Rethinking the Brand Concept for Air Transportation

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Abstract

The study of brands and branding in the aviation industry is not new. However, in common with the more general branding literature, there is a fundamental problem at the centre of research: what is the subject of study? This is the problem of brand definition and, in common with most of the branding literature, it is not unusual to find studies of the brand or branding in the aviation literature where the understanding of the brand concept differs between authors. This thesis emphasises the need to have clarity of definition before proceeding to research a concept. The solution to the problem of brand definition is a return to what is described as the Label and Associations Model (LAM), as highlighted in Chapter 1. In the LAM, the brand is conceptualised as a trade name/logo that identifies a product and/or service or firm. The interesting point of study in this model is not the brand itself, but the brand associations (what comes to mind upon the presentation of a brand). The LAM is applied to study airline brand choice (Chapter 2), airport brand association structures, and airport brand choice (Chapters 3 and 4). The application of the LAM was done in conjunction with the guiding methodological principles of the thesis, which involved the free elicitation of brand associations to avoid self-generated validity and construct creation, as well as recognise heterophenomenology. Combining the LAM with free elicitation meant using the brand name or logo to elicit associations stored in long-term memory. This approach provides both clarity as to the subject of study (with the brand being a name or logo), while allowing participants to provide any form of association without prompting or bias from the researcher. The result of this approach is new research findings, theory, and managerial implications for the aviation industry. This thesis demonstrates that it is the tangible product/service attributes (e.g., price, reliability, facilities) that air travellers are most likely to associate with airline and airport brands, rather than more abstract associations (e.g., reputation, loyalty, social responsibility). Other insightful findings include discovering a new type of brand (termed as a compound brand) that applies to airports and highlighting the role of double jeopardy within airline markets. These contributions were only possible due to the use of the LAM in conjunction with the free elicitation of brand associations, thus unifying the thesis conceptually and methodologically.

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Table of Abbreviations

Abbreviation	Explanation
AMA	American Marketing Association
CM	Component Model
FSC	Full-Service Carrier
HAM	Human Associative Memory
IQR	Interquartile Range
LAM	Label and Associations Model
LCC	Low-Cost Carrier
Mdn	Median

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Introduction

Brands and Branding

This thesis was always intended to look at branding in the context of the aviation industry but, at the very start of the initial reviews of relevant literature, the question was raised as to which definition of the 'brand' will be used for the studies. The relevance of the question became apparent when examining the extant literature. The initial approach was to review brand definitions (e.g., de Chernatony & Dall'Olmo Riley, 1998; Stern, 2006; Wood, 2000) then, when this produced no clarity, to try to hone down a conceptual model of the brand. With this aim, large tables of references and considerations were built but, instead of becoming clearer, the question of what the brand actually was became more blurred. At this point in time, it was very apparent as to why the question was asked. If intending to study branding in aviation, it is necessary to first identify and define the subject of study. The answer to the question had fortunately been addressed to some degree in ongoing work of Dr. Mark Avis, one of the supervisory team. However, Dr. Avis was still lacking the full empirical support that might allow for a fully convincing case that there was a real problem with brand definition. The early work of the doctoral candidate in building tables of concepts for the brands naturally provided an initial foundation for the research project which can be found in Chapter 1.

The problems of brand definition are also apparent within the aviation literature. For example, Paternoster (2008, p. 220) suggests that airport brands are "the sum total of all the customer experiences at an airport, as perceived by the customer", while Kefallonitis and Kalligiannis (2019, p. 523) treat airport brands as synonymous with service quality, choice of retail stores and any "other benefits that each airport may offer". Clearly, the understanding of the brand concept is very different in both cases, and thus the authors/researchers are fundamentally studying different entities. This is not a criticism of the authors, as they draw on a broader body of branding literature that is similarly mired in confusion.

