum likelihood estimation in AMOS.

However, Mplus offers a work around for this. Mplus uses a different underlying algorithm to estimate models with differing distributional assumptions or mixed distribution data and as a result pre-known distributional properties deviating from normal – in particular negative-binomial - and data types that are not continuous can be accommodated (Muthen & Muthen, 1998-2010). Further, in this case the pick any variables are being theoretically treated as continuous indicators for a construct – the more salient items the greater the propensity to select the product in a purchase situation. As the results are aggregated across the sample they will generate a mean and standard deviation which will be able to let the SEM algorithm run and estimate the covariation between all the indicators. Though there will be a scale difference between the scale and binary indicators, this will be accounted for with standardised regression weights which Mplus produces in its output.

Having acknowledged this, a reasonable *a priori* assumption is that there would be a correlation between positive attributes associated with a country in general and the positive attributes associated with that country's products, making it possible to measure the level of the level of covariation that can be observed in the data – i.e. model its structure. However, due to the nature of the data, some of the assumptions about the fit of the data to the proposed models – as detailed in method one – will likely need to be relaxed because there will be far less variability in the data (Yu, 2002). This will allow for an integrated analysis of both scale and pick-any data to find whether the data captured by each methods covaries across methods. As stated earlier in this chapter and in the literature review, a reasonable *a priori* assumption would be that both methods should show some common covariation if they are measuring the same underlying structures.

## **4.4 Method 3: Modelling preference with discrete-choice data**

Discrete-choice experiments are used to estimate the choice preference for a sample, using a mutually exclusive and collectively exhaustive set of alternatives (Ben-Akiva & Lerman, 1984). From this type of analysis inference can be drawn about the sample's preference for individual alternatives (i.e. products), the importance respondents place on the macro-level attributes of the alternatives, and preference for the various levels of the attributes.

### **4.4.1 Data generation**

The alternatives produced for each experiment were imported into the survey structure as described previously. Following the appropriate design plans, choice sets of four alternatives were placed in survey blocks so, for each part of the experiment, respondents were exposed to a single choice set at a time. From the set, respondents were required to choose one alternative, each time being asked: "If you are ordering in a restaurant and you had the following options, which one would you choose?" Following the BIBD, each respondent saw 8 choice sets for each experiment. Each respondent saw the choice sets from each block in a randomised order, and within each choice set the order of the alternatives was also randomised. This generated a data set with 8 discrete values per experiment per respondent.

### **4.4.2 Data coding**

To expand the data to the correct dummy coded format it must first be exported from the raw data set - in this case using SPSS version 20 - to MatLab where a purpose-designed macro is run on the data. Using the original orthogonal design plans used to generate the final experiments as a code matrix, the software constructs a new data set where the observed choice becomes a combination of 0,1s that are indicative of the attribute levels in each set that make up the selected alternative.



#### 4.4.3 Model specification and estimation

Having recoded the data, a model form has to be selected in analysing it, and the choice of model form is dependent on the assumptions made about the distribution of the random utility in the model. Multinomial Logit (MNL) was chosen for the analysis in this thesis from the many model forms within the literature. MNL is the most tractable model form, the most commonly used and regarded as the “workhorse” of choice modelling (Hensher, Rose, & Greene, 2005).

As the experiments used in this thesis are relatively simple - in the world of choice modelling at least - and the thesis is not testing the different distributional assumptions of choice models, MNL is more than adequate for drawing meaningful conclusions from the data. MNL models work on the assumption that random utilities are independently and identically distributed as a double-exponential function, which is important in this study because the assumption helps satisfy the Luce choice axiom (Luce, 1959). The axiom is that the probability of choosing one item over another from a set of many items is not affected by the presence or absence of other items in the set, also known as independence from irrelevant alternatives (IIA) (Luce, 1959; McFadden, Tye, & Train, 1976). The implication is that the ratio of choice probabilities of any two alternatives depends only on the perceived utility of their attribute levels and is totally unaffected by other alternatives that may be available. No allowance is made for different degrees of substitution or complementarity among choice alternatives. Any other alternatives included in a choice set draw market share equally from each other (Luce, 1959; McFadden et al., 1976).

This is particularly relevant in the analysis performed in this thesis. The subject of interest is not the specific product per se but the relative difference between consumer perceptions of where the category of product originates from and how this may change between two groups with different conditional backgrounds – e.g. have

been or have not been to Australia. The MNL estimation gives a clear relative measure of this influence distributed between the countries represented in the sample. It is useful here to consider the alternatives as non-substitutable in that they have different functional forms defined by their origin. As per the literature review chapter the utility estimates are derived from the following form:

$$U_{ijt} = \beta_{ijt}X_{ijt} + \varepsilon_{ijt} \quad (1)$$

Where  $\beta$  is an estimable coefficient fixed for each respondent and unknown to the researcher and  $\varepsilon$  is iid extreme value (normally distributed) over time, people and alternatives. That is, a fixed coefficient MNL estimator.

Having defined the model form, estimation method must also be specified. As with selecting a model form, there are a number of estimation techniques available. This thesis uses Maximum Likelihood estimation because it is the most-used technique in choice modelling applications. The models estimated individually in this thesis therefore take the following structure to estimate the systematic components of utility:

#### Systematic Component of Utility for the Fixed Coefficient Model

Fixed Model

$$v =$$

$$+ \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_5 x_5 + \beta_6 x_6 + \beta_7 x_7$$

$$+ \beta_8 x_8 + \beta_9 x_9 + \beta_{10} x_{10} + \beta_{11} x_{11} + \beta_{12} x_{12} + \beta_{14} x_{14}$$

The coefficients  $\beta_1$  to  $\beta_{14}$  are all fixed (not random) and were estimated from the data.

**Note:** A full listing of covariates for the above model can be found on pg.176

#### 4.4.4 Data analysis and output

With data collected and appropriately transformed, and model form and estimation technique considered and specified, the appropriate specialised

statistics/econometric software package must be selected to analyse the choice data. There are a number of packages suitable for this purpose, such as Sawtooth, Limdep, DiSCoS, R and STATA. The analysis for this thesis has been performed using Limdep and DiSCoS.

Utility coefficient ( $\beta$  for each attribute level) estimates are generated for each of the attribute levels in the experiment. The coefficients are arbitrarily defined by the data generated from the experiment and give a relative measure of the preference for each of the levels of the attribute represented in the experiment. Each utility coefficient is associated with an estimated p-value, to approximate its statistical significance. This takes the same form as the p-values presented in other models where the significance alpha level of  $p > 0.05$  (or the absolute value of 1.96) denotes the 95 per cent probability that the estimate was different from zero (thus not obtained by chance), and specifies whether, statistically, the coefficient can be used inferentially.

As with method one, DCE modelling also produces an overall goodness-of-fit test. When specifying a MNL model and using MLE specification, a Log-likelihood ratio test (LLR) is most commonly used to test for fit. This test is akin to an overall  $F$ -test in an ordinary least squares (OLS) regression, and produces a fit statistic in a similar vein. Though the tests are akin, the statistic is interpreted differently. The DCE LLR test produces a *pseudo-R*<sup>2</sup> (denoted as  $q^2$ ). However, as the OLS is estimated as a linear function and the MNL-MLE is logistic in nature, they are not directly equivalent. In this instance  $q^2$  in the range of 0.2 to 0.4 is indicative of extremely good fit. The pioneering work in the field of choice modelling has determined this is equivalent to range of 0.7 to 0.9 in terms of a standard regression  $R^2$  (Louviere et al., 2000).

#### **4.4.5 Between-group comparison using Structural Choice Modelling (SCM)**

As has been done with the other forms of analysis, consideration must be given to the split-sample consideration of the Chinese consumers who have been to Australia

and those who have not. It is recognized that comparisons of partworths between discrete-choice experiments (DCEs) are highly useful but problematic because of omitted covariates and scale issues confounding the error term. Traditionally this has made it difficult to compare separate DCEs even if they use the same designs and attribute levels on the same respondents. However, using structural choice modelling (SCM), it is possible to analyse and compare two DCEs applied to the same respondents in different product categories. With SCM, covariates can be given random coefficients and linked using a structural model across DCEs. An important facet of SCM is that the scale issues mentioned above do not adversely affect statistical tests, goodness of fit and structural links between the two DCEs.

As a result it is possible to examine the consistency of preferences for country of origin across the two product categories and across visitors and non-visitors to Australia. This type of analysis is only possible with the DiSCoS software (C. M. Rungie, Coote, & Louviere, 2011).

In doing so it is possible to consider whether respondents who have visited Australia will demonstrate consistent preferences for the two product categories, seafood and wine, across the two experiments. By using SCM it is possible to establish if preference is correlated across both experiments, which would suggest the same respondents show a preference for Australia across both experiments. This Means COO effects on choice can be simultaneously estimated across categories, something that has not previously been possible.

To do this a more advanced model form is used which is a mixture of fixed coefficient and random coefficient utility coefficients. This type of model form is generally referred to as a Mixed MNL model, where some of or all of the parameters have a random coefficient applied to them by the researcher. This is done to excise a greater sensitivity to the heterogeneity within the sample. It has been shown that random parameter models have advantages over fixed parameter models in

estimating coefficients and models driven by random utility (Train, 2000). The random parameter or Mixed MNL form is therefore slightly different to the standard MNL in estimating utility. It has an additional constraint placed on it by the researcher, the random variable component. It takes the general form:

$$U_{ijt} = \beta'_{ijt} X_{ijt} + \varepsilon_{ijt} \quad (2)$$

$\beta'_{ijt} X_{ijt}$  is a vector of values that can be fixed, denoted as  $\beta_i$ , or random, denoted as  $(\beta_i + \sigma_i \tilde{\beta})$  where the random coefficient,  $\tilde{\beta}$ , has mean zero, and a standard deviation,  $\sigma$ , estimated from the data.. The random variable is normally distributed. This distribution is arbitrarily selected mostly for its computational properties although it can be a variety of shapes, normal is conventional (Train, 2000) and adopted here. A deeper discussion of this is beyond the scope of this thesis, however, applying random parameters for some parameter in the models used herein is.

As random parameters amplify or enhance preference heterogeneity by applying random components to particular attribute levels of interest will make the preference heterogeneity more prominent for those levels. While such an approach might not be desirable within experiments because some parameters would be comparatively overestimated and others underestimated, when considering preference heterogeneity *across* experiments with some common attributes and levels this is a desirable approach if it is considered that some latent factor may be ubiquitous in its effect on choice outcomes in both experiments. In this thesis consideration is given to the effect of "Australia" as a country-of-origin, which, as discussed, is a latent variable, one which it is asserted has some bearing on product evaluations and choice probabilities.

In the second phase of the analysis, the two DCEs for seafood and wine are combined so heterogeneity across the two categories can be modelled using

structural choice modelling (SCM) (Rungie, Coote and Louviere, 2011)(C. M. Rungie et al., 2011). Four random coefficients are applied to four of the covariates,  $\tilde{\beta}$ , were used in a manner that enables them to be modelled as latent variables across the constant attributes of interest across the experiments. These are the country-of-origins for Australia and China. Then SCM is used to evaluate correlations across the two categories. The specification of this partial random coefficient model is given in below and can be compared with the fixed coefficient model presented previously on page 135.

### Systematic Component of Utility for Partial Random Coefficient Model

#### Partial Random Model

$v =$

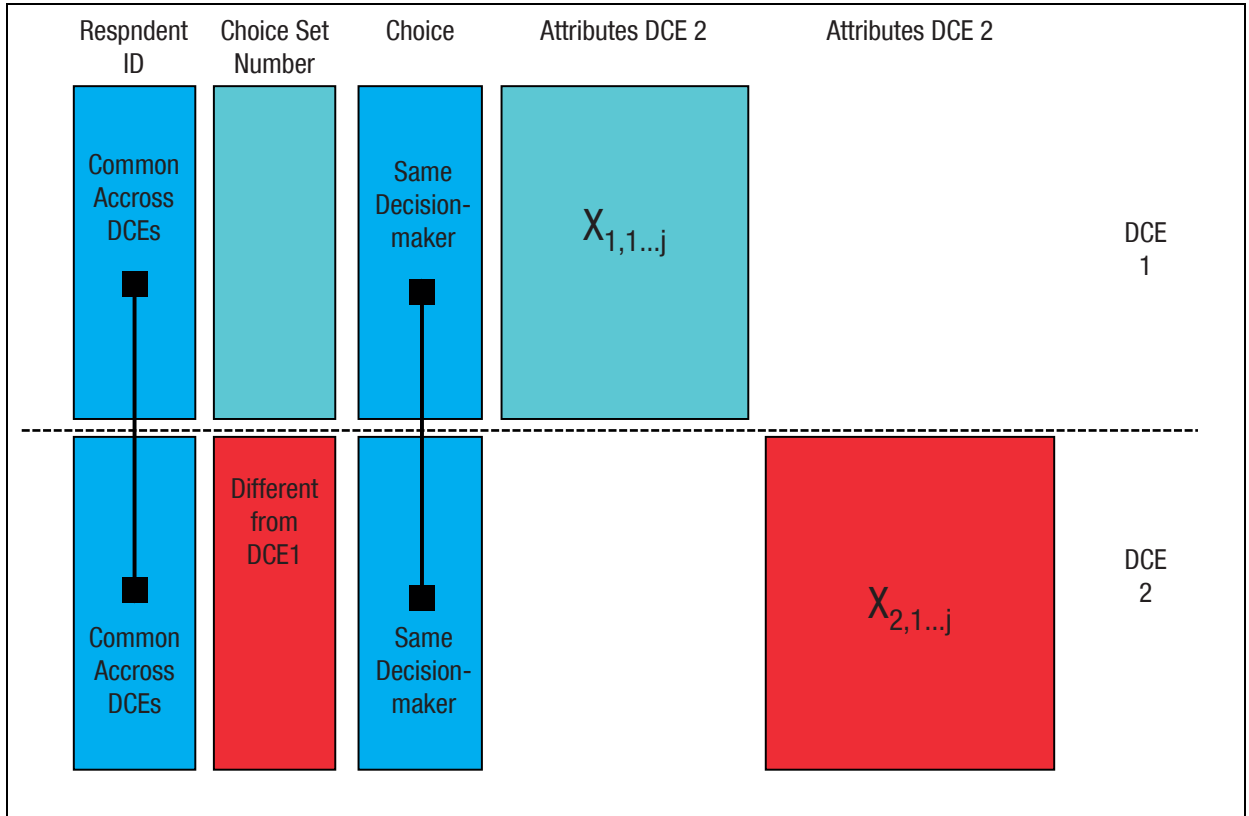
$$\begin{aligned}
 & + \beta_1 x_1 + \beta_2 x_2 + (\beta_3 + \sigma_3 \tilde{\beta}_3) x_3 + \sigma_4 \tilde{\beta}_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \beta_7 x_7 \\
 & + \beta_8 x_8 + \beta_9 x_9 + (\beta_{10} + \sigma_{10} \tilde{\beta}_{10}) x_{10} + \beta_{11} x_{11} + \beta_{12} x_{12} + \sigma_{13} \tilde{\beta}_{13} x_{13} + \beta_{14} x_{14}
 \end{aligned}$$

$\tilde{\beta}_3, \tilde{\beta}_4, \tilde{\beta}_{10}$  and  $\tilde{\beta}_{13}$  were standard Gaussian with mean zero, variance one and were independent except  $\text{cor}(\tilde{\beta}_3, \tilde{\beta}_4)$  and  $\text{cor}(\tilde{\beta}_{10}, \tilde{\beta}_{13})$  were estimated from the data.

**Note:** A full listing of covariates for the above model can be found on pg.176

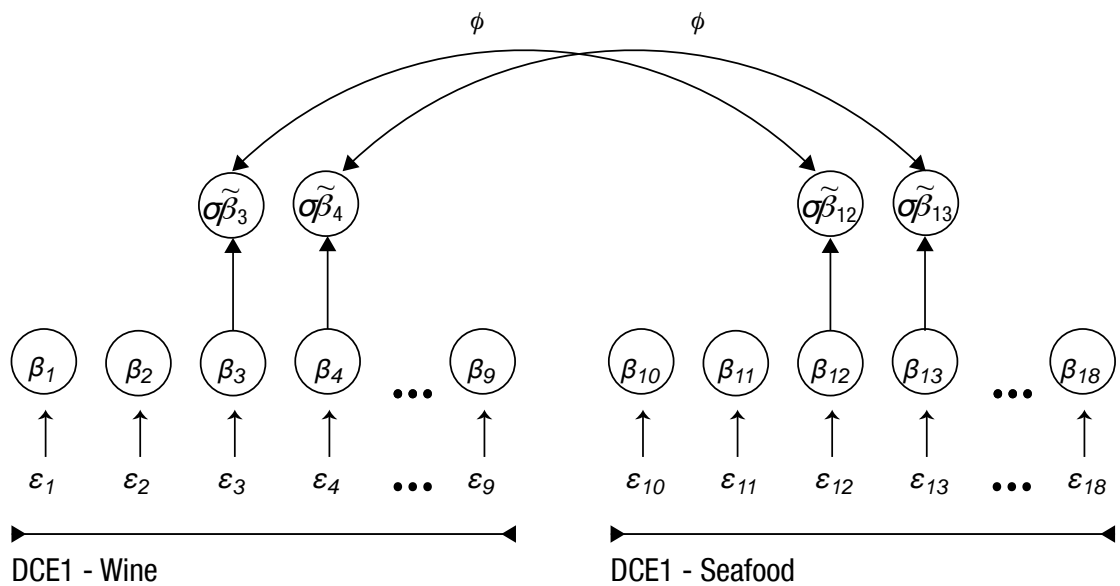
This structure is possible because of the data matching process that SCM uses. The same respondents who take part in the same DCE have their data matched across experiments in the manner denoted in Figure 3. This allows the response patterns to be correlated across the experiments

**Figure 4.5** – Matched data sets with the same decision maker



This model specification can also be represented using a path diagram, much in the same way as a SEM is. This is demonstrated in Figure 3.

**Figure 4.6** – SCM path diagram linking covariates across experiments



## 4.5 Chapter summary

This chapter has detailed the three methods of data collection and analysis used in this thesis. First is the construct based structural equation modelling approach that is predominantly used in the country of origin and tourism literature. In particular it details the indicator items that have been identified as appropriate for final analysis, and how they were obtained. Drawing on the initial elicitation process, and an exploratory factor analysis, the constructs identified in this research are confirmed as having convergent and discriminant validity. The fit criteria for the structural models that are estimated in the following chapter are also detailed.

Next the procedure for appropriately identifying salient attributes from a consumer image survey was detailed. By using the NBD-Dirichlet model for fitting brand associations to known patterns in brand image data a final set of attributes appropriate for final analysis was determined. Following the determination of the salience measures for the category, the method for identifying those items that are salient and non-salient for Australia specifically is detailed. Then, in preparation for an integrated modeling approach to analysing both the attitude and salience data, and to produce a set of contingency tables for a competitive salience analysis, Romaniuk's "mental market share" procedure is detailed.

Finally, the discrete choice component of the research is described. Unlike the first two methodologies that consider the consistency of psychological indicators in understanding and/or predicting behaviour, the discrete choice draws inference from an analysis from the behaviour itself. As a result the antecedent procedures to the data collection and analysis are considerably different. While the first methods attempt to validate constructs and image objects, the discrete choice approach determines how respondents interact with a changing set of product and situation specific alternatives and these have been described in this chapter.



## 5 Results Chapter

This chapter presents the results of the four different sets of analysis performed on the main data set used for this thesis in investigating the research objectives stated in **Chapter 1**. For each of the four sets of analysis the sample is segmented so a comparison can be made between those who have been to Australia those who have not. The chapter is separated into the following sections:

**§ 5.1 Method 1: Forced-choice scale measures** – The first level of data analysis applies the most common method used in country image studies, attitude theory-based Likert scale data analysed using structural equation modelling (SEM). These results establish a benchmark against which to assess the alternative measurement approaches.

**§ 5.2 Method 2: Free-choice pick-any measures** – The second level of data analysis presents the results of an alternative, associative network theory-based pick-any method, analysed using a number of statistical tools primarily derived from the branding literature. This approach identifies how salient Australia is in the mind of Chinese consumers, relative to a set of competing countries - as a tourist destination, as a country that exports goods and as a country supplying wine and seafood to China.

**§ 5.3 Integrated comparison of methods 1 & 2 using SEM framework** – The third level of analysis takes an exploratory approach to investigate the proposed structural relationships between DI, PCI and product image, as measured using different data types. Its aim is to provide a one-to-one comparison of the Likert versus pick-any methodologies by modelling them within the same structural model.

**§ 5.4 Method 3: Discrete-choice analysis** - The first three analysis procedures look to establish the link between latent variables measured by observed scale items or attribute associations. Respondents also completed two discrete-choice experiments (DCE). The DCE identifies the sample's stated choice preference for Australian wine and seafood in relation to the set of competitor countries used in § 5.2. It presents stand-alone choice-modelling results for each product category and uses structural choice modeling (SCM) to link respondents' choice preferences across categories.

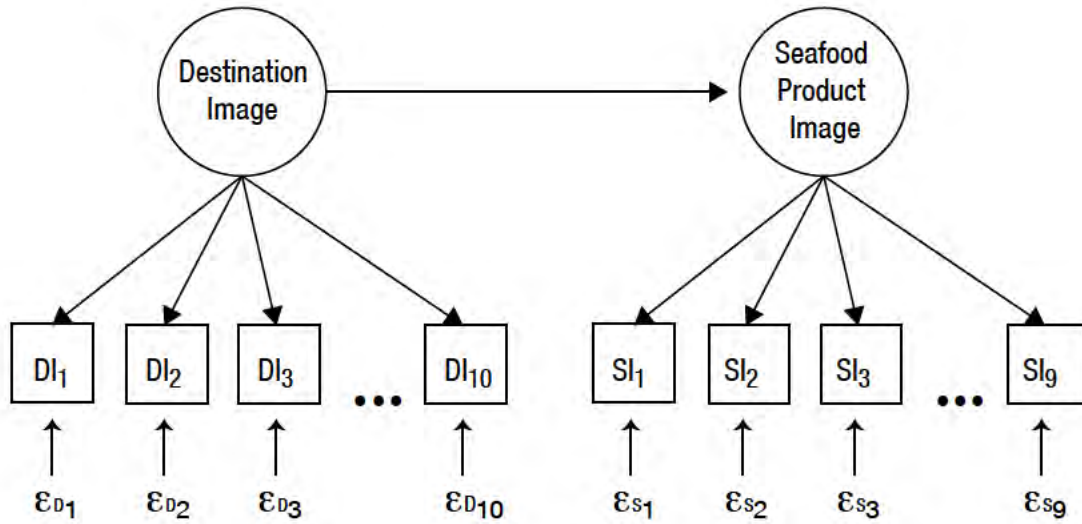
## 5.1 Method 1: scale measures & SEM analysis

As detailed in chapters 3 and 4, respondents in this study were asked a battery of Likert-scale questions, a method used extensively in tourism and country-of-origin studies. These items are detailed in the Methods chapter. The data has then been modelled using structural equation modelling (SEM). Multi-group SEM results are displayed for the two groups under investigation in this thesis - Chinese consumers who *have been* to Australia those who *have not*. The models estimated begin with simple two-construct structures where the influence of DI and PCI on product image formation is estimated separately. This is in keeping with the disparate nature of PCI and DI studies that do not typically consider the other literature stream's constructs when testing models. The results from fitting the data to the more complex integrated models, which include both DI and PCI constructs in the same model, are presented second. The specified model results are displayed with a) a visual representation of the model and b)  $R^2$  for the dependent variable in the model, standardized regression weights between constructs and table fit indices. Model invariance is also tested between the groups, on the structural model, using a Chi-squared test of difference. This establishes whether a moderating effect of visitation is evident for causal relationships in the model. In each model presented here, to ensure identifiability, and to allow for the free estimation of the DV of interest (product image), the unstandardized values of the country image constructs (PCI and DI) have been set to 1 - a common SEM equality constraint.

### 5.1.1 Two-construct structural models

A multi-group SEM is estimated for each country construct regressing on each product category, for a total of eight models - two multi-group models for DI regressing on seafood and wine product image and two multi-group models for PCI regressing on seafood and wine product image.

**Figure 5.1** Structural model for DI and seafood product image



**Table 5.1** Fit statistics for structural model DI and Seafood

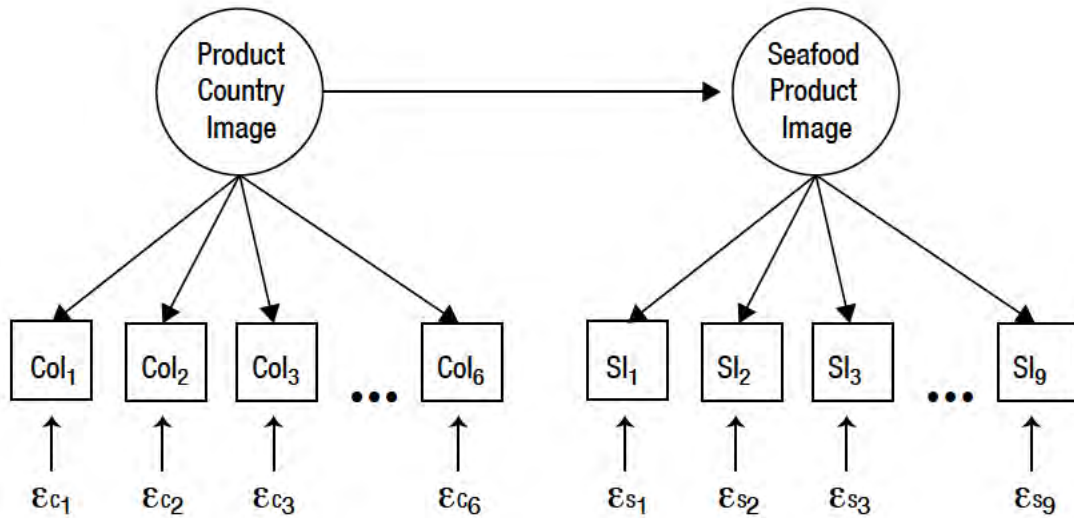
Group	$R^2$	$\beta$	$p$	Std. $\chi^2$	$p$	SRMR	CFI	RMSEA
Been	0.41	0.64	<0.001	1.77	<0.001	0.04	0.97	0.06
Not been	0.47	0.68	<0.001	2.94	<0.001	0.04	0.95	0.07

**Table 5.2** Chi-square tests for structural model invariance

Structural invariance	$\chi^2$	df	$\chi^2/\text{diff.}$	$df/\text{diff.}$	Sig
Unconstrained	717	304			
Fully Constrained	740	322	23	18	0.193

*The result indicates that, in this model, DI explains 47% of the variance in the seafood image-dependent variable for the non-visitor group. The visitor group DI explains 41% of the variance. The visitor data fits the model best but explains less variance in the dependent variable. The models are invariant. There are no statistically significant differences between groups. No moderating effect is being observed.*

**Figure 5.2** Structural model PCI and seafood product image



**Table 5.3** Fit statistics for structural PCI and seafood

Group	$R^2$	$\beta$	$p$	Std. $\chi^2$	$p$	SRMR	CFI	RMSEA
Have been	0.65	0.81	<0.001	1.74	<0.001	0.04	0.99	0.04
Have not been	0.55	0.74	<0.001	2.39	<0.001	0.04	0.98	0.05

**Table 5.4** Chi-square tests for structural model invariance

Structural invariance	$\chi^2$	df	$\chi^2$ /diff.	df/diff.	Sig
Unconstrained	367	178			
Fully Constrained	380	193	13	15	0.570

*In this model, DI explains 55% of the variance in the seafood image-dependent variable for the non-visitor group. For the visitor group DI explains 65% of the variance. The visitor data fits the model best. The models are invariant. There are no statistically significant differences between groups. No moderating effect is being observed.*

### 5.1.2 Observations from the two-construct models - seafood

With the simple two-construct models the PCI and DI and seafood image data fits well. This is no great surprise, with the convergent and discriminant validity of all the constructs being tested (found in the Methods section) having previously been established using exploratory and confirmatory factor analysis. A strong positive and significant relationship between the two country-image and seafood-image constructs is seen in all the models. This coalesces with results found in other studies, in tourism and country-of-origin, so a significant directional relationship between the country and product representations was expected when run in the simple two-construct models. The results confirm this relationship and indicate its magnitude.

The suggested relationship between DI and seafood product image, in the absence of the PCI construct, is strong and significant, with standardized regression values ranging between 0.64 and 0.68. With reasonably large  $R^2$ , in the absence of any other antecedent, DI appears to account for a significant amount of variation in the seafood product image. The model is not moderated by visitation.

The posited relationship between PCI and seafood product image, in the absence of the DI construct, is also strong and significant, with standardized regression values ranging between 0.74 and 0.81. This suggests in relative terms that the PCI construct accounts for a greater amount of variation in the seafood product image than does DI. The model is not moderated by visitation.

This is an interesting result as it may have been expected that a (country) usage or familiarity effect might have impacted positively or negatively on the results obtained between the two different cohorts, but this appears not to be the case here. Between the two-country constructs the PCI models perform better than DI models in terms of accounting for variation in the dependent variable and fit indicators.

Figure 5.3 Structural model for DI and wine product image

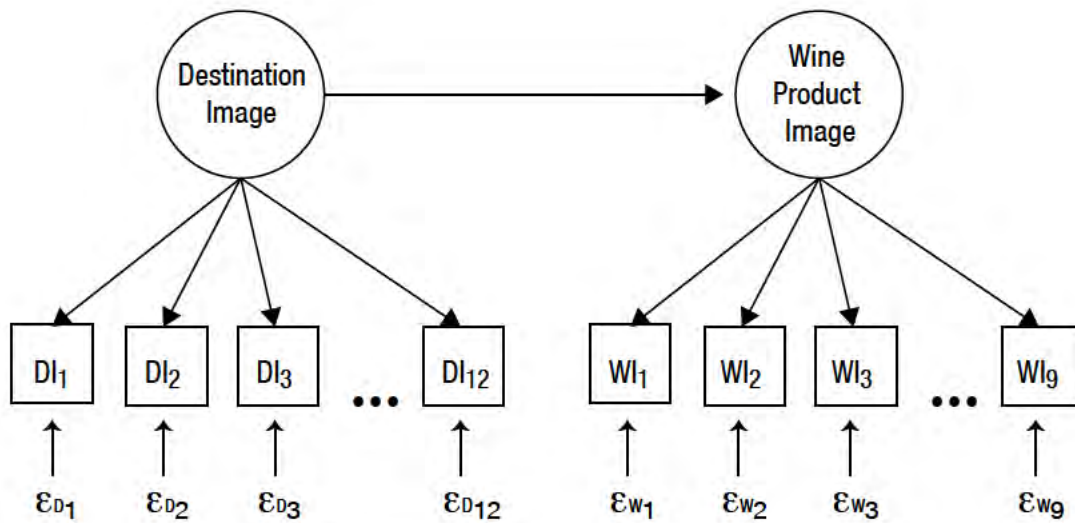


Table 5.5 Fit statistics for structural model DI and wine product image

Group	$R^2$	$\beta$	$p$	Std. $\chi^2$	$p$	SRMR	CFI	RMSEA
Have been	0.32	0.56	<0.001	2.06	<0.001	0.06	0.98	0.05
Have not been	0.32	0.56	<0.001	5.32	<0.001	0.08	0.94	0.10

Table 5.6 Chi-square tests for structural model invariance

Structural invariance	$\chi^2$	df	$\chi^2/\text{diff.}$	$df/\text{diff.}$	Sig
Unconstrained	996	270			
Fully Constrained	1007	287	11	17	0.86

*In this model DI explains 32% of the variance in the wine-image dependent variable for both groups. The visitor data fits the model better. The models are invariant. There are no statistically significantly differences between groups. No moderating effect is being observed.*



Figure 5.4 Structural model for PCI & wine product image

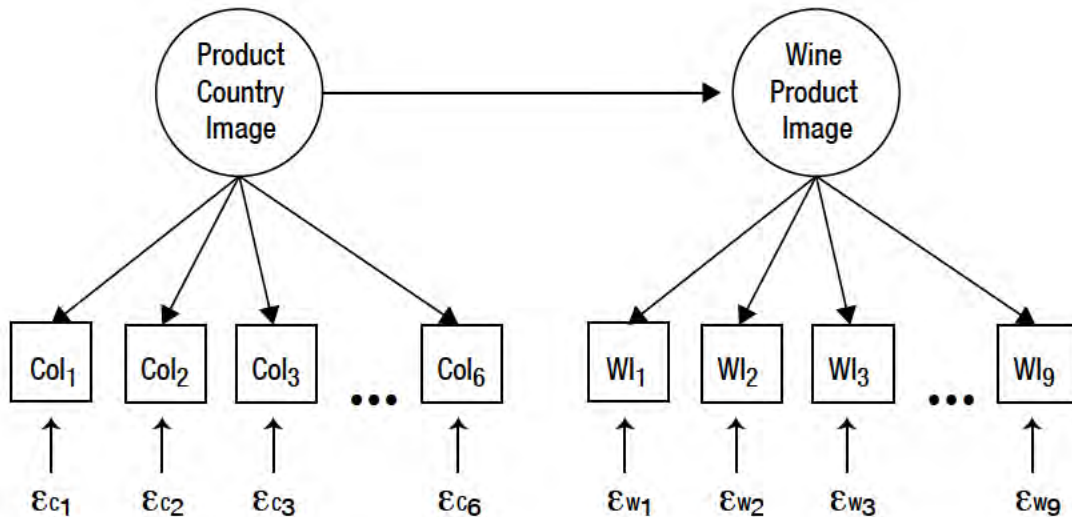


Table 5.7 Fit statistics for structural model DI and wine product image

Group	$R^2$	$\beta$	$p$	Std. $\chi^2$	$p$	SRMR	CFI	RMSEA
Have been	0.60	0.77	<0.001	2.54	<0.001	0.06	0.98	0.05
Have not been	0.64	0.80	<0.001	4.56	<0.001	0.08	0.96	0.08

Table 5.8 Chi-square tests for structural model invariance

Structural invariance	$\chi^2$	df	$\chi^2/\text{diff}$	$df/\text{diff}$	Sig
Unconstrained	547	154			
Fully Constrained	558	167	11	13	0.59

*PCI contributes approximately 2/3 of the variance in the dependent variable across both groups. The data fits very well to the model. The visitor data fits the model slightly better, but non-visitor PCI accounts for slightly more variance in the dependent variable. The models are invariant. There are no statistically significant differences between the groups. No moderating effect is being observed between groups.*



### 5.1.3 Observations from the two-construct models - wine

Looking at the two construct models for the DI and PCI constructs and wine, similar patterns are observed as for seafood. Both DI and PCI demonstrate strong significant relationships to wine product image, however there is a greater disparity between the path coefficients obtained between the DI and PCI models. DI seems to account for a lesser amount of variance in the wine image-dependent variable. In the seafood model, DI accounted for up to 47% of the variance, whereas in the wine model the maximum (which is the same for both groups) is 32%. The path coefficients in the PCI wine model, where the  $R^2$  is almost doubled, range from 0.77 to 0.80.

It is worth noting that for both seafood and wine when comparing the group models, *have been* performs better than *have not been* in terms of model fit, and this most evident with regard to the wine dependent-variable models. This suggests a different or less-consistent response pattern for the *have not been* cohort in comparison to the *have been* cohort.

### 5.1.4 Three-construct structural models

Having tested the more parsimonious two-construct models, an analysis that is consistent with assessing either DI or PCI's influence on product image formation, the following results detail the fitting of the same data to an integrated model. The data is fitted to the structural model depicted in **Figure 5.5**, which estimates DI and PCI's influence on product image formation.

Figure 5.5 Structural model for PCI, DI and seafood product image

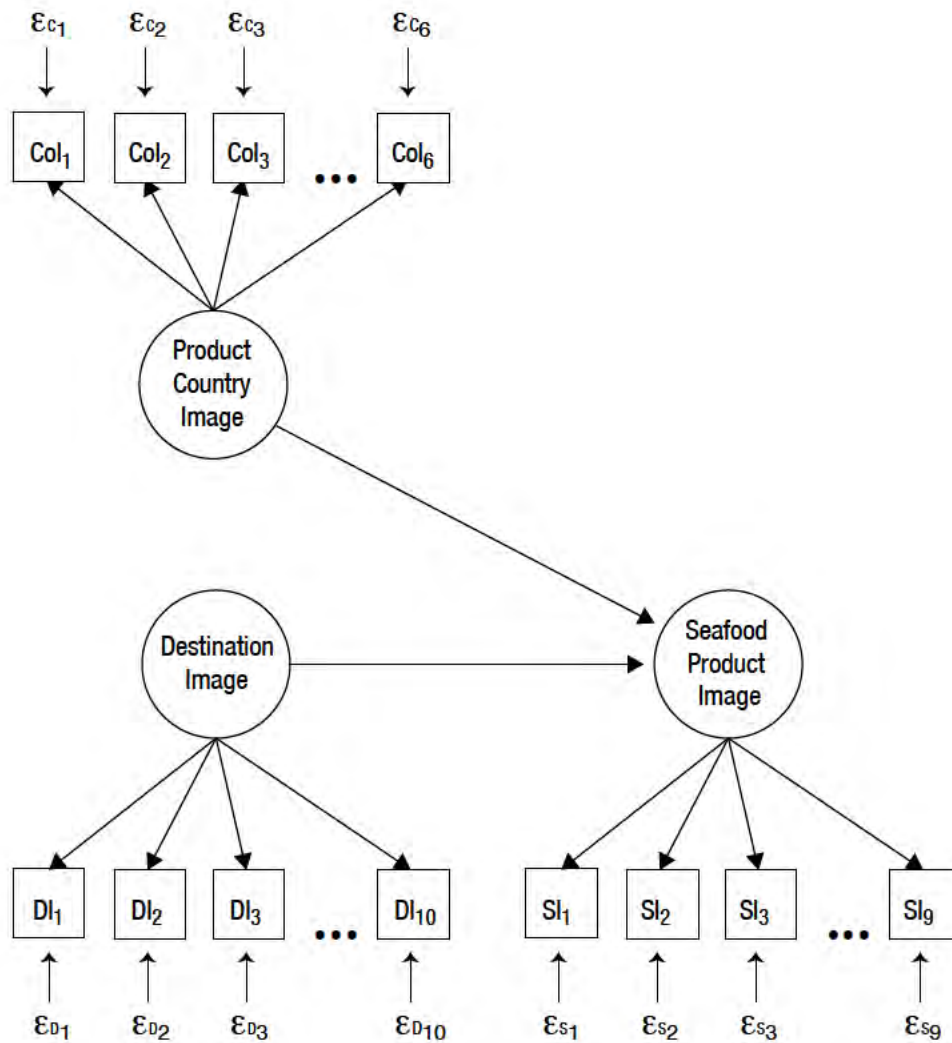


Table 5.9 Fit statistics for PCI, DI & seafood product image structural model

Group	$R^2$	DI		PCI		Std. $\chi^2$	$p$	SRMR	CFI	RMSEA
		$\beta$	$p$	$\beta$	$p$					
Been	0.65	0.01	.279	0.76	<0.001	1.81	<0.001	0.03	0.98	0.04
Not Been	0.59	0.34	<0.001	0.49	<0.001	2.71	<0.001	0.04	0.96	0.06

Table 5.10 Chi-square tests for structural model invariance

Structural invariance	$\chi^2$	df	$\chi^2/\text{diff.}$	$df/\text{diff.}$	Sig
Unconstrained	1233	546			
Fully Constrained	1277	571	44	25	0.012

*The result indicates non-visitors **do** use DI as an antecedent in forming seafood product image. However, this antecedent relationship is not evident for visitors. The test indicates the two groups **are** different at the structural level, therefore a moderating effect is being observed on one or both of the proposed antecedent relationships in the model.*

### **5.1.5 Observations from the three-construct models - seafood**

Looking at the results obtained by estimating the integrated model, a quite dramatic difference can be seen between the two and three-construct models. Still, the data fits very well to the structural model, with all the fit indices being above the suggested thresholds. This implies that the integrated model with both country constructs included is a valid model. However, unlike the models in which the two-country constructs were measured independently, where each seemingly exerted a reasonable influence over the product image-dependent variable, in the integrated model the PCI construct is clearly dominant. In all models and across all groups the PCI construct has strong, positive and significant path coefficients, while DI appears to only be an antecedent of product evaluation for non-visitors. This means the relationship between DI and seafood is negatively moderated by visiting Australia.

For those who have been to Australia, the DI construct in the presence of the PCI construct has virtually no influence on the product image-dependent variable, with all the variance explained in that variable coming from the PCI construct. While it may have been expected that PCI's influence would have been stronger than DI's when looking at the results from the simple two-construct models, with PCI's path coefficients being higher, here DI's influence is not seen at all. A further observation is that the model does not improve the maximum variance explained in the dependent variable by having both the PCI and DI constructs in the same

model. The largest  $R^2$  for the seafood dependent variable is 0.65 – which is the same for both the PCI-only and PCI and DI model for visitors.

Figure 5.6 Structural model for PCI, DI and wine product image

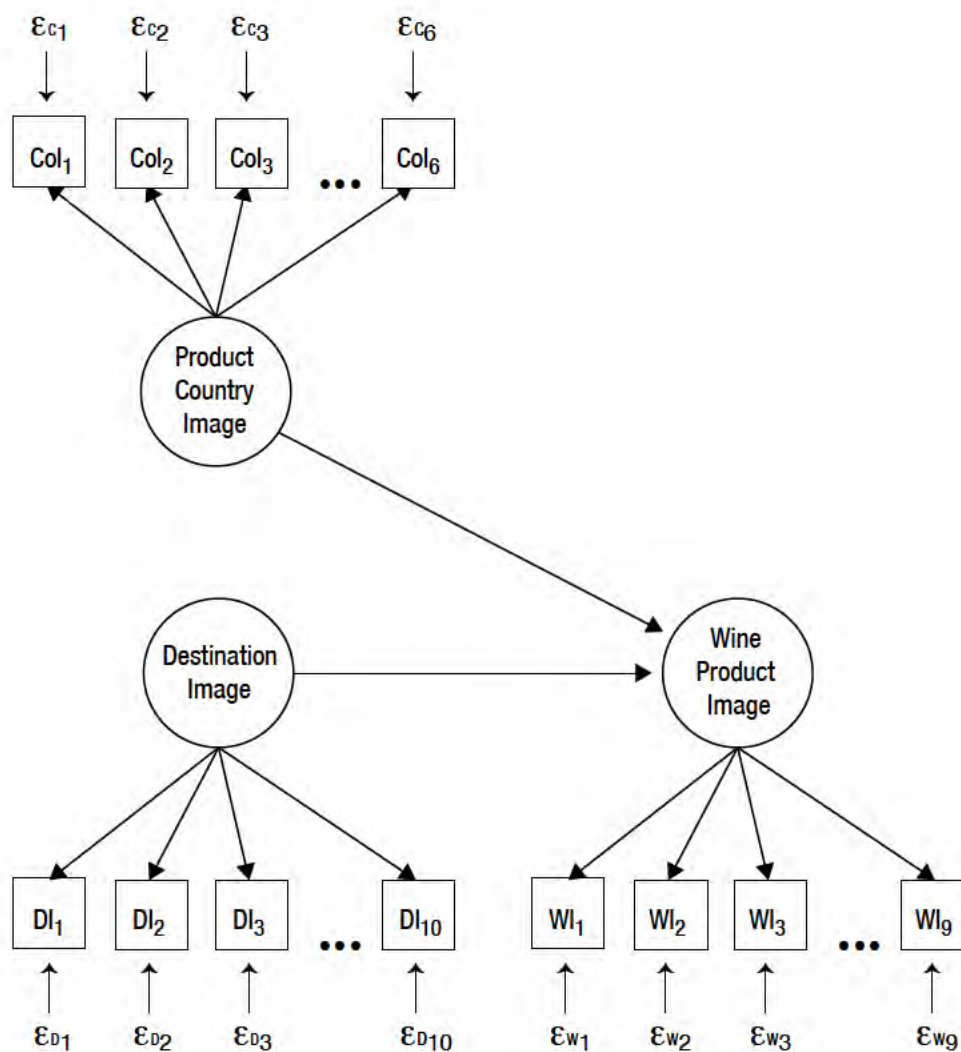


Table 5.11 Fit statistics for structural PCI, DI and wine product-image model

Group	$R^2$	DI		PCI		Std. $\chi^2$	$p$	SRMR	CFI	RMSEA
		$\beta$	$p$	$\beta$	$p$					
Been	0.59	-0.004	0.942	0.77	<0.001	2.10	<0.001	0.04	0.97	0.05
Not Been	0.64	0.04	0.392	0.77	<0.001	3.94	<0.001	0.07	0.94	0.07

**Table 5.12 Chi-square tests for structural model invariance**

<b>Structural invariance</b>	$\chi^2$	df	$\chi^2/\text{diff}$	df/diff	Sig
Unconstrained	1517	502			
Fully Constrained	1535	525	18	23	0.781

*PCI accounts for all the variance in the dependent variable for both groups. The model accounts for 59% of the variance in the dependent variable for visitors. For visitors the value is higher at 65%, however the model fit is slightly poorer. DI appears to have no direct antecedent relationship with wine product image. The models are invariant. There are no statistically significant differences between groups. No moderating effect is being observed.*

### **5.1.6 Observations from the three-construct models - wine**

In contrast, a reverse relationship is observed for wine compared to seafood. The path coefficients for DI are negative, meaning that where statistically significant an increase in the product image-dependent variable would see an decrease in the DI independent variable and vice-versa. As with seafood, the path coefficient for the *have not been* cohort is significant while it is non significant for *have been*. The path coefficient for PCI becomes more positive as the path coefficient from DI becomes statistically significant and more negative. What can be drawn further from these results is that PCI and DI are intrinsically linked, which was previously determined from the measurement model in the Methods chapter and further confirmed here. This can be determined by the high correlation between the two-country image constructs across all models with values ranging from 0.7 to 0.82. While this is high, it is not considered to be indicative of collinearity (Hair). Further, as collinearity had already been tested for prior to estimating the models of the full models (see Methods chapter), a high correlation was actually expected, indicating the measurement of discrete but similar concepts.

Finally, as was demonstrated by the results of the simple two-construct models and confirmed by the results in the three-factor model, there appears to be a different response pattern in the data to wine in comparison to seafood, and a noted difference in the consistency of responses between the *have been* and *have not been* cohorts. These will be elucidated further in the discussion chapter.

## **5.2 Method 2: Saliency analysis with pick-any measures**

The results tables presented here look at the breadth and strength of the network of associations for, and the relative saliency of, Australia compared to the competitive set of countries. The association sets are broken down by category, where the category is representative of an image construct. These categories are consistent with the constructs identified in method 1 - tourism image, country-of-origin image and the product categories seafood and wine. To establish the relative saliency of each country with the anchor category, a count is performed first to determine the aggregate number of associations for each country and the total associations across all countries for the anchor. Then the proportion of the total associations each country accounted for out of the total country associations was assessed to determine the relative saliency to that category. The percentage of possible associations is the proportion of the associations attributed to a given country, relative to the number of attributes multiplied by the sample size, while the average number of associations is the total of the association count for each country divided by the sample size.

### **5.2.1 Attribute item counts and frequencies**

For the first part of the pick-any analysis all the non-negative statements/attributes, as defined in the Methods chapter, are included. The data from this set of attributes measured across all seven countries is presented in the preceding section. The first set of results simply compares the proportion and frequency of associations for each country across the sample and between those who have and have not been to Australia.

From the original battery of free-choice pick-any attributes, which were posed in the survey and analysed above, a reduced final list was defined to utilise

Romaniuk's (2012) method for measuring mental market share. The procedure is detailed in the Methods section. For this part of the analysis Romaniuk (2012) has determined that 8-10 attributes are sufficient and optimal for measuring mental networks for product/brand images. The initial set of items has been reduced for each image category to adhere to this criterion. Though there are statistical tests for the reduction of items, unlike in CFA and SEM, the reduction can be somewhat more arbitrary. To compliment the section of results analysis where the pick-any and Likert items will be tested in the same model, the reduced items replicate, as much as possible, the scale items used in the SEM analysis.

Following the final attribute lists are the results from performing the mental market share calculations for measuring mental networks for brand image. This method of analysis compares the measurement of the mental network of associations for a brand, or in this case country, to well-known brand-performance metrics, such as market share, penetration, purchase frequency and share of category requirements. It also assesses the data's fit to the NBD-Dirichlet model, which makes certain assumptions about the mathematical distribution of purchases, which in this case are interchanged with salience measures and retrieval propensities. As discussed in the Methods chapter, this process is akin to convergent construct validation. As well as inferences from the metrics, a good fit to the model suggests that the data is "as expected" for measuring a brand image.