Despite the many issues faced when trying to define the brand concept, some brand-related concepts have been applied to air transportation. Concepts such as brand equity, brand preference, brand commitment, brand citizenship, brand loyalty, brand protection and brand personality have all been applied to airline services (Cervera-Taulet et al., 2013; Chen & Chang, 2008; Chen & Tseng, 2010; Chen et al., 2008; Erkmen & Hancer, 2015; Grundy & Moxon, 2013). While there appears to be a smaller body of literature about airport brands, concepts such as brand names, brand slogans, brand strategy, brand value, brand sustainability and brand management have been applied to airports (Chung et al., 2013; Halpern & Regmi, 2011; Lee & Park, 2016; Paternoster, 2008). The application of individual brand-related concepts in isolation is consistent with the component model (CM) of branding, which is what Chapter 1 identifies as the catalyst for the proliferation of brand-related concepts. In the CM, the brand concept is defined by its components, where the understanding of each component affects the understanding of the brand, and *vice versa*. The key issues with such a model are that the definitions of the various brand components overlap with one another to create confusion, and as new brand components evolve, it is not the understanding of the underlying brand concept that is changing, but the brand concept itself. This means that, like the wider branding literature, the air transport literature through the application of brand components (e.g., brand equity, brand loyalty, etc.) without an agreed upon definition has led to a situation where researchers using different components and definitions cannot compare their research with each other because they are not studying the same underlying entity.

Chapter 1 provides clarity of definition through what it calls the label and associations model (LAM). This involves a simple conceptualisation of the brand as a name or logo used to identify a product, service or firm. This brand (name or logo) can then be used as a stimulus for eliciting brand associations. An airline/airport brand is, therefore, simply the name or logo of the airline/airport. However, the associations that such brands stimulate in the minds of air travellers is the interesting point of study using this model. According to Aaker (1991, p. 109), a brand association is "anything linked in memory to a brand". Based upon the LAM presented in Chapter 1, Chapters 2, 3 and 4 of this thesis examine brand associations with airlines and airports and how these influence air traveller choices. Such an examination of brand associations linked in memory with a brand name has a basis in the literature (Meyers-Levy, 1989; Park et al., 1989), and is consistent with the LAM. Past research also shows that different brand associations linked in memory will also contribute to brand choice (Nedungadi, 1990).

Brands are ubiquitous in modern society and are a major area of research for both academics and managers alike (Keller, 2020). Branding can be considered as one of the most important psychological determinants of consumer choice (Philiastides & Ratcliff, 2013). Brand names also have a physiological effect, with different brand names being processed in different parts of the brain and producing different levels of activity as measured with functional magnetic resonance imaging (Hillenbrand et al., 2013). Such findings suggest that brands and branding are topics that are worthy of study. However, further work is needed to ensure that they are studied in a consistent manner in the marketing and air transportation disciplines.

In light of the confusions in both the broad branding literature, and the confusions in the aviation literature, the necessity of clarification before proceeding to any study is apparent. The clarification of brand definition that is provided in Chapter 1 thus provides a key foundation and the thread that ties together the other chapters presented throughout the thesis. In particular, the definition adopted drove the approach of the research in this thesis and resulted in a new and fruitful perspective on the brand in relation to aviation.

Research Objectives

To both recognise the definitional problems that surround the brand concept, while also acknowledging how branding can influence marketplace decisions, this thesis sets out to fulfil the following research objectives:

1. To provide a solution to the brand definitional problems as a foundation for understanding the brand in air transportation.
2. To examine airline brand choice in a way that is consistent with the brand conceptualisation resulting from Objective 1.
3. To examine the nature of brand associations that air travellers make with airports and how they influence airport brand choice.

Guiding Methodological Considerations for the Thesis

The methodology used throughout the thesis ties together and unifies the results of all the studies alongside the use of the LAM. The methodology used commenced with an intent to ensure that any research would not only be thorough but would also have as high a degree of ecological validity as was practicable. This section presents some of those core methodological considerations to help link all the studies together methodologically as well as conceptually in this thesis.

Adoption of Qualitative Methods

Self-Generated Validity and Construct Creation

Throughout this thesis, the potential issue of self-generated validity will be highlighted. In particular, the air transport literature lacks qualitative studies applied to consumer behaviour to guide the development of survey measures, leading to the use of quantitative instruments such as SERVQUAL and analytical hierarchy process (AHP) (e.g., Chou et al., 2011; Karaman & Akman, 2018; Pakdil & Aydın, 2007). The issue with such instruments is that if an air traveller does not already have an attitude, belief or idea relating to the set questions stored in long-term memory, then they will instead create attitudes, beliefs and ideas in working memory as a result of doing the study (Feldman & Lynch, 1988). More so, there is empirical evidence to support the argument that research questions can lead to construct creation, where the research process creates a construct within the participants mind instead of measuring a construct that already existed in the participant's mind (Forbes & Avis, 2020). To avoid these issues, Chapters 2, 3 and 4 instead use free elicitation of associations in their method. No assumptions are made as to reasons or criteria for airline and airport choice, nor the sorts of associations participants would make with airlines and airports. Participants are also able to indicate that they have none. Arguably, this will provide a more ecologically valid picture of the drivers of air traveller choice because the chapters in this thesis will observe associations that existed in the minds of participants prior to doing each interview. For Chapter 2, this elucidated factors like participants not booking their own airline tickets, or not having any choice due to lack of availability (e.g., limited flights to certain locations and certain times). For Chapters 3 and 4, the use of free elicitation showed that the underlying brand association structures of airports stored in participants' memories were sourced from multiple entities (focal brand entity, tenants and ancillary entities) to form compound brands. Such findings would be unlikely to be predicted by researchers in advance and thus would be absent from any survey instrument designed in the absence of the qualitative data.

Similarly, when studying branding, methods such as analytic network processes, brand concept maps and fuzzy network theory have been utilised (Chen et al., 2012; John et al., 2006; Khazaei Pool et al., 2018; Liu & Chou, 2016). However, these methods rely to some extent upon a common assumption: that consumers form associations in neat diagrammatic forms. There are several problems with such an assumption. Firstly, some people will form no salient brand associations at all, meaning that they will not retrieve any in a free elicitation model (see results of Chapters 2, 3, and 4). If research methods are designed in such a way that they drive people to make further associations then they will create them – again raising the issues of self-generated validity and construct creation. Secondly, many consumers do not think about brands very often, which is why brand awareness is considered as such a valuable asset within the marketing literature (Huang & Sarigöllü, 2014; MacDonald & Sharp, 2003; Percy & Rossiter, 1992). Accordingly, many consumers will not have sophisticated networks of brand associations as they will have low brand awareness for most brands. Instead, the use of free elicitation of brand associations combined with thematic analysis allows for a more naturalistic approach because it allows participants to give any number of associations of varying levels of complexity.

Heterophenomenology

The use of qualitative techniques throughout all chapters presented in this thesis was influenced in part by the concept of heterophenomenology. This concept was developed by Dennett (1991) to recognise that when studying consciousness or other mental phenomena that there is a reality that is subjective to the individual being studied, and thus it is important to study how the participant sees things themselves, regardless of the accuracy of what they say in relation to objective realities. To provide an example of the difference between objective and subjective reality, Dennett (1991) makes the point that a work of fiction can be studied objectively. For example, one knows that Harry Potter is a made-up character that does not exist in reality, however, one can also highlight objective facts about him: he studies wizardry at Hogwarts and has two best friends, Hermione and Ron. Because brand associations exist in the minds of consumers, they are subjective mental phenomena. The brand associations may be irrational or even fictional, but that doesn't mean that they are any less real to the person who has them stored in memory. For example, it is an objective fact that aviation is the safest mode of commercial transportation (Oster Jr. et al., 2013; Stoop & Kahan, 2005). Yet Chapters 2, 3 and 4 of this thesis will show that there were participants who were concerned about safety. This is because regardless of objective reality, the subjective reality for those participants is that aviation/flying is dangerous and that will affect their travel decisions. However, there is a noted absence of qualitative research examining such phenomena. As Hunt (2010, p. 114) observes:

> "The excessively high publication hurdles that researchers face when using survey and qualitative methodologies have increasingly pushed marketing researchers into research designs that, by their very nature, cannot address some of the most important research questions in marketing".

This quote highlights that a lack of qualitative research may lead to issues in understanding phenomena that do not lend themselves to quantitative research. However, Hunt (2010, p. 283) provides the caveat "…sometimes qualitative studies add to what we know from quantitative research, and sometimes it is just the reverse. Therefore, rather than *rivals*, qualitative studies *complement* quantitative research”. This quote captures the intentions of this thesis. Qualitative techniques will be used throughout the thesis, and, where appropriate, they will be complemented with quantitative analyses. Accordingly, there is no argument against the use of quantitative methods. However, due to heterophenomenological considerations, qualitative research is needed to understand the subjective realities of air travellers when they choose between airlines and airports. When air travellers’ subjective realities differ from objective realities, then that is an appropriate point to ask why air travellers are experiencing a different reality. Such inquiry can lead to interesting strategic and marketing considerations.