**Table 5.13 Tourism salience metrics**

	% total possible associations			Overall share of associations %			% giving at least one assoc.			Frequency of associations		
	NB*	B*	+/-	NB	B	+/-	NB	B	+/-	NB	B	+/-
AUS	53	49	-4	25	21	-4	97	98	1	6.3	6.3	0
FRA	39	39	0	19	17	-2	91	94	3	5.1	5.5	0.4
US	39	39	0	15	15	0	89	95	6	4.2	4.6	0.4
NZ	35	37	2	12	14	2	83	92	9	3.7	4.5	0.8
UK	25	33	8	11	13	2	81	91	10	3.4	4.3	0.9
SA	23	26	3	10	11	1	78	84	6	3.3	4.1	0.8
CHI	17	25	8	8	10	2	67	84	17	2.9	3.6	0.7
<b>Ave.</b>	<b>33</b>	<b>35</b>	<b>2</b>	<b>14</b>	<b>14</b>	<b>0</b>	<b>84</b>	<b>91</b>	<b>7</b>	<b>4</b>	<b>5</b>	<b>1</b>

\*Note: NB = Not been to Australia, B = Been to Australia

*Australia leads the image category for tourism. It is the country most associated with tourist attributes out of the competitive set. Interestingly, those who have been to Australia have slightly fewer associations for the category than non-visitors, in an overall competitive sense and within the total possible associations for Australia only.*

**Table 5.14 Country of origin salience metrics**

	% total possible associations			Overall share of associations %			% giving at least one assoc.			Frequency of associations		
	NB	B	+/-	NB	B	+/-	NB	B	+/-	NB	B	+/-
US	59	48	-11	26	20	-6	94	97	3	4.9	4.5	-0.4
<b>AUS</b>	<b>40</b>	<b>43</b>	<b>3</b>	<b>17</b>	<b>18</b>	<b>1</b>	<b>84</b>	<b>96</b>	<b>12</b>	<b>3.8</b>	<b>3.9</b>	<b>0.1</b>
FRA	39	41	2	17	17	0	88	93	5	3.5	4	0.5
UK	38	38	0	16	16	0	84	93	9	3.6	3.7	0.1
NZ	27	31	4	11	13	2	79	88	9	2.6	3.2	0.6
SA	17	22	5	7	9	2	70	77	7	1.9	2.6	0.7
CHI	13	20	7	5	8	3	55	74	19	1.8	2.5	0.7
<b>Ave.</b>	<b>33</b>	<b>35</b>	<b>1</b>	<b>14</b>	<b>14</b>	<b>0</b>	<b>79</b>	<b>88</b>	<b>9</b>	<b>3</b>	<b>3</b>	<b>0</b>

*The USA clearly leads the PCI image category. Australia is third in the category behind France for non-visitors, but for those who have been it sits in second. The number of people offering at least one association improves considerably on vitiation.*

**Table 5.15 Seafood salience metrics**

	% total possible associations			Overall share of associations %			% giving at least one assoc.			Frequency of associations		
	NB	B	+/-	NB	B	+/-	NB	B	+/-	NB	B	+/-
<b>AUS</b>	<b>54</b>	<b>48</b>	<b>-6</b>	<b>33</b>	<b>24</b>	<b>-9</b>	<b>82</b>	<b>91</b>	<b>9</b>	<b>4.8</b>	<b>4.3</b>	<b>-0.5</b>
FRA	32	33	1	19	16	-3	65	80	15	3.5	3.3	-0.2
US	24	29	5	12	14	2	53	74	21	2.7	3.0	0.3
NZ	19	28	9	11	13	2	49	75	26	2.6	2.9	0.3
UK	16	24	8	9	11	2	41	69	28	2.6	2.9	0.3
SA	16	22	6	9	11	2	41	62	21	2.6	2.7	0.1
CHI	13	21	8	7	10	3	37	55	18	2.4	2.6	0.2
<b>Ave.</b>	<b>25</b>	<b>29</b>	<b>4</b>	<b>14</b>	<b>14</b>	<b>0</b>	<b>53</b>	<b>72</b>	<b>20</b>	<b>3.0</b>	<b>3.1</b>	<b>0.1</b>

*Australia dominates the seafood image category. It appears that non-visitors have more associations to Australian seafood image items than visitors. However, more visitors overall give at least 1 association to Australian seafood than non-visitors.*

**Table 5.16 Wine salience metrics**

	% total possible associations			Overall share of associations %			% giving at least one assoc.			Frequency of associations		
	NB	B	+/-	NB	B	+/-	NB	B	+/-	NB	B	+/-
FRA	81	60	-21	50	29	-21	93	96	3	8.4	6.8	-1.6
<b>AUS</b>	<b>23</b>	<b>34</b>	<b>11</b>	<b>14</b>	<b>16</b>	<b>2</b>	<b>56</b>	<b>82</b>	<b>26</b>	<b>3.9</b>	<b>4.5</b>	<b>0.6</b>
UK	16	26	10	10	12	2	48	75	27	3.1	3.8	0.7
US	14	25	11	9	12	3	47	76	29	2.9	3.6	0.7
NZ	13	23	10	8	11	3	45	71	26	2.9	3.6	0.7
CHI	11	21	10	6	10	4	33	64	31	3.1	3.6	0.5
SA	6	17	11	4	8	4	25	56	31	2.4	3.4	1
<b>Ave.</b>	<b>23</b>	<b>29</b>	<b>6</b>	<b>14</b>	<b>14</b>	<b>0</b>	<b>50</b>	<b>74</b>	<b>25</b>	<b>3.8</b>	<b>4.2</b>	<b>0.4</b>

*France dominates the wine image category, particularly in the case of non-visitors to Australia. For both groups Australia is in second position. Both competitively and for Australia only, visitors have more associations to Australian wine image than non-visitors.*

## Summary tables for Australia

**Table 5.17 Total possible associations**

Attributes	% not been	% been	+/-
DI Attributes	53	49	-4
PCI Attributes	39	43	+4
Wine Attributes	23	34	+11
Seafood Attributes	54	48	-6
Average	42	44	+2

**Table 5.18 Overall share of associations**

Attributes	% not been	% been	+/-
DI Attributes	30	27	-3
PCI Attributes	17	18	+1
Wine Attributes	12	17	+5
Seafood Attributes	21	18	-3
Average	20	20	0

*The above tables indicate that Australia is most strongly associated with images of tourism and seafood, particularly for non-visitors. However, the categories where it demonstrates fewer associations overall, PCI and wine, improve with visitation.*

**Table 5.19 Country & product attribute salience for Australia (not been)**

	Salient Attributes	%Dev.	Non-salient Attributes	%Dev.
DI	Unique wildlife	14	Exciting to visit	-3
	Pleasant climate	12	A variety of holiday entertainment and activities	-13
	Beautiful beaches	11	Exquisite cuisine	-16
	Promoted as a holiday destination	7	Good shopping	-25
	A safe place to holiday	5		
	Unique natural environment to explore	4		
	Friendly local people	3		
	Famous tourist attraction	2		
PCI	Pollution-free environment	19	A wealthy country	-1
	Rich in natural resources	19	Provides high-quality education	-5
	A good trading partner with China	9	Attention to detail when manufacturing	-6
			Produces high-quality goods	-7
			Technologically advanced	-11
			Actively participates in international affairs	-15
Wine	Produces wine available in China	5	Wine suitable for collection	0
	Uncontaminated wine	4	Wine suitable as a gift	0
	I know the different varieties of wine	3	Stylish wine	-1
	I know the different brands of wine	2	Wine manufactured to high technical specifications	-1
	High-quality wine	0	Wine represents status	-5
		Luxury wine	-6	
Seafood	Large-sized seafood	6	Fresh seafood	0
	Seafood suitable as a gift	4	Seafood represents a high social status	-9
	Uncontaminated seafood	4	Expensive seafood	-11
	Safe to eat seafood	3		
	Wild-caught seafood	2		

**Table 5.20 Country & product image attribute salience for Australia (been)**

	Salient Attributes	%Dev.	Non-salient Attributes	%Dev.
DI	Unique wildlife	10	Famous tourist attraction	-1
	Promoted as a holiday destination	6	A safe place to holiday	-2
	Pleasant climate	6	Exciting to visit	-2
	Friendly local people	6	A variety of holiday entertainment and activities	-7
	Beautiful beaches	5	Exquisite cuisine	-9
	Unique natural environment to explore	1	Good shopping	-14
	PCI	Rich in natural resources	11	A wealthy country
Pollution-free environment		10	Attention to detail when manufacturing	-4
A good trading partner with China		3	Produces high quality goods	-5
Provides high-quality education		0	Actively participate in international affairs	-6
			Technologically advanced	-7
Wine	Uncontaminated wine	4	Stylish wine	0
	Produces wine available in China	4	I know the different brands of wine	-2
	Wine suitable as a gift	2	I know the different varieties of wine	-2
	Wine manufactured to high technical specifications	1	Wine represents status	-2
	High-quality wine	1	Luxury wine	-5
	Wine suitable for collection	0		
	Seafood	Uncontaminated seafood	6	Safe to eat seafood
Large-sized seafood		4	Fresh Seafood	-1
Wild-caught seafood		2	Expensive seafood	-6
Seafood suitable as a gift		0	Seafood represents a high social status	-6

*The results presented here suggest that Australia clearly has a more salient tourist destination image relative to its country-of-origin image. Australian seafood is a more salient product than its wine.*

### **5.2.2 Observations from the frequencies in the pick-any data**

Interesting patterns can be observed in the free-choice pick-any attribute data. It is evident that Australia performs very well in comparison to the competitive set of countries across the four categories represented in the results. As a tourist

destination, based on the final battery of attributes, Australia is clearly the most salient country out of the set, meaning it is most associated with tourist attributes out of the seven countries represented. It is well above the average on all the metrics presented and, unsurprisingly, with visitation to Australia comes an increased level of association with the tourism attributes. In regard to country of origin, it is clear that Australia is not nearly as heavily associated with country-of-origin image attributes as it is with tourism image attributes. In the country-of-origin category, the USA is the clear category leader, with Australia relatively equal with France (the two oscillating between second and third ranking) and England very close behind in fourth position. Australia is much closer to the average of all associations for the category for country of origin, where it is clearly above the average in tourism. Of note is the 10 percentage-point increase in possible associations (that is, all possible associations for Australia) when moving from *have not been* to *have been* cohorts for country of origin. This suggests there is a clear increase in associations between those who have visited Australia in comparison to those who have not visited - the increase in tourism is only three percentage points.

With regard to wine, France dominates the category for each cohort and across the whole sample, accounting for more than half of all the associations to wine. Australia is second in the category, and clearly so from the other countries on average number of associations, all possible associations and percentage of total associations. Australia is the only other country above the average on all the metrics, but France occupies the majority of the mental share in regard to wine. In contrast, in the seafood associations' category, Australia dominates. In the same way that France dominates the wine category, Australia is by far the most associated with seafood attributes out of the seven countries, followed by New Zealand, with the other five countries being similarly placed at the lower end of associations.

There are also interesting global observations to be made about these results. There is a difference in the response patterns between the *have* and *have not been* cohorts. Across all categories the respondents who have been to Australia link more associations, to all countries except the category leader (with the exception of Australia and tourism), than those who have not visited Australia. In line with this there is an apparent regression to the mean-type effect that can be observed between the groups – i.e. for all categories there is a reduction in the extreme values observed for each of the three metrics. The highest values are reduced (except where noted for Australia and tourism) and the lower values are increased, meaning overall there is a tighter distribution of observed values for the *have been* cohort in comparison to *have not been*. On the simple evaluation of the number of attributes associated with particular countries, the two categories where Australia performs the poorest – with which they are associated least - are the same two constructs that in the SEM analysis delivered the strongest structural relationship using the forced-response scale.

The previous tables illustrate the rich amount of information that can be ascertained quickly by the pick-any method. They also highlight that there are clearly items that are not salient for the sample, though these same items would be considered part of the traditional PCI and DI Likert scales. The non-salient items - those not considered in a purchase situation - which would have been rated in a forced-choice exercise, were: How technically advanced is Australia? How do you rate the value for money and quality of, or attention to detail paid to, Australian products?

The data is characterised by a consistent pattern: tourism attributes play a far larger role in activating memory structures than country-of-origin attributes. And

scale items that traditionally would be considered in country-of-origin studies appear not to be brought to mind spontaneously in a product evaluation.



### **5.3 Integrated methods 1 & 2 using a SEM framework**

Having analysed separately the data obtained from methods one and two, both sets of data are modelled within the same structural framework in this subsequent phase of analysis. As a key interest of this thesis is the evaluation of different methodologies for measuring country image-independent variable effects on product image-dependent variables, it is appropriate to estimate the structural relationships between the image objects/constructs inferred by the data collected using each method. A reasonable a priori assumption would be that if both methodologies were measuring the same phenomena or same type of response patterns, the structural relationships would be similar, at least in terms of directionality. While there is a larger discussion in the Methods chapter of the implications associated with modelling binary data in structural-equation models, it can be stated here that this is a possible and statistically valid type of analysis. There are some caveats on the expectations regarding model fit and correlations between the country constructs, which are primarily related to differential in the magnitude of the variance that results when comparing binary and scale data. The purpose of this analysis is to assess how each of the constructs or image objects, defined by their different observed variables, co-vary with the other constructs in the structural model. The analysis looks at how the data obtained from the two methodologies – i.e. by modelling both pick-any and scale data together - fit together in the same model.

The following set of tables report pick-any and scale-based structural models testing the relationship between DI, PCI and product image for Australian seafood and Australian wine. Each table operationalises country-of-origin image (PCI) and tourist-destination image (DI) as independent variables run together in the same model. Each table represents a separate model where the DI and PCI constructs are composed of either multi-item pick-any constructs or multi-item scale-based constructs. In each case the model is moderated by visitation to Australia – i.e.

respondents either had or had not been to Australia on holiday. The sets of observed variables measuring PCI and DI (pick-any and scale) are represented in the same model, which result in the structural model represented in Figure 5.7, a variation on the general model used in the study. Conceptually, however, the models remain the same, assessing the impact of PCI and DI on product image. The purpose of running these models is exploratory, in examining whether they will result in parsimonious models that provide useful results where binary pick-any and scale data are used as independent latent construct variables in the same model.

### **5.3.1 Pick-any dependent-variable models**

The following tables report the results of models where Australian wine image is a multi-item scale-based dependent variable. Each table operationalises country-of-origin image (PCI) and tourist-destination image (DI) as independent variables run together in the same model. Each table represents a separate model where the DI and PCI constructs are composed of either multi-item pick-any constructs or multi-item scale-based constructs.

Figure 5.7 Pick-any dependent-variable model

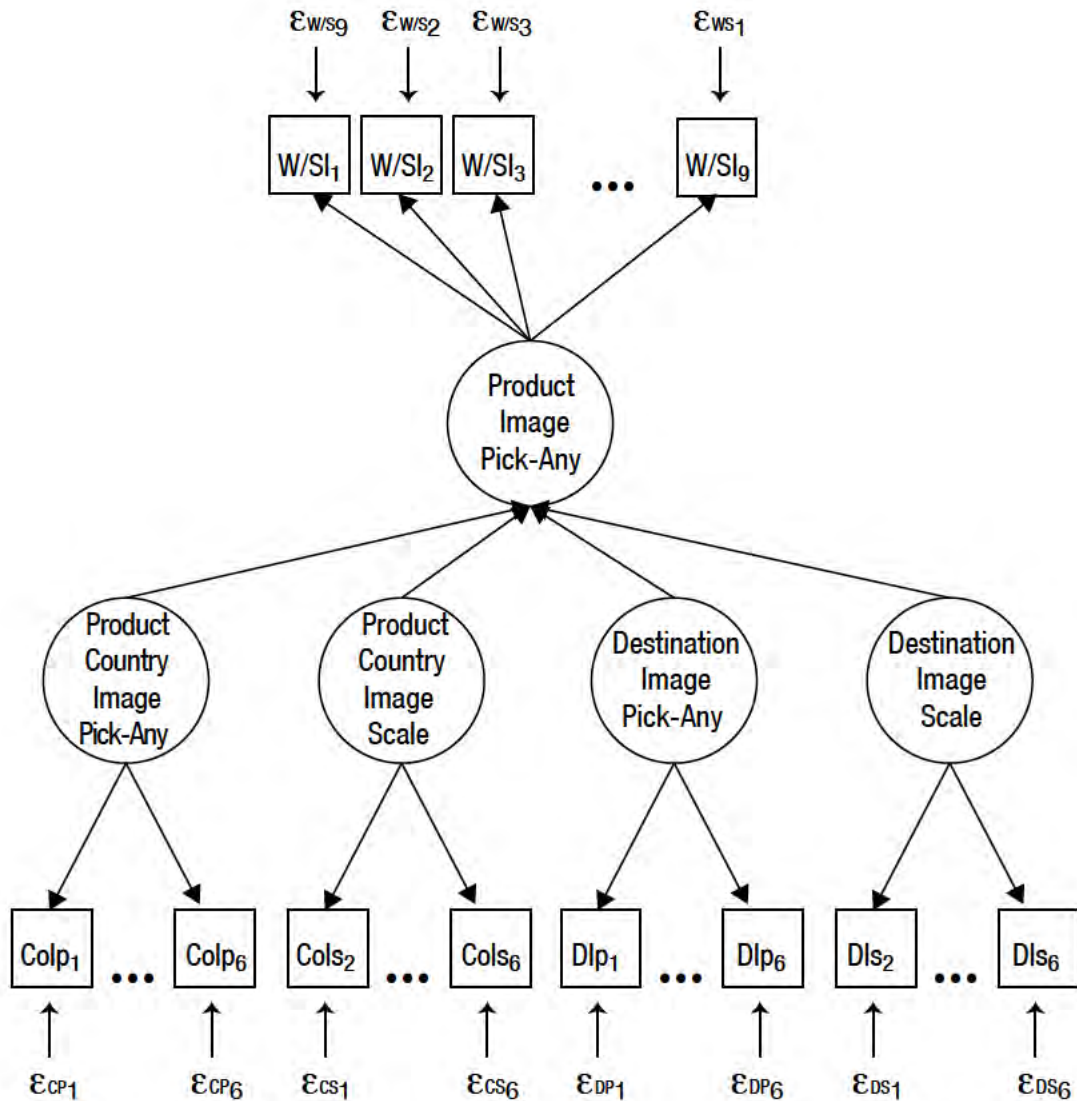


Table 5.21 Wine pick-any dependent-variable model results

Mixed model	$R^2$	Been to Australia		$R^2$	Have not Been to Australia	
		$\beta$	$p$		$\beta$	$p$
DI Pick-any		-0.14	0.05		0.00	0.99
PCI Pick-any	0.51	<b>0.62</b>	<b>***</b>	0.30	<b>0.47</b>	<b>0.03</b>
DI Scale		0.02	0.69		0.07	0.50
PCI Scale		0.09	0.78		0.06	0.53

**Table 5.22 Seafood pick-any dependent-variable model**

Mixed model Constructs	Been to Australia			Have not Been to Australia		
	$R^2$	$\beta$	$p$	$R^2$	$\beta$	$p$
DI Pick-any	0.67	<b>0.74</b>	<b>***</b>	0.45	0.27	0.06
PCI Pick-any		0.08	0.63		0.31	0.03
DI Scale		0.03	0.67		0.34	<b>***</b>
PCI Scale		0.00	0.99		-0.14	0.06

### 5.3.2 Scale dependent-variable models

The following tables report the results of models where Australian wine image is a multi-item scale-based dependent variable. Each table operationalises country-of-origin image (PCI) and tourist-destination image (DI) as independent variables run together in the same model. Each table represents a separate model where the DI and PCI constructs are composed of either multi-item pick-any constructs or multi-item scale-based constructs. In the case of Table 1 both representations of PCI and DI (pick-any and scale) are represented in the same model.

Figure 5.8 Pick-any dependent-variable model

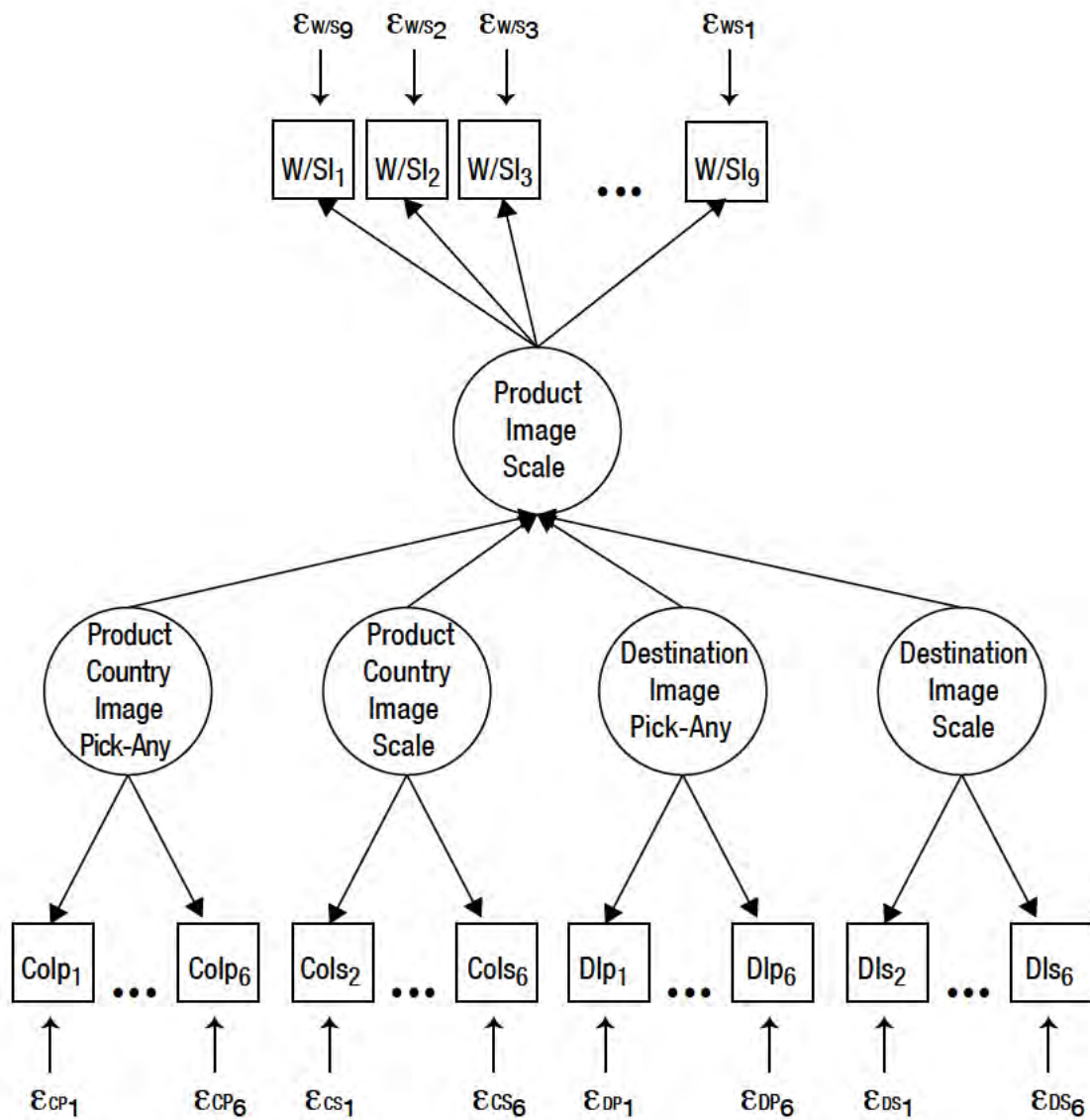


Table 5.23 Wine scale dependent variable model results

Mixed model	$R^2$	Been to Australia		$R^2$	Have not Been to Australia	
		$\beta$	$p$		$\beta$	$p$
Constructs						
DI Pick-any	0.60	-0.10	0.46	0.64	-0.11	0.30
PCI Pick-any		0.17	0.21		0.07	0.52
DI Scale		-0.02	0.78		0.08	0.18
PCI Scale		0.74	***		0.76	***

**Table 5.24 Seafood scale dependent variable model results**

Mixed model Constructs	$R^2$	Been to Australia		$R^2$	Have not Been to Australia	
		$\beta$	$p$		$\beta$	$p$
DI Pick-any	0.65	0.02	0.88	0.60	0.10	0.75
PCI Pick-any		0.07	0.57		-0.13	0.66
DI Scale		0.03	0.61		0.54	***
PCI Scale		0.74	***		0.31	***

**5.3.3 Testing correlations between scale and pick-any IVs and DVs.**

One of the clear patterns revealed in the mixed-model results presented is that scale and pick-any data do not co-vary well or trend in the same direction. In each of the models the most consistent, significant relationships occur between the independent variables and dependent variables of the same measurement type. A simple Pearson’s correlation test was performed on the amalgamated scores for each variable for each respondent to further explore how correlated (or uncorrelated) the different measures are. If they were measuring similar/the same constructs and effects, the correlations between the measures should be reasonably high.

**Table 5.25 Variable correlations between PCI, DI and product image**

	Tourism PA	PCI PA	Wine PA	Seafood PA	Tourism Scale	PCI Scale	Wine Scale	Seafood Scale
<b>Tourism PA</b>		0.73	0.43	0.54	0.38	0.35	0.34	0.28
<b>PCIPA</b>	0.73		0.51	0.41	0.34	0.38	0.37	0.29
<b>Wine PA</b>	0.43	0.51		0.27	0.25	0.31	0.28	0.31
<b>Seafood PA</b>	0.54	0.41	0.27		0.31	0.24	0.25	0.25
<b>Tourism Scale</b>	0.38	0.34	0.25	0.31		0.78	0.74	0.65
<b>COO Scale</b>	0.35	0.38	0.31	0.24	0.78		0.87	0.76
<b>Wine Scale</b>	0.34	0.37	0.28	0.25	0.74	0.87		0.78
<b>Seafood Scale</b>	0.28	0.29	0.31	0.25	0.65	0.76	0.78	

All correlations significant at the  $p < 0.01$  level (2-tailed).

*The correlation between the amalgamated dependent and independent variables forming the PCI, DI and PI constructs are displayed above. Correlations are the strongest between scale-based IVs and DVs, and then between PA IVs and DVs. Cross-correlations are weak between scale and PA IVs and DVs.*

#### **5.3.4 Observations from mixed-modelling results**

In analysing the structural relationships when using a pick-any DV and using an associative network theoretical (ANT) framework it is clear to see that there is a differential in the associations between the country constructs and product images. Some models, in particular the Likert-based models, achieve good or excellent fit statistics ( $\chi^2/df$  between 1-5, GFI>0.9, CFI>0.9 and RMSEA<0.05). The pick-any models do not achieve the same number of strong goodness of fit indicators. There are valid reasons that cause us not to be surprised by this result, and there is much discussion in the literature about which SEM fit indices are best reported and under which conditions (Hooper et. al., 2008). What is important is that all the models are parsimonious and have strong significant path indicators, which allow us to make implications about the methods used to generate these models and measure the structural relationships.

**Tables 5.21, 5.22 and 5.23** all indicate that PCI is the main driver of product-image formation. However, there is a deviation from this pattern in **Table 5.24**, where the result is reversed. PCI is indicated as the dominant factor in forming the product image for wine across both methodologies. With seafood, however, the two methods produce conflicting results. **Table 5.23** suggests PCI is the main driver of image formation, while **Table 5.24** suggests DI has the greater influence. A reasonable a priori assumption would be that all the sets of results should be similar if the same constructs are being measured. In addressing this apparent anomaly we consider how such a result should be justified.

With the traditional country-image study method respondents are forced to rate a country on its tourist attributes (i.e. beautiful beaches) and its country of origin image (i.e. manufacturing quality), then forced to rate the country's products on product-specific attributes such as quality, freshness and whether the product is safe to consume. The results suggest that quality assurance-type attributes correlate more with the aspects embodied in the PCI construct. However, by using this traditional model the important relationships may be overlooked, as Table 5.25 demonstrates. The results suggest that the Likert scales lead to a PCI-dominated relationship, for both seafood and wine. A forced-choice model asks a respondent to consider all the aspects or attributes presented to them for evaluation, but to reject those that do not relate to the concept at hand.

Using a pick-any dependent variable with an associative network theoretical framework, it is clear to see that there is a difference compared to the Likert measures for the associations between the country constructs and the product images. Seafood is closely related to tourism (DI) and wine is closely related to country of origin (PCI). This supports well the associative network theory. Seafood is an unprocessed and unbranded product. Logic and theory suggest the link between seafood and tourism attributes – clean environment, beautiful beaches, natural scenic beauty – is close, making it easy to conceptualize the likelihood of Australian tourism attributes activating thoughts about Australian seafood. On the other hand, wine is a manufactured product and the connection between wine as a branded, packaged product is much more closely associated with a country's technical capabilities.

In assessing the impact of visitation on the results, with an ANT/salience model we assume people will pick more attributes associated with a country after they have experienced it, making the structural relationships stronger. We cannot assume the same for the evaluative/attitudinal model – this will be relative to the



individual experience. For example, in the salience model people may select beautiful beaches as an attribute associated with Australia. But in rating Australia's beaches as being beautiful they may, once they have visited, decide that the beaches, though beautiful, are not *as* beautiful as they had imagined or been led to believe by marketing communications – and so rate them slightly lower than before they had visited. As seen in Table 5.25, the significant relationship between PCI and product image for wine appears to weaken after visitation, which from an attitude-theory perspective suggests that people who have visited are less inclined to form a positive image of Australian wine, which would indicate a lower probability of purchasing the wine. However, in the case of the pick-any models both relationships increase after visitation, which is consistent with ANT and an increased mental network about Australia and its products - and an increased propensity to consider purchasing those products in a choice situation.

## 5.4 Method 3: Discrete-choice experiment (DCE) analysis

As well as answering the pick-any and scale questions, respondents took part in two DCEs, one relating to wine and the other to seafood. For each experiment respondents completed one half of a balanced incomplete block designed (BIBD). The sample was randomly divided into two even groups at the start of the survey, with one seeing block one and the other seeing block two. The results were amalgamated to create a full experiment, with the results displayed in the following sections.

**Table 5.26** contains the estimates for the 12 parameters,  $\beta$ , in estimating fixed-coefficient random-utility models - i.e. conditional logit (McFadden, 1974). Dummy coding was used for the country of origin, continuous coding for price and effects coding for the remainder of the attributes. As with the other approaches, the sample was split on the basis of whether or not the respondent had visited Australia; 480 had not, 550 had. The likelihood ratio test of the difference between the two subsamples, with 12 degrees of freedom, was significant ( $p=0.00$ ). The models for the cohorts were then estimated separately. The resulting utility coefficients from each model could then be compared between the two post-hoc experimental conditions to consider the impact visitation has on the importance of attributes and preference for attribute levels manipulated in the experiments.

**Seafood:** For the seafood experiment, the two two-level attributes being manipulated were 1.) Species – either lobster or abalone and 2.) Growing environment – wild or farmed. The two four-level attributes were 1.) Price – 300 RMB, 500 RMB, 700 RMB or 900 RMB and 2.) Country of origin – Australia, South Africa, China and the USA.

**Wine:** For the wine experiment, a generic red wine with a fictitious brand was the single product type being tested. The two two-level attributes being manipulated were 1.) Label colour – either red or white and 2.) Closure type – cork or screw cap. The two four-level attributes were 1.) Price – 200 RMB, 400 RMB, 600 RMB or 800 RMB and 2.) Country of Origin – Australia, France, Chile and China.

**Table 5.26 Estimates for the Fixed Model (Seafood and Wine)**

Category	Attribute	Level	Coding	Cov.	Not been		Been	
					$\beta$	SE	$\beta$	SE
Seafood	Species	Lobster	+1	x1	-0.03	0.02	-0.01	0.02
		Abalone	-1	x1	0.03		0.01	
	Price	300	0.3	x2	-2.84	0.08	-1.37	0.08
		500	0.5	x2	"		"	
		700	0.7	x2	"		"	
		900	0.9	x2	"		"	
	Country	Australia	1	x3	0.31	0.05	0.41	0.05
		China	0	x4	zero		zero	
		America	1	x5	-0.07	0.05	-0.08	0.05
		St Africa	1	x6	-0.05	0.05	0.04	0.05
Source	Farm	+1	x7	-0.36	0.02	-0.40	0.02	
	Wild	-1	x7	0.36		0.40		
Wine	Style	White	+1	x8	0.06	0.03	0.04	0.03
		Red	-1	x8	-0.06		-0.04	
	Price	200	0.2	x9	-2.45	0.08	-0.68	0.08
		400	0.4	x9	"		"	
		600	0.6	x9	"		"	
		800	0.8	x9	"		"	
	Country	Australia	1	x10	0.37	0.05	0.67	0.06
		France	1	x11	1.32	0.05	1.24	0.05
		Chile	1	x12	-0.15	0.06	0.19	0.06
		China	0	x13	zero		zero	
Closure	Cork	+1	x14	0.006	0.02	0.007	0.02	
	Screw	-1	x14	-0.006		-0.007		

#### 5.4.1 Observations from fixed-coefficient models

The preferred country-of-origin was France for wine and Australia for seafood. The biggest difference for both categories was for those who had visited Australia - the fixed coefficients (a) for price were lower, and (b) for Australia as a country-of-origin were higher. Those who had visited Australia were more comfortable spending greater amounts on both categories - their price elasticity was much less, particularly for wine. Those who had visited Australia also preferred Australia more as a country-of-origin for both categories, but France was still most preferred for wine.

#### 5.4.2 Two-construct structural models

In the second phase of the analysis, the two DCEs for seafood and wine were combined and aspects of heterogeneity across the two categories were modelled using structural choice modelling (SCM) (Rungie, Coote and Louviere, 2011). Four latent variables were used in a manner equivalent to applying a random coefficient to four of the covariates. These were the country-of-origins for Australia and China (denoted in the model as x3, x4, x10 and x13). SCM was then used to evaluate correlations across the two categories. The specification of this new partial random-coefficient model is given in, and can be compared with, the fixed-coefficient model. Maintaining the dummy variable coding, China still had a fixed coefficient,  $\beta$ , of zero but also had a random coefficient,  $\tilde{\beta}$  with mean zero, and a standard deviation,  $\sigma$ , estimated from the data.

The likelihood ratio tests comparing the partial-random and fixed models, with six degrees of freedom, was significant for the subsample that had not visited Australia ( $p=0.00$ ), and similarly for the subsample that had visited Australia ( $p=0.00$ ) – see Table 5.27. Parameter estimates of  $\sigma$  in the partial-random model are in given in table 5.28 The standard deviations show that

preference for both Australia and China as a country-of-origin had considerable heterogeneity in both categories and both subsamples.

**Table 5.27 Estimates of Heterogeneity for the Partial Random Model**

Subsample		Not been			Been	
Category	Country	Covariate	Standard Deviation	Std Error	Standard Deviation	Std Error
Seafood	China	x4	1.52	0.09	1.28	0.09
	Australia	x3	0.73	0.07	0.67	0.07
Wine	China	x13	2.24	0.15	1.44	0.11
	Australia	x10	1.26	0.08	0.91	0.07

The result of particular interest is the correlation between the two categories (**Table 5.28**). Respondents were consistent across the two categories in their preference for China as a country of origin regardless of whether or not they had visited Australia. Those respondents that had visited Australia were equally consistent across the two categories in their preference for Australia as a country of origin. However, those respondents who had not visited Australia showed no consistency across the two categories in their preference for Australia as a country of origin.

**Table 5.28 Estimates of correlations in the partial random model**

Subsample		Not been			Been	
Country	Categories	Covariates	Correlation	Std Error	Correlation	Std Error
China	Seafood & Wine	x4 and x13	0.39	0.14	0.50	0.19
Australia	Seafood & Wine	x3 and x10	-0.01	0.20	0.51	0.28

Comparisons between separate DCEs, as is shown here contrasting the seafood and wine categories, can be problematic because of scale differences arising, in particular, from omitted covariates. However, the correlations across the two

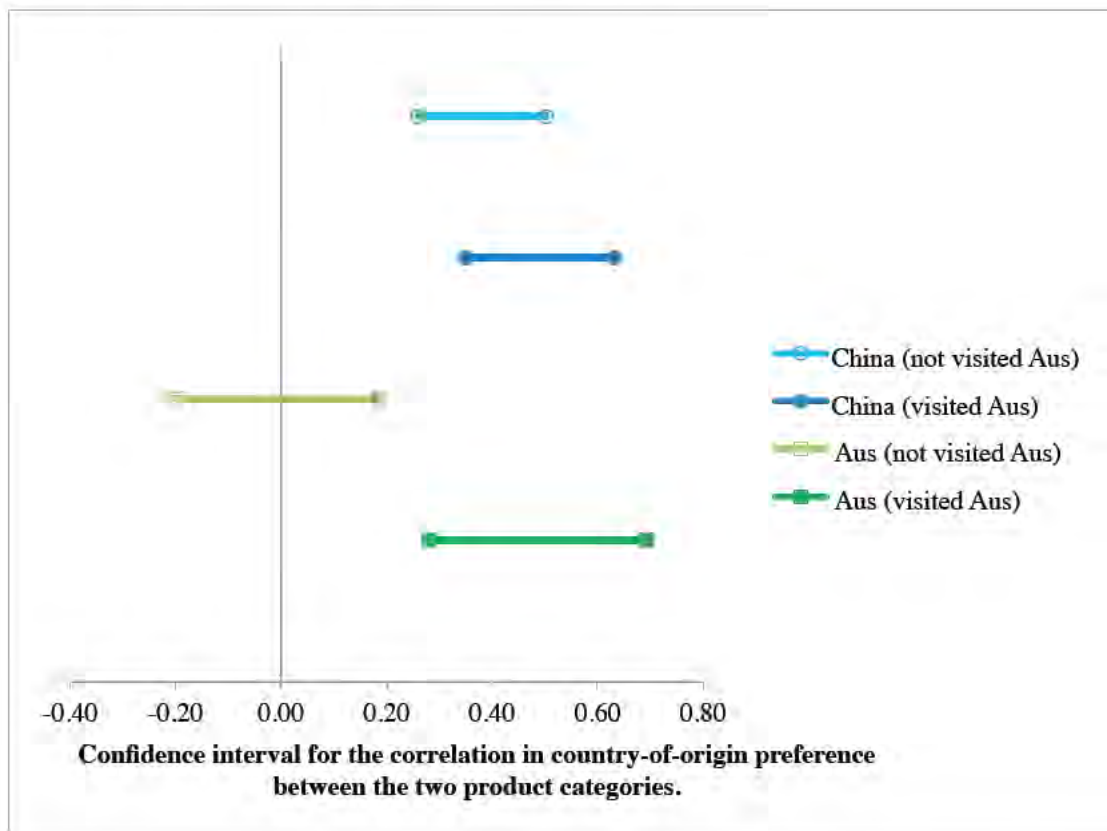
DCEs reported in 5.28 are unaffected by scale issues using SCM (Rungie, 2011).

**Table 5.29 Log Likelihood Values**

Subsample split	Not been		Been	
	LL	# Par.	LL	# Par.
Full Fixed Model	-9907	12	-9638	12
Partial Random Model	-9250	18	-9271	18

The results show relatively consistent levels of preference for China as a country of origin for both categories - i.e. respondents are relatively consistent in choosing (or not choosing) China as a country of origin for wine or seafood irrespective of whether they have been to Australia or not. This is the result we would expect as there is no apparent reason why there should be a difference on this attribute. However, as can be seen from the results, there is a significant difference between the two groups in regard to preference for Australia. For those who have not visited Australia the correlation is small, and not significantly different from zero, meaning that respondents are not consistently choosing Australia as a country of origin across the two categories. For those who have visited Australia there is a large, positive and significant correlation in their choices across the two categories, meaning those who choose Australia in one category also choose Australia in the other category.

**Figure 5.9** Cross-category country of origin effects



*This graph demonstrates the confidence intervals around the correlations between the country of origin attributes across both experiments. It demonstrates the consistency of preference for china across the whole experiment, and the consistency of preference for Australia only with the group that has visited the country.*

Using SCM it is now possible to see how product attribute levels are affected by origin information and to what degree certain effects on choices are consistent or not across multiple product categories. This provides a much greater level of detail to analysts and managers alike as to how country information affects products, product categories and product attributes simultaneously. While traditional analysis in COO would have to estimate these effects separately, SCM allows it to be done in one model. As has been demonstrated here it is possible to see the effect that country experience has on product selections across two

categories, how it has impacted on the importance placed on country of origin as a category attribute, the relative attractiveness of each product producer in the category and how price elasticity is affected for products in the category as a whole. This is simply not possible with traditional COO studies.



## 5.5 Chapter Summary

This chapter has presented the results of the three methods of analysis used in this thesis. First it demonstrated the structural relationships that can be observed between Australia's seafood and wine products and its image as a country of origin and as a tourist destination. Despite there being some evidence that destination image does have an influence on the evaluation of a country's products, the results presented here find little support for this. Except for non-visitors to Australia, the models that include both constructs are dominated by the PCI measure. Where the DI measure does exert some influence on the model, for seafood and non-visitors, this relationship is moderated negatively by visitation. It appears that PCI subsumes the influence of the DI measure in both product categories – if it has any real influence at all. For wine, it appears that visitation to Australia does not moderate the relationship between PCI and product image.

This is in contrast to the salience analysis. Further concrete patterns are evident when considering the aggregate figures in the mental market share tables and the specific salience analysis for Australia. At the aggregate level, the most salient image categories for Australia are tourism and seafood. They are most poorly represented from a salience perspective in the categories of PCI and wine but Australia is still does competitive, being either second or third in each image category.

It is clear from the PCI category results that visitation considerably increases the number of salient attributes for Australia as an exporter/producer of goods in the eyes of Chinese consumers. In the wine category, Australia's salience increases markedly after visitation, which is in stark contrast to the results from the first method. And it seems that visitation has little impact on people's propensity to associate Australia with seafood, which also somewhat contradicts the first set of

results. The Australia-specific salience descriptives are similarly categorised by Australia's strong association with touristic images and its lack of association with country-of-origin images as it they traditionally operationalised. The mixed-modelling approach to comparing the attitude theory-based measures and salience-based measures confirms the seeming lack of agreement between the two methods.

The results from the discrete-choice modelling analysis are presented last. These results disaggregate Australia's wine and seafood products into a set of attribute levels defined in Chapter 3. The analysis uses visitation as a covariate in the modelling process. By splitting the sample, the different preferences for visitors and non-visitors for Australia as a country of origin can be estimated. Stand-alone models suggest the choice propensity for Australia's wine and seafood is better for those who have visited, and particularly so for wine. Through the use of SCM it is possible to see there is a ubiquitous country-of-origin effect across the categories. People who have been to Australia choose its products consistently in both categories, whereas people who have not visited do not show such a consistency in preference.

## 6 Discussion & conclusions

This chapter presents a discussion of the results found over the course of this study. The research provides a substantive and a theoretical/methodological contribution that is applicable to the literature in both country-of-origin and tourism research. It draws final conclusions from this discussion, by highlighting the implications this research has for both academia and industry. A summary of each section is listed below:

### *Substantive findings*

**§ 6.1 Inbound tourists as a target cohort for export producers** – This section provides a discussion of the results presented in **Chapter 5** with regard to the substantive outcomes arising from the investigation into **RQ1, RQ2** and **RQ3**. In particular, consideration is given the viability of using tourists for the purpose of promoting a country's export commodities. It discusses the practical interface between the three main image-item/constructs that have been investigated in this thesis – PCI, DI and product image.

### *Methodological and theoretical considerations*

**§ 6.6 An assessment of methods and theoretical positions** - This section discusses the results obtained in relation to **RQ4**. The discussion is concerned with an assessment of the different outcomes generated by each method used in this thesis. In particular consideration is given to the strengths and possible weaknesses of each method in generating meaningful insights into **RQ1, RQ2** and **RQ3**.

### *Implications for academia and industry*

**§ 6.7 Implications** – This concluding section outlines some of the areas that academics should consider when implementing studies in COO and DI for the future

– both as integrated or standalone investigations. Finally, a number of critical points of consideration are detailed for managers in the tourism and wine/seafood exporting sector wishing to take practical advantage of this study's findings and contributions.

## 6.1 Inbound tourists as a target cohort for export producers

The first part of this discussion chapter considers the following research questions outlined in **Chapter 1**:

**RQ1:** What effect does a country's tour destination image (DI) have on the image perceptions of products produced in that country, and what is the relative influence of this in comparison to the traditional country-of-origin image (PCI)?

**RQ2:** How does consumers' experience of a country by visitation moderate the PCI and DI effects on product proposed in **RQ1**?

**RQ3:** How does consumers' experience of a country by visitation influence consumers' preference for that country's products?

The first consideration, in addressing **RQ1**, is if evidence substantiates the claim a country's touristic images and attributes impact on the image formation of the country's export products. For **RQ2**, it is necessary to consider whether visiting a country increases consumer perceptions of and retrieval propensities of a country's products. With **RQ 3**, consideration is given to whether there is an observable difference in the choice behaviour of people who have been to that country and those who have not when selecting its products.

## **6.2 Attitude based measurement**

From a traditional country-of-origin perspective, evaluating product assessment would only consider the impact of the PCI construct on product perceptions. However, building on the small number of published studies that assert that a country's DI may also impact on product evaluations, consideration is given to whether this might be the case for Australia which is internationally renowned as a premium holiday destination. Both anecdotally and as evidenced by the pre-study/elicitation procedure undertaken in this research, it is clear that Australia is considerably more associated with tourism imagery and attributes than it is with indicators of international production and manufacture – the basis on which much of the literature in COO defines a country's production capacity and quality assurance.

Both PCI and DI studies are primarily grounded in attitude theory where the intention to act (i.e. buy a product from a certain country or visit that country on holiday) is relative to the measured attitude a person has toward an object. The more positively I rate Australia on a range of items that contribute to, or are representative of, my perception of its products, the more likely I am to purchase those products. In the context of this research an attempt is made to assess what the relative influence of both the traditional PCI construct, related to items such as technical advancement and quality assurance, and the DI construct, concerned with perceptions of a country as a holiday destination, has on the generation of perceptions about Australian seafood and wine.

### **6.2.1 Interrelationship between PCI, DI and product image**

The impact of DI and PCI were separately estimated on product beliefs for Australian wine and seafood for Chinese consumers - both with and without in-country experience of Australia. When run separately – as per Lee and Lockshin {, 2011 #19521} - DI-only models display excellent model fit, with a significant positive effect on product image that accounts for approximately one third of product image's variance in each product category. This result is similar to that found by Lee and

Lockshin's (2011) paper where the authors model the relationship between Australia's DI and the evaluation of Australian wine and find a strong positive correlation. They conclude that Australia's DI acts as a halo to influence the overall evaluation of its wine. As with the first set of results in this thesis, DI does this in the absence of a PCI measure.

However, in the absence of a PCI measure it is difficult to establish how much DI actually contributes to the product-image formation. The large body of COO literature would suggest that at least part of the product evaluation will be the result of other beliefs about Australia (i.e. its production capacity or ability to produce quality products). In this thesis PCI is measured. As with DI, when modelled alone with product image it achieves very good model fit. There is also a strong positive correlation between PCI and product image. Although modelling these constructs individually may be a somewhat simplistic approach, it is important in that it highlights the fact it is difficult to establish how each image construct is contributing to the relationship and what its relative influence is, if any, without the other. With so few studies undertaken in this area it would be difficult to generalise results of findings in a meaningful way without considering the relative impact of these constructs. Although authors like {Josiassen, 2013 #24080@@author-year} and {Nadeau, 2008 #24079@@author-year} operationalise a PCI measure, their purpose is to map or predict tourist behaviours and outcomes, not export product evaluations as is the case here. Nevertheless, these two studies provide a basis for incorporating PCI constructs into the same model with DI, and it is central to the objectives of **RQ1** (and requisite for testing **RQ2**) to place the constructs in the same model.

When PCI and DI are modelled together they are highly correlated. This suggests they *appear* to measure very similar concepts. In a gestalt sense they are, because they are image representations of Australia. But in a specific sense they are not – one construct relates to tourism (i.e. a safe place to visit) and the other relates to country-of-origin product evaluations (i.e. Australia produces high quality products).

Critically, in the presence of PCI, DI appears to have little direct effect on product image for either wine – where the have and have-not-been models are invariant - or seafood (have-been only). In these models only PCI accounts for any significant direct effect.

As suggested in the results chapter, the response patterns appear to differ between the two product categories, which is not surprising because there is no reason to expect them to be the same - in fact, that would be the cause for concern. Some people like fish, some people like wine, some like both and some may not like either. In the results there is a small but positive and significant relationship between DI and seafood perceptions. The opposite is true for the wine-evaluation model, where the PCI coefficients are larger than in the seafood model – i.e. they account for more directional influence.

While statistically the coefficients across models are not directly comparable, they suggest that seafood is more closely related to DI evaluations than wine. Interestingly, while the product evaluations do not differ significantly between visitors and non-visitors, the use of the PCI contribution to the evaluation of those products does. It is perhaps a minor point, given the strength of the overall relationships seen in the models, but for visitors DI is subsumed by PCI in each model – in both models the DI construct becomes non-significant. However, the reliance on PCI is moderated in the opposite direction. In the seafood evaluation, visitors rely more on PCI than non-visitors; for wine, visitors rely on it less. This means that the more familiar subjects are with the country, the more they use the PCI image to evaluate seafood and the less they use it to evaluate wine. This highlights an interesting difference in the way that categories are evaluated in the face of country familiarity, though the effect is only small.



### **6.2.2 Familiarity and involvement**

The only indication that DI might contribute significantly to product-image formation is for non-visitors' perception of Australia's seafood. The influence of DI is moderate but positive and significant, though it is still less influential than PCI. This is an interesting result and one that is consistent with the findings of Lee and Lockshin (2011) in the sense that as the reliance on DI is negatively moderated by country familiarity – that is, non-visitors with no country experience appear to rely, to some degree, on DI as well as PCI. But for visitors, any effect of DI is negatively moderated, leaving an apparent relationship only with the PCI construct.

Considering the results of the t-tests between visitor and non-visitor products, it is also interesting to note that, as measured by their beliefs, visitors evaluate Australia's wine and seafood products more positively than non-visitors. This is a result consistent with the well-known image bias, where people familiar with a product are known to rate it more positively (Bird and Ehrenberg, 1970). In this case, however, it is familiarity with the country that appears to be contributing to the positive evaluation. The structural models do not highlight this in the sense that the same image bias is seen as in the PCI and DI evaluations – visitors rate these elements slightly, but significantly, higher than non-visitors.

Inferences can also be drawn from the more nuanced aspects of the results of testing the structural models. The response patterns for visitors are more consistent than non-visitors as demonstrated by the improved fit indices between those groups. This is indicative of there being less variance around their responses. Another way of looking at this would be to suggest that visitors are surer of their perceptions about Australian products, which would be expected given they have more experience with Australia overall.