To ensure objective analysis of the qualitative data gathered from participants throughout this thesis, thematic analysis was used. Thematic analysis has been identified as a method of identifying qualitative data that combines descriptive and interpretative processes (Sandelowski, 2010; Sandelowski & Barroso, 2003; Vaismoradi et al., 2013). As Guest et al. (2012, p. 10) put it, “thematic analyses move beyond counting explicit words or phrases and focus on identifying and describing both implicit and explicit ideas within the data, that is, themes”. Because some interpretation is required on the part of the researcher, it is important to be transparent about the exact process used. To this end, Braun and Clarke’s (2006) 15-point checklist for a good thematic analysis was used for thematic analyses throughout this thesis and is replicated in Table 1.

Table 1

Braun and Clarke's (2006, p. 96) 15-point checklist for a good thematic analysis

Process	No.	Criteria
Transcription	1	The data have been transcribed to an appropriate level of detail, and the transcripts have been checked against the tapes for 'accuracy'.
Coding	2	Each data item has been given equal attention in the coding process.
	3	Themes have not been generated from a few vivid examples (an anecdotal approach), but instead the coding process has been thorough, inclusive and comprehensive.
	4	All relevant extracts for each theme have been collated.
	5	Themes have been checked against each other and back to the original data set.
	6	Themes are internally coherent, consistent, and distinctive.
Analysis	7	Data have been analysed – interpreted, made sense – rather than just paraphrased or described.
	8	Analysis and data match each other – the extracts illustrate the analytic claims.
	9	Analysis tells a convincing and well-organised story about the data and topic.
	10	A good balance between analytic narrative and illustrative extracts is provided.
Overall	11	Enough time has been allocated to complete all phases of the analysis adequately, without rushing a phase or giving it a once-over-lightly.
Written report	12	The assumptions about, and specific approach to, thematic analysis are clearly explicated.
	13	There is a good fit between what you claim you do, and what you show you have done – i.e., described method and reported analysis are consistent.
	14	The language and concepts used in the report are consistent with the epistemological position of the analysis.
	15	The researcher is positioned as *active* in the research process; themes do not just 'emerge'.

Attitudes vs. Behaviours

Throughout this thesis, a distinction is made between the attitudes and behaviours of air travellers. This is an important distinction to make because attitudes do not always predict behaviours, and behaviours can also be driven by constraints/factors and not influenced by attitudes (Verhallen & van Raaij, 1986; F. Wang et al., 2018). Chapter 2 makes the point that airline markets are subject to 'double jeopardy' (i.e., that smaller brands have less customers who are also less loyal in terms of purchase frequency, Ehrenberg et al., 1990). This point has been made by past research in air transportation (Lynn, 2008; Voorhees et al., 2015), but has largely been ignored in the methodologies that are applied to study airline brand choice/loyalty, which are usually reliant upon stated preference and attitudinal measures (e.g., Hess et al., 2007; Whitaker et al., 2005). Attitudinal brand loyalty is a useful measure to examine the mental processes that underly loyal behaviours, however, favourable purchase behaviour towards a brand over time (behavioural brand loyalty) is ultimately what leads to increased revenue and market share (Chen et al., 2008; Dick & Basu, 1994; Jacoby & Kyner, 1973). Nonetheless, behavioural loyalty is also sometimes called "spurious" brand loyalty because sometimes drivers of behaviour are real-world constraints such as lack of availability rather than genuine loyalty (Bennett & Rundle-Thiele, 2002; Day, 1969). Chapter 2 shows why consideration of double jeopardy is important: in the case of New Zealand, many locations/cities in the domestic aviation market have only one airline operating to their local airport, forcing behavioural loyalty upon air travellers regardless of relative attitudes.

Equally, Chapters 3 and 4 use attitudinal measures for airport (and shopping mall) choice. This is because the real-world constraints like lack of flight availability or poor ground access to airports are not certain, but are dynamic (e.g., Bergantino et al., 2020). As behavioural constraints change, attitudes will be a significant determinant of behavioural change, particularly for behaviours further into the future (Friese et al., 2008; Rabinovich et al., 2010). Thus, it is not argued that attitudinal or behavioural measures are better – rather, they measure different things among the participants (i.e., air travellers) and so long as the findings are reported and interpreted as such then there is little problem with use of one or the other.

Contributions

This thesis' first contribution is in provision of a solid empirical foundation for the revision of brand definition. Chapter 1 finds the solution to be the LAM, which when applied to airlines and airports, proved fruitful in terms of insightful findings. Specifically, through the use of the LAM and the guiding methodological principles, focused on ecological validity, this thesis provides the following contributions to the air transport and marketing literature and managerial insights to airline and airport management:

1. The key contribution of the thesis is to highlight that for both airlines and airports, brand choice is primarily determined by fundamental product and service attributes rather than abstract associations. No limitations were placed upon participants in terms of the nature of associations that they might recall (consistent with the LAM), however, participants were far more focussed on tangible aspects of the product and experience (e.g., pricing, service quality, facilities, etc.) rather than abstract considerations (e.g., reputation, loyalty, social responsibility). This result is likely because of the guiding methodological principles of this thesis, which do not make assumptions as to the nature of associations participants might have which can see the creation of questions and answers that are the product of research biases and preconceptions (Forbes & Avis, 2020). This raises questions regarding extant literature that has identified more abstract aspects as being core areas of focus for airlines and airports. Potentially with different

methods applied, these abstract aspects would be found to be of less significance. (See Chapters 2, 3 and 4)

2. Double jeopardy exists within airline markets, meaning that smaller airline brands have less customers who are also less loyal with regard to their purchasing behaviours. This highlights that market penetration through a superior value proposition is the best way to gain behavioural loyalty, rather than focussing on the use of loyalty programmes to improve attitudinal loyalty. (See Chapter 2)
3. The most fundamental airline attributes are the most important for predicting airline choice. Specifically, when predicting most recent airline choice after accounting for double jeopardy, only price, time and reliability were the significant predictors. Lower prices increase the likelihood of choosing the low-cost carrier (LCC), while time and reliability increase the likelihood of choosing the full-service carrier (FSC). Other factors that are emphasised by extant literature (e.g., service quality, rewards programmes, etc.) are important attitudinally, but do not predict actual behaviours. (See Chapter 2)
4. As in the case of airline brand choice, airport brand choice was also influenced to a greater extent by fundamental attributes, which for airports were primarily those relating to facilities and infrastructure. Many other airport attributes were also important (such as customer service and cultural aspects), however, these had smaller effect sizes. This highlights the need for airports to properly manage their core business activity (provision of infrastructure) before focussing on what this thesis will term the ‘nice-to-haves’ (e.g., improving customer service from airport staff or incorporating local culture throughout the terminals). (See Chapter 4)
5. Through the investigation of airport brand associations, a new brand type is identified, termed as a ‘compound’ brand. These brands are focal branded entities (e.g., airports) whose brand associations are multi-created with associations sourced from tenants (e.g., food/beverage providers, shops, etc.) and ancillary entities (e.g., government security, public transport, etc.). Based upon the characteristics that make compound brands unique, shopping malls are identified as another likely candidate and shown to also be compound brands. (See Chapter 3)
6. Aside from introducing the concept of compound brands, the idea of a compound brand continuum is also supported. While airports and shopping malls share similar characteristics and both have tenants and ancillary entities acting as sources of brand associations, the number and importance of the brand associations sourced from tenants

and ancillary entities varied. Shopping malls had a much larger share of brand associations sourced from tenants than airports. Other likely compound brands (such as casinos, theme parks, universities, etc.) can not only be tested to see whether they are compound brands, but also be tested to see where they sit along this continuum. Placement along this continuum could be used to guide the management of brand association structures. (See Chapter 3)