Having considered country familiarity, as indicated in the literature review, a commonly highlighted moderating factor in PCI studies is product familiarity – the

more familiar I am with the product, the less I will rely on extrinsic information like PCI in evaluating it. Though there is a significant difference between users and non-users of wine in regard to the assessment of wine attributes (with no other significant difference on any variable for wine or seafood users), the difference is indicative of the well-known image-usage bias, where users of a product/brand commonly indicate higher evaluations of product attributes than non-users do. The directional relationships inferred by the models relating to wine remain unchanged, though the effect size is slightly larger for users. What is interesting is that the seafood evaluations between users and non-users do not differ, meaning that the effect of the country and product-specific dimensions of respondents' evaluations are seemingly unaffected by familiarity with the product.

### **6.2.3 Summary of attitude-based measures**

Despite some interesting deviations across models, the results are strongly indicative of the fact that any theorised influence DI might have on evaluating a country's products is subsumed by its PCI image. There are differences in the response patterns across product categories that are a well-known phenomenon in PCI studies. Visitors appear to rate slightly more positively Australia's tourism attributes and its capacity as a country of origin. It is a function of familiarity but what does it actually indicate? It seems that despite their parsimonious nature and good fit statistics, these models do not give a great insight into the mind of the Chinese tourist or export consumer. It seems difficult to draw definitive conclusions from the results, and they do not provide any clarity in supporting or rebuffing the espousals made earlier in the paper, or the results found in other papers that suggest DI has a demonstrative influence on product image.

Consideration has to be given to the idea there is some methodological influence or constraint being imposed that allows for a parsimonious model that fits well but does not accurately represent the actual processes used in image formation. The forced-choice nature of Likert-scale questions results in measurements of attributes

that may not actually be part of the image structure for some or even all respondents, meaning relationships can be reported that may not exist if measured differently. The study examines whether a different theoretical approach, the associative network theory of memory and its most commonly associated measurement methodology, confirms the results of the traditional analysis.

## 6.3 ANT/Salience-based measurement

Salience-based analysis is more descriptive and less statistically complex analysis than a SEM approach. Salience is measured using frequency counts of pick-any items. The driving force behind the analysis is the simple premise of the propensity of the brand (country) to come to mind in a purchase situation. The more associations, relative to a set of competitors, suggests you will be more likely to select that brand over the others in a purchase scenario (Romaniuk, 2012).

### 6.3.1 Interrelationship between PCI, DI and product image

The results of this analysis suggest Australia has a more salient tourist destination image relative to its country-of-origin image. Australian seafood is a more salient product than its wine. It also highlights that there are items not salient for the sample, though these same items would be considered part of the traditional PCI and DI Likert scales. The non-salient items (those not considered in a purchase situation) would have been rated in a forced-choice exercise such as: How technically advanced is Australia? How do you rate the value for money and quality of, or attention to detail paid to, Australian products?

Considering the average percentage of visitors who selected both a salient country image and product image attribute, it is clear that Australia product images for wine and seafood were more often associated with DI than PCI attributes for each product category. The data is characterised by a consistent pattern: tourism attributes play a far larger role in activating memory structures than country-of-origin attributes. Scale items that would traditionally be considered in country-of-origin studies appear not to be brought to mind spontaneously in a product evaluation.

In assessing the impact of visitation on the results with an ANT/salience model it is assumed people will pick *more* attributes associated with a country after they have

experienced it, making the structural relationships stronger. The same cannot be assumed for the evaluative/attitudinal model. The latter evaluation will be relative to the individual experience. For example, in the salience model, people may select beautiful beaches as an attribute associated with Australia. But when they have visited they may decide that the beaches, although beautiful, are not *as* beautiful as they had imagined or been led to believe by marketing communications, and so rate them slightly lower than before they had visited. As shown in Table 1, the significant relationship between PCI and product image for wine appears to weaken after visitation, which, from an attitude-theory perspective, suggests that people who have visited are less inclined to form a positive image of Australian wine, which would indicate a lower probability of purchasing the wine. However, in the case of the pick-any models, both relationships increase after visitation, which is consistent with ANT and an increased mental network about Australia and its products PCI- and an increased propensity to consider purchasing those products in a choice situation.

### **6.3.2 Comparing pick-any and Likert measures**

A reasonable a priori assumption would be that all the sets of results should be similar if the same constructs are being measured. In addressing this apparent anomaly consideration is given to how such a result should be justified. With the traditional country-image study method, respondents are forced to rate a country on its tourist attributes (i.e. beautiful beaches) and its country-of-origin image (i.e. manufacturing quality), and then forced to rate the country's products on product-specific attributes such quality, freshness and whether the product is safe to consume. The results suggest that quality assurance-type attributes correlate more with the aspects embodied in the PCI construct. However, in using this traditional model the important relationships may be overlooked. The results suggest that the Likert scales lead to a PCI-dominated relationship, for both seafood and wine. A forced-choice model asks a respondent to consider all the aspects or attributes presented to them for evaluation, but to reject those that do not relate to the concept at hand.

Using a pick-any dependent variable with an associative network theoretical framework, it is clear that there is a difference compared to the Likert measures for the associations between the country constructs and the product images. Seafood is closely related to tourism (DI) and wine is more closely related to country of origin (PCI). This supports well the associative network theory. Seafood is an unprocessed and unbranded product. With the traditional country-image study method, respondents are forced to rate a country on its tourist attributes (i.e. beautiful beaches) and its country-of-origin image (i.e. manufacturing quality), then forced to rate the country's products on product-specific attributes such as quality, freshness and whether the product is safe to consume. The results suggest that quality assurance-type attributes correlate more with the aspects embodied in the PCI construct.

In contrast, what is evident is that the respondents' country image for Australia is driven by well-known iconic tourism images and *not* images of Australia as a country of hi-tech development, technological advancement, hard work and great production capacity as portrayed in generic country-of-origin scales. Product images for wine and seafood, particularly regarding quality, appear to be closely associated in memory with tourist-centric imagery. This gives weight to the suggestion that the traditional scale/construct-based methodology creates results that may overestimate or distort the influence of traditional PCI measures in forming product beliefs. It also supports the view that DI and PCI are not discrete constructs but representations of a higher-order construct, country image.

Logically this leads to an important consideration, one particularly relevant for future research in this area: Should DI, PCI and product image measures be adapted for individual countries for each study, as they have been done in this thesis? This question speaks to the heart of one of the major problems with COO studies (in the eyes of this author at the very least), that is, using generic/validated scales to

measure country image influence over product perceptions. Clearly the perceptions of each country in each product related scenario are so varied that such a static approach is fundamentally flawed. It would seem very myopic to suggest that a generic set of forced scale questions would be sufficient to capture such nuanced effects. Yet this has largely been the case for much of the COO literature. Given the relative complexity of developing and validating Likert scales and the relative ease of generating pick any batteries and the fact that this thesis strongly suggests that the pick-any method performs better in predicting choice, the point is difficult to argue with.

### **6.3.3 Summary of salience based measures**

One of the key tenets of ANT is that an attribute for a product or place must be present in memory for it to be activated and utilised in a purchase situation. It appears, in this context, the respondents are sometimes being asked to rate items or attributes about Australia (or any country) that they would not have considered freely themselves. In a purchase situation, those items or attributes would not be activated when consumers are considering whether to choose an Australian product. The attitude-based Likert-scale method introduces an artificial condition into the study's results, one not possible to impose in the ANT-driven pick-any methodology. When measuring the influence of DI and PCI on the perception of Australian seafood and wine for Chinese tourists/consumers, ANT and pick-any appear to provide a more holistic representation of the influence a country's image has on product-image formation than traditional forms of analysis. It provides more tangible information about what respondents are using to form product and country images and, importantly, it does not utilise information they are not using.

It is worth reiterating at this point that the number of associations/attributes and the relative strength of the networks of association relating to country images (DI and PCI) are causally linked to the number of association activations an individual has for specific product categories. The more activated Australian country images are,

the more activated Australian products will be and the greater probability that a consumer will consider it for purchase in a consumption situation. This issue is brought up again with practical recommendations for managers in §6.7.



## 6.4 Conclusions from considerations of RQ1 & RQ2

Both DI and PCI have an influence on product perceptions, and this is consistent with the halo effect known in country-of-origin research. Using traditional attitudinal Likert-based methodology analysed using structural equation models, PCI appears to consistently dominate the theorised relationship between country and product-image formation; it appears to be the main driver of product-image formation whenever it is included in the structural model, irrespective of the product category. In considering why this may be the case, it is suggested the scales derived from the traditional country-of-origin and tourism literature are phrased in such a way that they skew responses towards a PCI-dominated relationship for seafood and wine. This particularly so if respondents are required to rate a country on its tourism attributes (i.e. how beautiful its beaches are and the uniqueness of its wildlife) and country-of-origin attributes (such as the quality of its manufacturing and level of technological advancement) and then rate the country's products on product-specific attributes such as quality, freshness and whether the product is safe to consume.

These quality-assurance type attributes will – as they do in these results - correlate more with the technical aspects embodied in the PCI construct. However, by using this traditional evaluative attitudinal model to assess the relationship between a country's image and products, important relationships could be overlooked – as can be seen from the results of the ANT portion of the study. A forced-choice Likert model presumes that a respondent might consider all the attributes presented to them for evaluation and that each is given equal weight in making product-image assessments.

Using a traditional PCI approach to country-image measurement and influence on product evaluation produces a good statistical fit across a number of models using a large sample of holidaymaker consumers. However, the results did not give good insight into the mind of the consumer when it came to forming their product

perceptions of seafood and wine from Australia. This leads to a consideration of the effect the methodology may be having on the reliability of the results.

An ANT/salience-based analysis of data collected from the same individuals clearly suggests that for certain image attributes and product categories, which the consumer considers to be in the category of *tourism*, there are semantic or network linkages with certain product attributes, particularly relating to quality perception (size, freshness, taste), and these linkages are less evident with more traditional country-of-origin categorisations. It is clear from both approaches that Australia's image as a tourist destination prevails - iconic and well-known images of beautiful pristine environments, beaches, sun and surf - and this may well be a significant antecedent of product-image formation. While some of these measures are considered in country-of-origin research, they tend to be more heavily focused on manufacturing and production capacity, as well as the perceived technological advancement of the country. These images of Australia are not as salient in the minds of the respondents in the study, and not retrieved from memory as often as those of Australia as a laid-back and beautiful country. According to ANT, it is these images that will have the greatest effect on consumer choice for the products tested.

It is worth noting here that an ardent proponent of SEM might query why one would not just add/remove more items to a Likert scale to improve predictive validity. Perhaps items that better represent the country related images as they structurally relate to product images under the presumption that they will get better correlations with a measure of purchase intention. However, this speaks to the root of the problem when using a fixed number of forced scales. Though items may be revealed that are more salient on aggregate in a pick any analysis, by respondent these will vary both in the actual number of associations triggered or recalled and the specificity of those associations. Hence it is still not possible to isolate attributes that everyone will equally consider in a purchase situation – it is not, and cannot be known by the researcher. By forcing respondents to answer on a scale the researcher

is forcing them to consider all the items as being equally associated with the construct they are held to represent. Associative networks are more fluid and context dependent, with varying levels of activation. They are representative of retrieval propensities, rather than attitude. As a result even if correlations with a purchase intention measure are not likely to improve the predictive validity of the SEM.

There is, however, an issue that will be picked up in the final chapter (Limitations and Future Directions), which should be considered for application to future research and the possible development of more skilfully integrated methodologies for salience *and* attitude measure - more skilful and mathematically/computationally sophisticated than the integrated analysis presented in this thesis. This integration of methods will be one of the suggested areas of future research.

## **6.5 Choice-based measurement**

Unlike the other two methods discussed so far, discrete-choice analysis underpinned by random-utility theory and does not give any insight into how country images are used by consumers. It is a method by which consumers' preferences for the attributes of particular products can be estimated. The attitude/SEM approach uses image constructs to measure latent preference and to predict the intention to choose.

This analysis can only speak to **RQ3**. However, in conjunction with the previously analysed results, it delivers some considerable insight.

### **6.5.1 Interrelationship between tourist visitation & product preference**

Firstly it is necessary to consider the results from the models estimated separately (a model for each category/experiment). While it is not possible to compare the utility coefficients between experiments or cohorts directly because of scale issues, it is possible to assess the utility values relative to the other attribute levels in each experiment, particularly in an ordinal sense – i.e. are the attribute levels ordered the same way for all attributes from highest utility value to lowest utility values between the two cohorts undertaking the same experiment. In looking at possible differences between the visitor and non-visitor cohort, it is possible to identify what relative preference each group apportions to each of the levels of the attributes of the alternatives and consider if there is a meaningful difference between these and they way in which they are preferentially ordered.

The results must then interpreted in light of the other information collected about groups being surveyed. In this case, visitation to Australia is known and can be used as a covariate in the estimation of the DCE results – what value consumers place on the manipulated attributes presented to them in the experiments and how they differ between groups.

### **6.5.2 Preferences for respondents who have not been to Australia (unfamiliar)**

*Wine:* The most preferred country of origin for red wine is France, followed by Chile as second most preferred and Australia as third most preferred. China is the least-preferred country of origin. Price, which is continuous coded, has a negative value - as the price rises it becomes less attractive, a well-established pattern in DCEs and in real-world behaviour. This is the case for all the models run in this thesis. The procedure is common in applications of continuous code for price. Closure type and label have small non-significant coefficients, confirming they have little influence over choice in the experiment for this cohort.

*Seafood:* Australia is the most-preferred attribute level, meaning that respondents prefer Australian seafood to all of the other countries represented in the experiment – China, South Africa and the USA. The coefficient for species type – abalone or lobster - is small and not significant, suggesting there is little difference in the choice preference for species across the sample. By simply looking at the number of choices for each of the two levels of this attribute it is possible to observe an almost 50/50 ratio of consumers selecting either abalone or lobster, suggesting the respondents are relying more heavily on other attributes to make their choice of seafood dish when ordering in a restaurant (origin and price) than the species, giving even greater weight to the importance of the credence attributes of country-of-origin, price and rearing environment. Price has a negative coefficient, as is to be expected, and this is consistent with the results for wine - the higher the price, the less it is preferred and chosen. Rearing environment (wild or farmed) is seen to be a strong and significant driver of the choice, with wild-caught definitely preferred over farmed. This is expected, particularly from consumers in China (Glitnir, 2006).

### **6.5.3 Preferences for respondents who have been to Australia (unfamiliar)**

*Wine:* Differences can be noted in comparison to non-visitors on the basis of the utility values relative to the other attribute levels in the experiment. The utility range

(the indicator of attribute importance) for country of origin increased for those who have visited. This means that respondents who have visited Australia are, relative to other attributes, relying more on the country of origin in determining their choice than those who have not been – the utility range has almost doubled between the cohorts. The utilities for both France and Australia have increased considerably between the two cohorts, while the utility for Chile has decreased. France is still the most preferred country but Australia is now clearly second, preferred over Chile and China.

Price is slightly positive, meaning that respondents are less sensitive to the price rising and are willing to pay more, a further indicator that COO consideration is greater with this cohort. Closure type has a low and non-significant utility, showing that, both here and across the entire sample, the other attributes being manipulated in the choice experiment are accounting for the majority of the choice preference, rather than any consideration to closure type. The utility for label type for this cohort is small and non-significant, suggesting that for those respondents who have been to Australia red labels are not a determinative aspect of their choice.

*Seafood:* Australia is the most preferred country compared to the others in the experiment. However, in this segment, respondents show an increased level of utility for Australia as a country of origin – the utility range is increased, as is the importance placed on that attribute in the experiment. This means that those who have visited Australia have a higher preference for Australia as a country-of-origin for seafood compared to the other countries (attribute levels) represented in the experiment, in comparison to those who have not visited.

Price is again negative but less negative than for those non-visitors completing the same experiment. Those who have visited appear to be less sensitive to price than those who have not visited, meaning they are placing a greater relative importance on the other attributes in determining their choice. This increases the value of the

country-of-origin attribute as a whole in determining choice. Not only do people who have visited Australia have a higher preference for Australia relative to the other countries represented in the choice experiment, they also place a greater relative importance on the country-of-origin attribute than they do if they have not visited Australia.

Respondents who have visited Australia are relying less on the price attribute in determining their choice than those who have not been – the utility range is halved between the cohorts. Confirming suggestions made previously about the selection of abalone or lobster, in this segment the utility coefficient is again small and this time non-significant, suggesting that it is the other attributes being manipulated in the choice experiment that are accounting for the majority of the choice preference, rather than the specific species of seafood. Wild-caught remains of high importance amongst the visited cohort as it was in the non-visited cohort, and this consistency speaks to the robustness of the results, as it would be expected in both conditions that wild be preferred to farmed.

#### **6.5.4 Latent preference across experiments**

The previous level of analysis allows us to establish patterns in the data that intuitively indicate support for the hypothesis but cannot confirm it. While the results of the separate product model estimations provide interesting insight by themselves, whether visitation to Australia has an ubiquitous impact on choice preference in each category can only be established if the models are considered together, considering the matched data for each respondent. Are their choices correlated on the country attribute for Australia indicating that Australia is acting as a higher-order decision determinant?

It is recognized that comparisons of partworths between discrete choice experiments (DCEs) are highly useful but problematic because of omitted covariates and scale issues confounding the error term. Using structural-choice modelling (SCM), it is

possible to analyse and compare two DCEs applied to the same respondents in different product categories. This generates new outcomes with substantial implications for both applied and theoretical research. With SCM, covariates can be given random coefficients and linked using a structural model across DCEs. An important facet of SCM is that statistical tests, goodness of fit and structural links between the two DCEs are not adversely affected by the scale issues mentioned above and, in addition, may provide important new outcomes.

It is proposed that respondents who have visited Australia will demonstrate consistent preferences for the two product categories, seafood and wine, across the two experiments. Conversely, it is not expected to find preference consistency for Australia across the two product categories for those who have not visited. This draws on those studies in COO and tourism that suggest experiencing a country on holiday increases the likelihood people will purchase that country's export products when they return home.

The results indicate that there is a clear difference in the stated preferences between those who visited and those who did not. In particular, the utility for Australia as an attribute level is larger in both experiments for those who have visited in comparison to those who have not. By using SCM it can be established that this preference is correlated across both experiments, suggesting that the same respondents show a preference for Australia across both experiments, a relationship not evident for non-visitors. This correlation suggests that tourists to Australia are more likely to show consistent preference for Australian seafood and wine, when back in China, compared to those who have not visited.

By placing a factor over each of the constant country levels (Australia and China), and assigning each level a random coefficient so as to extract the most heterogeneity, correlating the factors across the two matched experiments allows us to determine how consistently individuals are choosing on common levels. By giving each level



the random coefficient, and keeping all the other levels in the model fixed, the maximum variance across the models can be captured. This procedure essentially makes the models most sensitive and most accurate for determining the level of covariation seen between the factors.

As can be seen in the results, there is a relatively constant level of preference consistency for the China attribute level across both cohorts - i.e. respondents are relatively consistent in choosing (or not choosing) China as a country-of-origin for wine or seafood irrespective of whether they have been to Australia or not. This is the result that would be expected because there is no apparent reason why there should be a difference on this attribute. However, as can be seen from the results, there is a significant difference between the two groups in regard to preference for Australia. In the 'have not been' cohort the correlation is small and not significantly different from zero, meaning these respondents are not choosing Australia consistently across experiments. For those who 'have been' there is a large positive and significant correlation between their choices across experiments, meaning those who choose Australia in one experiment are consistently choosing Australia in the other experiment.

Evidenced here in regard to **RQ3**, respondents who have been to Australia on holiday show a consistent preference for Australia as a country of origin across two choice experiments. Respondents who have not been to Australia on holiday do not. Modeling and quantifying such a relationship, that is, a cross-category country-of-origin effect on choice is something that has not been seen before. This is an important new contribution to the literature, one that has only been made possible by the use of structural choice modelling. It is something not possible to achieve with the traditional approach to research and modeling in the COO literature. This will be a very important contribution to the future advances in the field. This also opens up many new possibilities for future research projects and applications a number of which will be discussed in the following chapter.

### **6.5.5 Conclusions from choice**

Substantively, this result suggests that targeting inbound tourists may be a viable means of reaching new customers for a country's exporters. Theoretically, it indicates that it is possible to model multiple DCEs simultaneously for the same set of respondents and identify preference consistency over multiple categories, something not possible with stand-alone modelling. This property of SCM allows the testing of useful theoretical concepts, which was not possible using separate DCEs.

It achieves this with a clear demonstration of the different choice-based behaviour demonstrated by the respondents in the study to not one but two product categories. It also provides a useful example of how country-of-origin/tourism effects can successfully and meaningfully be captured using a choice-based approach and analysis of stated preference behaviours, instead of the more traditional attitudinal/scale-measurement approach.

## **6.6 An assessment of methods & theoretical positions**

This section of the discussion is primarily concerned with the final research question:

**RQ4:** What methodological approaches, supported by underpinning theory, can be effectively operationalised to capture the effects posited in **RQ1**, **RQ2** and **RQ3** and what are the pros and cons of each?

The first point that must be clearly stated is that, from a statistical perspective, each method cannot be statistically standardised and compared – there is not a way of determining, statistically, that one is “better” than the other. The methods use different data-collection techniques and data types, involve different estimation algorithms as determined by their theoretical positioning. They consider different fundamental questions/processes. However, all methods attempt to develop analyses that explain and/or predict the behaviour (or the intention to act) of consumers. Social psychology, economics and marketing are all interested in these types of outcomes – and it is from these fields that the different methods used in this thesis have been drawn.

### **6.6.1 Within versus between subjects analysis**

Interpreting the data generated by these methods considers the process by which individuals make decisions – a within-process analysis - and the processes by which consumers behave differently having been exposed to different experiences/treatments - a between-process analysis. It is obvious the attitude theory-based analysis is indicative of the within-process analysis that is predominant in country-of-origin research. The method attempts to understand how consumers process information as composite country and product images that equate with latent attitudes that define product evaluations. This estimation is used as an antecedent of choice - i.e. the intention to purchase. In contrast, the discrete-choice approach clearly considers the between-process form of analysis that establishes the

differences between consumers' preferences for particular product attributes based on the differentiating factor that one group has been to Australia and the other group has not. It does not attempt to determine which specific aspect of that visit might contribute to a different preference level. While adding covariates to the DCE can aid with some of the interpretation of the results, as determined by random utility theory, the method and analysis still does not explicitly "care" which mental process is driving the decision, just the outcome of the decision. It measures only the choice behaviour.

The salience/ANT method, with its pick-any instrument, falls between these two extremes. An image-item measure, which is theoretically based on stochastic patterns in response data and can be equated with repeat buying behaviour (see Romaniuk 2012). The method considers whether or if particular items are present in the memory of a consumer that will raise the cognitive prominence of a brand or product so it is more readily remembered and chosen in a consumer setting. This method as well does not explicitly care "how" the decision is made but just whether numerically it is more likely to be made as a result of the cumulative (attitudinal/perceptual/belief) associations about the brand/product.

These approaches to understanding consumer behaviour and choice are defined by:

- the way researchers conceptualise how individual decisions are generated;
- how decision outcomes differ comparatively between decisions within the same category and across categories;
- how the data each method links to a theory is collected; and
- how it is analysed and interpreted.

Each of these considerations is causally related to the other. They each deliver overall processes that generate a variant of outcomes that researchers must interpret. Which is superior is will be defined by the desired outcome of the research, the theoretical grounding and beliefs of the researcher and (likely) where they wish to publish their

work. However, consideration as to which might deliver greater insights to the research questions posed at the start of this thesis can be addressed here.

### **6.6.2 Considering the attitude-theory approach**

As detailed in the results and earlier discussion, an attempt has been made in this thesis to provide comparative analysis between scale and binary indicators in a SEM. Though justification has been provided, this is generally not the norm. Relevant theory or previous studies dictate that these multivariate constructs are valid representations of how people think and feel about a particular object, and that this will determine their eventual actions or choices. SEM is a way of modelling hypothetical relationships between numerous latent (within-process) constructs.

By estimating the joint associations between the data captured by the constructs - the covariation - the hypothetical relations can be supported or rejected. In this thesis, a relationship has been hypothesised between DI and product image, one that is largely unsupported using this technique. This form of analysis, as well as being predominant in country-of-origin literature, is very popular in the marketing literature at large. It delivers a number of easily interpreted metrics to assess the fit of the data to the proposed models. For hypothesis testing, regression weight coefficients for paths between the constructs give clear indication as to whether a suggested relationship exists or not. It is, perhaps, a 'chicken or the egg' scenario as to whether this popularity has been fostered by the ease and flexibility with which these types of models can be formulated and estimated using advances in the modelling software (AMOS in particular), or vice-versa. This type of modelling and data analysis has issues that may bring into question some of the outcomes it delivers.

As has been mentioned in the literature review, the idea that these models and analysis are predicated on – that attitude predicts behaviour – may be questionable. A body of work exists (see Wright and Klyn, 1998; Wicker 1969) which clearly

indicates that the correlation between stated intention to act (i.e. intention to purchase) is poorly correlated with actual behaviour – just because someone indicates that they will act on a forced-choice scale question does not mean they will. There are many influences between intention and actual behaviour that are not tested in these models. As dependant variables in these models are supposed to represent proxies for or antecedents of choice, the fact their outcomes could be predicated on a flawed assumption is cause for concern and brings into question these models' predictive validity. The models are further predicated on the notion that people process information at high levels of attention – i.e. they process the world around them in a linear cognitive fashion. Evidence from both neuroscience and studies in habit and heuristics brings this notion into question, particularly in the case of low involvement and frequently purchased items (Heath, 2002).

### **6.6.3 Considering an ANT approach**

The salience/ANT approach to data collection and analysis addresses some of the limitations of the attitude-theory/SEM approach. It works on a simpler premise and, consequently, a simpler form of analysis. Rather than analyse how consumers might process information, which the researcher has pre-determined to constitute a psychological evaluative construct, the salience/ANT approach considers what consumers store and can easily retrieve from memory. Its premise revolves around the propensity of retrieving perceived attributes and related associations for specific products and that the more easily this happens in a purchase situation the greater the likelihood a product will be considered for selection against its competitors. The more linked cues one has in memory the more likely the product is to be chosen. Theory from the branding and salience literature suggests that for any one product the numbers of associations, ease of recall and product choice are correlated. Data collection records associations in tables containing lists of products and attributes. The observations are binary – they either have an association between a product and an attribute or they do not. Respondents are generally asked to 'pick any' - tick any and as many of the attributes as appropriate. As it is in this thesis, the

data analysis that counts is commonly in the form of simple frequency. Associate Network Theory has been shown to have better predictive ability and more manageable marketing implications than those derived from an attitude-based analysis (Sharp, 2010).

In citing some of the possible weaknesses of analysis of this type, consideration must be given to the heavier reliance on the theory to support the data. Unlike SEM and construct-based analysis, salience analysis is quite simplistic. In general, it does not have the same statistical power of SEM. There are few standardised indices that indicate model fit as there are for SEM. Defining the image items and attributes used is still well established in the literature, though recent work by Romaniuk (2012) has established good benchmarks. While attitude-based analysis uses theory to formulate models that are then tested as hypothesis for acceptance or rejection, salience lets the data speak and theory supports it.

Looking at the data and relying on ANT determines that nodes linked to one another are meaningful in their connection and the links are strong enough to activate objects in memory. However, robust tests for these links, particularly individually, are scant. It is suggested they have direction and strength but a statistical test for such is not well established. Relationship tests between items do not hold any substantial consensus in the literature in the way that SEM fit and relationship testing does. Appropriate fit of the data in the case of a salience analysis relates to the data-matching patterns known in repeat purchasing behaviour and the Dirichlet-model (REFS). While this analysis determines if the data appears to be “as expected” for an image-based analysis, it does not of itself confirm or reject a specific relationship, as can be achieved with SEM. Also defining the image constructs and the representative attributes for a salience analysis, doesn’t draw on the same rigid procedure and history of construct validation SEM studies do.

The batteries of pick-any items can be larger and contain competing

brands/countries, but they are still limited to the domain the researcher determines – though it can be argued this is the case for all research – despite the fact the ANT approach recognises that the human brain has unlimited memory storage. Unlike with the SEM approach, with its statistically rigorous way of defining and confirming items that are part of a construct representing an image item (such as confirmatory factor analysis, and convergent and discriminant validity) salience analysis has only a largely descriptive process. As such, researchers are open to greater criticism of the validity of their measures in statistical sense - a point that is easier to defend from a SEM/construct approach.

The ANT/salience approach, conceptually and statistically, sits somewhere between traditional measures of attitude and discrete-choice analysis. While attitude or perceptual items are used as pick-any indicators, statistically they are treated as stochastic events based on probabilities that are fixed for each consumer and vary between consumers. The data used in discrete choice is also considered in this fashion - an all-or-nothing measure where the response is either a yes or no to either selecting an attribute attached to a brand/country or selecting an alternative from a choice set. In contrast to the attitude-theory/construct approach, where the researcher pre-determines which indicator items the consumer will use to decide on evaluating or choosing a product, the ANT approach does not presume which attribute items a consumer will choose a priori. So it is not that the decision process for the individual is stochastic, just that the researcher does not presume to know what the process will be before testing it – which is also how choice is considered in a DCE approach. An interesting aspect is that the ANT uses attitude items as a probabilistic indicator of choice in a given situation, enabling it to capture some of the conceptual aspects that consumers are using to inform them – though it cannot test *how* the consumer processes them as in an attitude/SEM approach. Both the ANT/salience and SEM/construct approaches attempt to understand, in different ways, how the mind uses information as an antecedent to choice; this is not (traditionally) the case for the DCE approach.



#### **6.6.4 Considering a discrete choice approach**

DCE analyses, driven by a random utility theory framework, disaggregate the individual decision in which one product is selected from a set of alternatives. It specifies that the choice is a property of the actual and perceived attributes of all the products in a defined choice set. It evaluates the trade-offs between attributes within individual decision processes. The observations, known as discrete choice data, record the choice and the attributes for all the alternatives in a given choice set. The majority of DCE studies test theory on the decision-maker's processing, operationalising and testing hypotheses on the outcome of the disaggregated choice outcomes. Testing the results against some benchmark, real-market data or - as in the case of this thesis - uses some covariate to segment a sample into different conditions - e.g. have been to Australia versus have not been to Australia. In the neo-classical tradition of viewing the economic consumer as having unlimited information processing capacity and who will at all times maximise the utility of their choice, the DCE analysis approach does not explicitly consider, at all, how the decision is made - i.e. the mental processes that take place before a choice is made.

As discussed previously, the decision-making process at the individual level, as with ANT, is considered a stochastic process, with probabilities that are fixed for each individual but distributed randomly across the population. Here the argument is not that consumers make decisions randomly, but instead, that the researcher does not know anything about how the consumer is making their decision - as it is taking place in the 'black box' of the mind - so the process can be operationalised 'as if' it were random. The result of this type of theoretical application is that the analysis of the data is only concerned with how often and in which proportion competing decisions are made, not how or why. It is purely analysis of the all-or-nothing choice process. This type of analysis has, as with ANT, also been found to have excellent predictive validity when correctly specified. It clearly does not, however, of itself provide information to interested researchers as to why the decision has been made.

This is problematic for someone seeking to understand the process drivers in decision-making because, unlike with the alternative approaches used here, no psychometric indicators are captured.

The issue that arises from the perspective regarding the 'as if' random approach to the choice process, without any antecedent indicators, is that it is difficult to argue which processes or communications can be implemented or optimised to improve the explanatory conditions or predictive ability of the model. The decisions are what they are and, as analysts, we don't know how they are being made so we can't affect the choice process. The choice-modelling process can be used very effectively to create product offerings, which will map well in real market conditions, but it fails to identify why or what about those offerings are so appealing to consumers. This ultimately limits the generalisability of the models across product categories, as what may work for one specifically constructed product offering may, as the result of an omitted covariate, not work for another. The other theories discussed here are still predicated on the idea that a decision or evaluation will appear as random but attempt to give the randomness structure by explicitly considering the how and/or why of the decision, not just the outcome.

#### **6.6.5 Conclusions from a comparison of methods**

This thesis has taken three approaches to measuring and understanding a scenario proposed by the research questions set out at the beginning of this chapter. Three theories, with three associated or causally related data collection methods. The approaches differ in their conceptualisation of the decision-making process and which part of this process is most important – process or outcome. The data collection and data format differ for each, as do the models and analysis they employ, so they cannot be compared directly, neither substantively nor statistically, to determine which is superior.

The selection of a particular method will be determined by a multitude of criteria

and the orientation of the researcher. However, drawing on the results obtained in this research, observations can be made which should have implications for future research. Firstly, the predominant form of analysis in the area of PCI and DI research, the attitude/SEM approach, appears to be at odds with the other two approaches employed here. The traditional approach has not delivered a clear indication as to what is driving the product-evaluation determinants for Chinese consumers for Australian seafood and wine, or at least it suggests that DI and tourist visitation does not have a significant influence on this process, which puts it at odds with other research. The two other methods, which are not mutually exclusive, seem to support the notion that tourist images and tourist visitation do have an impact on the propensity to recall and eventually choose these same products.

In providing advice for researchers interested in this area, both currently and in the future, it would be the strong recommendation resulting from the results and analysis found in this thesis, that using the ANT/salience and DCE approaches in tandem will produce the most robust and insightful results to understanding both the choice antecedents and probabilities. From a conceptual standpoint, using choice experiment results as a dependent variable and a salience measures as the independent variable (are both acknowledged as having far greater predicative validity than attitude measures), will go as long way to answering a number of the issues raised in the traditional approach to COO studies - issues that have been highlighted repeatedly in this thesis. This repetition is no accident. These suggestions unequivocally imply new approaches measuring COO effects need to be adopted for the field not to continue to be considered "ivory-tower" research. These suggestions fly directly in the face of the current, and historical, literature in the field and as such need to be carefully spelled out for clarity of comprehension.

## **6.7 Implications**

Having discussed the practical and theoretical issues that arise as a consequence of the results presented in this thesis, some consideration has to be given to the implications these should have for both academic and applied/managerial application.

### **6.7.1 Academic implications and contributions**

While to a degree the academic issues have been covered in the previous sections, it is possible to suggest where the author has made a contribution to academic practice. The results presented here suggest that different methods of data collection produce different results, despite investigating or trying to understand the same phenomena. This clearly has implications for academic research in the areas of COO and DI studies. When fields of research are dominated by one method and type of analysis, as is particularly the case with COO, and alternative forms of analysis which enjoy strong support in other well respected and developed literature fields present alternative outcomes academics should seriously consider what this means. Is one form of analysis generating some type of bias that is not generated by another? Or are there aspects of one form of analysis that are not picking up important nuances that another is. The results presented in this thesis suggest that this could very well be the case for COO and DI studies.

If the choice based outcomes presented in this research can be seen as the dependent variable of a holistic research agenda, one which considers two competing theories on the antecedents of choice, then it seems quite clear that the ANT/salience approach to measuring this antecedent performs better in terms of predictive validity. The ANT/salience measurement approach clearly supports the choice based outcomes. The attitude theory approach does not give such definitive support. In the end it is, at least in this context, the ability to predict a real market choice that is the

most important facet of measuring market-based phenomena. It is necessary to predict what people will buy before we attempt to understand why. This has to be a basic assumption of market-based analysis.

The ANT/salience approach is in alignment with advances and knowledge in neuroscience. The theory is conceptually based on the physical formation of neural connections within the brain, and the way that these neural pathways are interconnected and activated. As a result as better methods are developed to test and model stochastic data, it is likely to become a superior tool for understanding what is in the 'back box', how it can be elucidated, used to predict and therefore influence choice. The results presented in this thesis are consistent with such a position, and SCM is indicative of one of the new methods for modeling stochastic data. This gives clear indication of the possible contributions that such approaches can have to understanding COO and DI information processing and choice outcomes.

As academics we are behoved to continue the search for new/more informative ways of understanding different phenomena and the world around us. While tried and true methods for achieving not to be discarded or discredited, with only cursory investigation, using the same rationale they should not be deified at the expense of credible advances in research. Within the COO and DI context this leads to an interesting and exciting future research agenda, one that is discussed at in the final chapter of this thesis. In terms of immediate academic contributions/implications this is one of the first studies to compare alternative approaches to measuring and understanding country-centric image effects, and it should be clear that the findings are not inconsequential to both fields of literature. As mentioned at the end of the last section, the ANT/salience method is a better predictor of choice outcomes than attitude measurement. This study is the first to compares these two methods in this way. Its outcomes contribute new knowledge to this area, both academically and, as a result, substantively. Importantly, future scholars are well advised to move to ANT/salience type method if their purpose is to meaningfully measure country

image effects on product evaluations. Notwithstanding the academic considerations and an interesting future research agenda, these findings should also contribute to actionable managerial outcomes, some thing frequently called for (but arguable not always delivered) in the literature.

### **6.7.2 Managerial implications and contributions**

Addressing these questions from a substantive perspective should clarify whether Chinese tourists are a consumer cohort that Australian seafood and wine producers/exporters should strategically target while they are in the country to boost sales when those travelling consumers return home. The results presented demonstrate that in comparison to those people who have not visited, consumers who have been to a country on holiday are more likely to choose products from that country when at home. While this result may appear to be intuitive, no other research has so far explored this phenomenon using a choice-based approach. This result should provide meaningful and practical insight to managers involved in exporting a country's products who should look to approach tourists when they are in the country to help promote specific products when they return home. Tourism managers should also look to partner with local exporters to value-add their service delivery because such partnerships will be of financial value to both parties.

China is forecast to become Australia's largest tourism source market by 2017, and is forecast to record 860000 visitors by 2020, doubling visitation to the country in just 10 years – 454000 Chinese toured Australia in 2010, a 24 per cent increase on 2009 (Tourism Australia, 2011). Australia is promoted heavily in China as a tourist destination, and China is regarded as key to the continued success of Australian tourism spending. China holds vast potential for the Australian wine industry – particularly in red-wine exports, where it is second only to France in export sales to China. However, China accounted for only 6% per cent by volume and 12% per cent by value of Australia's total wine exports in 2011-2012 (AWBC, 2013). Similarly,

China holds great potential for the export of Australian seafood products, with Australia currently only sixth behind Japan, Hong Kong, Taipei, the USA and Singapore in the value of seafood products exported to China (Australian Government 2010). The combination of increasing numbers of Chinese tourists into Australia, accompanied by intensive promotion of Australia as a tourist destination in Mainland China and a relatively low market share and awareness of Australian wine and seafood domestically in China, means that product perceptions for these products may be developing from a tourist-centric perspective in product categories with few initial impressions. Such preconditions provide a suitable platform for answering the research question at the core of this thesis.

This thesis suggests Chinese consumers who visit Australia on holiday will prefer Australian wine and seafood more than those who have not visited. Yet these findings are revealed in the absence of centrally coordinated marketing activities specifically targeting this tourist cohort. It is well known that even when a country is not consciously managing its “brand” image, consumers still have salient images of the country that are automatically invoked in decisions relate to purchasing its products (Kotler & Gerner, 2002), be they a car or a holiday. The images a consumer uses in evaluating these products are a simplified representation of the large number of associations and pieces of information they have connected to a place. Cognitively consumers are looking to simplify their decision making process, to assure the quality of their choice or mitigate their risk. To achieve this they utilise those salient attributes as cues to speed the process, and reduce the cognitive load they have in sorting through large amounts of information. Australia is lucky in this regard, as Chinese consumer, and more so consumer tourists, overall have a good impression of Australia and its products.

Implicit in such a finding is a great opportunity for exporters to develop effective pull-strategies by harnessing the, currently unrealised, potential tourist consumers from China offers. Understanding how to take advantage of this should contribute to

long-term benefits to both the seafood, wine and other industries, providing improved market access and profits by maximising promotional opportunities and marketing potential. Promoting to inbound tourists will cost less than promoting in the tourists' domestic markets, something especially valuable for small rural producers. Both wine and seafood exporters develop marketing activities that effectively target and communicate to tourists so they become both customers and word-of-mouth ambassadors when they return home. To full take advantage of this, however, managers in both industries as well as the tourism sector will have to give careful thought to how this should be best achieved.

### **6.7.3 Recommendations for the tourism sector**

Australian government and/or associated/independent tourism authorities need to ensure that their marketing efforts in foreign countries designed to portray the Australian tour experience in favourable light, are in consistent with and achievable in reality. They must deliver the expectations created by their marketing efforts. While this may seem intuitive for generating return tourism business, it is arguably even more important if Australia wants to maximise its export leverage. As is demonstrated in this thesis the perceived destination image influences visits to the country and perceptions of the country's products. It is the consistency of this image and what it represents that will help successfully reinforce those mental networks from both tourism and product specific perspectives.

It is evident that Australia is already strongly associated with the tourist experience in the minds of Chinese consumers, whether they have been to the country or not. However, in some instances, both in terms of associations and evaluative ratings, where it would be expected visitors have more associations with or higher ratings of their experience as a result of the user image bias, they do not. That is, while some ratings and associations are increased for visitors, some are the same or lower suggesting that perhaps these items were not as prevalent in the experience as they might have expected before visiting.



For example, while Chinese visitors still very strongly associate Australia with natural scenic beauty, beautiful beaches, unique wildlife and as being an ideal holiday destination, they do not associate them as strongly with Australia as do non-visitors. Meaning those iconic associations and attributes related to Australia are very strongly held in the mind of the Chinese consumer, and likely reinforced by the advertising Australian holidays receive in China. Yet as is often the case with idealistic advertising, or perhaps advertising in general, sometimes the reality is not quite as spectacular as one can be lead to believe. Conversely (no doubt much to the relief of to the tourism sector), there are many associations that improve with visitation to Australia such as the prevalence of activities & holiday entertainment, the quality of Australia's cuisine, shopping opportunities and the interesting nature of Australia's rich and diverse cultural heritage.

Overall Australia performs very well as in the mind of the Chinese as a tourist destination. Relatively small differences in some of the metrics are not likely to be overly concerning to Australia's tourism sector at large. Importantly they exemplify susceptibility of memory structures to modification through experience. These issues should be cognate with tourism managers if they want to take advantage of the economic potential i.e. possible partnerships between producers wishing to promote their products through tourism channels, which would be a proactive move on their part. This is particularly the case if they think out of the tourism box to understand what attributes might be jointly useful for those producers and exporters – beautiful beaches and pristine waters are associations that are clearly shared with the seafood industry; rolling hills of green vines and beautiful vistas of the Australian countryside are likewise associations which the wine industry share. It is for the interests of the producer and exporter that the management of consistent salient associations about Australia and its tourist strengths that become arguably more significant. In the case of the Australian seafood wine and seafood industries this might require slightly different foci.

#### **6.7.4 Recommendations for the seafood industry**

As with Australia's strong association with tourism imagery and attributes, it is clear Australian seafood is highly regarded by Chinese consumers. Attributes such as clean pristine environments and beautiful beaches form part of both an Australian seafood product and tourism network of associations. The results demonstrate that these attributes are highly associated with, and evaluative of, Australia, whether it has been visited or not. So are the quality perceptions of Australian seafood products. Awareness of Australian seafood is high among consumers and tourists from China as is demonstrated by the fact that 90% indicate that they have bought it before. Here, in terms of marketing management, consistency and the confirming marketing claims or pre-existing notions are key. That is, for the seafood industry the aim of targeting tourists should not be improve perceptions, but maintain the existing high ones and to build larger networks of association to firmly entrench Australian seafood in a premium position in their mind.

The Australian seafood industry has capacity to build on its already strong base. Australia is strongly associated with abalone and lobster, however, there are many other species that Australia produces and exports to China. As well as confirming its association with premium

products; it needs to expand the gambit of experience and associations for the industry and range of products it offers overall. Associative networks are asymmetrical and their activation in the mind is dependent on the strengths of those associations with each other. As with any network, its cumulative strength is reliant with the number of links and their strength – improving both aspects strengthens the network overall. Improving the strength of the network will further enhance the salience of Australian seafood in the Chinese tourist consumer's mind. While lobster and abalone are strongly associated with Australia and likely to activate a larger network of associations, lesser known species

are not likely to have the same level of activation. Along with reinforcing the strength of links with the existing products, building links to new ones is where the Australian seafood industry can really maximise its interface with tourism.

Introducing tourists to more species and enhancing their perception of how they are processed for shipping and consumption would be example of how this could be achieved.

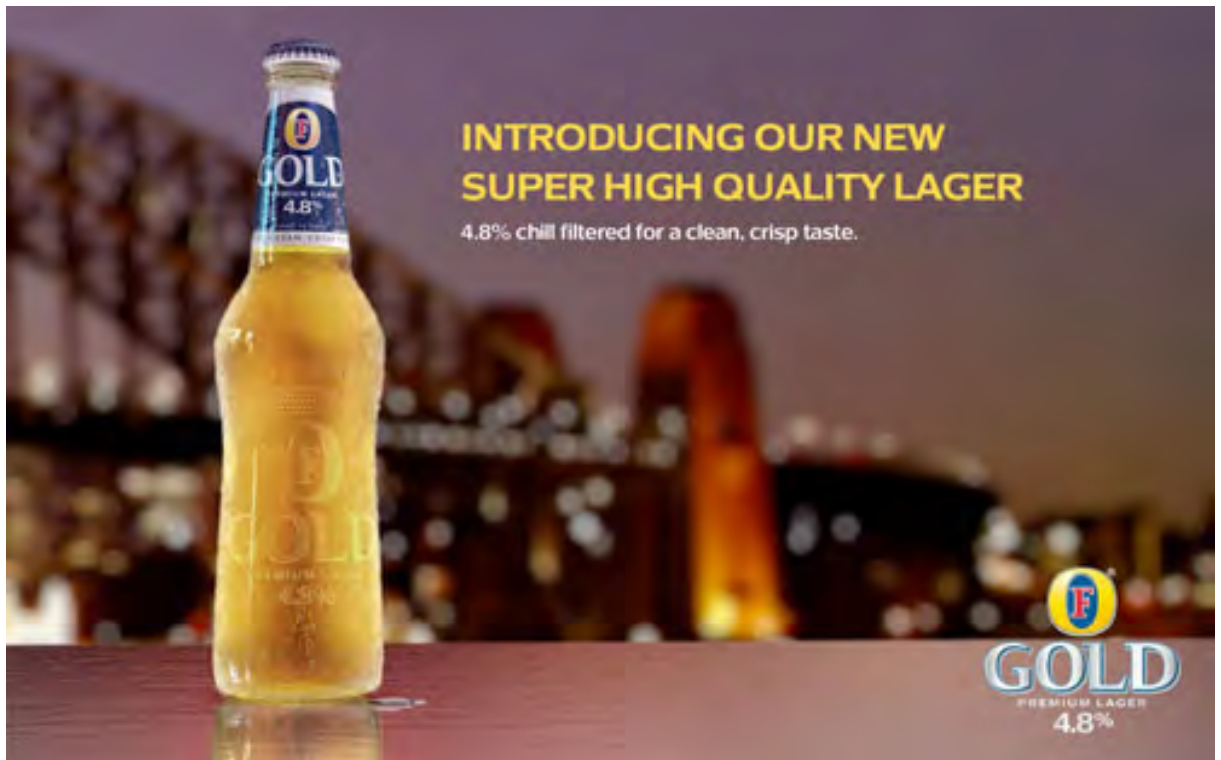
These are opportunities already available to the seafood industry. For example, the Great Barrier Reef and the Sydney Fish Market are both 'must see' tourist attractions for Chinese visitors to Australia. While each has their own marketing agenda to promote visitation, neither have campaigns that might extend to improving export sales. Yet these tourist attractions are highly suited to promoting a wide range of Australian seafood species/products. The SFM is able to display processed and packaged-for-export goods as well as showcase its fish processing operation. A key marketing platform is provided by the SFM's retail outlets that sell a large variety of Australian seafood for visitors to taste and eat on-site. The Greatr Barrier Reef, an iconic tourist attraction allows visitors to immerse themselves in the pristine environments from which Australian seafood is typically sourced. It also promotes the diverse range of seafood species that Australia has in its waters. A centrally managed or coordinated program of marketing communications which draws on these tourist attractions as conduits for promoting the salience of the Australian seafood and tourist experience, would be strongly advised to operationalise the potential highlighted by the findings in this thesis.

Operations Such as the SFM and Lobster Shack (A subsidiary operation of the Indian Ocean Rock Lobster corporation: [PCI.lobstershack.com.au](http://PCI.lobstershack.com.au)) which have market/product processing plant tours are in an even more prime position when it comes to improving Australia's salience as an export producer. Overall, Australia, performs most poorly on typical measures country of origin – relative to its association with to seafood and tourism - but these perceptions are improved

for visitors. Sydney Fish Market and the Lobster Shack, which is located en route to Monkey Mia in Western Australia, show state-of-the-art seafood processing plants used for preparing exports, serving as exemplars demonstrating Australia can be associated with high quality manufacturing. Both locations also offer tourists the opportunity to eat freshly cooked produce following tours of the processing plants facilities. Such operations, correctly marketed, should be considered 'gold star' in terms of the opportunity they represent to effectively market to tourists. Importantly, these examples are already tourist attractions in their own right. The Australian wine industry faces slightly different challenges.

To compliment this in-country approach to building associations with the Chinese tourist consumer while they are in country will need to be a reciprocal approach to the way that exporters brand and promote their products for sale in China. For products which are sold for domestic production, iconic Australian tourism should be incorporated in advertising, packaging (where applicable i.e. canned fish or dried/vacuum sealed abalone) and in supermarket fridge/freezer case labeling. Clean pristine environments, beautiful beaches as well as specific touristic indicators (like the Harbour bridge as seen in the Fosters ad below), would all help active the links between Australia's seafood product image and activate its powerful country/tourism image. For on premis sales, where currently much of the premium Australian seafood is sold a slightly more subtle approach will be required, given the lack of opportunity to advertise in restaurants. However, developing a brand/mark for Australian seafood that could easily and simply be applied to menus to quickly indicate Australian produce would also draw on tourist imagery and relevant iconic features.