7. Existing literature emphasises the importance of airport service quality. However, its current usage is as a very broad and encompassing term, often incorporating aspects like facilities, servicescape, check-in, security screening, and satisfaction. Because airports are compound brands (as identified in Chapter 3), many of the brand associations resulting from these aspects are sourced from multiple entities rather than just the airport. For example, check-in activities are typically managed by airlines, and security screening is typically managed by a government agency or an external party. As airport managers have diffuse control over such entities, it is potentially more helpful to consider which aspects of service quality they can influence. Accordingly, this thesis uses themes that can be more clearly delineated, such as the *customer service* theme, which relates only to customer service from airport staff, versus themes like *airline/flight* that would incorporate customer service from airline staff. Thus, the contextualisation of airports as compound brands has managerial implications as well as raising questions about the usefulness of the 'airport service quality' term in relation to airport brand management. (See Chapter 4)
8. By measuring airport brand choice attitudinally (rather than behaviourally), this thesis provides a different view on determinants of airport brand choice to the existing air transport literature. Past studies correctly identify issues such as flight connectivity/frequency, airline choice, and airport ground accessibility as determinants of observed airport brand choice behaviours. However, each of these represent behavioural constraints that may prevent air travellers from choosing their preferred airports. Such behavioural constraints change over time, so an attitudinal understanding is useful to help predict how behaviours might change alongside dynamic behavioural constraints. (See Chapter 4)
9. There are differences in how airline brand choice is determined based upon demographic differences. Many of these differences provide managerial implications in terms of how marketing communications could be better targeted. For example, females are more likely to be attitudinally loyal towards an airline, meaning

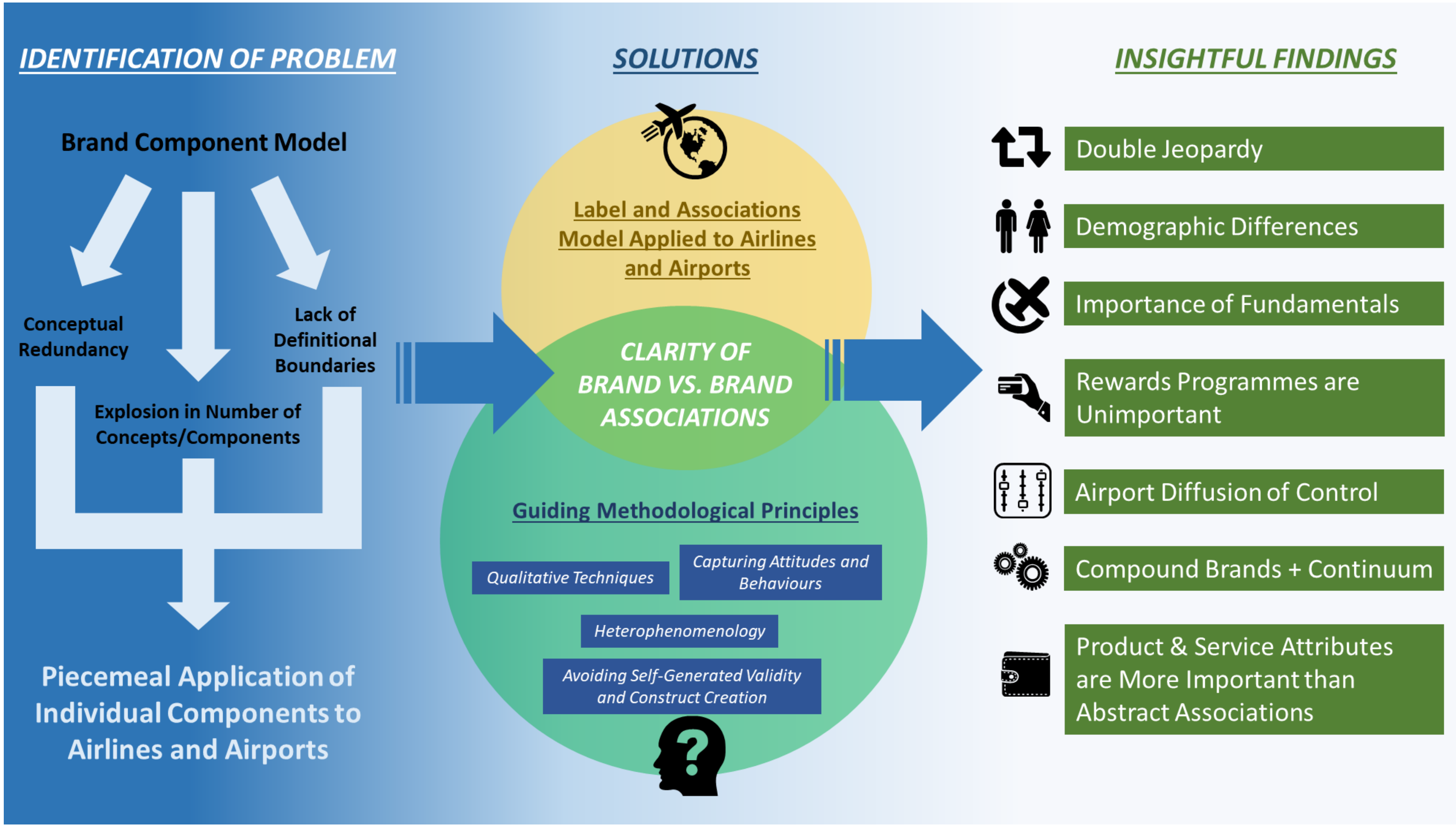
communications that are aimed at achieving attitudinal loyalty may be more effective on media platforms that have more female membership/distribution such as Pinterest. (See Chapter 2)