**Figure 6.1** – Fosters Gold beer commercial from the UK



### **6.7.5 Recommendations for the wine industry**

For a long time wine and tourism have been seen as good bedfellows, and rightly so. Globally the wine industry is increasingly dependent on leisure and tourist visitors to sustain the growth of local and export sales, both in terms of immediate turnover from “cellar door” transactions and as a long-term image generating mechanism (Lockshin, 2001). Growing interest, both applied and academic, in wine tourism as an industry is indicative of the fact that practitioners and researchers consider it an important contributor to continued success for wine producers (Bruwer & Lesschaeve, 2012). However, only a relatively small percentage of the total international visitors to a country actually visit a winery when on holiday (Department of Industry Tourism and Resources, 2009).

This is true for Australia despite being well known for its world-class wine and picturesque wine country. While Australian wine tourism figures show that the

industry is growing strongly, over 90 per cent of inbound Chinese tourists will not visit any of the country's wineries (Department of Industry Tourism and Resources, 2009). It is reasonable and probable to assume that within the vast majority of tourists who do not visit wineries there is a significant segment of wine consumers – 90 per cent of the tourists in this study indicated they were wine purchasers. This represents a large number of potential customers that producers would like to target but are unable to have experiential contact with. This segment of tourists, however, should not be considered a lost cause to the wine industry.

This places the Australian wine industry in a different position to the seafood industry in terms of the potential it has to leverage off Australian tourism in a more general sense. In the first instance, the wine industry has long recognised and incorporated tourism as a function of its promotional mechanism. Its approach to tourist management is mature, where the seafood industry's is relatively embryonic. Structurally the wine industry has the capacity to deliver high quality and well-developed tourist services already. Throughout Australia there are many different wine growing regions with a multitude of cellar doors, vineyards and visitor centres specifically designed to cater for tourists, domestic and international. They have well developed marketing collateral, and understand the importance of merging the scenery of Australia's iconic wine country with displays of manufacturing processes and tasting opportunities. Visitor centres and state tourism authorities already disseminate information about types of wine available from different regions and producers. They currently have the type of infrastructure to promote to tourists that the seafood industry would benefit greatly from. In an academic sense, wine marketing and tourism as a function of this has its own literature stream, much of which is contributed to by Australian researchers. The industry has the know-how and means of delivering information to tourists in a consistent and coordinated fashion.

However, despite having the infrastructure to deliver the message, the industry

suffers from some confounding impediments when it comes to Chinese tourists. Only about 10 per cent of Chinese tourists will participate in wine tourism while they are in (Australia Department of Industry Tourism and Resources, 2009). The majority of these will be free and independent tourists (FITs) or government delegations, which are likely to represent a high value consumer that has the time to spend visiting wine regions - which are generally some distance from the major Australian cities. While these tourists are valuable and important, concentrating on or reaching these consumer tourists only will not lead to long-term growth or sufficiently increased associations with, and positive perceptions of, Australian wine. The key to growth for an industry is to attract or interact with more potential customers, rather than a few high value ones only (Sharp, 2010). The majority of Chinese tourists come to Australia on package bus tours (SATC, 2013). They are time-poor as standard tours cover a number of cities and tourist attractions in a very short period of time. This generally prohibits long trips to the countryside and wine regions and therefore to exposure to the well developed wine marketing message that the wine tourism experience can deliver.

So while the industry has conduits for information dissemination, the message does not reach the majority of Chinese tourists. Despite this, wine producers can still effectively target these consumer-tourists, despite the fact the majority of them will not visit wineries or engage in traditional wine tourism activities. Firstly, managers involved in wine production, sales and exporting should look for avenues to approach tourists when they are in-country, rather than just have tourists come to them. This is the key to increasing the salience of their particular products in the mind of traveling consumers – be it in tourist marketing communications, in restaurants frequently patronised by tour groups or on tour busses while the groups are in transit. Tourism managers should partner with local exporters to value-add their service delivery, as such partnerships would be of financial value to both parties – smart wine producers will want to pay tour operators to selectively promote their products.

In this way the products become mentally available to the tourists where otherwise they would not. This will go some way to extending the positive interaction between wine and tourism beyond traditional “wine tourism”. Further, the wine industry has a significant advantage over the seafood industry in terms of the perishability and personal carriage of their products. Seafood can not really be bought on holiday and sent back to China - wine can. While seafood exporters must rely on the fact that Chinese consumer tourists will prefer to buy their products on their return home, wine manufacturers and exporters can sell directly to customers while they are here and arrange to have it sent back to China for them. Likewise, integrating tour promotions with wine availability at the airport offers a good way of facilitating quicker sales. A consistent marketing message on tour, with physical availability at the airport (rather than physical availability alone) either in Australia or when they return home should receive more specific attention from astute wine industry partners.

In terms of recognition as a producer and exporter to Chinese markets, Australia is far more revered for, and associated with, its seafood than its wine, as the results presented in this thesis suggest. That is, wine and country-of-origin attributes, which are the most closely associated in the minds of the Chinese consumer, both increase in the number of associations and association network strength with visitation.

Awareness of Australian wine in China is much lower than awareness of its seafood – of the total sample only 60 per cent of respondents indicated they had ever purchased Australian wine, and in the DCE non-visitors preferred Chilean to Australian wine.

Therefore, unlike the strong base that Australian seafood begins from (in relation to Chinese consumers) the Australian wine industry has a considerable amount of room to move in terms of building salient networks of attributes in the mind of the Chinese consumer tourists when they visit Australia. As it is apparent that the associations for wine are more closely aligned with country-of-origin than in comparison with seafood, and with the already mentioned difficulties with getting to tourists to processing



facilities, the wine industry should focus on the other aspects of wine with more tangential attributes that improve dramatically as a result of visitation to Australia. Most notably these include the associations that Australian wines are accessible in China, and that Australian wines are status products and luxury items. In their targeted marketing efforts for the large group of tourists who do not make it to wineries, the messages and promotion should be focused on the premium nature of Australian wines, but that are affordable and accessible to Chinese consumers, and that they are good for gifting and that they provide an element of status. From a practical and theoretical perspective, reinforcing these associations while the tourists are in-country in a consistent and coordinated fashion will serve the wine industry well.

As with the seafood industry, for the wine industry to take full advantage of these findings, they will have to give consideration to the way their products are labelled and promoted in China. Having the mental network built on holiday in Australia, the consumers will require appropriate image cues to increase the likelihood of activating those networks in a purchase situation. In alignment with the suggestions above, these images should play on both the traditional iconic Australian images indicative of Australian tourism, landscapes, sun and sea, but should also be imbued with a sense of prestige and luxury and technical accomplishment. Unlike seafood that is not branded during consumption, a wine bottle will often remain as a branded item on a table or in close proximity during the consumption process and, particularly if consumed on the premises, will serve as an image object that reflects on the consumer who purchased it. Again, the development of a particular branding or mark that is imbued with these items to represent Australian wine overall would be worth the industry working collaboratively to generate.

## 6.8 Chapter Summary

This chapter has presented a discussion and analysis of the results generated by this research. The first part of the chapter specifically addresses research questions 1 and 2. These questions relate to the way that consumers use country images to form product evaluations. The discussion details the fact that the two approaches to measuring country images used in this thesis are somewhat at loggerheads with each other. They seem to indicate different relationships exist in the way that Chinese consumers attitudes and memory structures work to evaluate Australia's products. The attitude –theory approach seems to indicate that Australia's products are evaluated and consequently selected on the basis of its image as a country of origin and that this relationship is largely unaffected by visiting Australia. In contrast The ANT/salience approach suggests Australia's images as a tourist destination will have a greater impact on the likelihood that Chinese consumers will think of choosing Australian seafood and wine in a purchase situation. Further, the salience analysis indicates there is a considerable moderating effect of visitation. Particular for those areas where Australia appears to be weakest, in comparison to its seafood and tourism images, as there are considerable increases in Australia's salience in regard to PCI and wine for those Chinese consumers who have visited.

In considering the choice preferences of Chinese consumers, the final method of analysis considers not what psychological processes are antecedent to the choice but the choice itself. The consideration in this thesis is the impact that tourist image and visitation may be having on the preferences of Chinese consumers. The results of the choice analysis suggest that those Chinese consumers who visit prefer Australia's wine and seafood more than those who have not. Further this preference is demonstrated across the two product categories. The findings of the DCE analysis are supportive of the results of the salience analysis. As a result the combination of the salience analysis and the choice analysis seem to deliver the most insightful result regarding the research overall. This is in contradiction of the predominant approach

to the fields of country of origin and tourism.

As a result, and to address all of the research questions posed in chapter one, a consideration of the methods themselves are considered and presented. As mentioned, the two alternative methods of analysis country of origin effects and which are renowned for their predicative validity coalesce in the inference of their results. Each method has both its strong points and weak points, as it tries to conceptualise and operationalize the consumer choice process. However, as two of the methods are in relative agreement, and in relative contradiction to the dominant form of analysis in country of origin, there needs to be further consideration of what implications this has for the understanding and execution of studies of this type. This is an issue that is considered in the Limitations and Future Research chapter.

Finally, drawing on the results and discussion of the outcomes from the different methods, implications have been outlined for academia in planning future studies and for managers in tourism and the export sector looking to put this research into practical application.

## 7 Limitations and future research

As with any study there are limitations to the research presented in this thesis and these shortcomings have to be acknowledged. This is a cross-sectional sample. While the sample size is good for each of the visitor and non-visitor groups, to evaluate how their responses to any of the methods actually change pre and post visitation, a longitudinal study would have to be conducted. Currently, all that can be said is that those Chinese consumers who have been to Australia have different response patterns to those who have not been. Based on theory and previous studies an assumption is made that visitation to Australia is, to some degree, a causal factor in explaining this difference. The reality is, with any research of this nature, there are omitted covariates and variables that may or will also be contributing to this difference, either at the individual and/or the aggregate level.

In acknowledging some minor errors in the survey design discovered post data collection, it is possible to further indicate limitations in this study, that could be improved in future research. For example, the selection of US lobster as a comparison for use in the DCE might be considered problematic in 2013. The value of this market segment in China has recently dropped. However, this study was designed in late 2010 and early 2011. Around this period live American lobster exports to China increased from \$260,000 in 2009 to \$1.3 million in 2010 and then to a total of \$2 million in just the first quarter of 2011. This represented upwards of 400% increase in export value per year at this time. It was decided that this made it an appropriate competitor for Australian lobster for inclusion in the DCE. Should it be tested today (2013) an alternative option may need to be considered.

Also in relation to the DCE, as per good design practice, respondents were asked to choose one of four alternatives and then asked a supplementary question “would you have made this choice in real life?” Some academics may argue that not including the “none” option in the choice sets may have an effect on the results and that the process of answering yes to the secondary question, may not be the same as choosing a 'none' option in the first place. These are valid points and future researchers should consider if this difference has a significant impact on the results. They may have to ask how an interpretation of the results might be different (or not different) if a "no choice" option was included in the choice sets? Future research may highlight this to be a limitation of the present work.

Similarly, the idea of willingness to pay (WTP) has been acknowledged in the literature review but WTP estimates have not been generated for use in this thesis. In short these are not central to the thrust of this thesis. Having considered the wider readership and the objectives of the study, a specific decision was made to remain in preference space and not move into WTP space. It is to be acknowledged that this is a luxury available to marketing researchers and would be less plausible were this thesis set in the domain of economics. It could be considered a limitation, however, introducing themes and arguments regarding the difference between WTP or price sensitivity from the general idea of preference for particular attributes (including price) would have unnecessarily strayed from the main objectives of the paper and might distract readers from the overall objectives as stated at the beginning of this work. Future researchers will no doubt be interested in moving the ideas generated in this research into WTP space.

In relation to the results of the comparative analysis of the pick-any and scale measures, others may argue there are alternative explanations for the lack of correlation or link between the free association and rating scale data. For example, one might argue the tasks reflect different domains of content. That is, do Chinese

consumers have the same response to stimuli relating to seafood and wine, or do they consider these things in a different psychological fashion when appraising them for purchase. Or, does one product or experience, such as wine or tourism or seafood and country of origin, have differing levels of cognitive activation required to influence a purchase choice. If these considerations were studied more extensively would a link or explanation for lack thereof become evident? Further, to what degree is the nature of the data responsible for the lack of correlation and association with the pick-any being a competitive comparison and the Likert scales only considering Australian in a non-comparative setting. These considerations are worthy of note and should be used by researchers in the future wishing to improve on this work.

Likewise, this thesis focuses on the work of Romaniuk in relation to brand association research in conjunction with the assumptions and conditions of the NBD distribution to these association measures (Romaniuk,2012). However, her work is very much influenced by that of Kevin Lane Keller's which is seminal in the brand equity literature. It is Romaniuk's work that extends Keller's to the distributional patterns and analogy with repeat purchase data and brand performance measures, and hence its strong focus in this study. Keller's work is core in brand equity and the use of ANT, however, for the application to this thesis, so as not to 'double handle' material Romaniuk's has been of prime focus for its additional work and insight it provides. Future researchers are advised to also study the work of Keller to garner a wider understanding of the implications eluded to in this thesis (see Keller, 1993, 2001).

Overall, future research needs to consider how robustly these conditions hold to attest to their generalisability. The present study is somewhat exploratory in the sense that the integration of PCI and DI studies has only been successfully completed in a few instances, despite a number of influential authors indicating it is an area of research need. This means that the generalisability of the results will be limited until they can be replicated in a variety of circumstances – however, this provides other researchers numerous avenues of inquiry for future research. By using this initial

exploration as framework, researchers should be able to identify omitted variables to increase the overall predicative validity and accuracy of such studies.

One approach will be to apply the same, or similarly constructed, study to respondents of different nationalities. While China is soon to become Australia's largest tourist cohort, globally Australia is renowned as an ideal destination for tourists and in 2011-12 Australia welcomed 6.1million international visitors, of which the Chinese accounted for only 10.1 per cent. This means there are approximately 5.5 million visitors to which this research may also apply. Understanding where the Chinese cohort is both similar and different to other visitors to Australia will help extend the findings as well as help tourist and export managers to understand how ubiquitous the approaches suggested in this are for all tourists to Australia – do all visitors have the same responses elicited here or are they different?

It is necessary to survey respondents from a range of national/cultural backgrounds both similar (i.e. the US and the UK) and less similar (Japan and Korea) to Australia – issues of cultural similarity are highlighted in both tourism and COO literature as important to perceptions and choices. By only using China these effects are difficult to assess comparatively. Repeating the survey across different national conditions will speak to its robustness in both an academic sense and how broadly applicable the implications are for managers in the tourism and export sectors. Do surveys constructed from a western perspective, as this one has been, accurately reflect the perceptions and preferences of consumers from different cultural backgrounds?

As well as expanding the longitudinal nature of the study and the cohorts to which the results can be generalised, future research has to consider the impact of different product categories on the stability of the results. COO studies have traditionally found it hard to compare and generalise results across product categories and types. This thesis has demonstrated it is possible to compare across functionally related, though different categories. Also, the product categories of seafood and wine could

be perceived as related to tourism (i.e. things people might experience when on holiday or perceive as hedonic in the same way that a holiday may be hedonic) in comparison to more diverse product categories. Research moving forward should extend to similar agricultural goods such as meat and cheese, but also to more technology-related and utilitarian commodities products such as wheat or iron ore. Such studies will be more difficult to implement because Australia is less well regarded for such products, but it is for this reason that even nuanced results will be useful to manufactures. How broadly applicable are the effects of DI on product perceptions and evaluations that have highlighted in this research – are the results able to be extended to a diverse range of product types?

Again the framework this study establishes in an Australian tourism/COO context should also be extended to other focal countries. With tourism being one of the world's largest industries, many countries and their producers should be interested in the degree to which these findings are applicable to them. Manufacturers and producers from countries that have strong tourist based economies, but are often not as well regarded for their manufacture and export prowess (i.e. Thailand, Fiji, Vietnam etc.) may well find new avenues of competitive advantage through understanding the leveraging capacity of their tourist industry. While, well-established economies, that also have strong tourist industries, such as New Zealand and France, can find new ways to maximise market potential if conditions hold in a similar fashion to those demonstrated here for Australia. Do other countries stand to benefit from this phenomenon in the same way Australia does?

While researchers contemplate the diversity of product types and countries of origin this research agenda extends to, they must simultaneously consider the methodological implications of this research. The existing literature in this area uses a traditional attitude-theory based framework to understanding the interaction between PCI and DI. Yet this thesis contends that an alternative framework is better if researchers are interested in an approach that has greater grounding in



contemporary memory (consistent with neuroscience) and choice based outcomes (better predictive validity). This is the first study to compare these methods and approaches, so a continued effort evaluating the results and inferences derived from them is needed to validate the specific espousals made here. One approach to extending this comparison of methods is to construct a study that can be compared to real market data. Taking panel/scanner/revealed preference data from a market environment and comparing this to the dependent variable outcomes obtained from modelling survey data. Demonstrating how accurately survey data modelling correlates with real market outcomes is a powerful method of validation for this area of research, one that is certainly not currently used in the field. Such an approach may prove difficult to track unless retailers such as duty-free shops either visited on tour or at the airport, were willing to participate in the research. Alternatively, by partnering with tourism operators, tourists could be incentivised to use an electronic diary on their holiday and/or to participate in a survey after returning from travel.

A further consideration that researchers and those interested in the development of methods should consider is how salience and attitude measures might better be integrated, rather than occupying opposing positions. Each method attempts to measure the antecedents of market choices, but does so from a different conceptual basis. Though as they currently stand these measures are somewhat mutually exclusive in a functional measurement sense, in theory they are not. One method measures the propensity of items to be recalled in a purchase situation; the other considers the strength/valence of items that it is presumed are thought of in purchase/evaluative situation. It would be of some value to develop a measure that did both. Conceptually this would be something like a "salience adjusted scale", where recall propensity of an item weighted the rating that was placed on the same item measured on a scale, so that both the salience and strength of the association could be measured simultaneously.

Computationally this would require the development of a model that could allow for the estimation of individual level data that could be imputed to a structural equation/regression model but still maintain statistical power (i.e. allow for missing data where individuals don't elicit a response). A survey system that prompts for a scale response when a pick any response is recorded would also be required. The results of such a process would then need to be tested comparatively against the individual results of the methods, as has been done here, to see if this improves accuracy, inference and predictive validity.

It should be clear that this study provides a solid platform for further research in methods, as well as the disparate tourism and country-of-origin areas. However, in speaking of new methodological developments, it is of some significant note that SCM already provides the opportunity for researchers to explore COO effects in ways that have previously not been possible. In estimating DCEs across multiple categories simultaneously, a country's origin bias can be explored in comparison to a number of other countries at the same time. While a country may compete in many markets, its products will not necessarily be competing directly with the same competitors in each market. The ability to assess a country and its products relative to its real or main competitors in each market provides a much richer analysis than simply establishing consumer perceptions of a country and its products without reference to its competitors.

As has been demonstrated here it is possible to see the effect that country experience has on product selections across two categories, how it has impacted on the importance placed on country of origin as a category attribute, the relative attractiveness of each product producer in the category and how price elasticity is affected for products in the category as a whole. This is simply not possible with traditional COO studies.

However, far from diverging from the core thrust of COO studies that are traditionally underpinned by attitude measures and scale measurement, SCM allows for the integration of these elements into predictive decision models. By using SCM attitudes can be operationalized as attributes of a DCE, thus incorporating them into the analysis of the decision process – providing a far more accurate assessment of the predicative validity of scale and attribute measures which have formed the foundation of COO research. This method can clearly help address some of the future research questions that have been posed earlier in this chapter. An example would be to conduct multiple DCEs on the same respondents with a diverse range of products to test COO effects across categories and product types. By maintaining some countries of origin constant across the experiments, the differential influence of COO effects for the same country could be assessed.

For example, an experiment testing Australian wine, red meat, wheat and iron ore (or suitably constructed fictitious products) with realistic market competitors from each category could easily be analysed using SCM. In an approach similar to the one used here, preference consistency across the categories could be assessed to see how ubiquitous the COO effect is. COO studies are frequently criticized for a lack of generalizability, a lack of comparability between studies and a lack of actionable managerial outcomes. Given the outputs of SCM in relation to COO effects it is foreseeable that a number of these fundamental criticisms could be effectively addressed. Such an advance would be a very significant for the field.

This is the first study to look at the issues by testing different theories and methods of measurement; the results obtained here have significant implications for academics and managers alike and set the stage for a rich vein of future research and it is on these grounds that this work provides its most valuable contribution to knowledge.

## 8 References

- ACIL 2002. Review of wine tourism and wine exports. ACIL consulting.
- ANDERSON JR, BOWER GH. 1980. *Human Associative Memory: A Brief Edition*. Erlbaum Associates: Hillsdale N.J.
- ANDERSON, J. R. & BOWER, G. H. 1973. *Human Associative Memory*, Washington, DC, Hemisphere Publishing Corporation.
- ANDERSON, J. R. 1974. Retrieval of propositional information from long-term memory. *Cognitive Psychology*, 6, 451-474.
- ARBUCKLE J. 2007. *Amos 18 Users Guide*. Amos Development Corporation: Chicago.
- ARGYRIOU, E. & MELEWAR, T. C. 2011. Consumer attitudes revisited: A review of attitude theory in marketing research. *International Journal of Management Reviews*, 13, 431-451.
- ASHOK, K., DILLON, W. R. & YUAN, S. 2002. Extending discrete choice models to incorporate attitudinal and other latent variables. *Journal of Marketing Research*, 31-46.
- ASHOK, K., DILLON, W. R., & YUAN, S. 2002. Extending discrete choice models to incorporate attitudinal and other latent variables. *Journal of Marketing Research*, 31-46.
- ATKINSON, R. C. & SHIFFRIN, R. M. 1971. The control of short-term memory. *Scientific American*, Vol. 225, 82-90.
- AUSTRALIAN GOVERNMENT: AUSTRALIAN BUREAU OF AGRICULTURAL AND RESOURCE ECONOMICS - Bureau of Rural Sciences. 2010. Australian Fisheries Statistics 2009.
- BADDELEY, A. 2004. *Your memory: a user's guide*, London, Carlton Books.
- BADDELEY, A. 1994. The Magical Number Seven: Still Magic After All These Years?. *Psychological Review*, 101, 353-356.
- BALESTRINI P, GAMBLE P. 2006. Country-of-origin effects on Chinese wine consumers. *British Food Journal*, 108 (5): 396-412.

- BALOGLU S, MCCLEARY KW. 1999. A model of destination image formation. *Annals of Tourism Research*, 26 (4): 868-897.
- BARGH, J., CHEN, M. & BURROWS, L. 1996. Automaticity of social behaviour: Direct effects of trait construct and stereotype activation on action. *Journal of Personality and Social Psychology*, 71, 230-244.
- BEERLI A, MARTIN JD. 2004. Factors influencing destination image. *Annals of Tourism Research*, 31 (3): 657-681.
- BEERLI, A. & MARTIN, J. D. 2004. Factors influencing destination image. *Annals of Tourism Research*, 31, 657-681.
- BEN-AKIVA, M. & LERMAN, S. R. 1984. *Discrete Choice Analysis: Theory and Application to Travel Demand*, London, The MIT Press.
- BEN-AKIVA, M., MCFADDEN, D., TRAIN, K., WALKER, J., BHAT, C., BIERLAIRE, M., BOLDOC, D., BÖRSCH-SUPAN, A., BROWNSTONE, D. & BUNCH, D. S. 2002. Hybrid choice models: Progress and challenges. *Marketing Letters*, 13, 163-175.
- BIANCHI, C. & PIKE, S. D. 2009. Australia's brand equity as a tourism destination for Latin American consumers. In *Proceedings of Australia and New Zealand Marketing Academy Conference 2009*, ANZMAC.
- BILKEY, W. J. & NES, E. 1982. Country-of-origin effects on product evaluations. *Journal of international business studies*, 89-99.
- BIRD, M., CHANNON, C. & EHRENBERG, A. S. C. 1970. Brand image and brand usage. *Journal of Marketing Research*, 7, 307-314.
- BLOEMER, J., BRIJS, K. & KASPER, H. 2009. The CoO-ELM model: A theoretical framework for the cognitive processes underlying country of origin-effects. *European Journal of Marketing*, 43, 62-89.
- BORSBOOM D, MELLENBERGH GJ, VAN HEERDEN J. 2003. The Theoretical Status of Latent Variables. *Psychological Review*, 110 (2): 203-219.
- BOWE, J., LEE, R., LOCKSHIN, L. & RUNGIE, C. 2013. Old Dogs, New Tricks: Rethinking Country Image Studies. *Journal of Consumer Behaviour*, in press.
- BRUWER, J. & LESSCHAEVE, I. 2012. Wine Tourists' Destination Region Brand Image Perception and Antecedents: Conceptualization of a Winescape Framework. *Journal of Travel & Tourism Marketing*, 29, 611-628.

- CALDER, B. J. 1975. The cognitive foundations of attitudes: Some implications for multi-attribute models. *Advances in Consumer Research*, 2, 241-47.
- CARSON, R. T., LOUVIERE, J. J., ANDERSON, D. A., ARABIE, P., BUNCH, D. S., HENSHER, D. A., JOHNSON, R. M., KUHFIELD, W. F., STEINBERG, D., SWAIT, J., TIMMERMANS, H. & WILEY, J. B. 1994. Experimental Analysis of Choice. *Marketing Letters*, 5, 351-367.
- CHANEY, I. & GAMBLE, J. 2008. Retail Store Ownership Influences on Chinese Consumers. *International Business Review*, 17, 170-183.
- CHURCHILL GA, JR. 1979. A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research*, 16, 64-73.
- COLLINS, A. M. & LOFTUS, E. F. 1975. A Spreading Activation Theory of Semantic Processing. *Psychological Review*, 82, 407-428.
- COMREY, A. L. & LEE, H. B. 1992. (Book) *A first course in factor analysis*. Routledge.
- CORSI, A., LOCKSHIN, L. & MUELLER, S. 2011. Competition between and competition within: the strategic positioning of competing countries in key export markets. In *proceedings 6th Academy of Wine Business Research International conference*. AWBR, France.
- CRAIK, F. I. M. & LOCKHART, R. S. 1972. Levels of Processing: A Framework for Memory Research. *Journal of Verbal Learning and Verbal Behavior*, 11, 671-684.
- Department of Industry Tourism and Resources. 2006. National Tourism Emerging Markets Strategy Capability Audit (pp. 54). Canberra: Australian Government: Department of Industry, Tourism and Resources.
- DICHTER, E. 1962. The world customer. *The International Executive*, 4, 25-27.
- DICKSON, M. A., LENNON, S. J., MONTALTO, C. P., SHEN, D. & ZHANG, L. 2004. Chinese Consumer Market Segments for Foreign Apparel Products. *Journal of Consumer Marketing*, 21, 301-317.
- Do Intentions Really Predict Behavior? Self-Generated Validity Effects in Survey Research*, 2005. Article. Directed by CHANDON, P., MORWITZ, V. G. & REINARTZ, W. J.: American Marketing Association.
- DOLNICAR, S. & GRÜN, B. 2012. Validly Measuring Destination Image in Survey Studies. *Journal of Travel Research*. 52, 3-14.

- DOLNICAR, S., GRUN, B. & LEISCH, F. Time Efficient Brand Image Measurement - Is Binary Format Sufficient to Gain the Market Insight Required? *Proceedings of the 33rd Annual EMAC Conference, 18-21 May 2004* University of Murcia, Spain.
- DEPARTMENT OF INDUSTRY TOURISM AND RESOURCES. 2009. *Food and Wine Tourism In Australia 2009*. DITR, Australia.
- DRIESENER, C. & ROMANIUK, J. 2006. Comparing methods of brand image measurement. *International Journal of Market Research*, 48, 681-698.
- ECHTNER, C. M. & RITCHIE JNR, B. 1993. The measurement of destination image: An empirical assessment. *Journal of Travel Research*, 31, 3-13.
- EHRENBERG, A. S. C. 1997. In Search of Holy Grails: Two Comments. *Journal of Advertising Research*, 37, 9-12.
- EHRENBERG, A. S., GOODHARDT, G. & BARWISE, T. P. 1990. Double Jeopardy revisited. *Journal of Marketing*, 54, 82-91.
- EHRENBERG, A., BARNARD, N. & SHARP, B. 2001. Decision Models or Descriptive Models: A Brief Critique. *Marketing Research*, 13, 34-37.
- ELLIOT, S., PAPADOPOULOS, N. & KIM, S. S. 2010. An Integrative Model of Place Image: Exploring Relationships Between Destination, Product, and Country Images. *Journal of Travel Research*, 50, 520-534.
- FAZIO, R. H. 2001. On the automatic activation of associated evaluations: An overview. *Cognition & Emotion*, 15, 115-141.
- FAZIO, R., SANBONMATSU, D., POWELL, M., & KARDES, F. 1986. On the automatic activation of attitudes. *Journal of personality and social psychology*, 50(2), 229-238.
- FIEBIG, D. G., KEANE, M. P., LOUVIERE, J., & WASI, N. 2010. The generalized multinomial logit model: Accounting for scale and coefficient heterogeneity. *Marketing Science*, 29(3), 393-421.
- FISHBEIN M, AJZEN I. 1975. *Belief, Attitude, Intention and Behaviour: An Introduction to Theory and Research*. Addison-Wesley Publishing Company: Reading, MA.
- FISHBEIN, M. 1967. Attitude and the Prediction of Behavior. In: FISHBEIN, M. (ed.) *Readings in Attitude Theory and Measurement*. New York: John Wiley and Sons Inc.

- FOXALL, G. R. 1993. A Behaviorist Perspective on Purchase and Consumption. *European Journal of Marketing*, 27, 7-16.
- FUTRELL, C. M., SWAN, J. E. & TODD, J. T. 1976. Job Performance Related to Management Control Systems for Pharmaceutical Salesmen. *Journal of Marketing Research*, 13, 25-33.
- GIL JM, SANCHEZ M. 1997. Consumer preferences for wine attributes: a conjoint approach. *British Food Journal*, 99 (1): 3-11.
- GLITNIR. 2006. China seafood industry report. Glitner Seafood Team, Reykjavik.
- GNOTH, J. 2002. Leveraging export brands through a tourism destination brand. *The Journal of Brand Management*, 9, 262-280.
- GOODHARDT, G. J., EHRENBERG, A. S. C. & CHATFIELD, C. 1984. The Dirichlet: A comprehensive model of buying behaviour. *Journal of the Royal Statistical Society*, 147, 621-655.
- GRAHN, G. L. 1969. NBD Model of Repeat-Purchase Loyalty: An Empirical Investigation. *Journal of Marketing Research*, 6, 72-78.
- GREENE, W. H. & ZHANG, C. 2011. *Econometric analysis*, Prentice hall Upper Saddle River, NJ.
- HAIR J, BLACK W, BABIN B AND ANDERSON R. 2010. *Multivariate Data Analysis: A Global Perspective*. Pearson: Upper Saddle River, NJ.
- HAN CM. 1989. Country image: halo or summary construct ? *Journal of Marketing Research*, 16, 222-9.
- HAN, C. M. 1990. Testing the role of country image in consumer choice behavior. *European Journal of Marketing*, 26(6), 24-40.
- HANSEN, K. 2001. Purchasing decision behaviour by Chinese supermarkets. *International Review of Retail, Distribution and Consumer Research*, 11, 159-175.
- HEIMBACH AE, JOHANSSON JK, MACLACHLAN DL. 1989. Product familiarity, information processing, and country-of-origin cues. *Advances in Consumer Research*, 16 (1): 460-467.
- HENSHER, D., ROSE, J. & GREENE, W. 2005. *Applied Choice Analysis: A Primer*. Cambridge: Cambridge University Press.



- HESLOP LA, LU IR, CRAY D. 2008. Modeling Country Image Effects Through an International Crisis. *International Marketing Review*, 25(4): 354-378.
- HOLSTI, O. R. 1969. *Content analysis for the social sciences and humanities*, Reading, Mass, Addison-Wesley Pub. Co.
- HU X, LI L, XIE C AND ZHOU J. 2008. The effects of country-of-origin on Chinese consumers' wine purchasing behaviour. *Journal of Technology Management in China*, 3 (3): 292-306.
- INSCH, A. & FLOREK, M. 2009. Prevalence of country of origin associations on the supermarket shelf. *International Journal of Retail & Distribution Management*, 37, 453-471.
- JACOBS, L., KEOWN, C., WORTHLEY, R. & GHYMN, K. I. 1991. Cross-cultural colour comparisons: global marketers beware! *International Marketing Review*, 8, 21-30.
- JAMIESON, S. 2004. Likert scales: how to (ab)use them. *Medical Education*, 38, 1217-1218.
- JOHANSSON, J. K., DOUGLAS, S. P. & NONAKA, I. 1985. Assessing the impact of country of origin on product evaluations: a new methodological perspective. *Journal of Marketing Research*, 22, 388-396.
- JOSIASSEN A, LUKAS BA, WHITWELL GJ. 2008. Country-of-origin contingencies: competing perspectives on product familiarity and product involvement. *International Marketing Review*, 25 (4): 423-440.
- JOSIASSEN, A. & ASSAF, G. 2013. Look at me—I am flying: The influence of social visibility of consumption on tourism decisions. *Annals of Tourism Research*, 40, 155-175.
- JOSIASSEN, A. & HARZING, A. W. 2008. Comment: Descending from the ivory tower: reflections on the relevance and future of country-of-origin research. *European Management Review*, 5, 264-270.
- KEARNS, Z. 2002. Dirichlet.xls. Palmerston North: Massey University.
- KELLER, K. L. 1993. Conceptualizing, Measuring, and Managing Customer-Based Brand Equity. *The Journal of Marketing*, 57, 1-22.
- KELLER, K. L. 2001. Building customer-based brand equity. *Marketing Management*, 10, 14-19.

- KELLER, K. L. 2003. Brand synthesis: The multidimensionality of brand knowledge. *Journal of Consumer Research*, 29, 595-601.
- KELLER, K. L. 2003. *Strategic Brand Management: Building, measuring, and managing brand equity*, Upper Saddle River, N.J., Prentice Hall.
- KNIGHT, G. A. & CALANTONE, R. J. 2000. A flexible model of consumer country-of-origin perceptions: A cross-cultural investigation. *International Marketing Review*, 17, 127-145.
- KOTLER, P. & GERTNER, D. 2002. Country as Brand, Product and Beyond: A Place Marketing and Brand Management Perspective. *Journal of Brand Management*, 9, 249-261.
- KRAUS, S. J. 1995. Attitudes and the Prediction of Behavior: A Meta-Analysis of the Empirical Literature. *Personality and Social Psychology Bulletin*, 21, 58-75.
- KRISHNAN, H. 1996. Characteristics of memory associations: a consumer-based brand equity perspective. *International Journal of Research in Marketing*, 13, 389-405.
- KRISHNAN, H. S. & SHAPIRO, S. 1996. Comparing Implicit and Explicit Memory for Brand Names From Advertisements. *Journal of Experimental Psychology: Applied*, 2, 147-163.
- LAROCHE, M., PAPADOPOULOS, N., HESLOP, L. A. & MOURALI, M. 2005. The influence of country image structure on consumer evaluations of foreign products. *International Marketing Review*, 22, 96-115.
- LEE, C.C., & CHANG, C.P. 2008. Tourism development and economic growth: A closer look at panels. *Tourism Management*, 29(1), 180-192.
- LEE, J. K. & LEE, W.N. 2009. Country-of-origin effects on consumer product evaluation and purchase intention: the role of objective versus subjective knowledge. *Journal of International Consumer Marketing*, 21, 137-151.
- LEE, R. & LOCKSHIN, L. 2011. Halo Effects of Tourists' Destination Image on Domestic Product Perceptions. *Australasian Marketing Journal*, 19, 7-13.
- LEUTHESSER, L., KOHLI, C. S. & HARICH, K. R. 1995. Brand Equity: The Halo Effect Measure. *European Journal of Marketing*, 29, 57-66.
- LI, D. & GALLUP, A. M. 1995. In Search of the Chinese Consumer. *The China Business Review*, 22, 19-22.

- LIU, S. & JOHNSON, K. 2005. The Automatic Country-of-Origin Effects on Brand Judgments. *Journal of Advertising*, 34, 87-97.
- LIU, F., & MURPHY, J. 2007. A qualitative study of Chinese wine consumption and purchasing: implications for Australian wines. *International Journal of Wine Business Research*, 19(2), 98-113.
- LOCKSHIN, L. 2001. Using Involvement and Brand Equity to Develop a Wine Tourism Strategy *International Journal of Wine Marketing*, 13, 72-81.
- LOCKSHIN, L., MUELLER, S. & LOUVIERE, J. 2010. The influence of shelf information on consumers' wine choice. *5th International Academy of Wine Business Research Conference*. Auckland, NZ.
- LOUVIERE, J. J., HENSHER, D. A. & SWAIT, J. D. 2000. *Stated choice methods: analysis and application*, Cambridge, Cambridge University Press.
- LOUVIERE, J. J., HENSHER, D. A. & SWAIT, J. D. 2000. *Stated choice methods: analysis and application*, Cambridge, Cambridge University Press.
- LUCE, R. D. 1959. *Individual Choice Behavior: A Theoretical Analysis*. New York: John Wiley & Sons.
- MACDONALD, E. & SHARP, B. 2000. Brand Awareness Effects on Consumer Decision Making for a Common, Repeat Purchase Product: A Replication. *Journal of Business Research*, 48, 5-15.
- MAHESWARAN, D. 1994. Country of origin as a stereotype: effects of consumer expertise and attribute strength on product evaluations. *Journal of consumer research*, 21, 354-365.
- MAHESWARAN, D., STERNTHAL, B. & GÜRHAN, Z. 1996. Acquisition and Impact of Consumer Expertise. *Journal of Consumer Psychology*, 5, 115.
- MANSKI, C. 1977. The Structure of Random Utility Models. *Theory and Decision*, 8, 229-254.
- MARIN, A. B., JORGENSEN, E. M., KENNEDY, J. A. & FERRIER, J. 2007. Effects of bottle closure type on consumer perceptions of wine quality. *American Journal of Oenology and Viticulture*, 58, 182-191.
- MARTIN, I. M. & EROGLU, S. 1993. Measuring a multi-dimensional construct: country image. *Journal of Business Research*, 28, 191-210.
- MCFADDEN, D. 1980. Econometric Models for Probabilistic Choice Among

Products. *Journal of Business*, 53, S13-S29.

MCFADDEN, D., TYE, W. & TRAIN, K. 1976. An Application of Diagnostic Tests for the Independence from Irrelevant Alternatives Property of the Multinomial Logit Model. *Transportation Research Record*, 637, 39-46.

MEYERS-LEVY, J. 1989. The influence of a brand name's association set size and word frequency on brand memory. *Journal of Consumer Research*, 16(2), 197-207.

MI-YOUNG, O., & JYOTIKA, R. 2003. Halo effect: Conceptual definition and empirical exploration with regard to South Korean subsidiaries of US and Japanese multinational corporations. *Journal of Communication Management*, 7(4), 317.

MILLER, G. A. 1956. The Magic Number Seven, Plus or Minus Two: Some Limits on our Capacity for Processing Information. *The Psychological Review*, 63, 81-97.

MILMAN, A., & PIZAM, A. 1995. The role of awareness and familiarity with a destination: The central Florida case. *Journal of Travel research*, 33(3), 21-27.

MONTALVO, J. G. & RAVALLION, M. 2009. The Pattern of Growth and Poverty Reduction in China. *Policy Research Working Paper*. The World Bank.

MORRISON, D. G. & SCHMITTLEIN, D. C. 1988. Generalizing the NBD model for customer purchases: What are the implications and is it worth the effort? *Journal of Business & Economic Statistics*, 6, 145-159.

MOSSBERG, L., & KLEPPE, I. A. 2005. Country and destination image—different or similar image concepts?. *The Service Industries Journal*, 25(4), 493-503.

MUELLER, S., OSIDACZ, P., FRANCIS, I. L., & LOCKSHIN, L. 2010. Combining discrete choice and informed sensory testing in a two-stage process: can it predict wine market share?. *Food Quality and Preference*, 21(7), 741-754.

NADEAU, J., HESLOP, L., O'REILLY, N. & LUK, P. 2008. Destination in a country image context. *Annals of Tourism Research*, 35, 84-106.

NEDUNGADI, P. 1990. Recall and consumer consideration sets: influencing choice without altering brand evaluations. *Journal of Consumer Research*, 17, 263-276.

NISBETT, R., & WILSON, T. 1977. The halo effect: Evidence for unconscious

alteration of judgments. *Journal of Personality and Social Psychology*, 35(4), 250-256.

PAPADOPOULOS, N. & HESLOP, L. 1986. Travel as a Correlate of Product and Country Images. *ASAC 1986 Conference*. Whistler, British Columbia.

PAPADOPOULOS, N., & HESLOP, L. 2000. COUNTRIES AS BRANDS - Canadian products: An image problem. *Ivey Business Journal*, 65(2), 30-37.

PAPADOPOULOS, N. G., & HESLOP, L. A. 1993. *Product-country images: Impact and role in international marketing*: Routledge.

PAPPU, R., QUESTER, P. G., & COOKSEY, R. W. 2006. Consumer-based brand equity and country-of-origin relationships: Some empirical evidence. *European Journal of Marketing*, 40(5/6), 696-717.

PARAMESWARAN R, PISHARODI RM. 1994. Facets of Country of Origin Image: An Empirical Assessment. *Journal of Advertising*, 23 (1): 43-56.

PHILIPPE, A. & NGOBO, P.V. 1999. Assessment of Consumer Knowledge and its Consequences: A Multi-Component Approach. *Advances in Consumer Research*, 26, 569-575.

PIKE, S. 2002. Destination image analysis- a review of 142 papers from 1973-2000. *Tourism Management*, 23, 541-549.

PIKE, S. 2009. Destination brand positions of a competitive set of near-home destinations. *Tourism management*, 30, 857-866.

PIKE, S. 2010. Destination branding case study: Tracking brand equity for an emerging destination between 2003 and 2007. *Journal of Hospitality & Tourism Research*, 34, 124-139.

POIESZ, T. B. C. & VERHALLEN, T. M. M. 1989. Brand Confusion in Advertising. *International Journal of Advertising*, 8, 231-244.

QU, H., KIM, L. H., & IM, H. H. 2011. A model of destination branding: Integrating the concepts of the branding and destination image. *Tourism Management*, 32(3), 465-476.

RAO, A. R. & MONROE, K. B. 1988. The moderating effect of prior knowledge on cue utilization in product evaluations. *Journal of consumer research*, 15, 253-264.

RAO, A. R. & MONROE, K. B. 1989. The effect of price, brand name, and store name on buyers' perceptions of product quality: an integrative review. *Journal*

*of Marketing Research*, 26, 351-357.

ROMANIUK, J. & SHARP, B. 2004. Conceptualizing and measuring brand salience. *Marketing Theory*, 4, 327-342.

ROMANIUK, J. & SHARP, B. 2004a. Brand salience: implications for brand management. *Report 33 for Corporate Members*. Adelaide: Ehrenberg-Bass Institute for Marketing Science.

ROMANIUK, J. & SHARP, B. 2004b. Conceptualizing and measuring brand salience. *Marketing Theory*, 4, 327-342.

ROMANIUK, J. & STOCCHI, L. 2009. Understanding and Predicting Brand Attribute Frequency Distributions. ANZMAC. Melbourne, Australia.

ROMANIUK, J. 2003. Brand attributes - 'distribution outlets' in the mind. *Journal of Marketing Communications*, 9, 73-92.

ROMANIUK, J. 2006. Comparing prompted and unprompted methods for measuring consumer brand associations. *Journal of Targeting, Measurement and Analysis for Marketing*, 15, 3-11.

ROMANIUK, J. 2006. Comparing prompted and unprompted methods for measuring consumer brand associations. *Journal of Targeting, Measurement and Analysis for Marketing*, 15, 3-11.

ROMANIUK, J. 2010. Brand Salience Measurement and Metrics. Ehrenberg-Bass Institute.

ROMANIUK, J. 2012. Modeling mental market share. *Journal of Business Research*, In Press.

Romaniuk, J., & Nicholls, E. 2006. Evaluating advertising effects on brand perceptions: incorporating prior knowledge. *International Journal of Market Research*, 48(2), 179-192.

ROMANIUK, J., BOGOMOLOVA, S. & DALL'OLMO RILEY, F. 2012. Brand Image and Brand Usage: Is a Forty-Year-Old Empirical Generalization Still Useful? *Journal of Advertising Research*, 52.

ROOSEN, J., MARETTE, S., BLANCHEMANCHE, S., & VERGER, P. 2007. The effect of product health information on liking and choice. [Article]. *Food Quality and Preference*, 18(5), 759-770.

ROTH, K. P. & DIAMANTOPOULOS, A. 2009. Advancing the country image

- construct. *Journal of Business Research*, 62, 726-740.
- ROTH, M. S. & ROMEO, J. B. 1992. Matching Product Category and Country Image Perceptions: A Framework for Managing Country-of-Origin Effects. *Journal of International Business Studies*, 23, 477-497.
- RUNGIE, C. M., COOTE, L. V. & LOUVIERE, J. J. 2011. Structural choice modelling: theory and applications to combining choice experiments. *Journal of Choice Modelling*, 4, 1-29.
- RUNGIE, C., LAURENT, G., DALL'OLMO RILEY, F., MORRISON, D. G. & ROY, T. 2005. Measuring and modeling the (limited) reliability of free choice attitude questions. *International Journal of Research in Marketing*, 22, 309-318.
- SAMIEE, S. 2010. Advancing the country image construct--A commentary essay. *Journal of Business Research*, 63, 442-445.
- SHARP, B. 2010. *How Brands Grow*, South Melbourne, Oxford University Press.
- SHARP, B., DRIESENER, C. & RUNGIE, C. 2006. Confirmation of the Dirichlet brand loyalty parameter limits for repertoire categories: 127 replications. *35th European Marketing Academy Conference*. Athens, Greece.
- SHARP, B., WRIGHT, M., DAWES, J., DRIESENER, C., MEYER-WAARDEN, STOCCHI, L. & STERN, P. 2012. It's a Dirichlet World: Modeling individuals' Loyalties reveals How Brands Compete, Grow, and Decline. *Journal of Advertising Research*, 52, 203-213.
- SOUTH AUSTRALIAN TOURISM COMMISSION. 2013. *Activating China – 2020*. SATC, Adelaide, South Australia.
- SHERMAN, S., & TUTEN, T. 2011. Message on a bottle: the wine label's influence. *International Journal of Wine Business Research*, 23(3), 221-234.
- SKALLERUD, K. & GRØNHAUG, K. 2010. Chinese Food Retailers' Positioning Strategies and the Influence on Their Buying Behaviour. *Asia Pacific Journal of Marketing and Logistics*, 22, 196-209.
- STERN, P. 2001. Markets? Similar or Different? *Professional Marketing*, June 2001, 9-10.
- STOCCHI, L. 2011. *Exploring the link between consumer behaviour and brand associations*. Doctor of Philosophy, University of South Australia.
- STREET, D. & BURGESS, L. 2007. *The Construction of Optimal Stated Choice*

*Experiments: Theory and Methods*, Hoboken, New Jersey, John Wiley & Sons, Inc.

STREET, D. J., BURGESS, L. & LOUVIERE, J. J. 2005. Quick and easy choice sets: Constructing optimal and nearly optimal stated choice experiments. *International Journal of Research in Marketing*, 22, 459-470.

SWEENEY, J. & SOUTAR, G. N. 2001. Consumer perceived value: The development of a multiple item scale. *Journal of Retailing*, 77, 203-220.

TAPACHAI, N. & WARYSZAK, R. 2000. An examination of the role of beneficial image in tourist destination selection. *Journal of Travel Research*, 39, 37-44.

THORNDIKE, E. L. 1920. A Constant Error in Psychological Ratings. *Journal of Applied Psychology*, 4, 25-29.

TOURISM AUSTRALIA 2011. *2020: Summary of Tourism Australia's China 2020 Strategic Plan*. Australia: Tourism Australia, Australia.

TREMBATH, R., ROMANIUK, J. & LOCKSHIN, L. 2011. Building the Destination Brand: An Empirical Comparison of Two Approaches. *Journal of Travel and Tourism Marketing*, 28, 804-816.

USUNIER, J. C. 2006. Relevance in business research: the case of country-of-origin research in marketing. *European Management Review*, 3, 60-73.

VERLEGH, P. W. J. & STEENKAMP, J. B. E. M. 1999. A review and meta-analysis of country-of-origin research. *Journal of Economic Psychology*, 20, 521-546.

WALKER, J. L. 2001. *Extended discrete choice models: integrated framework, flexible error structures, and latent variables*. Massachusetts Institute of Technology.

WICKER, A. W. 1969. Attitudes versus Actions: The Relationship of Verbal and Overt Behavioral Responses to Attitude Objects. *Journal of Social Issues*, 25, 41-78.

WINCHESTER, T. M. 2006. *Exploring Double Jeopardy Patterns in Brand Image Responses*. MSc Masters, Kingston University.

WINE AUSTRALIA 2013. *September Wine Export Approval Report (July 2013)*. Australia: Wine Australia.

WOLF, M. M. & THOMAS, S. M. 2007. How millennial, generation x, and baby boomer wine consumers evaluate wine labels. *Journal of Food Distribution*



*Research*, 38, 170-181.

WOOD, R., HOHNEN, L., NEWTON, P., FAIRHEAD, L., VIEIRA, S. & GOODAY, P. 2008. Fish and seafood: Trends in production and trade and outlook to 2012-13. *Australian Commodities*, 15, 99-111.

WRIGHT, M. & KLÿN, B. 1998. Environmental Attitude - Behaviour Correlations in 21 Countries. *Journal of Empirical Generalisations in Marketing Science*, 3, 42-60.

ZENG, D. Z. 2011. How do special economic zones and industrial clusters drive China's rapid development? Policy Research Working Paper. Africa Region: World Bank.

ZEUGNER ROTH, K. P., DIAMANTOPOULOS, A., & MONTESINOS, M. 2008. Home Country Image, Country Brand Equity and Consumers' Product Preferences: An Empirical Study. *Management International Review*, 48(5), 577-602.

# Appendix 1 - Fully reported SEMs

Figure A1.1 - Wine specific measurement model

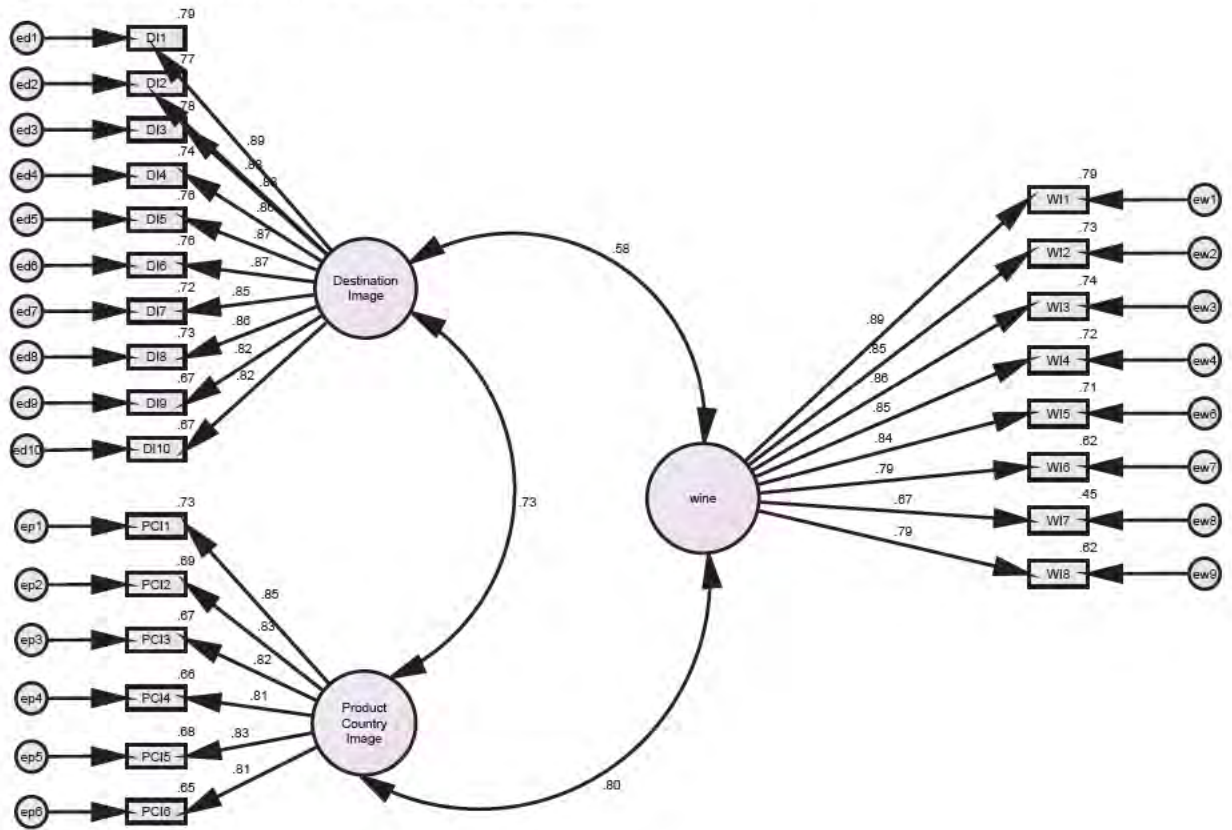


Figure A1.2 - Seafood specific measurement model

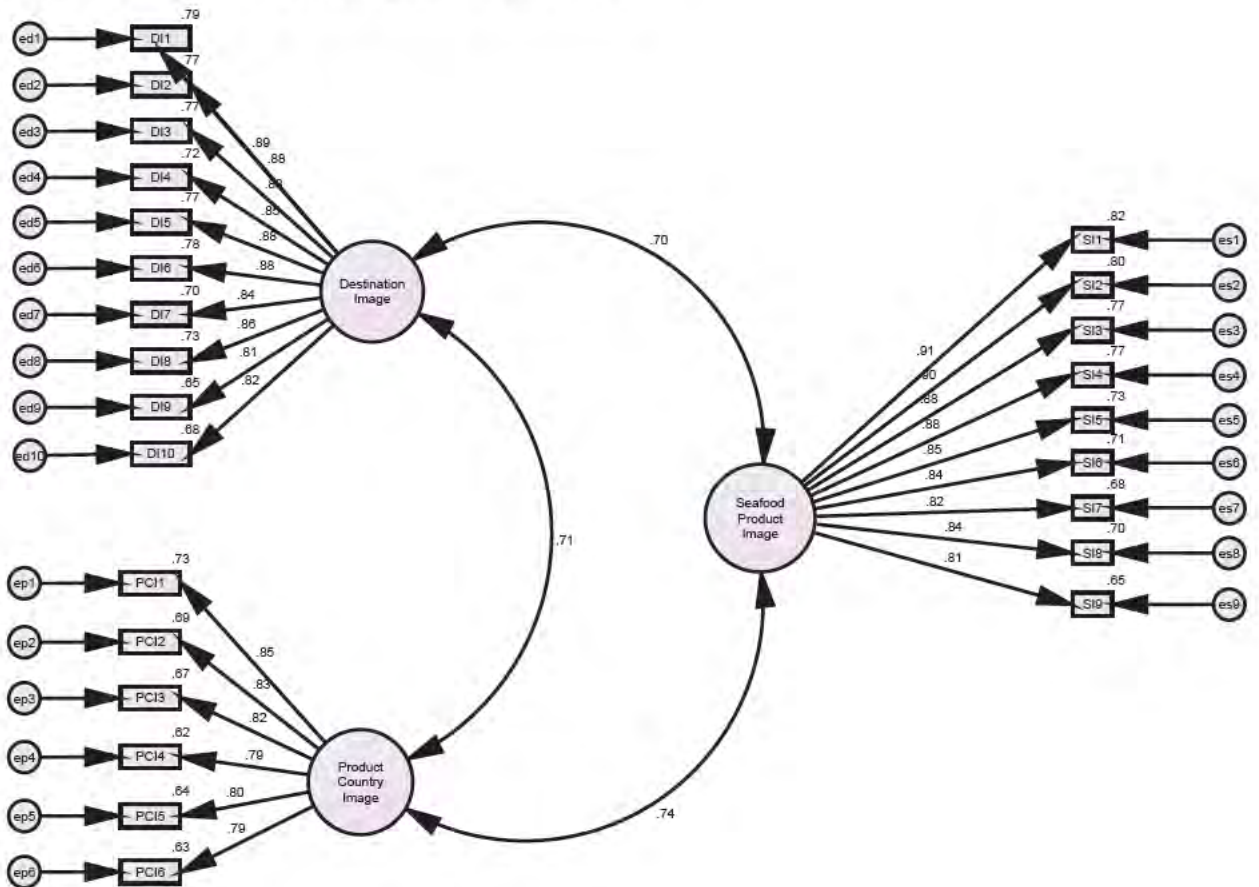


Figure A1.3 - DI and Seafood Image: Not Been (unstandardised estimates)

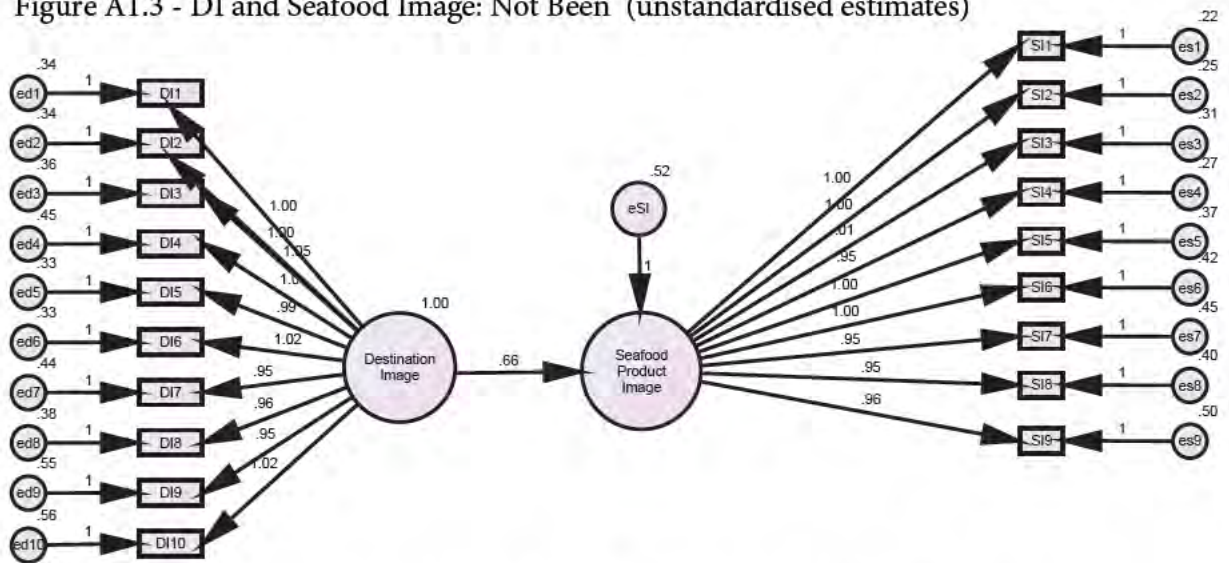


Figure A1.4 - DI and Seafood Image: Not Been (standardised estimates)

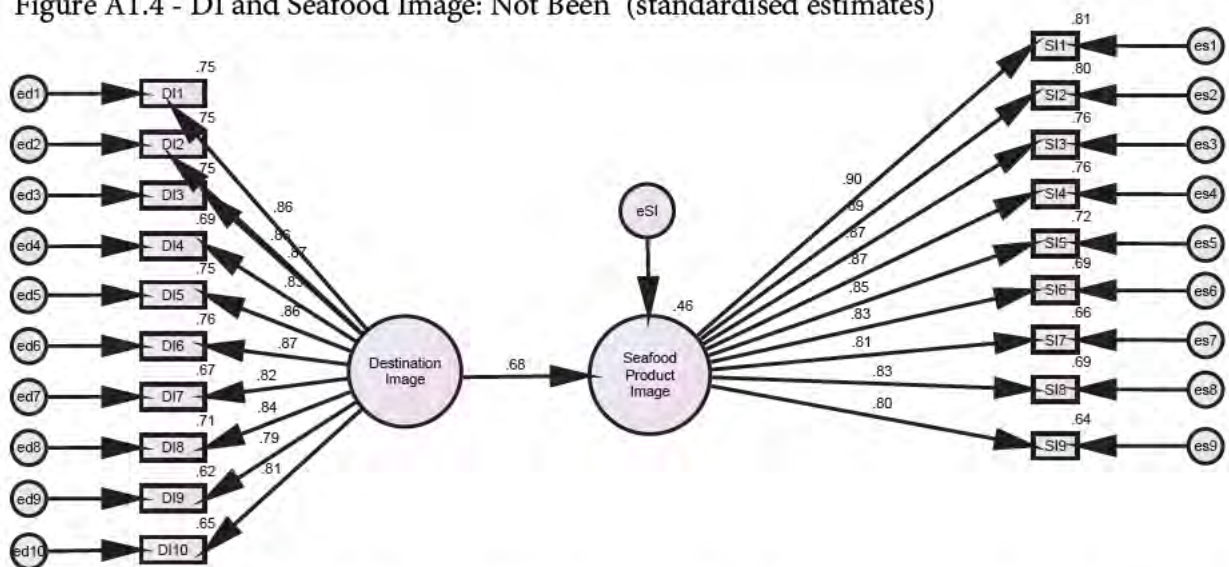


Figure A1.5 - DI and Seafood Image: Been (unstandardised)

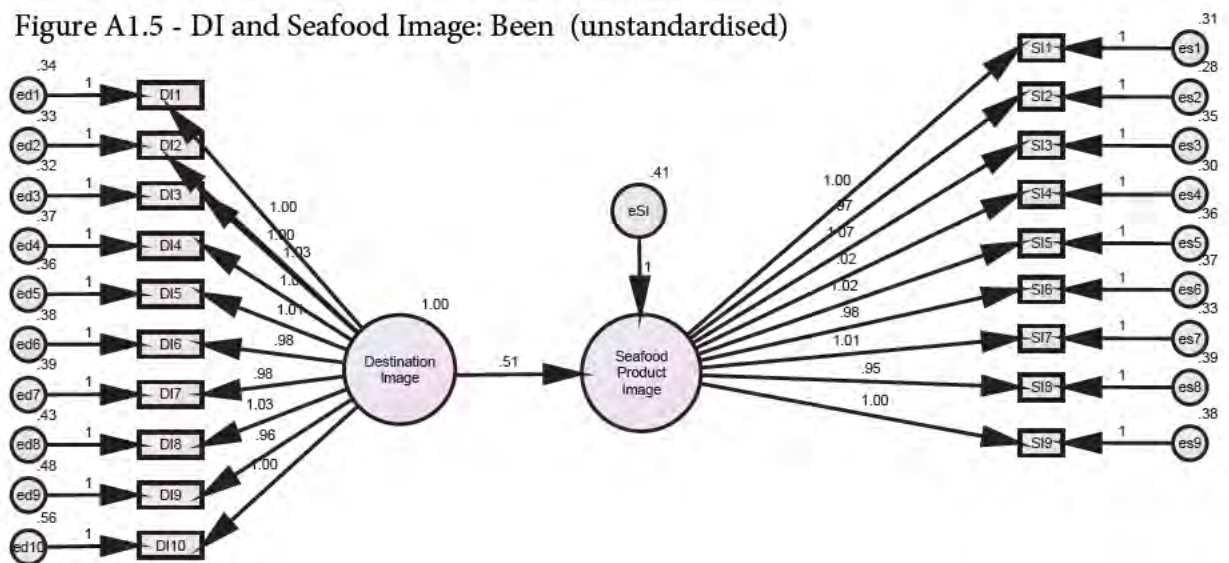




Figure A1.6 - DI and Seafood Image: Been (standardised)

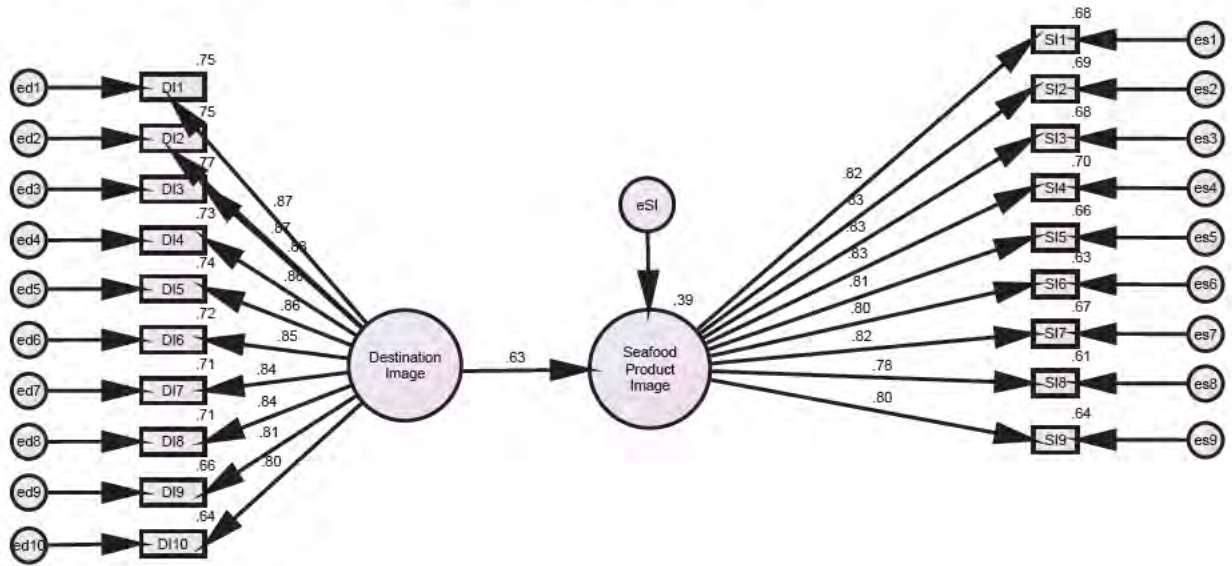


Figure A1.7 - PCI and Seafood Image: Not Been (unstandardised)

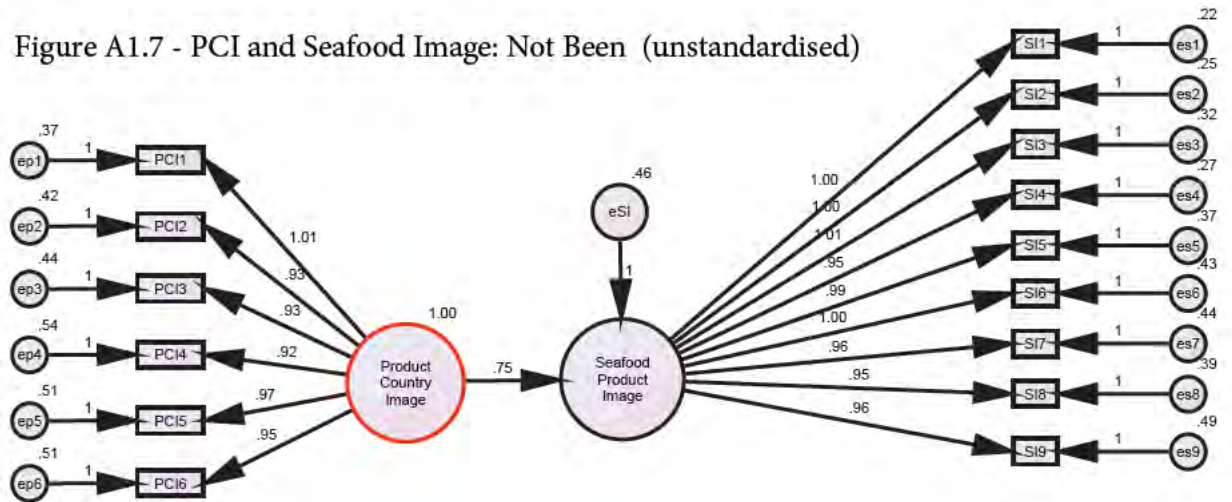


Figure A1.8 - PCI and Seafood Image: Not Been (standardised)

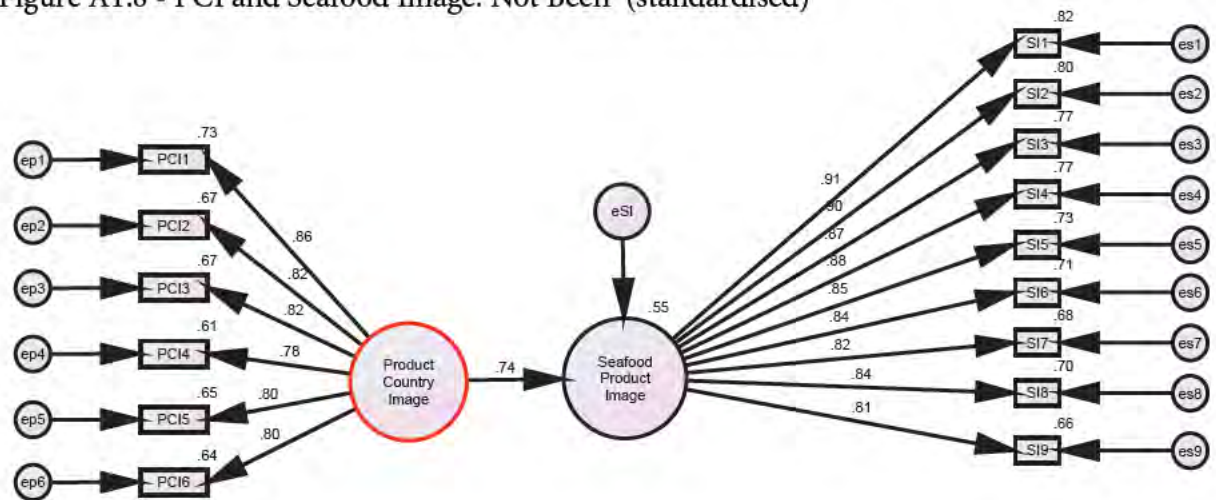


Figure A1.9 - PCI and Seafood Image: Been (Unstandardised)

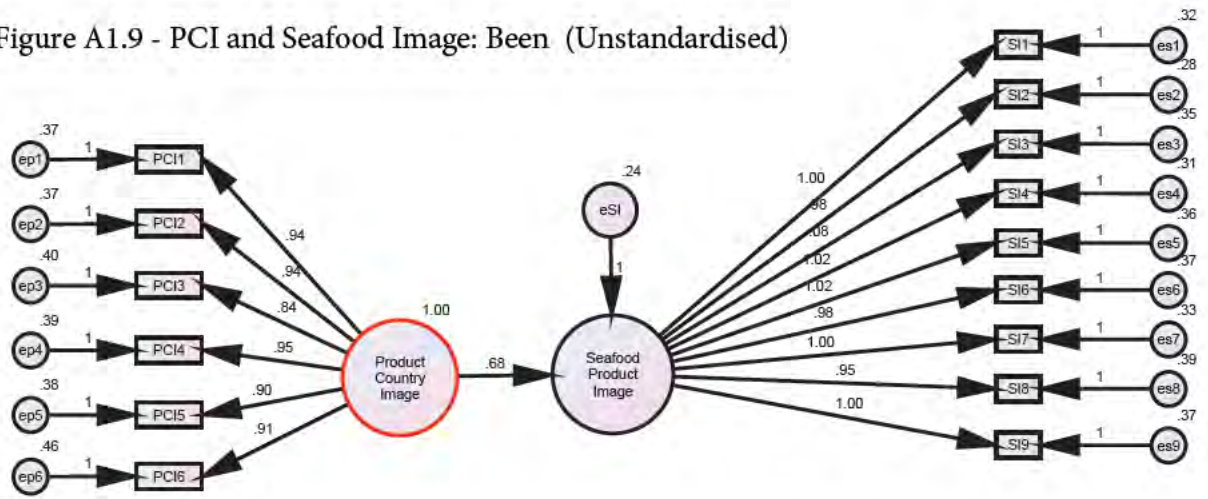


Figure A1.10 - PCI and Seafood Image: Been (standardised)

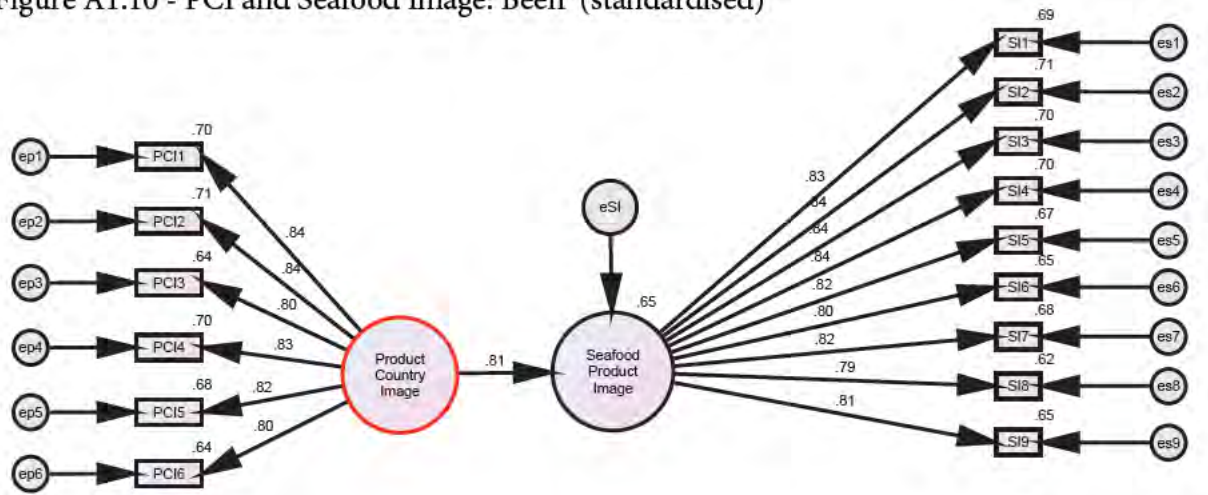


Figure A1.11 - DI and Wine Image: Not Been (Unstandardised)

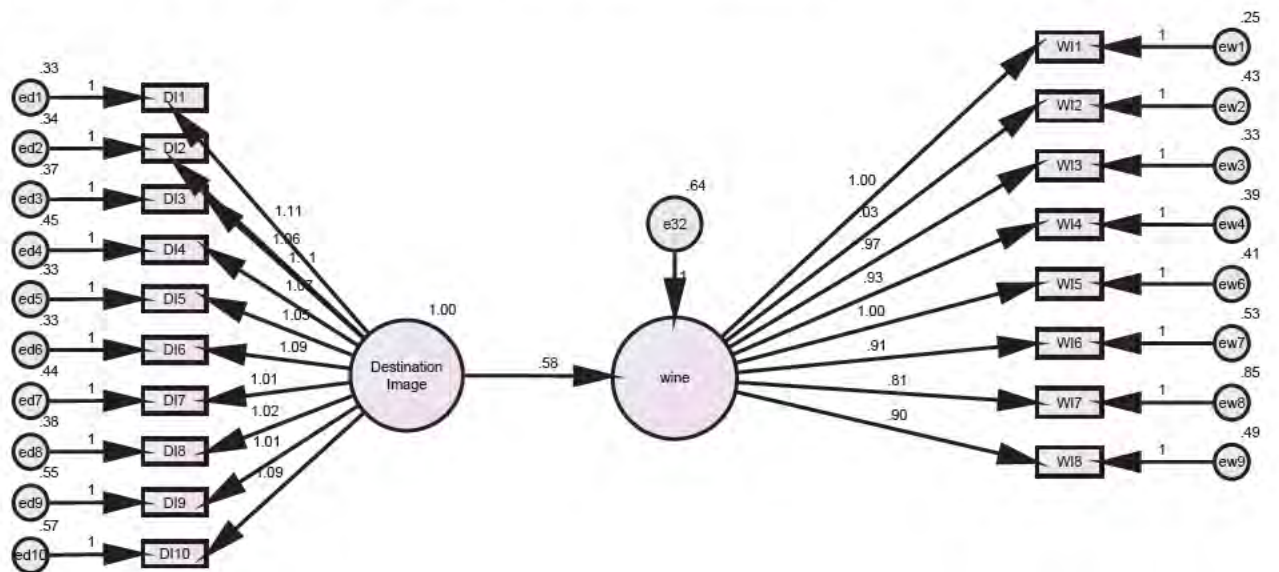




Figure A1.12 - DI and Wine Image: Not Been (standardised)

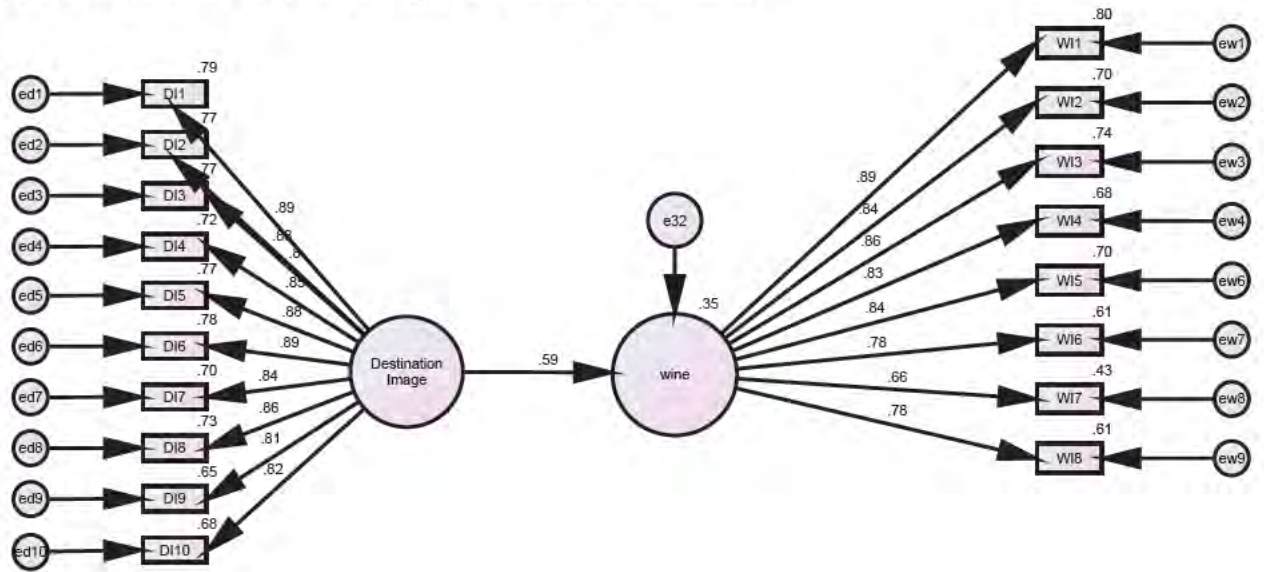


Figure A1.13 - DI and Wine Image: Been (unstandardised)

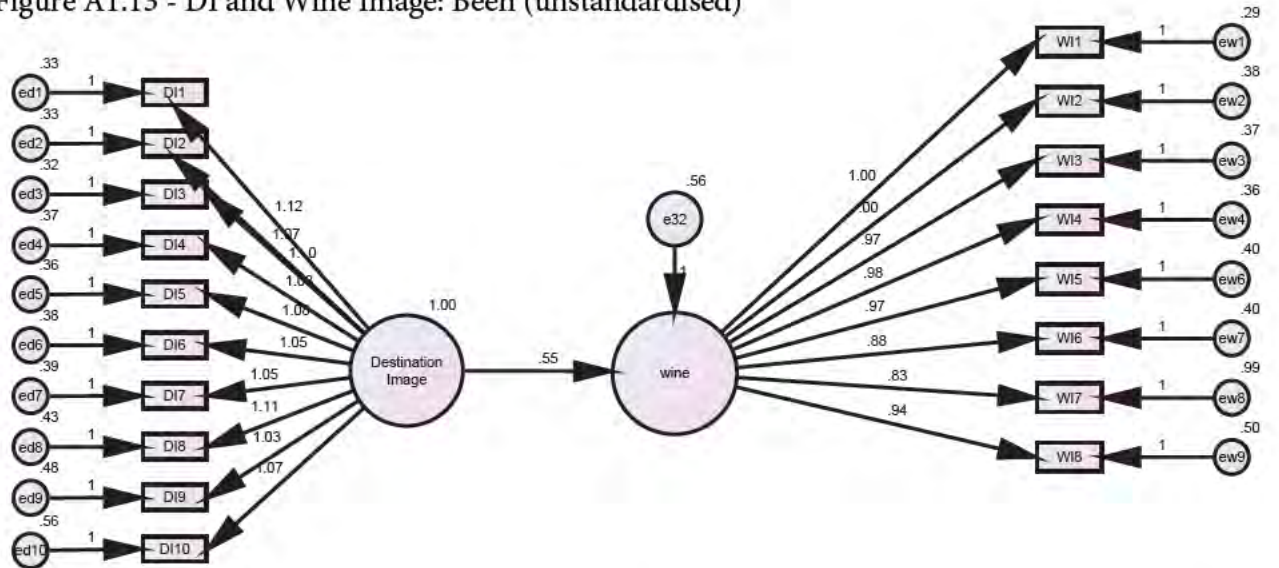


Figure A1.14 - DI and Wine Image: Been (standardised)

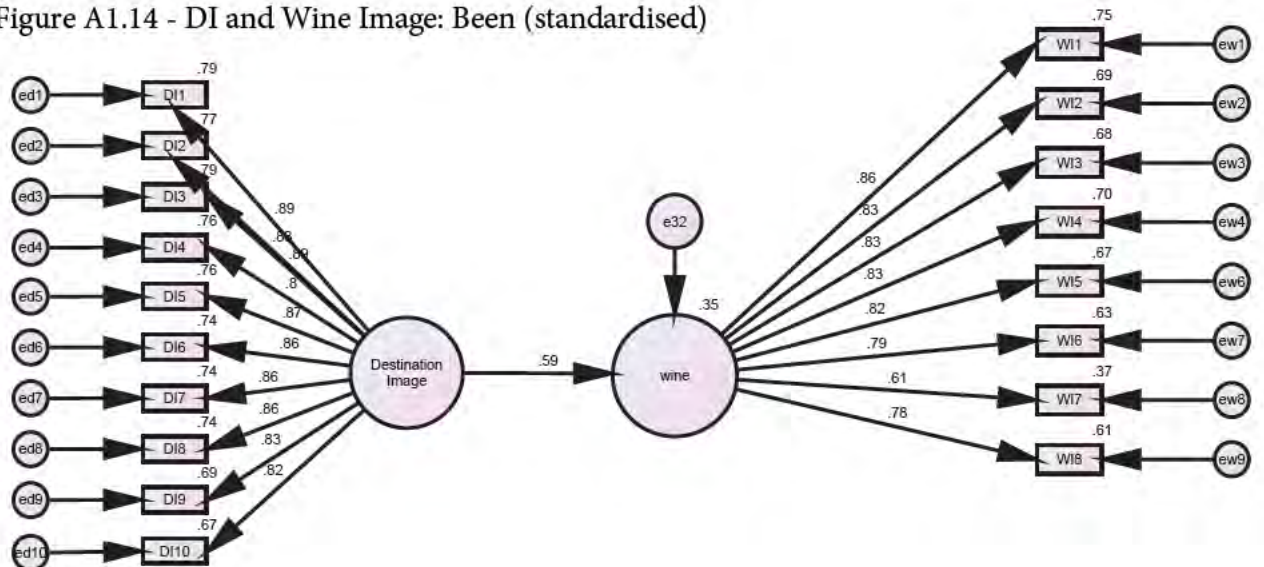


Figure A1.15 - DI, PCI and Seafood Image: Not Been (unstandardised)

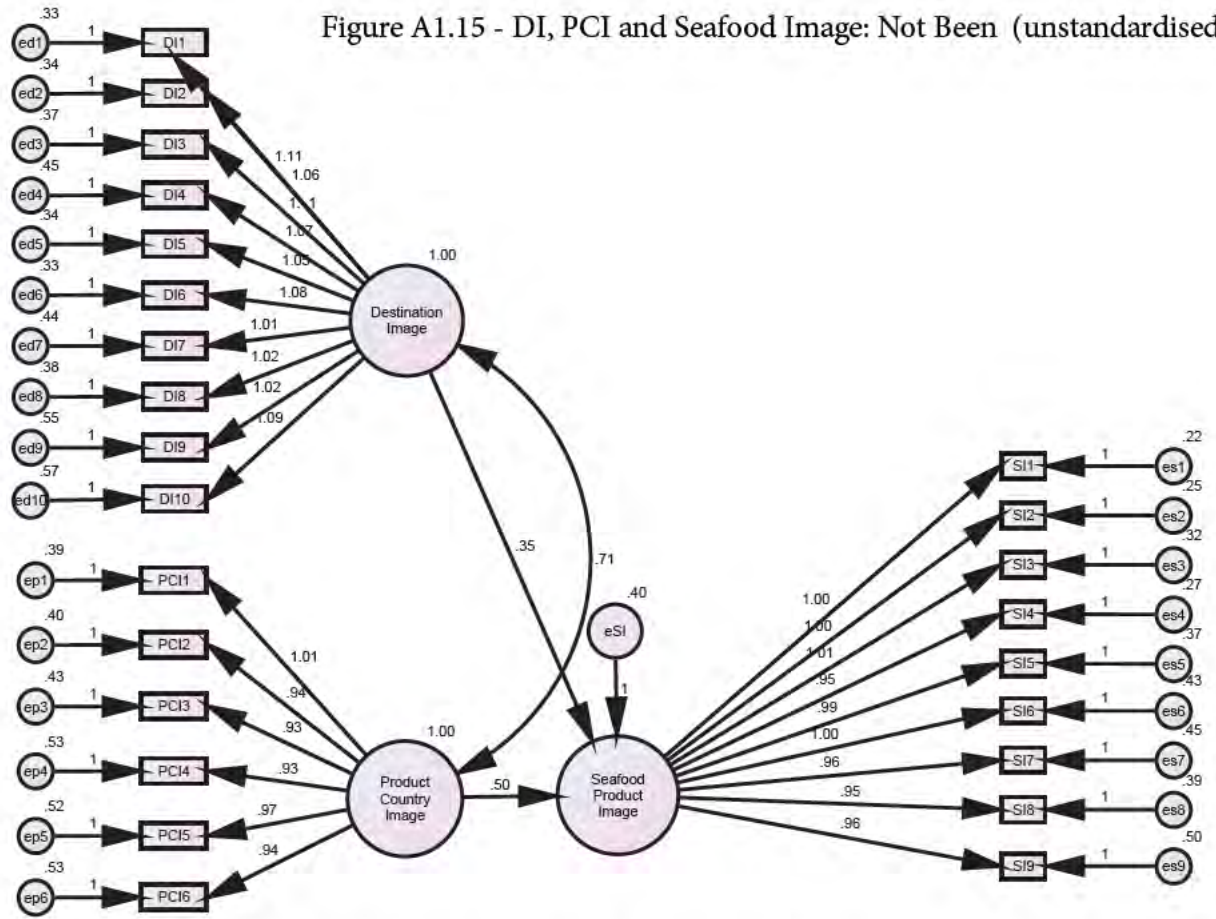
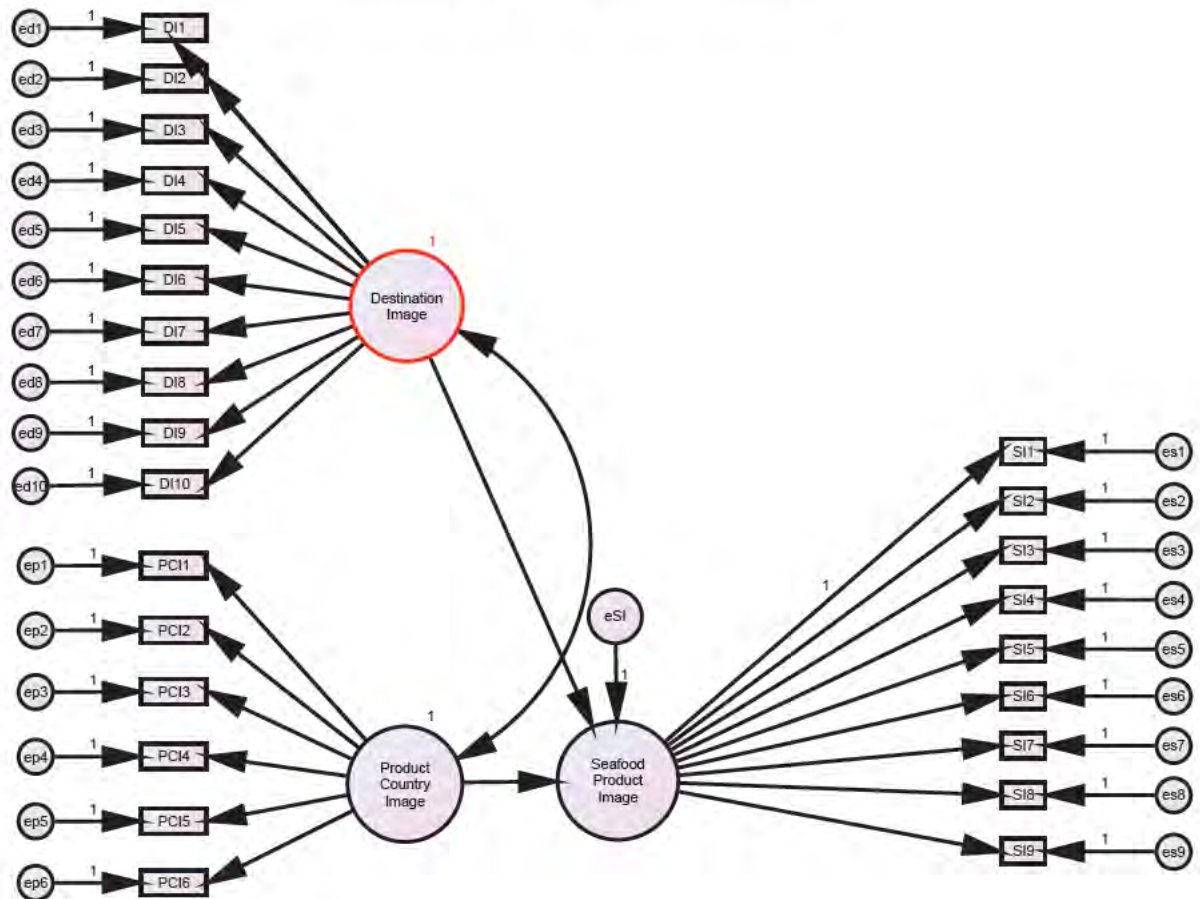


Figure A1.16 - PCI, DI and Seafood Image: Not Been (standardised)





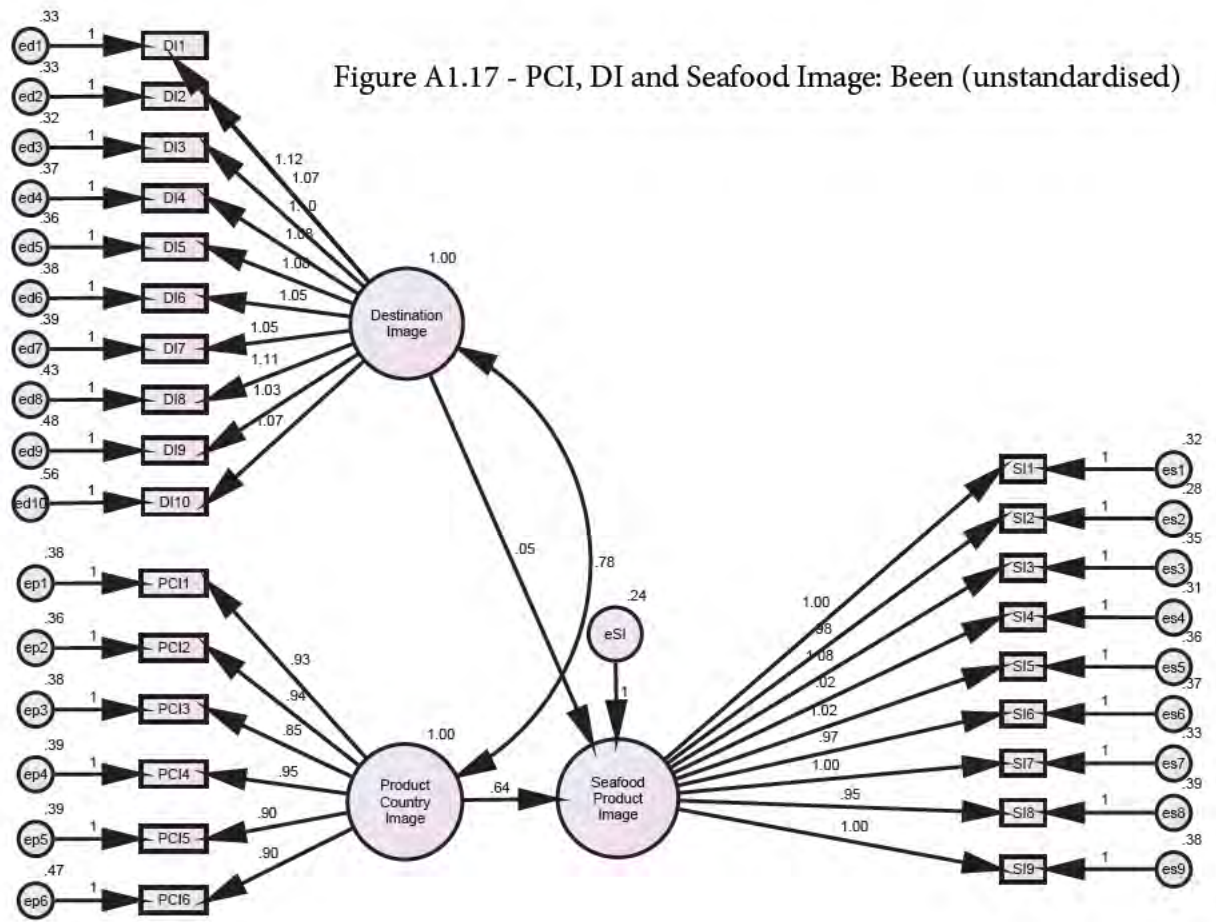
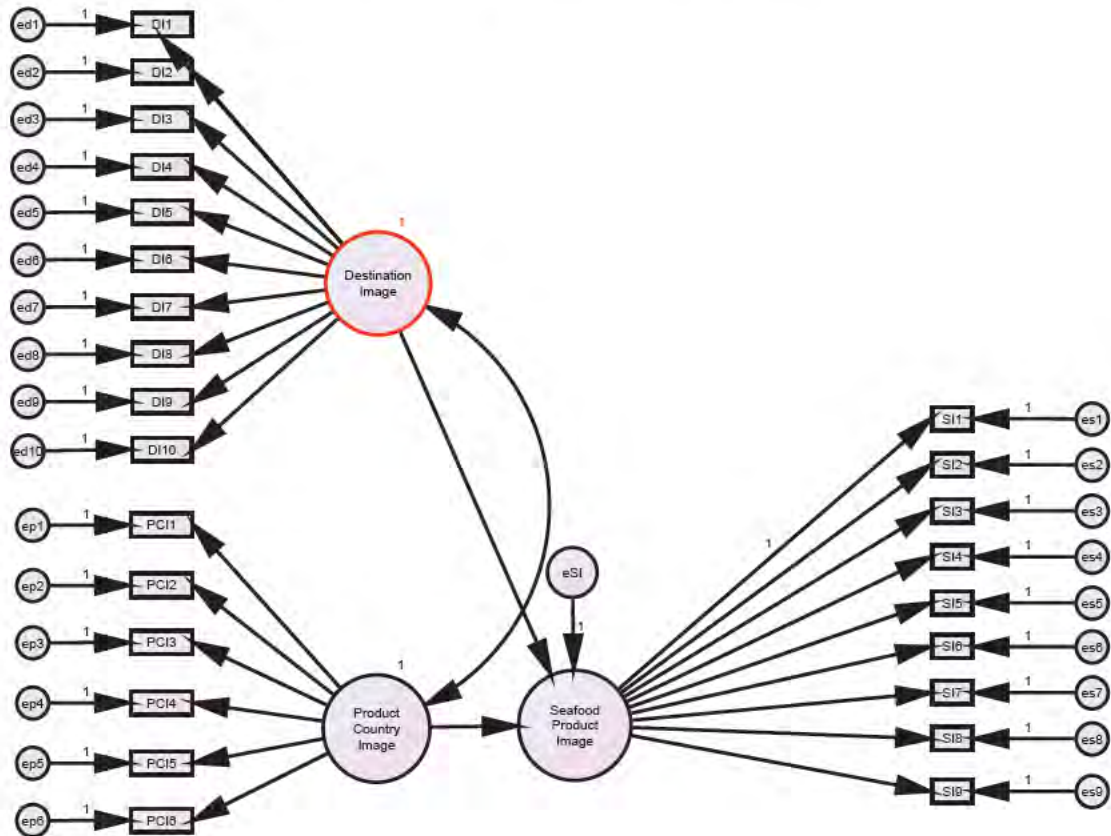


Figure A1.18 - PCI, DI and Seafood Image: Been (standardised)





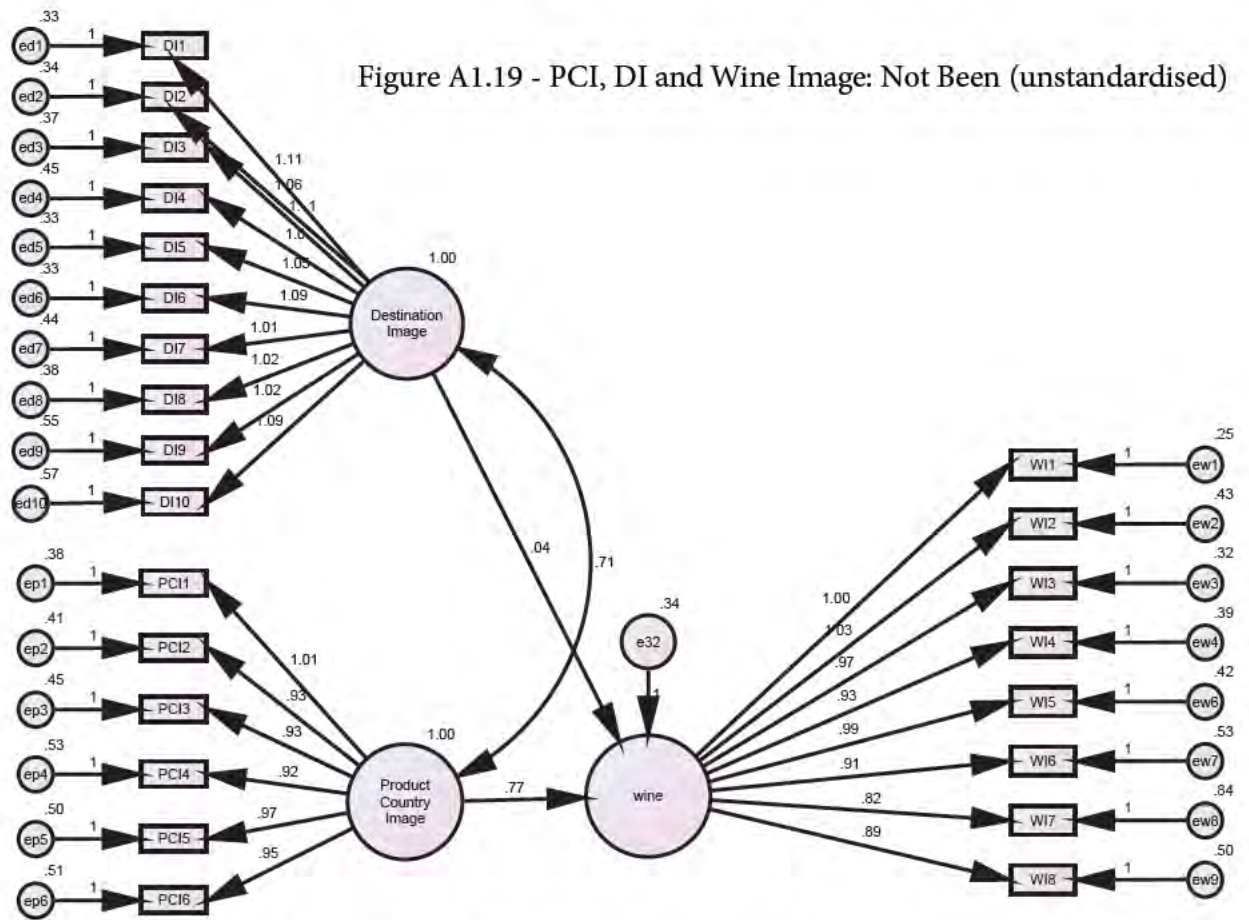


Figure A1.20 - PCI, DI and Wine Image: Not Been (standardised)

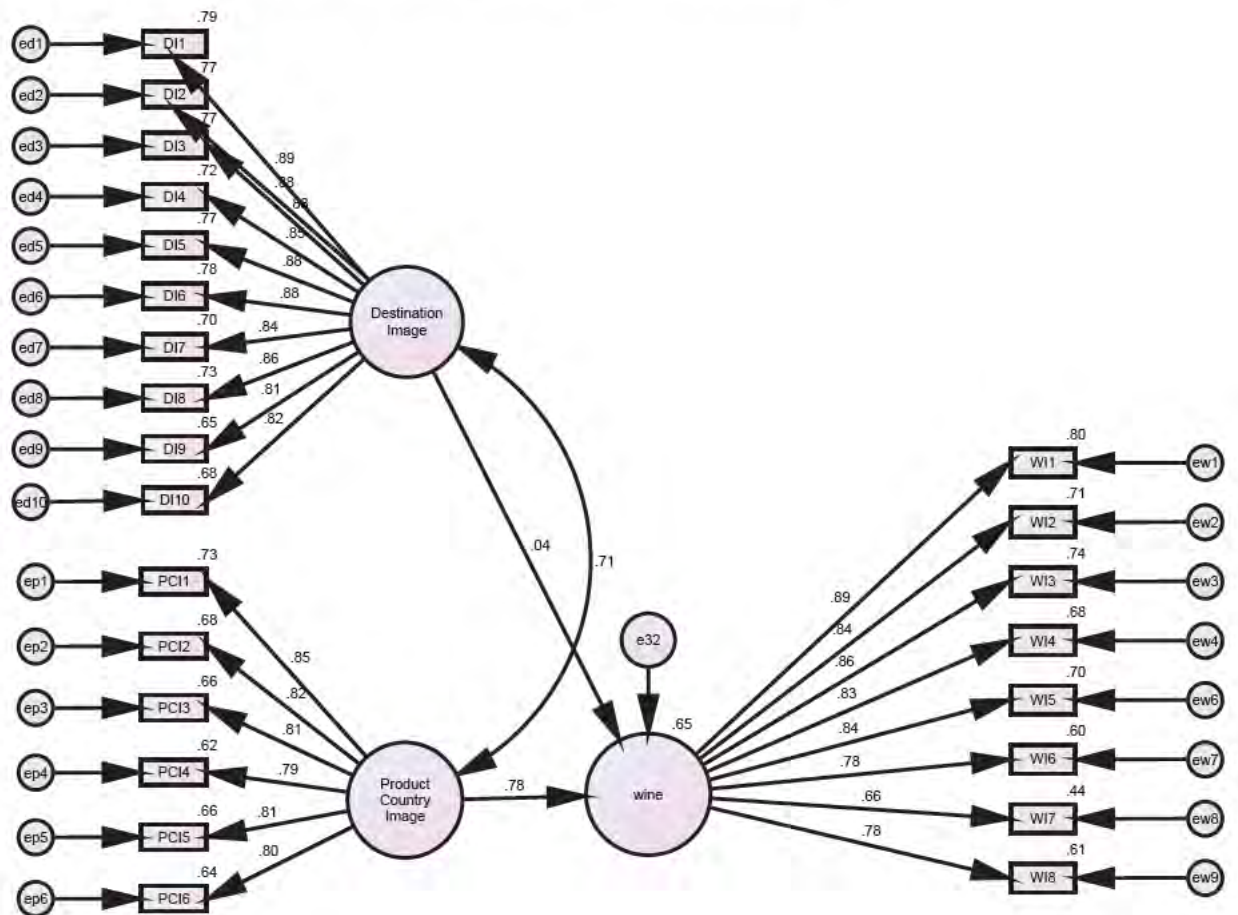


Figure A1.21 - PCI, DI and WineImage: Been (unstandardised)

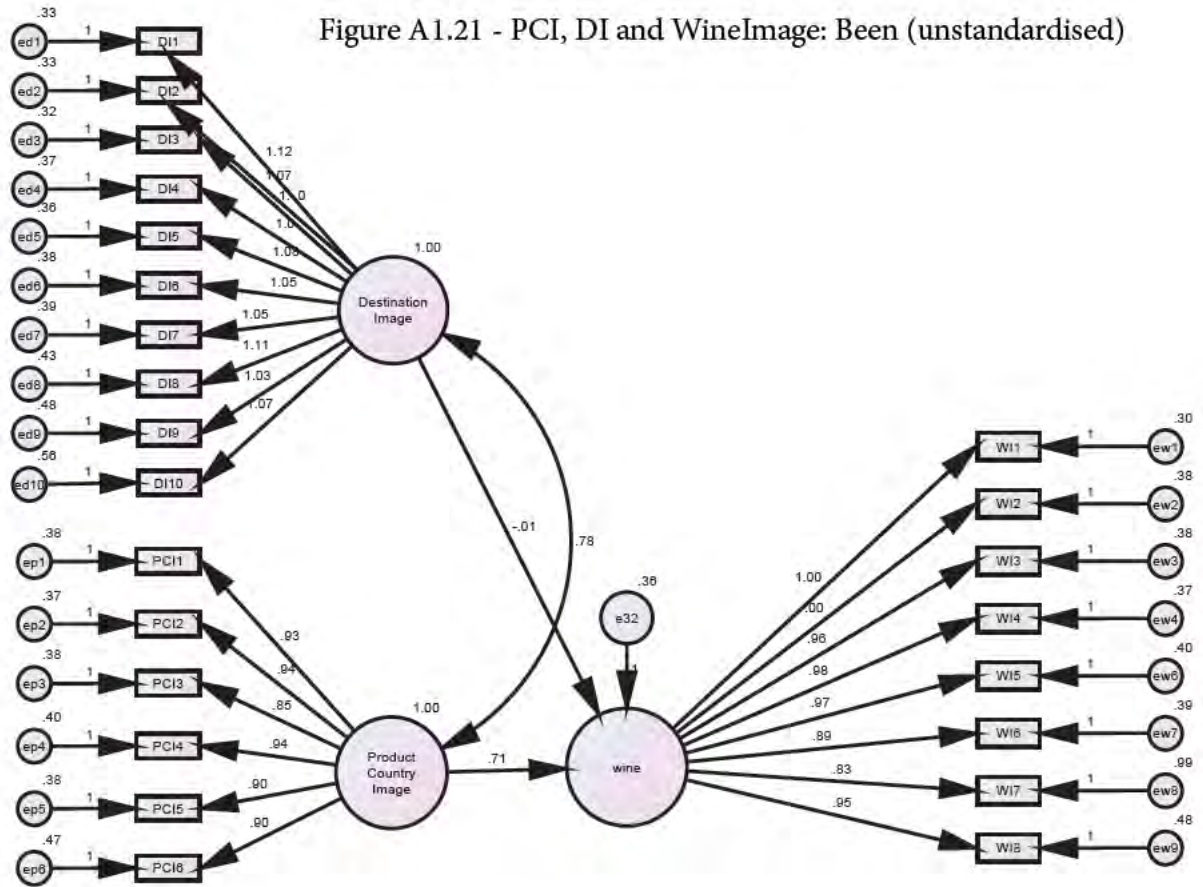
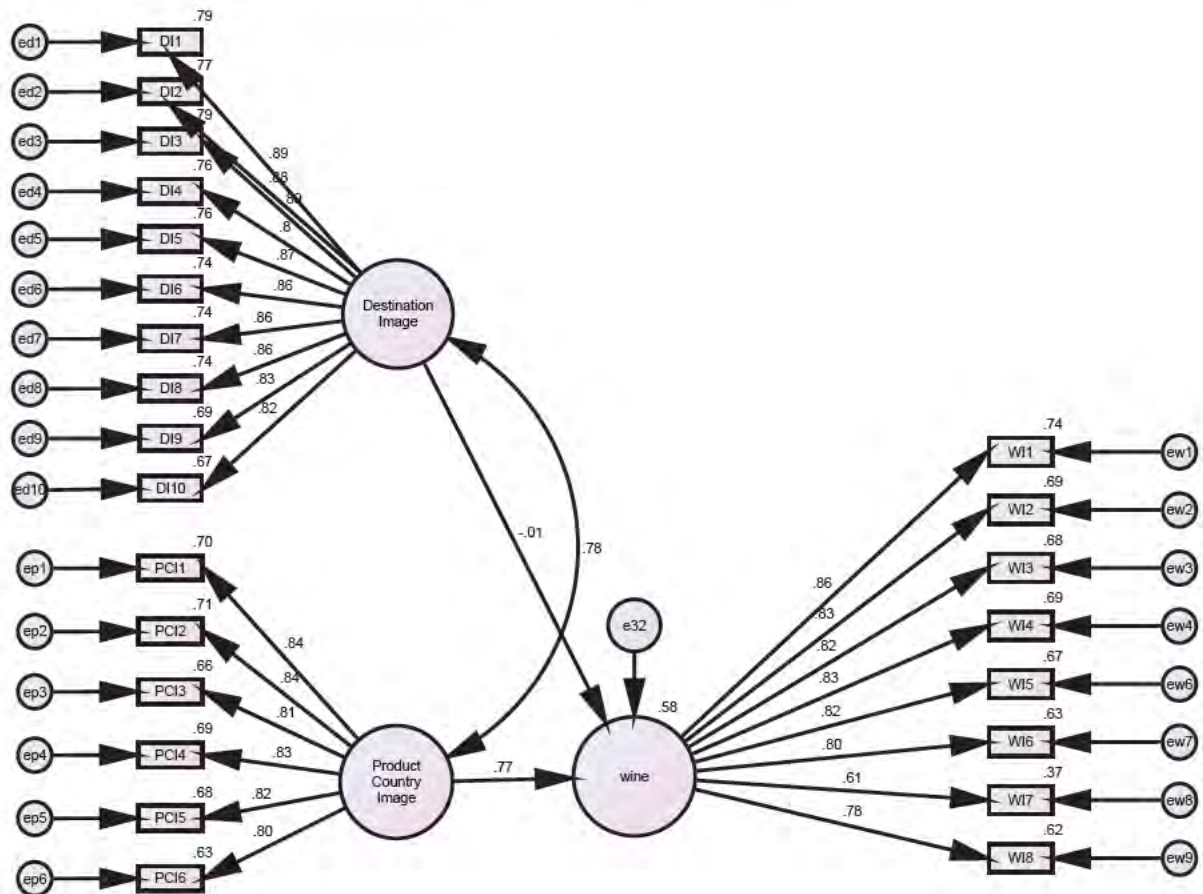


Figure A1.22 - PCI, DI and Wine Image: Been (standardised)



## Appendix 2 - Pick-any PMaps & Dirichlet Reporting

Figure A2.1 - Perceptual/co-occurrence map of tourism vs seafood image for Chinese consumers (Not Been to Australia)

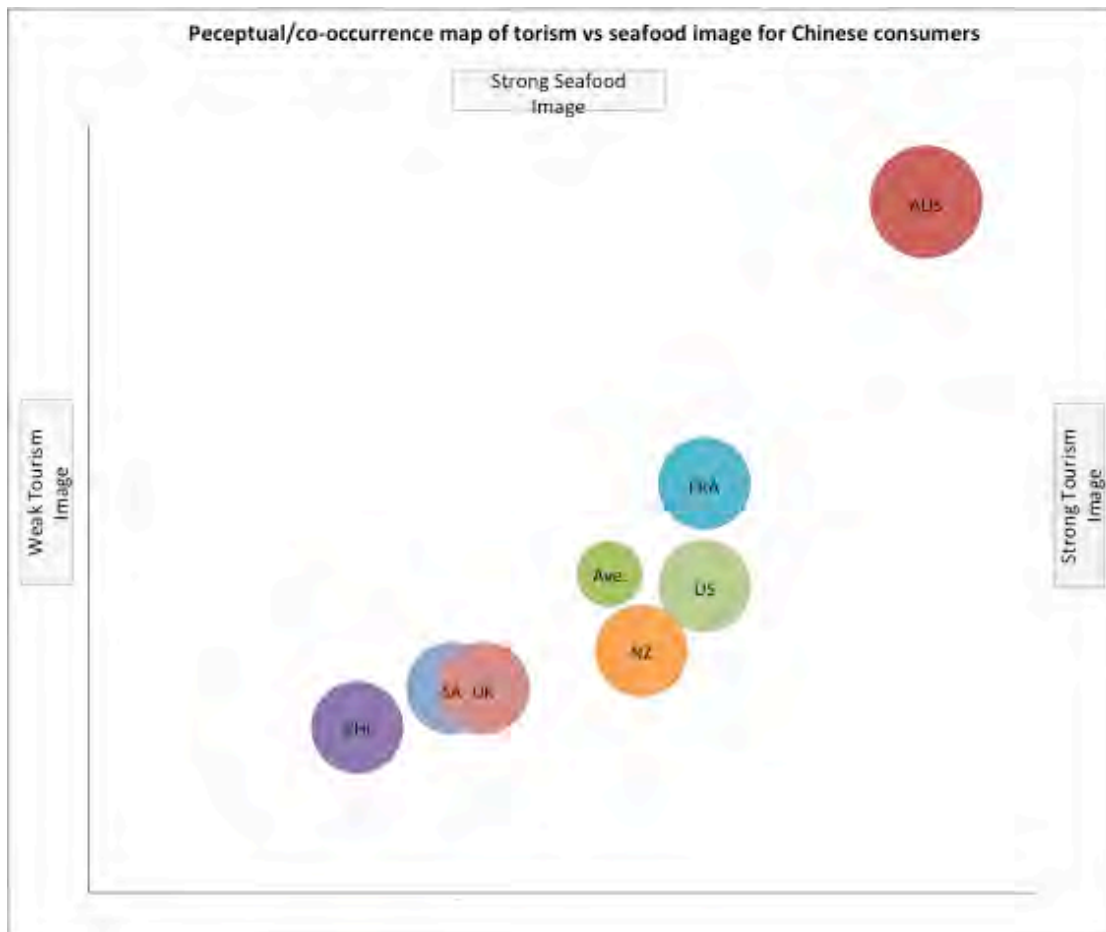


Figure A2.2 - Perceptual/co-occurrence map of tourism vs seafood image for Chinese consumers (Been to Australia)

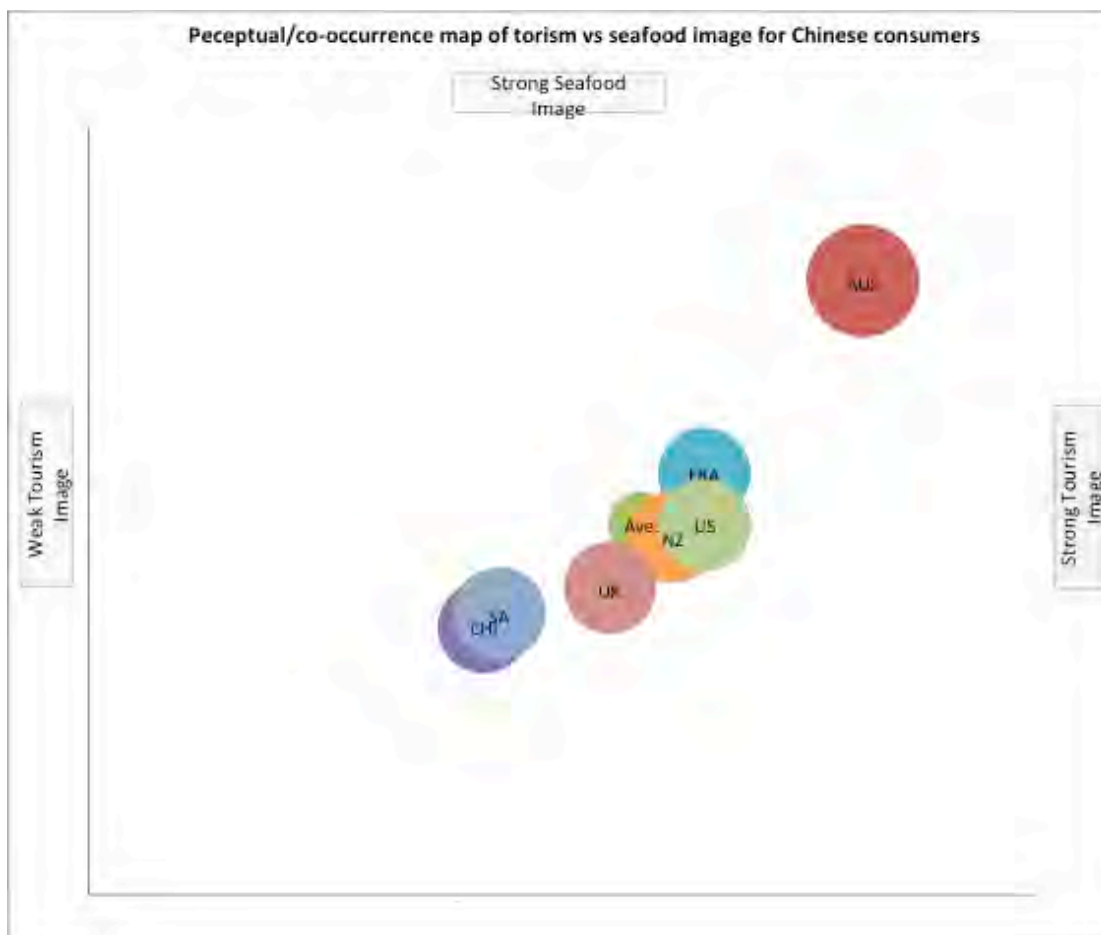


Figure A2.3 - Perceptual/co-occurrence map of tourism vs wine image for Chinese consumers (Been to Australia)

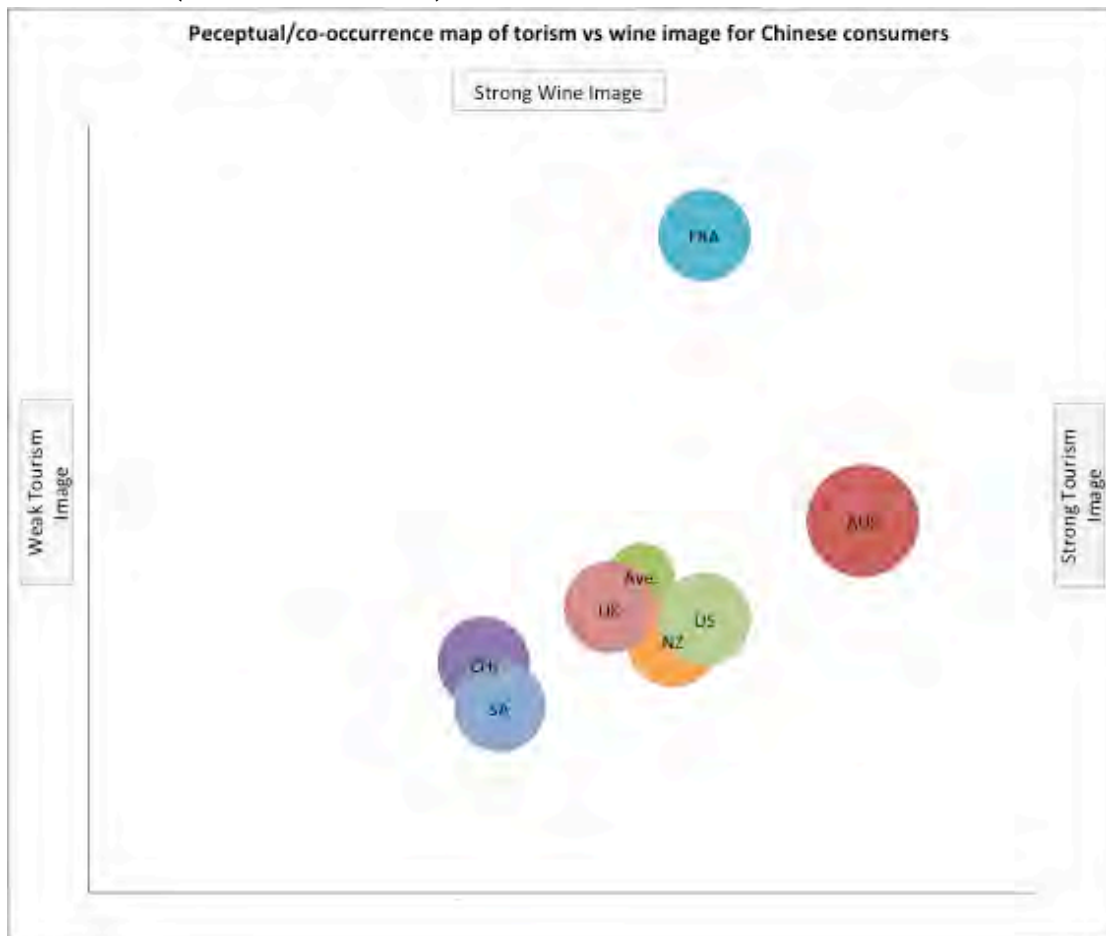
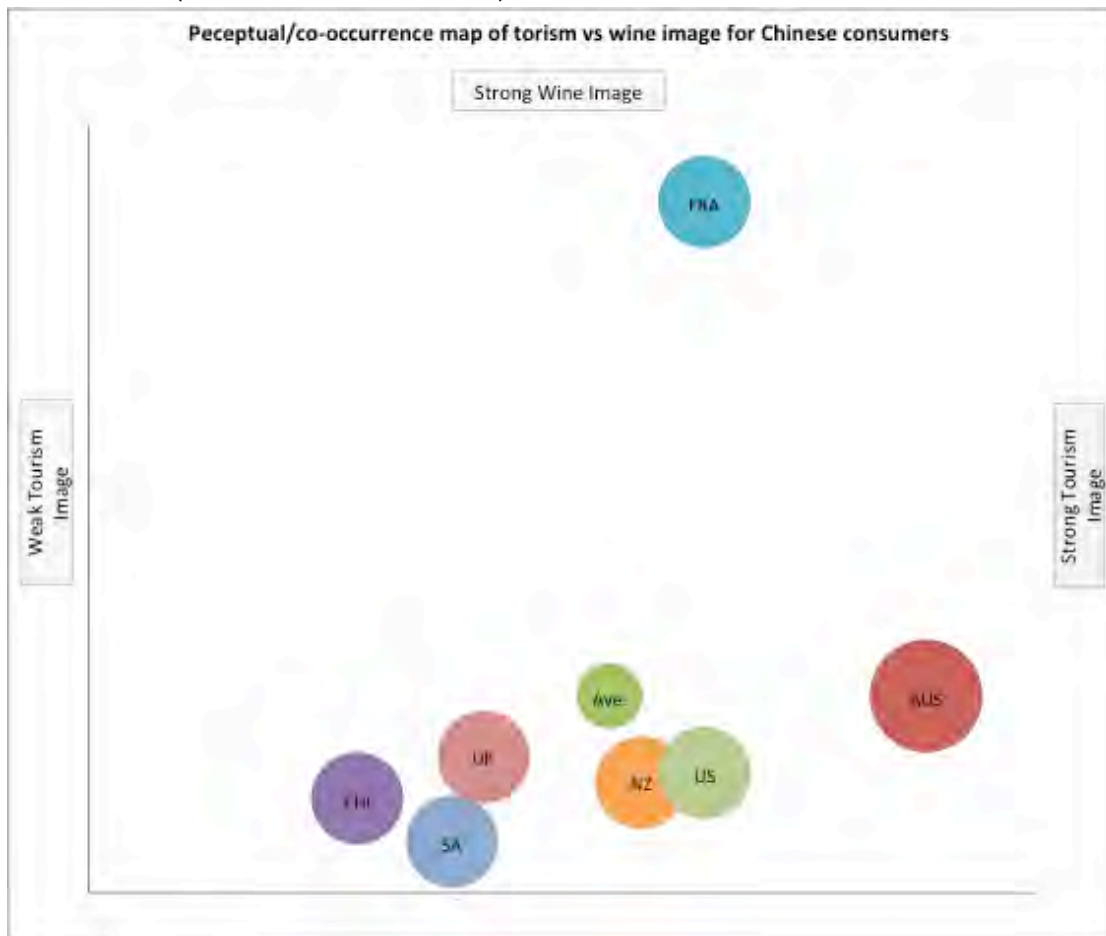




Figure A2.4 - Perceptual/co-occurrence map of tourism vs wine image for Chinese consumers (Not Been to Australia)



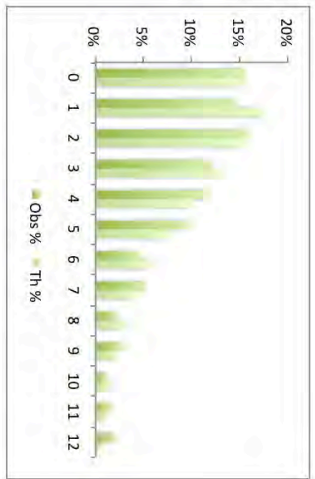
<b>BEEEN</b>										
<b>SB (Category)</b>	100%									
<b>SW (Category)</b>	30.2									
	<b>Sailience</b>	<b>OBS SB</b>	<b>TH SB</b>	<b>OBS SW</b>	<b>TH SB</b>	<b>MAD SB</b>	<b>MAD SW</b>	<b>MAPES</b>		
<b>AUSTourism</b>	21%	98%	90%	6.3	6.9	8%	0.5	8%		
<b>NZTourism</b>	17%	94%	88%	5.5	5.8	6%	0.4	6%		
<b>FRATourism</b>	15%	95%	85%	4.6	5.1	10%	0.5	10%		
<b>USATourism</b>	14%	92%	84%	4.5	4.9	8%	0.4	8%		
<b>ENGTourism</b>	13%	91%	83%	4.3	4.7	8%	0.4	9%		
<b>SATourism</b>	11%	84%	80%	4.1	4.3	4%	0.2	5%		
<b>CHITourism</b>	10%	84%	78%	3.6	3.9	6%	0.3	7%		
<b>AVER.</b>	<b>100%</b>	<b>91%</b>	<b>84%</b>	<b>4.7</b>	<b>5.1</b>	<b>7%</b>	<b>0.4</b>	<b>8%</b>		

<b>NOT BEEEN</b>										
<b>SB (Category)</b>	98%									
<b>SW (Category)</b>	25.3									
	<b>Sailience</b>	<b>OBS SB</b>	<b>TH SB</b>	<b>OBS SW</b>	<b>TH SB</b>	<b>MAD SB</b>	<b>MAD SW</b>	<b>MAPES</b>		
<b>AUSTourism</b>	25%	97%	89%	6.3	6.9	8%	0.5	8%		
<b>NZTourism</b>	19%	91%	85%	5.1	5.5	6%	0.4	7%		
<b>FRATourism</b>	15%	89%	81%	4.2	4.6	8%	0.4	9%		
<b>USATourism</b>	12%	83%	77%	3.7	4.0	6%	0.3	7%		
<b>SATourism</b>	11%	81%	74%	3.4	3.7	7%	0.3	9%		
<b>ENGTourism</b>	10%	78%	73%	3.3	3.5	5%	0.2	7%		
<b>CHITourism</b>	8%	67%	65%	2.9	2.9	2%	0.1	3%		
<b>AVER.</b>	<b>14%</b>	<b>84%</b>	<b>78%</b>	<b>4.1</b>	<b>4.4</b>	<b>6%</b>	<b>0.3</b>	<b>7%</b>		

BEEN

SATourism

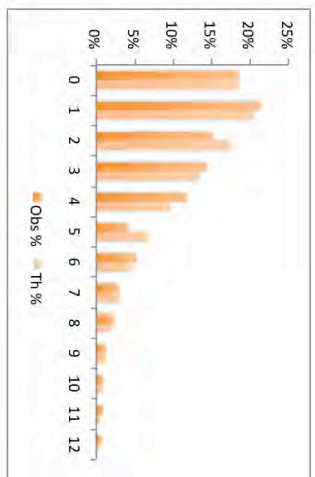
Obs %	Th %	MADS
0	16%	16%
1	15%	17%
2	16%	16%
3	12%	13%
4	12%	10%
5	10%	8%
6	5%	6%
7	5%	4%
8	2%	3%
9	3%	2%
10	1%	2%
11	2%	1%
12	2%	1%



NOT BEEN

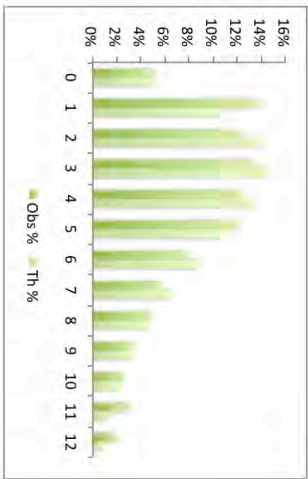
SATourism

Attributes	Obs %	Th %	MADS
0	19%	19%	0%
1	21%	21%	1%
2	15%	18%	2%
3	14%	13%	1%
4	12%	10%	2%
5	4%	7%	3%
6	5%	5%	1%
7	3%	3%	0%
8	2%	3%	0%
9	2%	2%	0%
10	1%	1%	0%
11	1%	1%	0%
12	1%	1%	0%



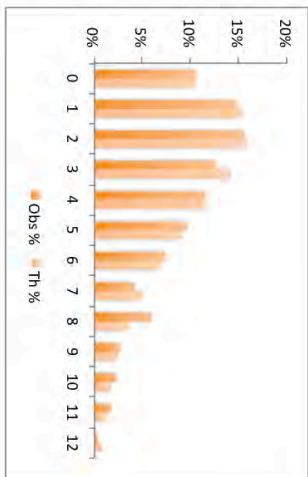
FRATourism

Obs %	Th %	MADS
0	5%	5%
1	14%	11%
2	12%	14%
3	14%	15%
4	13%	14%
5	12%	11%
6	8%	9%
7	6%	7%
8	5%	5%
9	4%	3%
10	3%	2%
11	3%	1%
12	2%	1%



FRATourism

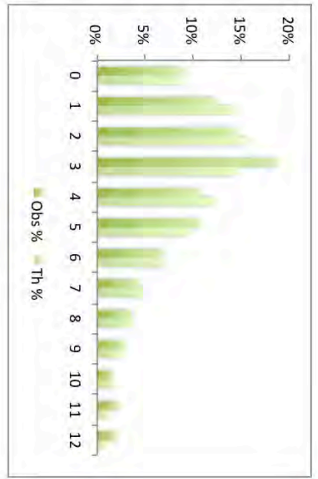
Attributes	Obs %	Th %	MADS
0	11%	11%	0%
1	15%	15%	0%
2	16%	16%	0%
3	13%	14%	1%
4	12%	12%	0%
5	10%	9%	1%
6	7%	7%	1%
7	4%	5%	2%
8	6%	4%	1%
9	3%	3%	0%
10	2%	2%	1%
11	2%	1%	1%
12	0%	1%	0%





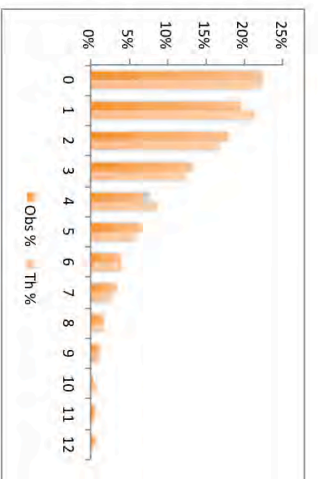
**ENGTourism**

Obs %	Th %	MADs
0	9%	9%
1	13%	14%
2	15%	16%
3	19%	15%
4	11%	12%
5	11%	10%
6	7%	7%
7	4%	5%
8	4%	4%
9	3%	3%
10	2%	2%
11	2%	1%
12	2%	1%



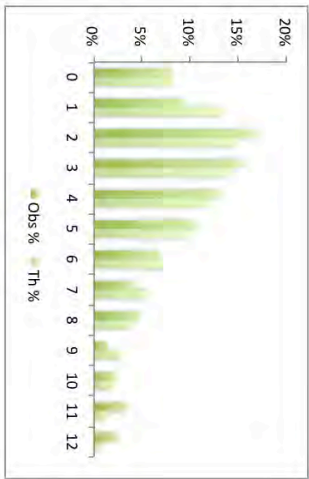
**ENGTourism**

Attributes	Obs %	Th %	MADs
0	22%	22%	0%
1	20%	21%	2%
2	18%	17%	1%
3	13%	12%	1%
4	8%	9%	1%
5	7%	6%	1%
6	4%	4%	0%
7	3%	3%	0%
8	2%	2%	1%
9	1%	1%	0%
10	0%	1%	0%
11	1%	1%	0%
12	1%	1%	0%



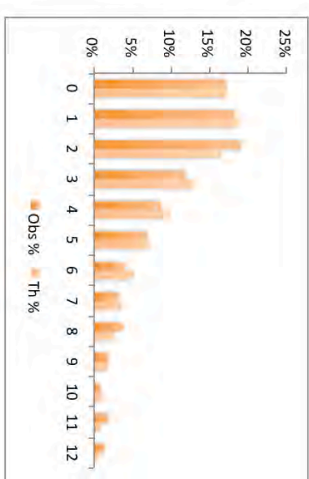
**USATourism**

Obs %	Th %	MADs
0	8%	8%
1	10%	13%
2	17%	15%
3	16%	14%
4	13%	12%
5	11%	10%
6	7%	8%
7	4%	6%
8	5%	4%
9	1%	3%
10	2%	2%
11	4%	1%
12	3%	1%



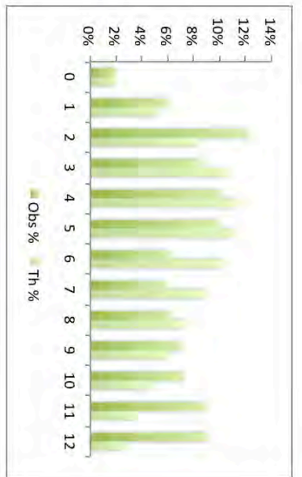
**USATourism**

Attributes	Obs %	Th %	MADs
0	17%	17%	0%
1	18%	19%	1%
2	19%	16%	3%
3	12%	13%	1%
4	9%	10%	1%
5	7%	7%	0%
6	4%	5%	1%
7	3%	4%	0%
8	4%	3%	1%
9	2%	2%	0%
10	1%	1%	0%
11	2%	1%	1%
12	1%	1%	1%



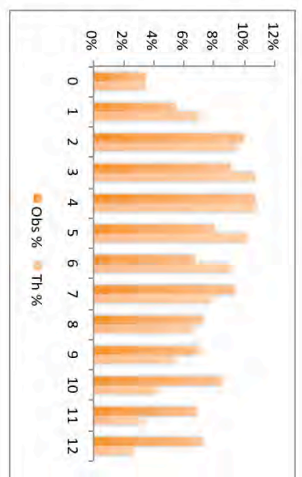
**AUSTourism**

Obs %	Th %	MADS
0	2%	2%
1	6%	5%
2	12%	8%
3	9%	11%
4	10%	11%
5	10%	11%
6	6%	10%
7	6%	9%
8	6%	7%
9	7%	6%
10	7%	5%
11	9%	4%
12	9%	3%



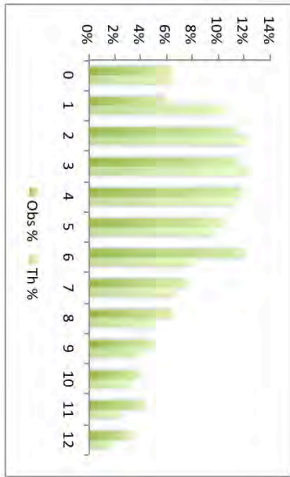
**AUSTourism**

Attributes	Obs %	Th %	MADS
0	3%	3%	0%
1	5%	7%	2%
2	10%	10%	0%
3	9%	11%	2%
4	11%	11%	0%
5	8%	10%	2%
6	9%	9%	2%
7	7%	8%	2%
8	7%	7%	1%
9	7%	5%	2%
10	9%	4%	4%
11	7%	3%	3%
12	7%	3%	5%



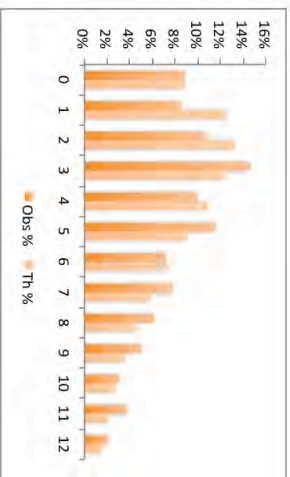
**NZTourism**

Obs %	Th %	MADS
0	6%	6%
1	6%	11%
2	11%	12%
3	11%	12%
4	12%	11%
5	10%	10%
6	12%	8%
7	8%	7%
8	6%	5%
9	5%	4%
10	4%	3%
11	2%	2%
12	3%	2%



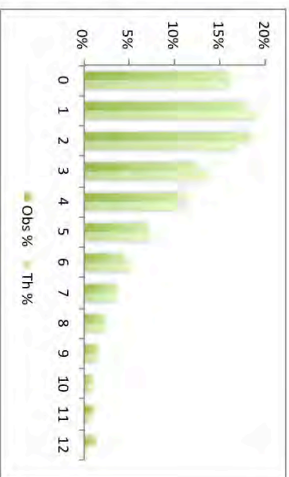
**NZTourism**

Attributes	Obs %	Th %	MADS
0	9%	9%	0%
1	9%	13%	4%
2	11%	13%	3%
3	15%	12%	2%
4	10%	11%	1%
5	12%	9%	3%
6	7%	7%	0%
7	8%	6%	2%
8	6%	5%	2%
9	5%	4%	1%
10	3%	3%	0%
11	4%	2%	2%
12	2%	2%	1%



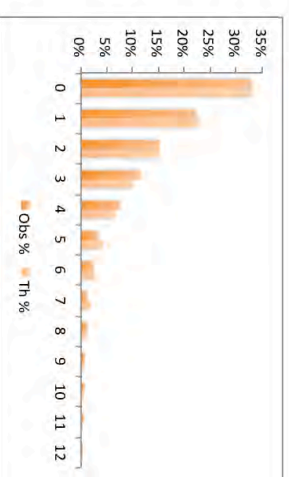
**CHITourism**

Obs %	Th %	MADS
0	16%	16%
1	18%	19%
2	19%	17%
3	13%	14%
4	12%	10%
5	7%	10%
6	5%	5%
7	4%	4%
8	2%	2%
9	2%	0%
10	1%	0%
11	1%	1%
12	1%	0%



**CHITourism**

Attributes	Obs %	Th %	MADS
0	33%	33%	0%
1	22%	23%	1%
2	15%	15%	0%
3	11%	10%	1%
4	8%	7%	1%
5	3%	4%	0%
6	2%	3%	0%
7	1%	2%	0%
8	1%	1%	0%
9	1%	1%	0%
10	1%	0%	0%
11	1%	0%	0%
12	0%	0%	0%



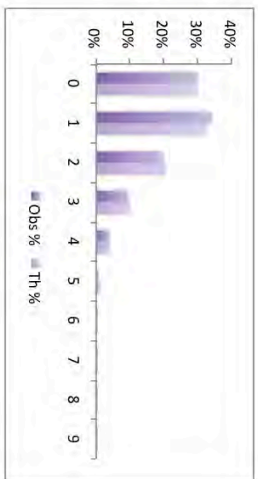
<b>NOT BEEN</b>													
<b>SB (Category)</b>	<b>97%</b>												
<b>SW (Category)</b>	<b>18.8</b>	<b>SailienceOBS</b>	<b>SailienceTH</b>	<b>OBS SB</b>	<b>TH SB</b>	<b>OBS SW</b>	<b>TH SB</b>	<b>AD SB</b>	<b>APES</b>	<b>AD SB</b>	<b>APES</b>	<b>AD SW</b>	<b>APES</b>
USACCOOPA	26%	25%	94%	85%	4.9	5.4	0%	1%	9%	10%	0.5	9%	
FRAFCCOOPA	17%	17%	84%	78%	3.8	4.0	0%	0%	6%	7%	0.3	7%	
AUSCOOPA	17%	17%	88%	78%	3.5	4.0	0%	0%	10%	13%	0.5	12%	
UKCOOPA	16%	16%	84%	77%	3.6	3.9	0%	1%	7%	9%	0.3	8%	
NZCOOPA	11%	11%	79%	68%	2.6	3.0	0%	0%	11%	16%	0.4	13%	
SAFCCOOPA	7%	7%	70%	56%	1.9	2.4	0%	0%	14%	25%	0.5	20%	
CHILCOOPA	5%	6%	55%	48%	1.8	2.1	0%	1%	7%	14%	0.3	13%	
AVER.	14%	14%	79%	70%	3.2	3.5	MAD SB	MAPES	MAD SB	MAPES	MAD SW	MAPES	
Correlations	1.00		0.97		0.99		0%	1%	9%	14%	0.4	12%	
							AMAD	1%	AMAD	11%	AMAD	12%	

<b>BEEN</b>													
<b>SB (Category)</b>	<b>100%</b>												
<b>SW (Category)</b>	<b>22.0</b>	<b>SailienceOBS</b>	<b>SailienceTH</b>	<b>OBS SB</b>	<b>TH SB</b>	<b>OBS SW</b>	<b>TH SB</b>	<b>AD SB</b>	<b>APES</b>	<b>MD SB</b>	<b>APES</b>	<b>AD SW</b>	<b>APES</b>
USACCOOPA	20%	20%	97%	92%	4.5	4.7	0%	0%	0%	5%	5%	0.2	5%
AUSCOOPA	18%	17%	96%	90%	3.9	4.2	0%	2%	6%	7%	0.3	6%	
FRAFCCOOPA	17%	17%	93%	90%	4.0	4.2	1%	3%	3%	4%	0.1	3%	
UKCOOPA	16%	16%	93%	88%	3.7	3.9	1%	5%	5%	5%	0.2	5%	
NZCOOPA	13%	13%	88%	84%	3.2	3.3	0%	0%	4%	5%	0.2	5%	
SAFCCOOPA	9%	9%	77%	75%	2.6	2.7	0%	0%	2%	3%	0.1	3%	
CHILCOOPA	8%	8%	74%	72%	2.5	2.5	0%	0%	2%	3%	0.1	3%	
AVER.	14%	14%	88%	84%	3.5	3.7	MAD SB	MAPES	MAD SB	MAPES	MAD SW	MAPES	
Correlations	0.99		0.99		1.00		0%	2%	4%	5%	0.2	4%	
							AMAD	2%	AMAD	4%	AMAD	5%	

Not Been

SACCO

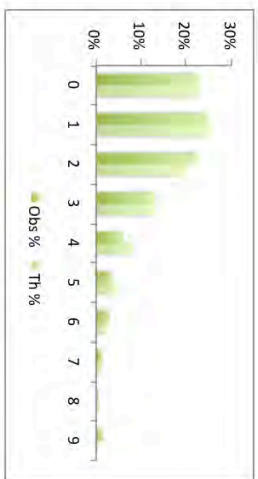
Obs %	Th %	MADs
0	30%	30%
1	34%	33%
2	20%	21%
3	10%	10%
4	4%	4%
5	1%	1%
6	1%	0%
7	1%	0%
8	0%	0%
9	0%	0%



BEEN

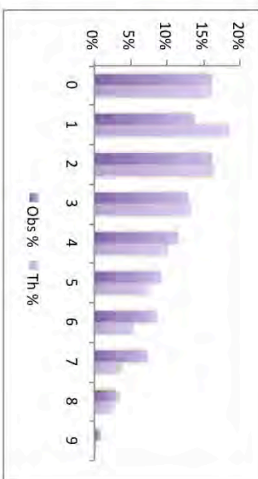
SACCO

Obs %	Th %	MADs
0	23%	23%
1	25%	26%
2	23%	20%
3	13%	13%
4	6%	8%
5	4%	5%
6	3%	3%
7	1%	1%
8	1%	1%
9	2%	0%



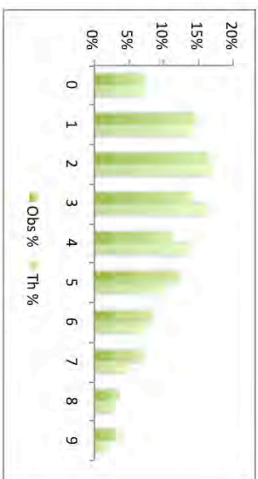
FRACCO

Obs %	Th %	MADs
0	16%	16%
1	14%	19%
2	16%	17%
3	13%	13%
4	12%	10%
5	9%	8%
6	9%	5%
7	7%	4%
8	3%	3%
9	1%	0%



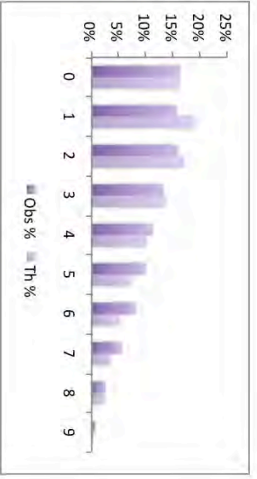
FRACCO

Obs %	Th %	MADs
0	7%	7%
1	15%	14%
2	17%	17%
3	14%	16%
4	11%	14%
5	13%	10%
6	9%	7%
7	7%	5%
8	4%	3%
9	4%	2%



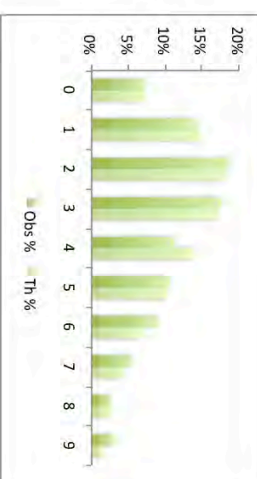
ENGC00

Obs %	Th %	MADs
0	16%	16%
1	16%	19%
2	16%	17%
3	13%	14%
4	11%	10%
5	10%	7%
6	8%	5%
7	6%	4%
8	3%	2%
9	1%	0%



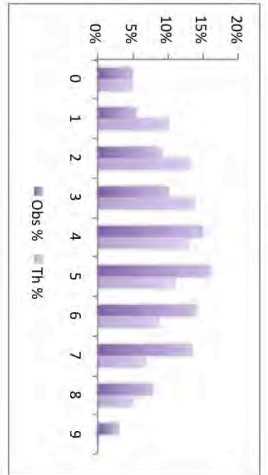
ENGC00

Obs %	Th %	MADs
0	7%	7%
1	14%	15%
2	19%	18%
3	18%	17%
4	11%	14%
5	11%	10%
6	9%	7%
7	5%	5%
8	3%	3%
9	3%	2%



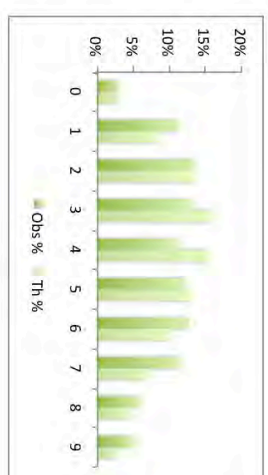
**USACCO**

Obs %	Th %	MADs
0	5%	5%
1	6%	10%
2	9%	13%
3	10%	14%
4	15%	13%
5	16%	11%
6	14%	9%
7	13%	7%
8	8%	5%
9	3%	0%



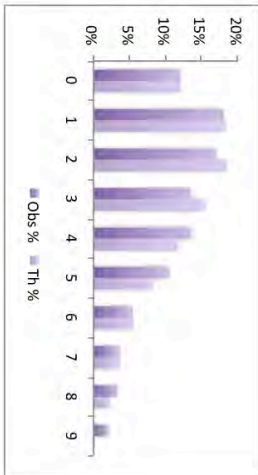
**USACCO**

Obs %	Th %	MADs
0	3%	3%
1	11%	9%
2	14%	14%
3	13%	16%
4	11%	16%
5	12%	13%
6	13%	10%
7	12%	7%
8	6%	5%
9	5%	3%



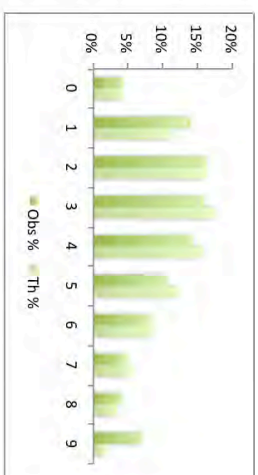
**AUSTCOO**

Obs %	Th %	MADs
0	12%	12%
1	18%	18%
2	17%	19%
3	14%	16%
4	14%	12%
5	11%	8%
6	5%	6%
7	4%	4%
8	3%	2%
9	2%	0%



**AUSCOO**

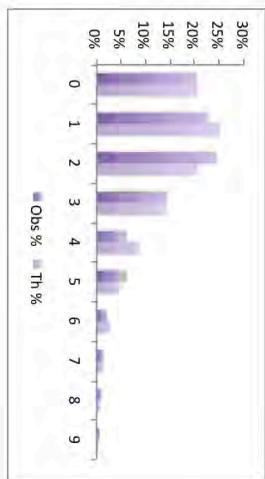
Obs %	Th %	MADs
0	4%	4%
1	14%	11%
2	16%	16%
3	16%	18%
4	14%	16%
5	11%	12%
6	8%	9%
7	5%	6%
8	4%	4%
9	7%	2%





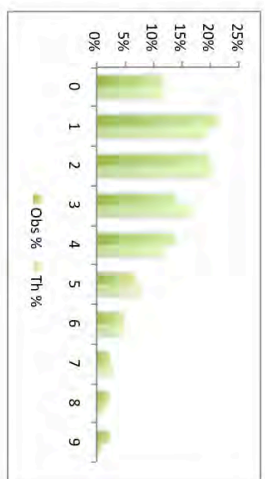
**NZCCO**

Obs %	Th %	MADs
0	21%	21%
1	23%	25%
2	24%	21%
3	14%	14%
4	6%	9%
5	6%	5%
6	2%	3%
7	1%	1%
8	1%	1%
9	1%	0%



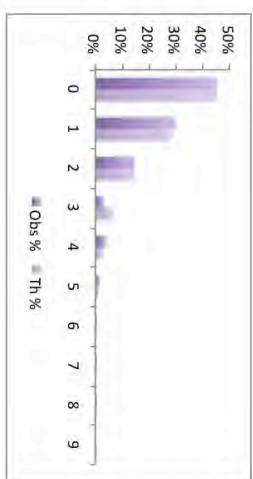
**NZCCO**

Obs %	Th %	MADs
0	12%	12%
1	21%	20%
2	20%	20%
3	14%	17%
4	14%	12%
5	7%	8%
6	5%	5%
7	3%	3%
8	2%	2%
9	3%	1%



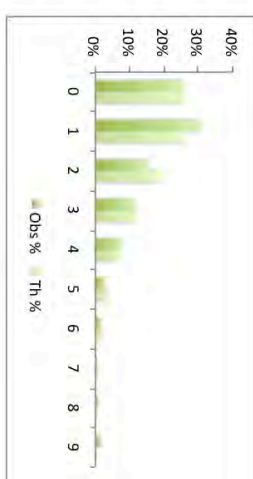
**CHICCO**

Obs %	Th %	MADs
0	45%	45%
1	30%	29%
2	15%	14%
3	3%	7%
4	4%	3%
5	1%	1%
6	2%	0%
7	0%	0%
8	0%	0%
9	0%	0%



**CHICCO**

Obs %	Th %	MADs
0	26%	26%
1	31%	27%
2	16%	19%
3	12%	12%
4	8%	7%
5	3%	4%
6	2%	2%
7	1%	1%
8	1%	1%
9	2%	0%



**NOT BEEN**  
 SB (Category) 92%  
 SW (Category) 14.0

	Sailience	OBS SB	TH SB	OBS SW	TH SB	MAD SB	MAD SW
AUSPASEAFOOD	30%	82%	78%	4.8	5.1	4%	0.3
NZPASEAFOOD	18%	65%	66%	3.5	3.4	1%	0.0
FRAPASEAFOOD	11%	53%	55%	2.7	2.7	2%	0.1
USAPASEAFOOD	10%	49%	51%	2.6	2.5	2%	0.1
SAFPASEAFOOD	8%	41%	47%	2.6	2.3	6%	0.3
UKPASEAFOOD	8%	41%	46%	2.6	2.3	5%	0.3
CHILPASEAFOOD	7%	37%	42%	2.4	2.1	5%	0.3
<b>AVER.</b>	<b>13%</b>	<b>53%</b>	<b>55%</b>	<b>3.0</b>	<b>2.9</b>	<b>3%</b>	<b>0.2</b>

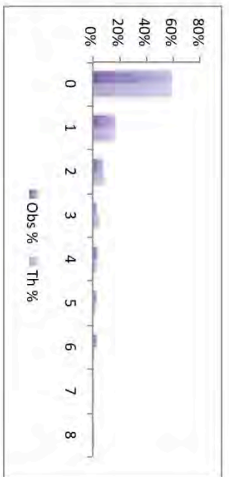
**BEEN**  
 SB (Category) 99%  
 SW (Category) 16.6

	Sailience	OBS SB	TH SB	OBS SW	TH SB	MAD SB	MAD SW
AUSPASEAFOOD	24%	91%	88%	4.3	4.5	3%	0.2
NZPASEAFOOD	16%	80%	79%	3.3	3.4	1%	0.0
FRAPASEAFOOD	14%	74%	75%	3.0	3.0	1%	0.0
USAPASEAFOOD	13%	75%	74%	2.9	2.9	1%	0.0
UKPASEAFOOD	11%	69%	72%	2.9	2.8	3%	0.1
SAFPASEAFOOD	11%	62%	67%	2.7	2.5	5%	0.2
CHILPASEAFOOD	10%	55%	62%	2.6	2.3	7%	0.3
<b>AVER.</b>	<b>14%</b>	<b>72%</b>	<b>74%</b>	<b>3.1</b>	<b>3.1</b>	<b>3%</b>	<b>0.1</b>

Not Been

SASSeafood

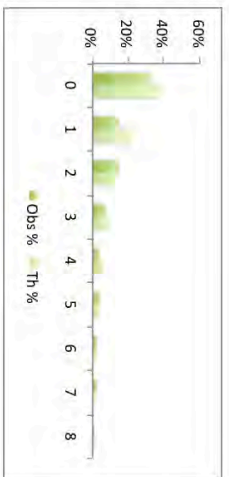
Obs %	Th %	MADS
0	59%	59%
1	17%	17%
2	8%	9%
3	3%	5%
4	4%	3%
5	3%	2%
6	3%	1%
7	1%	1%
8	1%	0%



BEEN

SASSeafood

Obs %	Th %	MADS
0	33%	38%
1	15%	22%
2	15%	14%
3	8%	9%
4	4%	6%
5	5%	4%
6	3%	3%
7	3%	2%
8	1%	1%



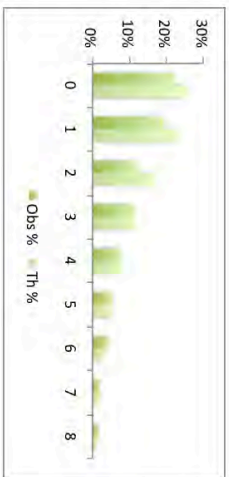
FRASeafood

Obs %	Th %	MADS
0	47%	47%
1	21%	21%
2	10%	12%
3	7%	7%
4	4%	5%
5	5%	3%
6	3%	2%
7	1%	1%
8	2%	1%



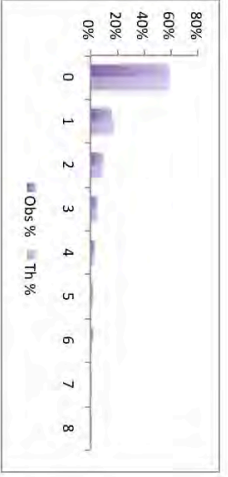
FRASeafood

Obs %	Th %	MADS
0	22%	26%
1	19%	23%
2	12%	17%
3	11%	12%
4	8%	8%
5	6%	5%
6	5%	3%
7	2%	2%
8	2%	1%



ENGSeafood

Obs %	Th %	MADS
0	59%	59%
1	16%	18%
2	10%	9%
3	5%	5%
4	4%	3%
5	2%	2%
6	1%	1%
7	1%	1%
8	1%	1%



ENGSeafood

Obs %	Th %	MADS
0	27%	31%
1	17%	24%
2	16%	16%
3	12%	11%
4	6%	7%
5	3%	4%
6	2%	3%
7	2%	2%
8	1%	1%





**USASeatfood**

Obs %	Th %	MADS
0	51%	51%
1	18%	20%
2	12%	11%
3	5%	6%
4	6%	4%
5	4%	2%
6	1%	2%
7	2%	1%
8	1%	1%



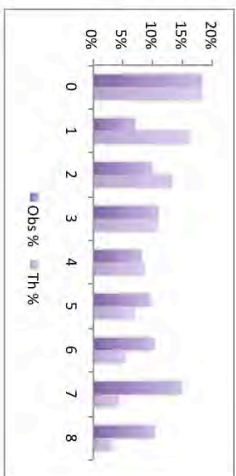
**USASeatfood**

Obs %	Th %	MADS
0	22%	25%
1	20%	24%
2	15%	18%
3	10%	12%
4	8%	8%
5	5%	5%
6	2%	3%
7	2%	2%
8	2%	1%



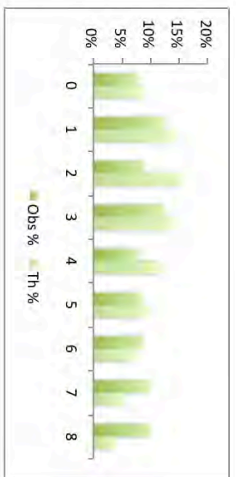
**AUSTSeafood**

Obs %	Th %	MADS
0	18%	18%
1	7%	16%
2	10%	13%
3	11%	11%
4	8%	9%
5	10%	7%
6	10%	5%
7	15%	4%
8	10%	3%



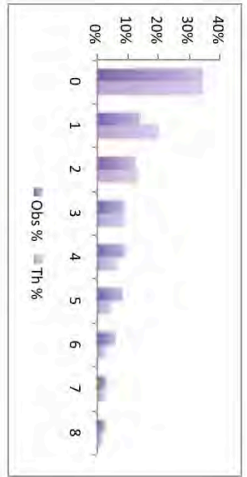
**AUSSeafood**

Obs %	Th %	MADS
0	8%	9%
1	13%	14%
2	9%	15%
3	13%	14%
4	8%	12%
5	9%	10%
6	9%	7%
7	10%	5%
8	10%	4%



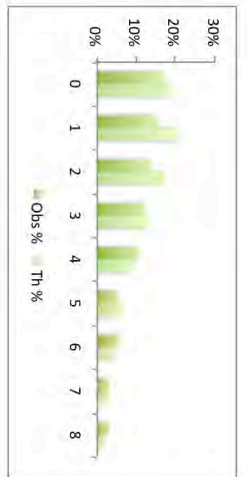
**NZSeafood**

Obs %	Th %	MADS
0	35%	35%
1	14%	20%
2	12%	13%
3	9%	9%
4	9%	6%
5	8%	5%
6	6%	3%
7	3%	2%
8	3%	2%



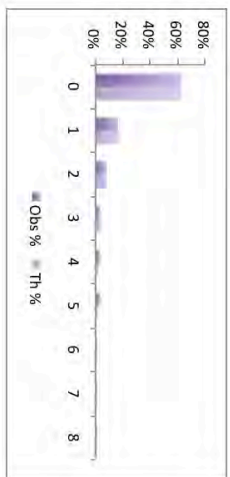
**NZSeafood**

Obs %	Th %	MADS
0	17%	20%
1	15%	21%
2	14%	17%
3	13%	13%
4	11%	9%
5	6%	7%
6	6%	4%
7	3%	3%
8	3%	2%



**CHISeafood**

Obs %	Th %	MADS
0	63%	63%
1	17%	17%
2	8%	8%
3	3%	5%
4	3%	1%
5	3%	3%
6	1%	2%
7	1%	0%
8	1%	0%



**CHISeafood**

Obs %	Th %	MADS
0	32%	45%
1	18%	22%
2	16%	13%
3	8%	8%
4	5%	5%
5	4%	3%
6	2%	2%
7	1%	1%
8	1%	1%



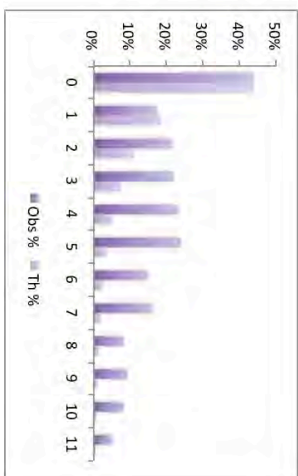
<b>BEEEN</b>									
<b>SB (Category)</b>	99.6%								
<b>SW (Category)</b>	22.8								
	<b>Sailience</b>	<b>OBS SB</b>	<b>TH SB</b>	<b>OBS SW</b>	<b>TH SB</b>	<b>MAD SB</b>	<b>MAD SW</b>		
FRAWINEPA	29%	96%	94%	6.8	7.0	2%	0.1		
AUSWINEPA	16%	82%	85%	4.5	4.4	3%	0.2		
UKWINEPA	12%	75%	78%	3.8	3.6	3%	0.1		
USAWINEPA	12%	76%	78%	3.6	3.6	2%	0.1		
NZWINEPA	11%	71%	76%	3.6	3.4	5%	0.2		
CHILWINEPA	10%	64%	73%	3.6	3.2	9%	0.4		
SAFWINEPA	8%	56%	67%	3.4	2.9	11%	0.5		
<b>AVE</b>	<b>14%</b>	<b>74%</b>	<b>79%</b>	<b>4.2</b>	<b>4.0</b>	<b>5%</b>	<b>0.2</b>		

<b>NOT BEEN</b>									
<b>SB (Category)</b>	96.9%								
<b>SW (Category)</b>	16.2								
	<b>Sailience</b>	<b>OBS SB</b>	<b>TH SB</b>	<b>OBS SW</b>	<b>TH SB</b>	<b>MAD SB</b>	<b>MAD SW</b>		
FRAWINEPA	50%	93%	92%	8.4	8.4	0%	0.0		
AUSWINEPA	14%	56%	69%	3.9	3.2	13%	0.7		
UKWINEPA	10%	48%	59%	3.1	2.6	11%	0.6		
USAWINEPA	9%	47%	55%	2.9	2.4	8%	0.4		
NZWINEPA	8%	45%	54%	2.9	2.4	9%	0.5		
CHILWINEPA	6%	33%	47%	3.1	2.2	14%	0.9		
SAFWINEPA	4%	25%	33%	2.4	1.8	8%	0.6		
<b>AVE</b>	<b>14%</b>	<b>49%</b>	<b>59%</b>	<b>3.8</b>	<b>3.3</b>	<b>9%</b>	<b>0.5</b>		

Been

SAWline

Obs %	Th %	MADS
0	44%	44%
1	17%	19%
2	22%	11%
3	22%	10%
4	23%	7%
5	24%	5%
6	15%	18%
7	16%	4%
8	8%	20%
9	9%	12%
10	8%	14%
11	5%	7%



Not Been

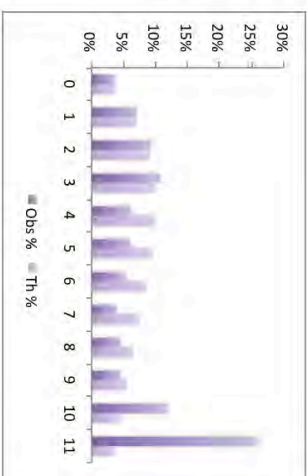
SAWline

Obs %	Th %	MADS
0	75%	75%
1	12%	12%
2	5%	5%
3	2%	3%
4	2%	2%
5	1%	1%
6	1%	1%
7	1%	0%
8	0%	0%
9	0%	0%
10	0%	0%
11	0%	0%



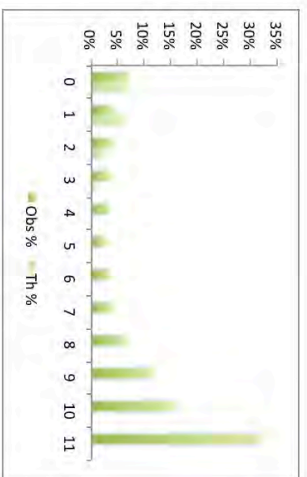
FRAWline

Obs %	Th %	MADS
0	4%	4%
1	7%	0%
2	9%	0%
3	11%	0%
4	6%	10%
5	6%	10%
6	5%	9%
7	4%	3%
8	5%	9%
9	5%	4%
10	12%	2%
11	26%	8%



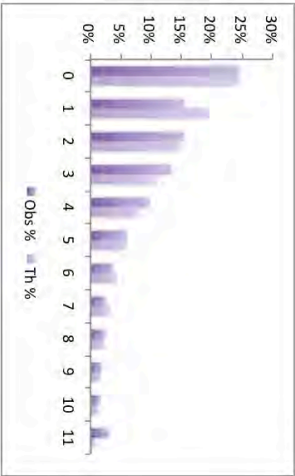
FRAWline

Obs %	Th %	MADS
0	7%	7%
1	4%	0%
2	4%	2%
3	4%	1%
4	3%	3%
5	3%	3%
6	4%	0%
7	4%	4%
8	7%	0%
9	12%	7%
10	16%	0%
11	32%	12%



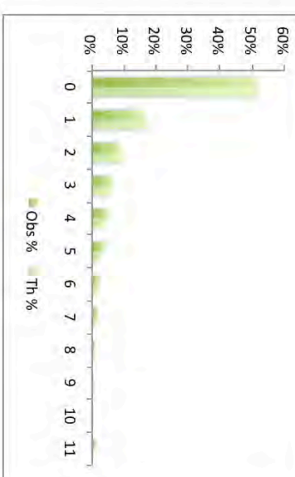
ENGWline

Obs %	Th %	MADS
0	25%	25%
1	15%	4%
2	15%	4%
3	13%	1%
4	10%	1%
5	6%	2%
6	4%	8%
7	3%	0%
8	3%	6%
9	2%	4%
10	2%	1%
11	3%	1%

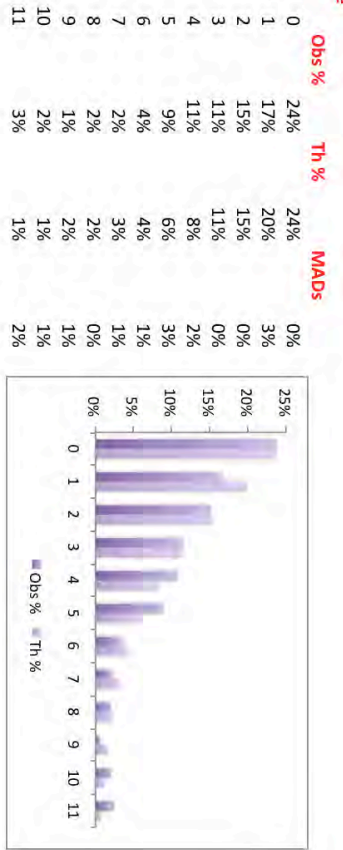


ENGWline

Obs %	Th %	MADS
0	52%	52%
1	16%	18%
2	9%	1%
3	6%	10%
4	5%	6%
5	4%	0%
6	2%	4%
7	2%	1%
8	1%	3%
9	0%	2%
10	0%	1%
11	1%	1%



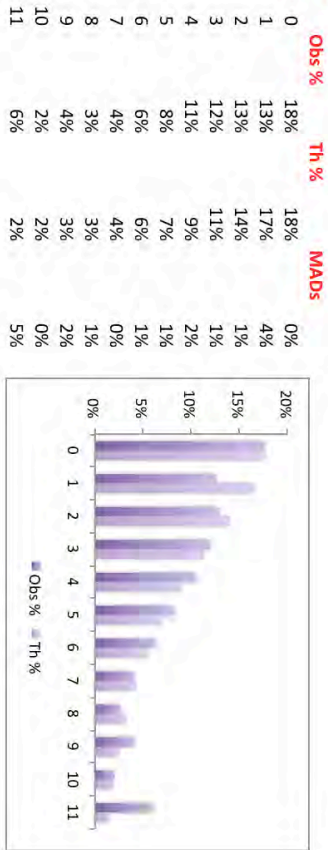
**USAWine**



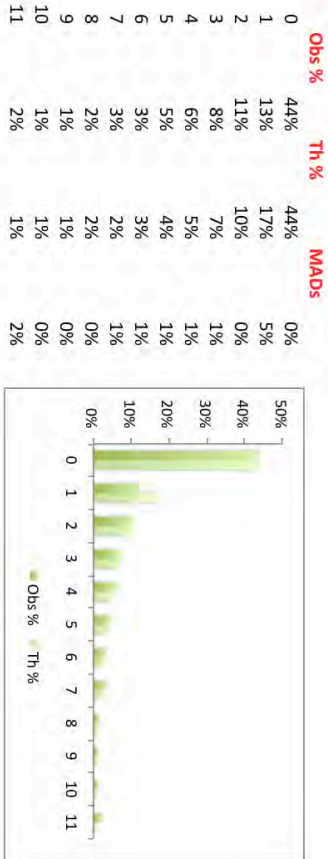
**USAWine**



**AUSWine**

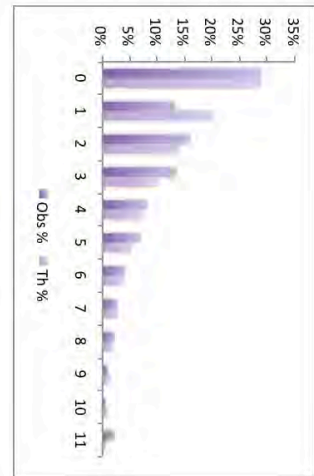


**AUSWine**



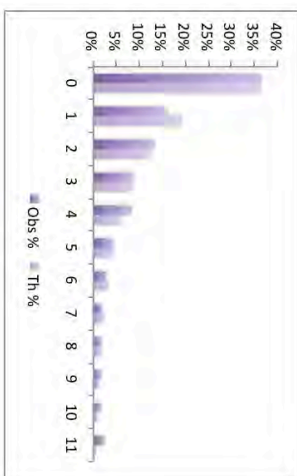
**NZWiine**

Obs %	Th %	MADS
0	29%	29%
1	13%	20%
2	16%	2%
3	14%	10%
4	8%	7%
5	7%	5%
6	4%	4%
7	3%	3%
8	2%	2%
9	1%	1%
10	1%	1%
11	2%	2%



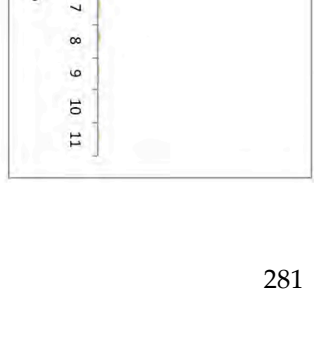
**CHIWiine**

Obs %	Th %	MADS
0	36%	36%
1	16%	19%
2	13%	12%
3	9%	9%
4	8%	6%
5	4%	4%
6	3%	3%
7	2%	2%
8	2%	2%
9	2%	1%
10	2%	1%
11	3%	1%



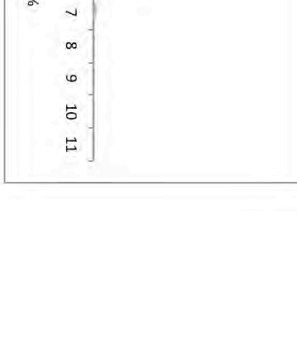
**NZWiine**

Obs %	Th %	MADS
0	55%	55%
1	15%	18%
2	11%	9%
3	7%	6%
4	4%	4%
5	2%	2%
6	1%	2%
7	1%	1%
8	1%	1%
9	1%	1%
10	0%	0%
11	1%	0%



**CHIWiine**

Obs %	Th %	MADS
0	67%	67%
1	11%	13%
2	7%	7%
3	4%	4%
4	3%	3%
5	3%	2%
6	1%	1%
7	2%	1%
8	1%	1%
9	1%	0%
10	0%	0%
11	0%	0%





## Appendix 3 – Pre-test Results

The following tables summarise results and statistical tests for the scale items. Means, standard deviations and standard errors are detailed for each item split by visitation. Independent samples t-test are performed on each result to determine where responses to the items differ significantly between groups. Asterisks denote where items are *NOT* significantly different, as the majority of items are. Each item's factor scores are listed and denoted by gamma ( $\gamma$ ). Where items fail to load onto factors above 0.5 (meaning that they contribute less than 50% of their variance to the factor) are highlighted in italics. The total percentage of variance explained collectively by the items as they relate to the factor, the Cronbachs statistic ( $\alpha$ ) and a Pearson's correlation coefficient ( $R$ ) between the factor score and the global measure are presented in the same summary table.

## Australian destination image items

N=153 (Not Been n=90, Been n=63)		Mean	SD	SE	$\gamma$
Beautiful natural scenery	NB	5.97	1.20	0.13	0.91
	B	5.90	1.10	0.14	0.80
A clean environment	NB	5.70	1.26	0.13	0.89
	B	5.89	0.94	0.12	0.86
Famous scenic attractions	NB	5.81	1.22	0.13	0.89
	B	5.86	1.22	0.15	0.84
Unique wildlife	NB	5.92	1.27	0.13	0.73
	B	5.83	1.30	0.16	0.91
Unique natural environments to explore	NB	5.87	1.27	0.13	0.89
	B	5.92	1.05	0.13	0.80
A relaxing place to visit	NB	5.89	1.16	0.12	0.92
	B	5.89	0.99	0.12	0.89
Beautiful beaches	NB	5.86	1.22	0.13	0.81
	B	6.03	1.02	0.13	0.82
Friendly local people	NB	5.50	1.26	0.13	0.76
	B	5.73	1.14	0.14	0.88
A variety of recreational activities	NB	5.34	1.33	0.14	0.76
	B	5.76	1.10	0.14	0.79
Exquisite cuisine*	NB	5.11	1.43	0.15	0.71
	B	5.73	1.11	0.14	0.80
Pleasant climate	NB	5.71	1.21	0.13	0.80
	B	6.05	1.08	0.14	0.82
Good shopping	NB	5.28	1.26	0.13	0.69
	B	5.78	0.98	0.12	0.83
Value for money holidaying	NB	5.54	1.38	0.15	0.89
	B	5.70	1.25	0.16	0.85
Unpolluted	NB	5.62	1.26	0.13	0.72
	B	5.87	1.04	0.13	0.76
Promoted as a tourist destination in China	NB	5.60	1.23	0.13	0.82
	B	5.78	1.10	0.14	0.74
Not crowded	NB	5.76	1.36	0.14	0.81
	B	5.81	1.05	0.13	0.82

\*=all items except exquisite cuisine differ statistically significantly between groups  $p > .005$

(independent samples t-test)

## Variance explained, Cronbachs $\alpha$ & factor correlation with global measure

	% Variance	$\alpha$	Corr. (R)
Not Been	68.8	0.97	0.68**
Been	70.4	0.97	0.71**

\*\* Correlation sig.  $p < .001$



### Australian country-of-origin image items

N=153 (Not Been n=90, Been n=63)		Mean	SD	SE	$\gamma$
A multicultural country	NB	5.61	1.13	0.12	0.77
	B	5.86	1.15	0.15	0.70
Technologically advanced country*	NB	5.03	1.22	0.13	0.80
	B	5.71	1.07	0.14	0.73
A rich country	NB	5.44	1.15	0.12	0.81
	B	5.79	0.97	0.12	0.81
Pollution-free	NB	5.70	1.19	0.13	0.77
	B	5.89	1.17	0.15	0.80
Provides HQ international education*	NB	5.19	1.31	0.14	0.76
	B	5.86	0.97	0.12	0.77
Rich in natural resources	NB	5.89	1.13	0.12	0.75
	B	5.87	1.20	0.15	0.69
Good government infrastructure	NB	5.51	1.11	0.12	0.86
	B	5.84	1.08	0.14	0.82
Produces high quality goods	NB	5.26	1.21	0.13	0.77
	B	5.79	1.11	0.14	0.76
A good climate	NB	5.69	1.25	0.13	0.81
	B	6.00	1.03	0.13	0.76
Active participant in international affairs*	NB	4.79	1.25	0.13	0.69
	B	5.59	1.15	0.14	0.83
A rich cultural heritage*	NB	4.93	1.32	0.14	0.65
	B	5.70	1.03	0.13	0.75

\*=all items except those asterisked differ statistically significantly between groups  $p > .005$

(independent samples t-test)

### Variance explained, Cronbachs $\alpha$ & factor correlation with global measure

	% Variance	$\alpha$	Corr. (R)
Not Been	62.9	0.94	0.73**
Been	62.5	0.94	0.74**

\*\* Correlation sig.  $p < .001$

### Australian wine image items

N=153 (Not Been n=90, Been n=63)		Mean	SD	SE	$\gamma$
Good value for money	NB	4.76	1.22	0.13	0.62
	B	5.52	1.16	0.15	0.64
Status product	NB	4.81	1.18	0.12	0.89
	B	5.67	0.98	0.12	0.84
Stylish	NB	4.97	1.16	0.12	0.86
	B	5.54	1.11	0.14	0.84
Faked/counterfeited	NB	3.80	1.74	0.18	0.51
	B	4.46	1.93	0.24	0.14
HQ wine	NB	5.10	1.11	0.12	0.87
	B	5.71	1.04	0.13	0.87
I know there are many varieties	NB	4.31	1.59	0.17	0.74
	B	5.46	1.09	0.14	0.82
Well known in China	NB	4.52	1.33	0.14	0.83
	B	5.54	1.13	0.14	0.84
Manufactured to tech. specification	NB	5.07	1.11	0.12	0.86
	B	5.71	1.04	0.13	0.91
Suitable for gift-giving	NB	5.02	1.20	0.13	0.90
	B	5.76	1.04	0.13	0.83
Safe to consume	NB	5.53	1.05	0.11	0.81
	B	5.70	1.04	0.13	0.81
Expensive	NB	4.68	1.27	0.13	0.82
	B	5.24	1.25	0.16	0.78
A luxury	NB	4.44	1.37	0.14	0.83
	B	5.40	1.14	0.14	0.72
Uncontaminated	NB	5.34	1.09	0.12	0.79
	B	5.81	1.09	0.14	0.82

\*=all items except those asterisked differ statistically significantly between groups  $p > .005$

(independent samples t-test)

### Variance explained, Cronbachs $\alpha$ & factor correlation with global measure

	% Variance	$\alpha$	Corr. (R)
Not Been	66.6	0.95	0.72**
Been	63.6	0.93	0.70**

\*\* Correlation sig.  $p < .001$

### Australian seafood image scale items

N=153 (Not Been n=90, Been n=63)		Mean	SD	SE	$\gamma$
Fresh	NB	5.63	1.10	0.12	0.91
	B	5.84	1.05	0.13	0.85
Large	NB	5.57	1.07	0.11	0.85
	B	5.86	0.97	0.12	0.81
Expensive	NB	5.11	1.14	0.12	0.50
	B	5.46	1.01	0.13	0.46
Taste's delicious	NB	5.60	1.06	0.11	0.89
	B	5.83	1.09	0.14	0.91
Uncontaminated	NB	5.53	1.11	0.12	0.80
	B	5.76	0.98	0.12	0.77
Wild-caught	NB	5.13	1.16	0.12	0.72
	B	5.79	1.08	0.14	0.85
Suitable as a gift	NB	5.50	1.05	0.11	0.82
	B	5.84	0.97	0.12	0.79
Suitable for daily consumption	NB	4.88	1.36	0.14	0.61
	B	5.76	1.01	0.13	0.53
High-quality	NB	5.47	1.06	0.11	0.80
	B	5.95	0.92	0.12	0.84
Value for money	NB	5.23	1.19	0.13	0.76
	B	5.73	1.05	0.13	0.81
A status product (rich people buy it)	NB	4.91	1.33	0.14	0.57
	B	5.62	1.05	0.13	0.63
Safe to eat	NB	5.66	1.04	0.11	0.90
	B	5.87	1.04	0.13	0.84
Not farmed	NB	4.94	1.16	0.12	0.67
	B	5.57	1.07	0.14	0.66

\*=all items except those asterisked differ statistically significantly between groups  $p > .005$

(independent samples t-test)

### Variance explained, Cronbachs $\alpha$ & factor correlation with global measure

	% Variance	$\alpha$	Corr. (R)
Not Been	61.7	0.94	0.83
Been	60.9	0.94	0.72

\*\* Correlation sig.  $p < .001$



## Wine image attributes - full sample

N=153	FRA	AUS	Chile	UK	USA	None	SA	Chile	Total
Suitable for collecting	115	66	42	46	41	37	21	1	369
Varieties of wine I know	112	53	24	24	26	23	18	4	284
Can be given as a gift	112	55	31	21	22	21	16	1	279
Using proper techniques	109	50	30	21	25	31	12	2	280
Red wine	109	55	37	27	27	24	22	3	304
Luxury wine	106	24	17	25	23	15	13	6	229
White wine	105	60	35	33	26	26	18	4	307
Stylish wine	104	56	29	30	24	18	15	9	285
Expensive wine	103	30	18	23	22	17	9	5	227
Status product	103	34	27	27	26	23	14	4	258
Is safe to drink wine	103	58	32	37	36	35	21	7	329
High quality grape wine	94	60	25	22	27	31	20	11	290
Unpolluted wine	85	54	32	29	20	23	12	19	274
Brands of wine I know	74	56	40	19	25	23	19	27	283
Often fake wine	43	27	13	17	12	11	14	65	202
Inexpensive wine	37	44	38	28	23	27	24	30	251
Wine you can buy in China	32	26	35	29	35	34	42	28	261
Difficult to buy in China	27	22	25	18	19	23	31	46	211
<b>Total Associations</b>	<b>1573</b>	<b>830</b>	<b>530</b>	<b>476</b>	<b>459</b>	<b>442</b>	<b>341</b>	<b>272</b>	<b>4923</b>
<b>% of total associations</b>	<b>32.0</b>	<b>16.9</b>	<b>10.8</b>	<b>9.7</b>	<b>9.3</b>	<b>9.0</b>	<b>6.9</b>	<b>5.5</b>	<b>100</b>
<b>% of possible associations</b>	<b>57.1</b>	<b>30.1</b>	<b>19.2</b>	<b>17.3</b>	<b>16.7</b>	<b>16.0</b>	<b>12.4</b>	<b>9.9</b>	<b>22.3</b>
<b>Frequency of Association</b>									

### Australian only wine pick-any % - not been and been subsample split

N=153	NB	B	+/-	<i>p</i>
Suitable for collecting	53.5	48.3	-5.2	
Varieties of wine I know	40.8	41.4	0.6	
Can be given as a gift	40.8	44.8	4.0	
Using proper techniques	32.4	46.6	14.2	
Red wine	40.8	44.8	4.0	
Luxury wine	14.1	24.1	10.0	
White wine	43.7	50.0	6.3	
Stylish wine	45.1	44.8	-0.3	
Expensive wine	35.2	32.8	-2.4	
Status product	11.3	37.9	26.6	
Is safe to drink wine	9.9	25.9	16.0	
High quality grape wine	46.5	46.6	0.1	
Unpolluted wine	39.4	44.8	5.4	
Brands of wine I know	35.2	53.4	18.2	
Often fake wine	14.1	29.3	15.2	
Inexpensive wine	32.4	46.6	14.2	
Wine you can buy in China	9.9	32.8	22.9	
Difficult to buy in China	28.2	24.1	-4.1	
<b>Average</b>	<b>31.9</b>	<b>39.9</b>	<b>8.1</b>	
<b>Frequency of Association</b>				

## Destination image attributes – full sample

N=153	AUS	FRA	USA	NZ	ENG	SA	Chile	None	Total
Natural scenic beauty	103	52	38	74	39	55	31	2	392
Beautiful beaches and seaside	99	35	54	62	30	25	39	4	344
A holiday destination	98	86	53	77	61	56	32	4	463
Value for money for holidaying	97	59	40	60	36	30	37	7	359
Promoted in China	94	60	67	63	42	32	21	9	379
Unique wildlife	93	21	26	43	22	87	25	2	317
Pleasant climate	90	42	33	72	27	19	26	8	309
Famous attractions	86	70	48	71	46	36	30	4	387
Friendly people	81	39	41	62	34	29	37	12	323
An exciting place to visit	75	56	51	45	40	36	33	9	336
Activities & holiday entertainment	71	58	75	54	41	33	37	5	369
Multicultural	56	44	102	40	29	36	17	3	324
Interesting cultural heritage	52	74	22	28	51	45	45	9	317
Good shopping	50	85	95	33	49	13	20	7	345
Fine cuisine	39	100	34	22	44	14	13	10	266
International sporting events	37	40	81	17	72	66	15	6	328
<b>Total Associations</b>	<b>1221</b>	<b>921</b>	<b>860</b>	<b>823</b>	<b>663</b>	<b>612</b>	<b>458</b>	<b>101</b>	<b>5558</b>
<b>% of total associations</b>	<b>22.0</b>	<b>16.6</b>	<b>15.5</b>	<b>14.8</b>	<b>11.9</b>	<b>11.0</b>	<b>8.2</b>	<b>1.8</b>	<b>100</b>
<b>% of possible associations</b>	<b>49.9</b>	<b>37.6</b>	<b>35.1</b>	<b>33.6</b>	<b>27.1</b>	<b>25.0</b>	<b>18.7</b>	<b>4.1</b>	<b>28.4</b>
<b>Frequency of Association</b>	<b>8.0</b>	<b>6.0</b>	<b>5.6</b>	<b>5.4</b>	<b>4.3</b>	<b>4.0</b>	<b>3.0</b>	<b>0.7</b>	<b>4.5</b>

## Australian only DI pick-any % - not been and been subsample split

N=153	NB	B	+/-	<i>p</i>
Natural scenic beauty	76.7	55.7	-21.0	
Beautiful beaches and seaside	71.1	57.4	-13.7	
A holiday destination	67.8	60.7	-7.1	
Value for money for holidaying	63.3	65.6	2.3	
Promoted in China	62.2	62.3	0.1	
Unique wildlife	65.6	55.7	-9.9	
Pleasant climate	61.1	57.4	-3.7	
Famous attractions	54.4	60.7	6.3	
Friendly people	50.0	59.0	9.0	
An exciting place to visit	47.8	52.5	4.7	
Activities & holiday entertainment	38.9	59.0	20.1	
Multicultural	31.1	45.9	14.8	
Interesting cultural heritage	24.4	49.2	24.8	
Good shopping	23.3	47.5	24.2	
Fine cuisine	16.7	39.3	22.6	
International sporting events	21.1	29.5	8.4	
<b>Average</b>	<b>48.5</b>	<b>53.6</b>	<b>5.1</b>	
<b>Frequency of Associations</b>				



### COO image attributes - full sample

N=153	USA	AUS	FRA	UK	NZ	SA	Chile	None	Total
Are technically advanced	121	36	69	60	23	12	23	0	344
Participates positively in int. Affairs	108	42	77	63	26	15	20	4	355
Good government infrastructure	92	80	71	61	53	12	19	5	393
Are wealthy	90	69	71	63	52	24	20	7	396
Is renowned for quality education	88	60	46	77	36	7	14	2	330
Produces high quality products	78	51	80	64	43	17	18	5	356
Good trading partner with China	60	76	50	50	44	49	27	13	369
Has a polluted environment	53	20	23	28	18	41	26	35	244
Is rich in natural resources	47	96	24	25	58	74	45	1	370
Good value for money products	37	17	33	23	22	28	24	47	231
Has unpolluted environment	26	81	33	30	79	24	24	12	309
Produces poor quality products	16	21	11	14	15	54	26	0	157
<b>Total Associations</b>	<b>816</b>	<b>649</b>	<b>588</b>	<b>558</b>	<b>469</b>	<b>357</b>	<b>286</b>	<b>131</b>	<b>3854</b>
<b>% of total associations</b>	<b>21.2</b>	<b>16.8</b>	<b>15.3</b>	<b>14.5</b>	<b>12.2</b>	<b>9.3</b>	<b>7.4</b>	<b>3.4</b>	<b>100</b>
<b>% of possible associations</b>	<b>44.4</b>	<b>35.3</b>	<b>32.0</b>	<b>30.4</b>	<b>25.5</b>	<b>19.4</b>	<b>15.6</b>	<b>7.1</b>	<b>26.2</b>
<b>Frequency of Association</b>	<b>5.3</b>	<b>4.2</b>	<b>3.8</b>	<b>3.6</b>	<b>3.1</b>	<b>2.3</b>	<b>1.9</b>	<b>0.9</b>	<b>3.1</b>

### Australian only COO pick-any % - not been and been subsample split

N=153	NB	B	+/-	<i>p</i>
Are technically advanced	20.5	31.7	11.2	
Participates positively int. Affairs	30.1	28.3	-1.8	
Good government infrastructure	63.9	45.0	-18.9	
Are wealthy	42.2	56.7	14.5	
Is renowned for quality education	41.0	43.3	2.3	
Produces high quality products	33.7	38.3	4.6	
Good trading partner with China	53.0	53.3	0.3	
Has a polluted environment	9.6	20.0	10.4	
Is rich in natural resources	75.9	55.0	-20.9	
Good value for money products	8.4	16.7	8.3	
Has unpolluted environment	63.9	46.7	-17.2	
Produces poor quality products	7.2	25.0	17.8	
<b>Average</b>	<b>37.5</b>	<b>38.3</b>	<b>0.9</b>	
<b>Frequency of Association</b>				

### Seafood image attributes - full sample

N=153	AUS	NZ	FRA	UK	USA	None	SA	Chile	Total
Seafood that safe to eat	96	61	37	33	35	14	19	23	318
Lobster	95	53	31	18	32	8	18	23	278
Fresh seafood	88	68	31	25	33	12	21	24	302
Abalone	88	40	19	22	27	16	27	20	259
Wild caught seafood	87	62	25	21	24	17	30	27	293
Seafood that can be given as a gift	86	50	23	27	32	16	16	21	271
Unpolluted seafood	85	65	20	19	15	25	20	14	263
Seafood that is large in size	83	44	23	25	24	19	21	15	254
Seafood you can buy in China	79	39	17	22	33	28	14	13	245
Oysters	70	42	37	23	31	21	17	23	264
Good value for money seafood	69	53	18	21	18	24	27	23	253
Salmon	61	37	28	21	41	27	19	14	248
Frozen seafood	58	46	28	27	44	22	29	27	281
Expensive seafood	49	32	51	45	41	21	18	21	278
Seafood that conveys high status	43	26	52	29	26	29	16	16	237
Seafood that is farmed	38	32	29	25	40	37	21	23	245
<b>Total Associations</b>	<b>1175</b>	<b>750</b>	<b>469</b>	<b>403</b>	<b>496</b>	<b>336</b>	<b>333</b>	<b>327</b>	<b>4289</b>
<b>% of total associations</b>	<b>27.4</b>	<b>17.5</b>	<b>10.9</b>	<b>9.4</b>	<b>11.6</b>	<b>7.8</b>	<b>7.8</b>	<b>7.6</b>	<b>100</b>
<b>% of possible associations</b>	<b>51.2</b>	<b>32.7</b>	<b>20.4</b>	<b>17.6</b>	<b>21.6</b>	<b>14.6</b>	<b>14.5</b>	<b>14.2</b>	<b>23.4</b>
<b>Frequency of Association</b>									

### Australian only seafood pick-any % - not been and been subsample split

N=153	NB	B	+/-	<i>p</i>
Seafood that safe to eat	69.4	61.7	-7.7	
Lobster	70.6	58.3	-12.3	
Fresh seafood	70.6	46.7	-23.9	
Abalone	61.2	60.0	-1.2	
Wild caught seafood	63.5	55.0	-8.5	
Seafood that can be given as a gift	65.9	50.0	-15.9	
Unpolluted seafood	60.0	56.7	-3.3	
Seafood that is large in size	58.8	55.0	-3.8	
Seafood you can buy in China	60.0	46.7	-13.3	
Oysters	42.4	56.7	14.3	
Good value for money seafood	47.1	48.3	1.2	
Salmon	40.0	45.0	5.0	
Frozen seafood	42.4	36.7	-5.7	
Expensive seafood	36.5	30.0	-6.5	
Seafood that conveys high status	29.4	30.0	0.6	
Seafood that is farmed	24.7	28.3	3.6	
<b>Average</b>	<b>52.7</b>	<b>47.8</b>	<b>-4.8</b>	
<b>Frequency of Association</b>				



### Wine - not been and been subsample split

	Not been		Been	
	$\beta$	$p$	$\beta$	$p$
<b>Price</b>				
200 RMB	0.10	<0.000	-0.08	<0.000
400 RMB	0.15		-0.04	
600 RMB	0.04		0.10	
800 RMB*	-0.21		0.02	
<b>Country of Origin</b>				
Australia	0.21	<0.000	0.14	<0.000
France	0.26		0.28	
Chile	0.01		-0.12	
China	-0.48		-0.29	

**Notes for model:** NB=90; number of observations= 720; log likelihood function=-966.8  
 B=63; number of observations= 504; log likelihood function=-695.6

### Seafood - not been and been subsample split

	Not Been		Been	
	$\beta$	$p$	$\beta$	$p$
<b>Species</b>				
Lobster	0.27	<0.000	0.08	<0.000
Abalone	-0.27		-0.08	
<b>Price</b>				
300 RMB	0.44	<0.000	0.17	<0.000
500 RMB	0.11		-0.04	
700 RMB	-0.35		-0.02	
900 RMB	-0.20		-0.11	
<b>Country of Origin</b>				
USA	0.33	<0.000	0.36	<0.000
Australia	0.25		-0.04	
China	-0.68		-0.15	
South Africa*	0.10		-0.17	
<b>Wild or Farmed</b>				
Farmed	-0.43	<0.000	-0.28	<0.000
Wild Caught	0.43		0.28	

**Notes for model:** NB=90; number of observations= 720; log likelihood= -905.9  
 B=63; number of observations=504; log likelihood=-669.2

### Log likelihood ratio (LLR) tests - not been and been subsample split

Model	Null (aggregated)		Alternate (NB+B)		LLR Test		
	LL	# Par	LL	# Par	$X^2$	$df$	$p$
Wine	-1669.5	6	-1662.4	12	14.2	8	<0.05
Seafood	-1602.2	8	-1575.1	16	54.2	8	<0.001

In the tables that follow, the aggregate data for the pick-any counts for all countries are presented. The percentage of total associations for the image category is presented to assess the competition for associations out of the total pool (the total number of associations captured across all respondents). The percentage of possible associations for each country is presented – the number of associations in each battery multiplied by the number of respondents. The frequency of associations is given to establish, on average how many associations are given to a country. Following the summary statistics for all countries, which validates the overall method for measuring salience, the split sample comparison is presented. Here a non-parametric mean difference test is used to establish if there are statistically significant different responses for visitors and non-visitors when associating attributes with Australia. A non parametric has to be used as count data is non-normally distributed, generally Poisson, which means it is skew.

# Appendix 4 – Full Survey Instrument

## Participant Consent

这个问卷是一个博士学位研究的一部分。

- 我了解并同意参加。
- 我了解也许我不能从这个研究结果中直接获益。
- 我了解我可以在任何阶段退出这项研究，我的现在和将来的状态不会因此受到影响。
- 我确认我已满18岁。
- 我了解通过这项研究获得的信息也许会发表，但是我的个人信息和结果将会保密。

如果同意参与，请点击下一页  
感谢您的参与

如果您需要更多的信息，请联系：  
michelle@thepanelstation.com

## Demographics

性别

- 男
- 女

您来自中国的哪个省份？

- 广东省
- 福建
- 海南
- 辽宁
- 河北
- 天津
- 山东
- 江苏
- 上海
- 浙江
- 福建
- 广西
- 北京
- 

你的年龄多大？

- 18 - 25
- 26 - 30
- 31 - 35
- 36 - 40
- 41 - 45
- 46 - 50
- 51 - 55
- 56+

您从事哪个行业？

你每月大概的收入范围？

- ¥0 - ¥999
- ¥1000 - ¥1999
- ¥2000 - ¥3499
- ¥3500 - ¥4999
- ¥5000 - ¥6499
- ¥6500 - ¥7999
- ¥8000 +

## Pick Any Section - Tourism

考虑以下的选项清单。从每一行，选择你认为与这些属性或选项有关的所有国家。  
(必须一行一行的回答，您的回答才会被接受。)

	南非	法国	英格兰	美国	澳大利亚	新西兰	智利	以上皆非
旅游胜地	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
美丽的自然风光	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
著名的风景区	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
独一无二的野生生物	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
多元文化	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
宜人的气候	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
拥有美丽的海滩	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
拥有良好的购物场所	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
物有所值的度假胜地	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
一个激动人心的访地	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

考虑以下的选项清单。从每一行，选择你认为与这些属性或选项有关的所有国家。  
(必须一行一行的回答，您的回答才会被接受。)

	南非	法国	英格兰	美国	澳大利亚	新西兰	智利	以上皆非
国际体育活动	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
一个安全的地方	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
精美的菜肴	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
一个令人放松的地方	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
有意思的文化遗产	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
拥有整洁的环境	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
有多种娱乐和假日活动	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
可以领略独特的自然风光	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
在中国有推广	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
乐于接受外来者和不同的文化	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
友善的居民	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Tourism Familiarity**

我曾经到过澳洲旅游

从来没去过     
  1次     
  2次     
  3次     
  4次     
  5次或更多

多久以前你最后一次去的？

在过去三个月     
  6个月     
  12个月     
  超过12个月

您是否有打算在未来一年到澳洲旅游？

- 是
- 否
- 不确定

我曾经到过美国旅游

从来没去过     
  1次     
  2次     
  3次     
  4次     
  5次或更多

多久以前你最后一次去的？

在过去三个月     
  6个月     
  12个月     
  超过12个月

您是否有打算在未来一年到美国旅游？

- 是
- 否
- 不确定

我曾经到过智利旅游

从来没去过     
  1次     
  2次     
  3次     
  4次     
  5次或更多

多久以前你最后一次去的？

在过去三个月     
  6个月     
  12个月     
  超过12个月

您是否有打算在未来一年到智利旅游？

- 是
- 否
- 不确定

我曾经到过法国旅游

从来没去过     
  1次     
  2次     
  3次     
  4次     
  5次或更多

多久以前你最后一次去的？

在过去三个月     
  6个月     
  12个月     
  超过12个月

您是否有打算在未来一年到法国旅游？

- 是
- 否
- 不确定

我曾经到过南非旅游

从来没去过     
  1次     
  2次     
  3次     
  4次     
  5次或更多

多久以前你最后一次去的？

在过去三个月     
  6个月     
  12个月     
  超过12个月

您是否有打算在未来一年到南非旅游？

- 是
- 否
- 不确定

COO Pick Any

考虑以下的选项清单。从每一行，选择你认为与这些属性或选项有关的所有国家。  
(必须一行一行的回答，您的回答才会被接受。)

	南非	法国	英格兰	美国	澳大利亚	新西兰	智利	以上皆非
是富有的	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
具有良好的政府基础设施	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
因提供高质量的教育闻名	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
自然资源丰富	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
污染了环境	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
无污染的环境	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
是技术先进的国家	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
生产低品质的商品	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
生产高品质的商品	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
生产的商品不是物有所值	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
和中国是良好的贸易伙伴	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
积极的参与国际事务	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

考虑以下的选项清单。从每一行，选择你认为与这些属性或选项有关的所有国家。  
(必须一行一行的回答，您的回答才会被接受。)

	南非	法国	英格兰	美国	澳大利亚	新西兰	智利	以上皆非
富有的人	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
值得信任的人	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
懂得尊重他人的人	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
和平的人	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
爱护环境的人	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
人们工作很努力	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
当制造或生产产品时,注重细节的人	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
人们生活没有压力	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Wine Specific Pick Any

考虑以下的选项清单。从每一行，选择你认为与这些属性或选项有关的所有国家。  
(必须一行一行的回答，您的回答才会被接受。)

	南非	法国	英格兰	美国	澳大利亚	新西兰	智利	以上皆非
在中国可以买到该国的葡萄酒	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
红葡萄酒	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
葡萄酒适合收藏	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
我知道不同葡萄酒的种类	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
没有被污染的葡萄酒	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
是在很高的生产工艺下制造的	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
高品质的葡萄酒	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
可以作为礼品的葡萄酒	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
我知道不同葡萄酒的品牌	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

考虑以下的选项清单。从每一行，选择你认为与这些属性或选项有关的所有国家。  
(必须一行一行的回答，您的回答才会被接受。)

	南非	法国	英格兰	美国	澳大利亚	新西兰	智利	以上皆非
在中国很难买到的葡萄酒	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
是可以放心饮用的葡萄酒	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
昂贵的葡萄酒	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
意味着高档次的葡萄酒	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
白葡萄酒	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
奢侈品的葡萄酒	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
物美价廉的葡萄酒	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
时尚的葡萄酒	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
经常有假葡萄酒	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Wine DCE 1/1

如果你在餐厅订购一瓶红葡萄酒，您有以下选项，你会选择哪一个？



在现实生活中你会购买任何的这些选择吗？

- 是
- 否

Wine DCE 1/2

如果你在餐厅订购一个红色的葡萄酒，您有以下选项，你会选择哪一个？



在现实生活中你会购买任何的这些选择吗？

- 是
- 否

Wine DCE 1/3

如果你在餐厅订购一个红色的葡萄酒，您有以下选项，你会选择哪一个？



在现实生活中你会购买任何的这些选择吗？

- 是
- 否

Wine DCE 1/4

如果你在餐厅订购一个红色的葡萄酒，您有以下选项，你会选择哪一个？



在现实生活中你会购买任何的这些选择吗？

- 是
- 否

Wine DCE 1/5



如果你在餐厅订购一个红色的葡萄酒，您有以下选项，你会选择哪一个？



在现实生活中你会购买任何的这些选择吗？

- 是
- 否

Wine DCE 1/6

如果你在餐厅订购一个红色的葡萄酒，您有以下选项，你会选择哪一个？



在现实生活中你会购买任何的这些选择吗？

- 是
- 否

Wine DCE 1/7



如果你在餐厅订购一个红色的葡萄酒，您有以下选项，你会选择哪一个？



在现实生活中你会购买任何的这些选择吗？

- 是
- 否

Wine DCE 1/8

如果你在餐厅订购一个红色的葡萄酒，您有以下选项，你会选择哪一个？



在现实生活中你会购买任何的这些选择吗？

- 是
- 否

Wine Familiarity

您买葡萄酒吗？

- 是
- 否

多久以前你最后一次购买？

- 在过去三个月
- 6个月
- 12个月
- 超过12个月

您曾经买过澳大利亚葡萄酒吗？

- 是
- 否

多久以前你最后一次购买？

- 在过去三个月
- 6个月
- 12个月
- 超过12个月

您曾经买过智利葡萄酒吗？

- 是
- 否

多久以前你最后一次购买？

- 在过去三个月
- 6个月
- 12个月
- 超过12个月

您曾经买过法国葡萄酒吗？

- 是
- 否

多久以前你最后一次购买？

- 在过去三个月
- 6个月
- 12个月
- 超过12个月

**Seafood Specific Pick Any**

考虑以下的选项清单。从每一行，选择你认为与这些属性或选项有关的所有国家。  
(必须一行一行的回答，您的回答才会被接受。)

	南非	法国	英格兰	美国	澳大利亚	新西兰	智利	以上皆非
可以作为礼物的海鲜	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
可以放心食用的海鲜	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
物美价廉的海鲜	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
可以在中国买到该国的海鲜	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
龙虾	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
野外捕获的海鲜	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
新鲜海鲜	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
没有被污染的海鲜	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
鲍鱼	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

考虑以下的选项清单。从每一行，选择你认为与这些属性或选项有关的所有国家。  
(必须一行一行的回答，您的回答才会被接受。)

	南非	法国	英格兰	美国	澳大利亚	新西兰	智利	以上皆非
海鲜的个头大	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
冰冻海鲜	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
三文鱼	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
生蚝	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
海鲜代表着高社会地位	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
海鲜很难在中国买到	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
昂贵的海鲜	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
海鲜是人工养殖的	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ab/Lobster DCE 0/1

如果你在餐厅订购，您有以下选项，你会选择哪一个？

Lobster 700 Australia Farmed

人工养殖澳大利亚的龙虾



Abalone 500 South Africa Wild

南非野外捕获的红烧鲍鱼产品



Abalone 300 China Wild

中国野外捕获的红烧鲍鱼产品



Lobster 900 US Farmed

美国人工养殖龙虾产品



在现实生活中你会购买任何的这些选择吗？

- 是
- 否

Ab/Lobster DCE 0/2

如果你在餐厅订购，您有以下选项，你会选择哪一个？

Lobster 900 China Farmed

中国人工养殖龙虾产品



Abalone 500 US Farmed

美国红烧鲍鱼,人工养殖产品



Lobster 300 South Africa Wild

南非野外捕获的龙虾产品



Abalone 700 Australia Wild

澳大利亚的野外捕获的红烧鲍鱼产品



在现实生活中你会购买任何的这些选择吗？

- 是
- 否

Ab/Lobster DCE 0/3



如果你在餐厅订购，您有以下选项，你会选择哪一个？

Lobster 500 US Farmed

**美国人工养殖龙虾产品**



¥500  
每份

Abalone 300 China Wild

**中国野外捕获的红烧鲍鱼产品**



¥300  
每份

Lobster 900 South Africa Farmed

**南非人工养殖龙虾产品**



¥900  
每份

Abalone 700 Australia Wild

**澳大利亚的野外捕获的红烧鲍鱼产品**



¥700  
每份

在现实生活中你会购买任何的这些选择吗？

- 是
- 否

Ab/Lobster DCE 0/4

如果你在餐厅订购，您有以下选项，你会选择哪一个？

Abalone 700 US Wild

**美国野外捕获的红烧鲍鱼产品**



¥700  
每份

Abalone 300 China Wild

**中国野外捕获的红烧鲍鱼产品**



¥300  
每份

Lobster 500 South Africa Farmed

**南非人工养殖龙虾产品**



¥500  
每份

Lobster 900 Australia Farmed

**人工养殖澳大利亚的龙虾**



¥900  
每份

在现实生活中你会购买任何的这些选择吗？

- 是
- 否



Ab/Lobster DCE 0/5

如果你在餐厅订购，您有以下选项，你会选择哪一个？

Lobster 700 US Farmed

美国人工养殖龙虾产品



Abalone 900 South Africa Wild

南非野外捕获的红烧鲍鱼产品



Abalone 300 China Wild

中国野外捕获的红烧鲍鱼产品



Lobster 500 Australia Farmed

人工养殖澳大利亚的龙虾



在现实生活中你会购买任何的这些选择吗？

- 是
- 否

Ab/Lobster DCE 0/6

如果你在餐厅订购，您有以下选项，你会选择哪一个？

Abalone 900 Australia Farmed

澳大利亚红烧鲍鱼,人工养殖产品



Lobster 500 China Farmed

中国人工养殖龙虾产品



Lobster 300 South Africa Wild

南非野外捕获的龙虾产品



Abalone 700 US Wild

美国野外捕获的红烧鲍鱼产品



在现实生活中你会购买任何的这些选择吗？

- 是
- 否



Ab/Lobster DCE 0/7

如果你在餐厅订购，您有以下选项，你会选择哪一个？

Abalone 500 Australia Wild

澳大利亚的野外捕获的**红烧鲍鱼**产品



¥500  
每份

Lobster 300 South Africa Farmed

南非人工养殖**龙虾**产品



¥300  
每份

Lobster 700 US Wild

野外捕获的**美国龙虾**产品



¥700  
每份

Abalone 900 China Farmed

中国**红烧鲍鱼**,人工养殖产品



¥900  
每份

在现实生活中你会购买任何的这些选择吗？

- 是
- 否

Ab/Lobster DCE 0/8

如果你在餐厅订购，您有以下选项，你会选择哪一个？

Abalone 500 China Farmed

中国**红烧鲍鱼**,人工养殖产品



¥500  
每份

Lobster 700 Australia Wild

澳大利亚野外捕获的**龙虾**



¥700  
每份

Lobster 300 South Africa Farmed

南非人工养殖**龙虾**产品



¥300  
每份

Abalone 900 US Wild

美国野外捕获的**红烧鲍鱼**产品



¥900  
每份

在现实生活中你会购买任何的这些选择吗？

- 是
- 否

**Seafood Familiarity**

您买海鲜吗？

- 是
- 否

多久以前你最后一次购买？

- 在过去三个月
- 6个月
- 12个月
- 超过12个月

您曾经买过澳大利亚海鲜吗？

- 是
- 否

多久以前你最后一次购买？

- 在过去三个月
- 6个月
- 12个月
- 超过12个月

您曾经买过澳大利亚鲍鱼吗？如果买过，多久以前你最后一次购买？

- 从未
- 在过去三个月
- 6个月
- 12个月
- 超过12个月

您曾经买过澳大利亚龙虾吗？如果买过，多久以前你最后一次购买？

- 从未
- 在过去三个月
- 6个月
- 12个月
- 超过12个月

您曾经买过南非海鲜吗？

- 是
- 否

您曾经买过南非鲍鱼吗？如果买过，多久以前你最后一次购买？

- 从未
- 在过去三个月
- 6个月
- 12个月
- 超过12个月

您曾经买过南非龙虾吗？如果买过，多久以前你最后一次购买？

- 从未
- 在过去三个月
- 6个月
- 12个月
- 超过12个月

您曾经买过美国海鲜吗？

- 是
- 否

您曾经买过美国鲍鱼吗？多久以前你最后一次购买？

- 从未
- 在过去三个月
- 6个月
- 12个月
- 超过12个月

您曾经买过美国龙虾吗？多久以前你最后一次购买？

- 从未
- 在过去三个月
- 6个月
- 12个月
- 超过12个月

**Australian Tourism**

做为一个旅游圣地,我相信澳大利亚

	强烈反对			一般			非常赞同
是不拥挤的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
可以领略独特的自然风光	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
拥有友善的居民	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
拥有美丽的自然风光	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
拥有著名的风景区	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
有多种娱乐活动	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
宜人的气候	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是无污染的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
物有所值的度假胜地	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
精美的菜肴	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
拥有良好的购物场所	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
休闲	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
拥有美丽的海滩	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
拥有整洁的环境	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
拥有独一无二的野生物	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
在中国,人们可以看到澳洲很多的旅游宣传	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

总是,把澳大利亚当做旅游目的地是理想的

- 强烈反对
- 
- 
- 一般
- 
- 
- 非常赞同

**Australian COO Questions**

总之, 我认为澳大利亚

	强烈反对	•	•	一般	•	•	非常赞同
积极的参与国际事务	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是一个多元文化的国家	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是个富有的国家	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是技术先进的国家	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
有丰富的文化遗产	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
具有良好的政府基础设施	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
自然资源丰富	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
有很好的气候	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
生产高品质的商品	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
拥有无污染的环境	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
因提供高质量的教育而闻名	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

总的来说, 澳大利亚和澳大利亚产品的形象是好的。

强烈反对	•	•	一般	•	•	非常赞同
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

我相信澳大利亚人

	强烈反对	•	•	一般	•	•	非常赞同
是受过良好教育的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
爱护环境	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是值得信任的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是富有的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
乐于接受外来者和不同的文化	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是工作努力	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是爱好和平的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
拥有无压力的生活方式	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
友善	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是有礼貌的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
当制造或生产产品时,注重细节	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

总之,对澳洲人的总体印象是好的

强烈反对	•	•	一般	•	•	非常赞同
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Australian Wine Questions

我相信澳大利亚的葡萄酒

	强烈反对	•	•	一般	•	•	非常赞同
物美价廉	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
经常有假的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是昂贵的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
在中国是很驰名的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是奢侈品	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是适合送礼的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是高品质的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是可以放心饮用的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
意味着高档次	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是在很高的生产工艺下制造的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
我知道有很多品种	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是无污染的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是很时尚的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

总的来说, 澳大利亚葡萄酒的形象是好的。

强烈反对	•	•	一般	•	•	非常赞同
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Australian Seafood Questions

我相信澳洲海鲜

	强烈反对	•	•	一般	•	•	非常赞同
是野生捕捞的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
不是养殖的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是大个的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是昂贵的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是新鲜的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是适合做为礼物赠送的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
味道鲜美	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
放心食用	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
代表很高的身份地位(有钱人购买的)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是无污染的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
有高品质的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
物有所值	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
是适合日常消费的食物	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



总之,对澳洲海鲜的印象是好的

强烈反对

一般

非常赞同

Block 29

最后,你愿意参加一年后的一个跟进调查问卷吗?完成跟进调查问卷,我们将付给您额外的130元人民币。

- 是
- 否

能否提供您的电子邮箱地址,以便我们就跟进调查问卷与您联系?

## Chinese

您来自中国的哪个省份?

北京

广东

湖南

上海

您从事那个行业?

会计/金融

监管/文职

广告/媒体

建筑

艺术/图片设计

生物/科学

服务行业

工程

高级行政/管理

食品/酒店管理

政府 (公务员)

保健/护理

人力资源管理

信息技术

法律

市场外联/公共关系

自愿者

销售/零售

软件/工商管理

系统/网络工程

教师

卡车司机/物流

采矿

农林

失业者

其他

我曾经到过澳洲旅游:

从来没去过

1 次

2 次

3 次

4 次

5 次或更多

您是否有打算在之后的三个月到澳洲旅游?

是

否

不确定

请从下面的列表中选择当你决定把澳洲当作旅游目的地的重要因素

依照个人喜爱可多选或单选

美丽的自然风光

整洁的环境

著名的风景区 (例如,海港大桥,黄金海岸,艾尔斯岩)

独一无二的野生生物

可以领略独特的自然风光

休闲

美丽的海滩

友善的居民

多种娱乐活动(例如,赌场,品酒,采摘水果)

饮食文化和精美的菜肴

与中国不同的体验

宜人的气候

良好的购物场所

物有所值的假期

在你脑海中,澳洲是一个受欢迎的旅游胜地

在中国,人们可以看到澳洲很多的旅游宣传

葡萄酒业

海鲜

体育活动

土著文化

文化遗产

西方文化

兴奋

安全

无污染

人们乐于助人

## English

**What Province are you from in China?**

Beijing

Guangdong

Hunan

Shanghai

**Which industry do you work in?**

Accounting / Finance

Administrative / Office

Advertising / Media

Architecture

Art / Graphic Design

Biology / Science

Customer Service

Engineering

Executive / Management

Food / Hospitality

Government

Health-care / Nursing

Human Resources

IT / Technology

Legal / Paralegal

Marketing / PR

Non-Profit / Volunteer

Sales / Retail

Software / DBA

Systems / Networking

Teaching

Truck Driving / Logistics

Mining

Agriculture

Unemployed

Other

**I have been to Australia as a tourist:**

Never

1 time

2 times

3 times

4 times

5 or more times

**Do you intend to visit Australia on Holiday in the next 3 months?**

Yes

No

Unsure

**Please pick any of the attributes from the list below that come to mind when you think of Australia as a tourist destination.**

**Choose as many or few as you like.**

Natural scenic beauty

Clean Pristine environment

Famous Attractions (such as, Harbour Bridge, Gold Coast, Uluru)

Unique wildlife

Unique Natural environments to explore

Relaxing

Beautiful beaches and seaside

Friendly people

Many activities and forms of entertainment (such as Casino / Winery / fruit

Food Culture & Fine Cuisine

Experiences I cant get in China

Good Climate

Good Shopping Facilities

Value for money for holidaying

The image of Australia as a tourist destination is favourable

Advertising promoting Australian holidays in China

Wine

Seafood

Sporting events

Native Aboriginal culture

Cultural heritage

Western culture

Exciting

Safe

Unpolluted

Helpful people

不拥挤  
以上都不是

请从下面的列表中选择你对澳大利亚海鲜的印象

即使你不吃海鲜,也请选择你认为的澳洲海鲜可能拥有的特点  
依照个人喜爱可多选或单选

新鲜  
(海鲜) 个头大  
昂贵  
美味  
无污染  
野生捕捞  
适合送礼  
适合日常消费  
高品质  
物有所值  
**高档次**  
也许不是真正的澳洲水产  
龙虾  
我了解很多品种的澳洲海鲜  
健康食品  
鲍鱼  
在中国很难买到  
风味独特  
供给受中国地区影响  
可以作为礼物接受  
鲷鱼  
生蚝  
三文鱼  
放心食用  
非养殖  
以上都不是

请从下面的列表中选择你对澳大利亚葡萄酒的印象

即使你不喝也不买葡萄酒,也请选择你认为澳洲葡萄酒可能拥有的特点  
依照个人喜爱可多选或单选

物美价廉  
**高档次**  
时尚  
经常有假酒  
高品质  
有很多我了解的种类  
在中国很有名  
我知道很多牌子的澳洲红酒  
适当的生产技术  
真正的葡萄酿制  
适合送礼  
放心饮用  
昂贵  
奢侈品  
美味  
红酒  
迈克拉伦谷  
罗莎山谷  
猎人谷  
驰名商标  
纯正的  
适合收藏  
在中国很难买到  
高酒精纯度  
有气泡的酒  
合理生产  
无污染  
以上都不是

请从下面的列表中选择你对澳大利亚的总体印象

依照个人喜爱可多选或单选  
多元文化  
科技先进  
富有  
无污染的环境

Uncrowded  
None of these come to mind  
**Please pick any of the attributes from the list below that come to mind when you think of Australian Seafood.**

**Even if you don't eat seafood, please pick attributes you think Australian Seafood would have or be associated with.**  
**Choose as many or few as you like.**

Fresh  
Big in size  
Expensive  
Good taste  
Unpolluted  
Wild Caught  
Suitable as a gift  
Suitable for everyday consumption  
High quality  
Good value for money  
High status  
May not be genuine  
Lobster  
Wide variety of species I know  
Healthy  
Abalone  
Hard to get in China  
Unique flavour  
Availability determined by location in China  
Acceptable as a gift  
Snapper  
Oysters  
Salmon  
Safe to eat  
Not farmed  
None of these come to mind

**Please pick any of the attributes from the list below that come to mind when you think of Australian Wine.**

**Even if you don't drink or buy wine, please pick attributes you think Australian Wine would have or be associated with.**  
**Choose as many or few as you like.**

Good value for money  
High status  
Stylish  
Often faked  
High quality  
Many varieties I know of  
Famous in China  
Brands I know  
Proper production techniques  
Real grape wine  
Suitable as a gift  
Safe to consume  
Expensive  
Luxury item  
Good taste  
Red wine  
McLaren Vale  
Barossa Valley  
Hunter Valley  
Well known brands  
Genuine  
For collecting  
Hard to get in China  
High in Alcohol  
Sparkling Wine  
Made properly  
Unpolluted  
None of these come to mind

**Please pick any of the attributes from the list below that come to mind when you think of Australia in general.**

**Choose as many or few as you like.**  
Multicultural  
Technically advanced  
Wealthy  
Unpolluted environment

因提供高质量的教育而闻名  
自然资源丰富  
良好的政府基础设施  
高品质的商品  
宜人的气候  
积极的参与国际事务  
丰富的文化遗产  
和平的  
美丽的环境  
良好的移民国家  
良好的学习环境  
民主国家  
肥胖的人  
我了解的澳洲商品  
煤矿  
汽车  
羊皮制品  
牛肉  
海鲜  
葡萄酒业  
钢铁  
干净  
以上都不是

请从下面的列表中选择你对澳大利亚人的印象

依照个人喜爱可多选或单选

友善的  
接受外来人口和他国文化  
和平的  
富有的  
受过良好教育的  
努力工作的  
值得信任的  
当制造或生产产品时,注重细节  
懂得尊重的,有礼貌的  
爱护环境  
人民生活有良好的平衡  
生活没有压力  
人们工作不是很努力  
以喝酒而闻名  
个人自由  
善良  
接受其他文化  
以上都不是  
做为一个旅游圣地,我相信澳大利亚  
拥有美丽的自然风光  
拥有整洁的环境  
拥有著名的风景区(例如,海港大桥,黄金海岸,艾尔斯岩)  
拥有独一无二的野生生物  
可以领略独特的自然风光  
休闲  
拥有美丽的海滩  
拥有友善的居民  
有多种娱乐活动(例如,赌场,品酒,采摘水果)  
拥有丰富的饮食文化  
可以给人们在中国体验不到的经历  
宜人的气候  
拥有良好的购物场所  
物有所值的度假胜地  
在中国,人们可以看到澳洲很多的旅游宣传  
是无污染的  
是不拥挤的  
拥有乐于助人的人们

总是,把澳大利亚当做旅游目的地是理想的  
非常赞同

两者都不是

强烈反对  
总之,我认为澳大利亚

Renowned for providing quality education  
Rich in natural resources  
Good government infrastructure  
High quality products  
Good Climate  
Participates positively in international affairs  
Rich cultural heritage  
Peaceful  
Beautiful environment  
Good migration country  
Good study environment  
Democratic country  
Fat People  
Produces products I know  
Coal  
Cars  
Sheep Skin Products  
Beef  
Seafood  
Wine  
Steel  
Clean  
None of these come to mind

**Please pick any of the attributes from the list below that come to mind when you think of Australian people.**

**Choose as many or few as you like.**

Friendly  
Accepting of visitors other cultures  
Peaceful  
Wealthy  
Well educated  
Hard Working  
Trustworthy  
When manufacturing or producing products pay attention to detail  
Respectful  
Care about the environment  
People live life with good balance  
Stress free lifestyle  
People don't work too hard  
Known for drinking  
Personal Freedom  
Kind  
Accepting of other cultures  
None of these come to mind  
**As a Tourist Destination I Believe Australia**  
Has Natural scenic beauty  
Has Clean Pristine environment  
Has World Famous Attractions (Such as, Harbour Bridge, Gold Coast, Uluru)  
Has unique wildlife  
Has Unique Natural environments to explore  
Is Relaxing  
Has Beautiful beaches and seaside  
Has Friendly people  
Has Many activities and forms of entertainment (such as, Casino / Winery /  
Has Food Culture & Fine Cuisine  
Provides Experiences I cant get in China  
A Good Climate  
Has Good Shopping Facilities  
Is good value for money for holidaying  
Has a lot of advertising promoting holidays that I have seen in China  
Is unpolluted  
Is Uncrowded  
Has Helpful people

**Overall, the image of Australia as a tourist destination is good**

Strongly Agree

\*

\*

Neither Agree nor Disagree

\*

\*

Strongly Disagree

**In general I believe Australia**

是一个多元文化的国家  
是技术先进的国家  
是个富有的国家  
拥有无污染的环境  
因提供高质量的教育而闻名  
自然资源丰富  
具有良好的政府基础设施  
生产高品质的商品  
有很好的气候  
积极的参与国际事务  
有丰富的文化遗产  
我相信澳大利亚人  
很友善  
乐于接受外来者和不同的文化  
是爱好和平的  
是富有的  
是受过良好教育的  
拥有无压力的生活方式  
是工作很努力  
是值得信任的  
当制造或生产产品时,注重细节  
是有礼貌的  
爱护环境  
乐于接受其他的文化  
**我相信澳大利亚的葡萄酒**  
物美价廉  
**意味着高档次**  
是很时尚的  
**经常有假的**  
是高品质的  
我知道有很多品种  
在中国是很驰名的  
是在很高的生产工艺下制造的  
是很适合送礼的  
是可以放心饮用的  
是昂贵的  
是奢侈品  
无污染的  
**你是否买葡萄酒**  
一周买多次  
一周买一次  
几周买一次  
一月买一次  
几个月买一次  
一年买几次  
从来不买  
**买澳大利亚葡萄酒**  
我上次买酒时,我考虑到要买澳洲葡萄酒  
如果有人问我,我会推荐他买澳洲葡萄酒  
如果有人问我,我不会鼓励他买澳洲葡萄酒  
**我在过去的12个月里买过澳洲的葡萄酒**  
我曾经买过澳洲葡萄酒  
下次我要买酒,我会选择买澳洲的葡萄酒  
我相信澳洲海鲜  
是新鲜的  
是大个的  
是很昂贵  
味道很鲜美  
是无污染的  
是野生捕捞的  
是适合做为礼物赠送的  
是适合日常消费的食物  
有高品质的  
物有所值  
代表很高的身份地位(有钱人购买的)  
也许在中国买澳洲海鲜是不明智的  
放心食用  
不是养殖的  
买澳洲海鲜  
我上次买海鲜时,我考虑到要买澳洲海鲜  
如果有人问我,我会推荐他买澳洲海鲜  
如果有人问我,我不会鼓励他买澳洲海鲜  
我曾经在过去12个月内买过澳洲海鲜

Is Multicultural  
Is Technically advanced  
Is a Wealthy country  
Has an Unpolluted environment  
Is Renowned for providing quality education  
Is Rich in natural resources  
Has Good government infrastructure  
Produces high quality products  
Has a Good Climate  
Participates positively in international affairs  
Has a Rich cultural heritage  
**I believe Australian People**  
Are Friendly  
Are Accepting of visitors and other cultures  
Are Peaceful  
Are Wealthy  
Are Well educated  
Have a Stress free lifestyle  
Are Hard Working  
Are Trustworthy  
When manufacturing or producing products pay attention to detail  
Are Respectful  
Care about the environment  
Are Accepting of other cultures  
**I Believe Australian Wine**  
Is good value for money  
Conveys high status  
Is very stylish  
Is often faked  
Is of high quality  
Has many varieties I know of  
Is famous in China  
Is made using proper production techniques  
Is Suitable as a gift  
Is Safe to consume  
Is expensive  
Is a luxury item  
Unpolluted  
**Do you buy wine?**  
More than Once a week  
Once a week  
Once every few weeks  
Once a month  
Once every few months  
A few times a year  
Never  
**Buying Australian Wine**  
The last time I bought wine I considered buying Australia wine  
If someone asks me, I would recommend that he buy Australian wine  
If someone asks me, I would discourage him from buying Australian wine  
I have purchased Australian Wine in the last 12 months  
I have purchased Australian wine before  
The next time I buy wine I will buy Australian wine  
**I Believe Australian Seafood**  
Is Fresh  
Is Big in size  
Is Expensive  
Has Good taste  
Is Unpolluted  
Is Wild Caught  
Is suitable as a gift  
Is suitable for everyday consumption  
Is of high quality  
Is good value for money  
Conveys high status  
May not be genuine when i buy it in China  
Is Safe to eat  
Not farmed  
**Buying Australian Seafood**  
The last time I bought seafood I considered buying Australia seafood  
If someone asks me, I would recommend that he buy Australian seafood  
If someone asks me, I would discourage him from buying Australian seafood  
I have purchased Australian Seafood in the last 12 months

我之前买过澳洲海鲜  
下次要买海鲜,我会选择澳洲海鲜

总之,对澳洲海鲜的印象是好的  
总之,对澳洲人的总体印象是好的  
你每月大概的收入范围?  
你的年龄多大?

I have purchased Australian seafood before  
The next time I buy seafood I will buy Australian seafood

**Overall, the image of Australian Seafood is good**  
**Overall, the image of Australian people is good**  
**What is your Salary range RMB per month.**  
**What is your Age?**

**Demographics**

What province/city do you live in?

What is your age?

What industry do you work in?

What is your Salary range RMB per month.

**Pick Any Section - Tourism**

Which countries below do you associate with  
(You must answer row by row and click the finished row button for your responses to be accepted)

Click to write Column 1

	South Africa	France	England	America	Australia	New Zealand	Chile	None
value for money for holidaying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
pleasant climate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
natural scenic beauty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
unique wildlife	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
beautiful beaches and seaside	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
good shopping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
an exciting place to visit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
multicultural	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
famous attractions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a holiday destination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Which countries below do you associate with  
(You must answer row by row and click the finished row button for your responses to be accepted)

Click to write Column 1

	South Africa	France	England	America	Australia	New Zealand	Chile	None
a safe place to visit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fine cuisine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
international sporting events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
unique environments to explore	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
promoted in China	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
accepting of visitors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
friendly people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a clean pristine environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
relaxing place to visit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
activities and holiday entertainment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
interesting cultural heritage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Pick Any COO**

Which countries below do you associate with  
(You must answer row by row and click the finished row button for your responses to be accepted)

Click to write Column 1

	South Africa	France	England	America	Australia	New Zealand	Chile	None
are technically advanced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
has a polluted environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
are wealthy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
is rich in natural resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
has good government infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
produces high quality products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
produces good value for money products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
has unpolluted environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
produces poor quality products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
is good a trading partner with China	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
is renowned for providing quality education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
participates positively in international affairs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Which countries below do you associate with  
(You must answer row by row and click the finished row button for your responses to be accepted)

Click to write Column 1

	South Africa	France	England	America	Australia	New Zealand	Chile	None
trustworthy people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
respectful people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
wealthy people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
people who pay attention to detail when manufacturing products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
people who care about the environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
people with a stress free lifestyle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
peaceful people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
hard working people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Seafood Specific Pick Any**

Which countries below do you associate with  
(You must answer row by row and click the finished row button for your responses to be accepted)

Click to write Column 1

	South Africa	France	England	America	Australia	New Zealand	Chile	None
Lobster	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
seafood that can be given as a gift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
wild caught seafood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fresh seafood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
seafood you can buy in China	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
seafood that safe to eat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
good value for money seafood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
unpolluted seafood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Abalone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Which countries below do you associate with  
(You must answer row by row and click the finished row button for your responses to be accepted)

Click to write Column 1

	South Africa	France	England	America	Australia	New Zealand	Chile	None
good value for money seafood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
frozen seafood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
seafood that is difficult to get in China	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
seafood that is farmed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
salmon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
oysters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
seafood that is large in size	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
expensive seafood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
seafood that conveys high status	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Wine DCE Block 2/8**



If you were ordering a red grape wine at a restaurant and you had the following options, which one would you choose

 <p>快乐葡萄酒 智利的产品</p> <p>好的红葡萄酒 ¥400</p> <p>400 Chile</p>	 <p>快乐葡萄酒 澳大利亚产品</p> <p>好的红葡萄酒 ¥600</p> <p>600 Australia</p>	 <p>快乐葡萄酒 中国产品</p> <p>好的红葡萄酒 ¥200</p> <p>200 China</p>	 <p>快乐葡萄酒 法国产品</p> <p>好的红葡萄酒 ¥800</p> <p>800 France</p>
--	---	--	--

Would you have made this choice in real life?

- Yes
- No

**Wine Specific Pick Any**

Which countries below do you associate with  
(You must answer row by row and click the finished row button for your responses to be accepted)

Click to write Column 1

	South Africa	France	England	America	Australia	New Zealand	Chile	None
grape wine that can be given as a gift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
grape wine you can buy in China	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
high quality grape wine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
brands of grape wine I know	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
grape wine produced using proper techniques	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
unpolluted grape wine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
grape wine that is suitable for collecting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
red grape wine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
varieties of grape wine I know	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Which countries below do you associate with  
(You must answer row by row and click the finished row button for your responses to be accepted)

Click to write Column 1

	South Africa	France	England	America	Australia	New Zealand	Chile	None
grape wine that safe to drink	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
white grape wine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
good value for money grape wine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
grape wine that is often faked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
grape wine that is difficult to get in China	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
grape wine that is good value for money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
grape wine that is stylish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
grape wine that conveys high status	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
grape wine that is a luxury item	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
expensive grape wine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DCE - Ab / Lobster 0/1

If you were ordering at a restaurant and you had the following options, which one would you choose

Lobster 500 US Farmed



Abalone 300 China Wild



Lobster 900 South Africa Farmed



Abalone 700 Australia Wild



Would you have made this choice in real life?

- Yes
- No

Australian Tourism

As a Tourist Destination I Believe Australia

	Strongly Agree			Neither Agree nor Disagree			Strongly Disagree
Has World Famous Attractions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has Natural scenic beauty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has advertising promoting holidays that I have seen in China	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is good value for money for holidaying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has Clean Pristine environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has Many activities and forms of entertainment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has Unique Natural environments to explore	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has Good Shopping Facilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has Beautiful beaches and seaside	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has unique wildlife	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is unpolluted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is Relaxing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is Uncrowded	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has a Good Climate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has Fine Cuisine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has Friendly people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Overall, the image of Australia as a tourist destination is good

Strongly Agree    Neither Agree nor Disagree   Strongly Disagree

COO Questions

In general I believe Australia

	Strongly Agree	*	*	Neither Agree nor Disagree	*	*	Strongly Disagree
Is Rich in natural resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Produces high quality products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has Good government infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is Technically advanced	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has a Rich cultural heritage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participates positively in international affairs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has a Good Climate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is Renowned for providing quality education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has an Unpolluted environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is Multicultural	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is a Wealthy country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Overall, the image of Australia and its products is good

Strongly Agree	*	*	Neither Agree nor Disagree	*	*	Strongly Disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I believe Australian People

	Strongly Agree	*	*	Neither Agree nor Disagree	*	*	Strongly Disagree
Care about the environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are Well educated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are Respectful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are Wealthy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When manufacturing or producing products pay attention to detail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are Hard Working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are Peaceful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are Friendly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have a Stress free lifestyle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are Accepting of visitors and other cultures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are Trustworthy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Overall, the image of Australian people is good

Strongly Agree	*	*	Neither Agree nor Disagree	*	*	Strongly Disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Australian Wine Questions

I Believe Australian Grape Wine

	Strongly Agree	*	*	Neither Agree nor Disagree	*	*	Strongly Disagree
Is made using proper production techniques	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has varieties I know of	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is good value for money	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is Suitable as a gift	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is Unpolluted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is very stylish	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is famous in China	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is Safe to consume	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is often faked	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is expensive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is of high quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conveys high status	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is a luxury item	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Overall, the image of Australian wine is good

Strongly Agree	*	*	Neither Agree nor Disagree	*	*	Strongly Disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you buy wine?

- More than Once a week
- Once a week
- Once every few weeks
- Once a month
- Once every few months
- A few times a year
- Never

Buying Australian Wine

	Yes	No
The last time I bought wine I considered buying Australia wine	<input type="radio"/>	<input type="radio"/>
If someone asks me, I would recommend that he buy Australian wine	<input type="radio"/>	<input type="radio"/>
If someone asks me, I would discourage him from buying Australian wine	<input type="radio"/>	<input type="radio"/>
I have purchased Australian Wine in the last 12 months	<input type="radio"/>	<input type="radio"/>
I have purchased Australian wine before	<input type="radio"/>	<input type="radio"/>
The next time I buy wine I will buy Australian wine	<input type="radio"/>	<input type="radio"/>

Australian Seafood Questions

I Believe Australian Seafood

	Strongly Agree	*	*	Neither Agree nor Disagree	*	*	Strongly Disagree
Is Big in size	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is of high quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is suitable for everyday consumption	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is Fresh	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is Expensive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is Not farmed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is good value for money	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is Safe to eat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is Unpolluted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conveys high status	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is Wild Caught	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has Good taste	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is suitable as a gift	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Overall, the image of Australian Seafood is good

Strongly Agree	*	*	Neither Agree nor Disagree	*	*	Strongly Disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often do you buy Seafood?

- More than Once a week
- Once a week
- Once every few weeks
- Once a month
- Once every few months
- A few times a year
- Never

Buying Australian Seafood

	Yes	No
The last time I bought seafood I considered buying Australia seafood	<input type="radio"/>	<input type="radio"/>
If someone asks me, I would recommend that he buy Australian seafood	<input type="radio"/>	<input type="radio"/>
If someone asks me, I would discourage him from buying Australian seafood	<input type="radio"/>	<input type="radio"/>
I have purchased Australian Seafood in the last 12 months	<input type="radio"/>	<input type="radio"/>
I have purchased Australian seafood before	<input type="radio"/>	<input type="radio"/>
The next time I buy seafood I will buy Australian seafood	<input type="radio"/>	<input type="radio"/>

Australian Holiday Questions

I have been to Australia as a tourist

Never	1 time	2 times	3 times	4 times	5 or more times
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you intend to visit Australia on Holiday in the next 3 months?

- Yes
- No
- Unsure



# Seafood DCE Design

set	version	option1				option2				option3				option4			
		A1	A2	A3	A4	A1	A2	A3	A4	A1	A2	A3	A4	A1	A2	A3	A4
1	1	1	3	1	0	1	1	0	0	2	2	1	0	0	0	3	1
2	1	1	0	3	0	2	2	1	1	0	0	1	1	1	1	0	0
3	0	1	1	3	1	3	2	1	0	0	0	0	2	2	1	0	
4	1	0	1	0	1	3	3	0	1	0	0	0	2	1	2	1	
5	0	1	2	1	0	0	0	0	1	1	2	0	3	3	1	0	
6	0	1	0	2	1	2	1	0	0	3	3	0	1	1	0	1	
7	0	0	0	0	0	2	3	0	1	1	1	1	1	1	2	1	
8	1	1	2	0	0	1	2	1	0	1	1	1	3	0	2	0	
9	1	1	3	3	1	1	2	1	0	2	0	1	0	3	1	1	
10	0	1	3	0	1	1	3	1	1	2	1	0	0	0	2	0	
11	0	0	3	2	0	1	1	1	1	3	1	1	0	0	0	0	
12	1	1	1	2	0	3	1	0	0	0	3	1	1	2	0	1	
13	0	0	2	3	0	0	2	0	1	0	2	1	0	3	1	1	
14	0	0	1	1	0	3	0	1	1	0	2	1	1	2	3	0	
15	1	0	0	1	1	2	0	1	1	3	2	0	1	1	3	0	
16	1	0	2	2	1	0	1	1	1	1	3	0	0	3	0	0	

attribute	#levels
A1 species	2
A2 price	4
A3 origin	4
A4 farmed/wild	2

2 versions of 8 sets each (only if required)

Number of choicesets: 16  
 Det C is: 7.00649e-46  
 Main effects are uncorrelated  
 Efficiency compared with optimal design for choice set size  
 Efficiency compared with optimal design for optimal choice

0	8	4	4	4	8	4	4	4	8	4	4	4	8	4	4	4	8
1	8	4	4	4	8	4	4	4	8	4	4	4	8	4	4	4	8
2	0	4	4	4	0	4	4	4	0	4	4	4	0	4	4	4	0
3	0	4	4	4	0	4	4	4	0	4	4	4	0	4	4	4	0

set	version	option1				option2				option3				option4			
		A1	A2	A3	A4	A1	A2	A3	A4	A1	A2	A3	A4	A1	A2	A3	A4
1	1	Lobster	900 Australia	Wild	Lobster	500 China	Wild	Abalone	700 South Africa	Farmed	Abalone	300 America	Farmed	Abalone	300 America	Farmed	Lobster
2	1	Lobster	300 America	Wild	Abalone	700 South Africa	Farmed	Abalone	900 China	Farmed	Abalone	500 Australia	Wild	Lobster	500 Australia	Wild	Lobster
3	0	Lobster	500 America	Farmed	Lobster	900 South Africa	Farmed	Abalone	300 Australia	Wild	Abalone	700 South Africa	Wild	Abalone	900 Australia	Farmed	Abalone
4	1	Abalone	500 China	Farmed	Lobster	900 America	Wild	Abalone	300 Australia	Wild	Abalone	500 South Africa	Wild	Lobster	900 America	Farmed	Lobster
5	0	Lobster	700 Australia	Farmed	Abalone	300 China	Wild	Abalone	500 South Africa	Wild	Abalone	900 Australia	Wild	Lobster	700 China	Farmed	Abalone
6	0	Lobster	300 South Africa	Farmed	Abalone	700 Australia	Wild	Abalone	900 Australia	Farmed	Abalone	500 South Africa	Farmed	Abalone	300 South Africa	Farmed	Lobster
7	0	Abalone	300 China	Wild	Lobster	500 America	Wild	Abalone	700 Australia	Wild	Abalone	900 Australia	Wild	Lobster	500 South Africa	Farmed	Abalone
8	1	Lobster	700 China	Wild	Abalone	300 America	Farmed	Abalone	500 Australia	Wild	Abalone	700 China	Wild	Lobster	300 South Africa	Farmed	Lobster
9	1	Abalone	900 America	Farmed	Abalone	500 South Africa	Wild	Lobster	700 China	Wild	Abalone	300 Australia	Wild	Lobster	300 Australia	Farmed	Lobster
10	0	Lobster	900 China	Farmed	Abalone	500 America	Farmed	Abalone	700 Australia	Wild	Abalone	300 South Africa	Wild	Lobster	500 Australia	Farmed	Lobster
11	0	Abalone	900 South Africa	Wild	Lobster	500 Australia	Farmed	Abalone	300 Australia	Wild	Abalone	700 China	Wild	Lobster	300 China	Wild	Lobster
12	1	Lobster	500 South Africa	Wild	Abalone	900 Australia	Wild	Abalone	300 Australia	Farmed	Abalone	700 China	Wild	Lobster	500 Australia	Farmed	Lobster
13	0	Abalone	700 America	Wild	Lobster	300 South Africa	Wild	Abalone	500 China	Farmed	Abalone	900 Australia	Farmed	Abalone	300 Australia	Farmed	Lobster
14	0	Abalone	500 Australia	Wild	Abalone	900 China	Farmed	Lobster	300 South Africa	Farmed	Abalone	700 Australia	Wild	Lobster	500 America	Wild	Lobster
15	1	Abalone	300 Australia	Farmed	Abalone	700 China	Farmed	Lobster	500 Australia	Wild	Abalone	900 South Africa	Wild	Lobster	300 China	Farmed	Lobster
16	1	Abalone	700 South Africa	Farmed	Abalone	300 Australia	Farmed	Lobster	500 America	Wild	Abalone	700 China	Wild	Lobster	900 Australia	Wild	Lobster

A1	attribute 1	species	0	Abalone
1	attribute 1	species	1	Lobster
2	attribute 2 (e.g. price)		0	300 RMB
3			1	500 RMB
4			2	700 RMB
5			3	900 RMB
6	attribute 3 (e.g. origin)		0	China
7			1	Australia
8			2	uth Africa
9			3	America
10	attribute 4	Wild Caught	0	Wild
11			1	Farmed

# Wine DCE Design

set	version	option1				option2			option3			option4		
		A1	A2	A3	A4	A1	A2	A3	A4	A1	A2	A3	A4	
1	1	1	3	1	0	1	2	0	1	0	0	3	1	
2	1	1	0	3	0	2	2	1	1	1	1	1	0	
3	0	1	1	3	1	3	2	1	0	0	2	1	0	
4	1	0	1	0	1	3	3	0	0	2	2	1	1	
5	0	1	2	1	1	0	0	1	1	3	3	1	1	
6	0	1	0	2	1	2	1	0	0	1	0	0	1	
7	0	0	0	0	0	2	3	0	1	1	1	2	1	
8	1	1	2	0	0	1	3	1	1	0	3	2	0	
9	1	1	3	3	1	1	0	1	1	0	0	1	1	
10	0	1	3	0	1	1	2	1	1	0	0	2	0	
11	0	0	3	2	0	1	1	3	1	0	0	0	0	
12	1	1	1	2	2	0	1	1	1	2	3	0	1	
13	0	0	2	3	0	0	2	0	1	0	3	1	1	
14	0	1	1	1	1	3	0	1	1	2	2	3	0	
15	1	0	0	1	1	2	0	1	1	1	1	3	0	
16	1	0	2	2	1	0	1	3	0	1	3	0	0	

0	8	4	4	4	8	8	8	8	8	8	8	8	8
1	8	4	4	4	8	8	8	8	8	8	8	8	8
2	0	4	4	4	0	0	0	0	0	0	0	0	0
3	0	4	4	4	0	0	0	0	0	0	0	0	0

8	4	4	4	8	8	8	8	8	8	8	8	8	8
8	4	4	4	8	8	8	8	8	8	8	8	8	8
0	4	4	4	0	0	0	0	0	0	0	0	0	0
0	4	4	4	0	0	0	0	0	0	0	0	0	0

8	4	4	4	8	8	8	8	8	8	8	8	8	8
8	4	4	4	8	8	8	8	8	8	8	8	8	8
0	4	4	4	0	0	0	0	0	0	0	0	0	0
0	4	4	4	0	0	0	0	0	0	0	0	0	0

8	4	4	4	8	8	8	8	8	8	8	8	8	8
8	4	4	4	8	8	8	8	8	8	8	8	8	8
0	4	4	4	0	0	0	0	0	0	0	0	0	0
0	4	4	4	0	0	0	0	0	0	0	0	0	0

attribute	#levels
A1 species	2
A2 price	4
A3 origin	4
A4 jammed/wild	2

2 versions of 8 sets each (only if required)

Number of choices: 16  
 Det C is: 7, 00649e-48  
 Main effects are uncorrelated  
 Efficiency compared w/ optimal set sizes m = 4: 100.000000%  
 Efficiency compared w/ optimal set sizes m = 4: 100.000000%

set	version	option1				option2			option3			option4		
		A1	A2	A3	A4	A1	A2	A3	A4	A1	A2	A3	A4	
1	1	White Label	800 Australia	Screw Cap	White Label	400 China	Screw Cap	Red Label	600 France	Corked	Red Label	200 Chile	Corked	
2	1	White Label	200 Chile	Screw Cap	Red Label	600 France	Corked	Red Label	800 China	Corked	White Label	400 Australia	Screw Cap	
3	0	White Label	400 Chile	Corked	White Label	800 France	Corked	White Label	200 China	Screw Cap	Red Label	600 Australia	Screw Cap	
4	1	Red Label	400 China	Corked	White Label	800 Chile	Screw Cap	White Label	200 Australia	Screw Cap	Red Label	400 Chile	Corked	
5	0	White Label	600 Australia	Corked	White Label	200 China	Screw Cap	Red Label	400 France	Screw Cap	White Label	800 Chile	Corked	
6	0	White Label	200 France	Corked	White Label	600 Australia	Screw Cap	White Label	800 Chile	Corked	Red Label	400 France	Corked	
7	0	Red Label	200 China	Screw Cap	Red Label	800 Chile	Screw Cap	White Label	400 Australia	Corked	White Label	200 France	Corked	
8	1	White Label	600 China	Screw Cap	White Label	200 Chile	Screw Cap	White Label	400 Australia	Corked	White Label	800 France	Corked	
9	1	White Label	800 Chile	Corked	Red Label	400 France	Screw Cap	Red Label	600 China	Screw Cap	White Label	200 Australia	Corked	
10	0	White Label	800 China	Corked	Red Label	400 Chile	Corked	White Label	600 Australia	Corked	White Label	200 France	Corked	
11	0	White Label	800 France	Screw Cap	White Label	400 Australia	Corked	White Label	600 Chile	Corked	White Label	200 China	Screw Cap	
12	1	White Label	400 France	Screw Cap	White Label	800 Australia	Corked	White Label	200 Chile	Corked	White Label	600 China	Screw Cap	
13	0	Red Label	600 Chile	Screw Cap	White Label	200 France	Screw Cap	White Label	400 China	Corked	Red Label	800 Australia	Corked	
14	0	Red Label	200 Australia	Screw Cap	White Label	800 France	Corked	White Label	400 Chile	Corked	White Label	600 China	Screw Cap	
15	1	Red Label	400 Australia	Corked	White Label	800 China	Screw Cap	White Label	200 France	Screw Cap	White Label	400 Chile	Corked	
16	1	Red Label	600 France	Corked	Red Label	200 Australia	Corked	White Label	400 Chile	Screw Cap	White Label	800 China	Screw Cap	

A1	attribute 1	Label	0	Red Label	1	White Label
A2	attribute 2	(e.g. price)	0	200 RMB	1	400 RMB
			2	600 RMB	2	800 RMB
			3	800 RMB	3	
A3	attribute 3	(e.g. origi)	0	China	1	Australia
			1	Australia	2	France
			2	France	3	Chile
A4	attribute 4	Wild Cany	0	Screw Cap	1	Corked