10. Leisure travellers are more likely to choose their airline brand based upon rewards programmes. Business travellers are less likely to book their own tickets and are less involved in the decision-making process compared with leisure travellers who usually pay for their own travel. These findings directly contradict the established assumption in the air transport literature that business travellers care more about points accumulation. This further mitigates the importance of rewards programmes for attracting high-value business travellers, instead suggesting that rewards programmes primarily influence price-sensitive leisure travellers. (See Chapter 2)

A Formatting Note

All studies presented in this thesis have been reproduced as they were submitted for publication or already published. However, there were some changes to be made to all the studies in terms of formatting (e.g., tables and figures), referencing style (this thesis uses APA 7), spelling (this thesis uses British English), and the use of third person (rather than first person) to ensure consistency throughout the thesis. Acknowledgements have also been removed from the studies. Accordingly, there may be superficial differences between the studies reproduced in this thesis and the versions were published or are under review, but no change to the substance of the studies. Also note that when the term "chapter" is used, this refers to the whole chapter including the preamble, whereas the term "study" is used when only referring to the work that is published, under review, or ready to be submitted for publication.

Graphical Summary of Thesis



The graphical abstract shows how the different elements of the thesis combine together to form one coherent work. On the left-hand side, the brand component model is identified in Chapter 1 as the source of many issues within the marketing literature, such as conceptual redundancy, an explosion in the number of brand-related concepts components, and the lack of definitional boundaries. In the air transport literature, these individual concepts and components have been applied in a piecemeal manner to airlines and airports without addressing what the underlying subject of study is (i.e., what the brand is). The middle part of the graphical abstract shows the approach towards studying airline and airport brands, combining the LAM (identified as the solution in Chapter 1), and combining this with the guiding methodological principles of the thesis. This involved using qualitative techniques in line with heterophenomenological principles to avoid self-generated validity and construct creation while studying consumer attitudes and behaviours. The result is clarity about brands *vs*. brand associations, where the name of airlines and airports (which are their brands under the LAM) are used by consumers to retrieve brand associations. On the right-hand side of the graphical abstract, we see the outcomes of this approach: insightful findings such as the role of double jeopardy in airline markets (Chapter 2), demographic differences between air travellers (Chapter 2), the importance of the airline fundamentals of price, time and reliability in influencing airline choice (Chapter 2), the lack of importance of rewards programmes for airline choice (Chapter 2), the diffusion of control that airport management has over the various entities that contribute towards their airport's brand associations (Chapters 3 and 4), the existence of compound brands and a compound brand continuum as new brand-related concepts (Chapter 3), and that consumers are more likely to use brand associations derived from tangible product and service attributes rather than abstract associations when choosing between airlines and airports (Chapters 2, 3 and 4).

Chapter One – Brands and Branding

Preamble

This chapter addresses the first research objective of the thesis. The chapter provides a clear definition for the brand concept so that it can then be applied to air transportation. Early on during this doctoral research, it became clear that 'brand' and its associated terms and concepts have many competing definitions and no clear boundaries around what they mean. To apply such an ephemeral and amorphous concept to air transportation would only result in confusion and an inability to build a foundation of knowledge. The chapter is the result of many different iterations of conceptual critiques, empirical studies, and definitions. The chapter presents a historical account of how brand definition has evolved over time and how this has created issues for brand research and theory. It then presents an empirical study that illustrates the scope of the problem. Finally, a brand definition is presented that provides clear boundaries around the concept and will allow much extant research to be adapted within this new definitional framework. Because branding is arguably the largest and most important topic within marketing, this chapter provides a substantial contribution to the marketing literature. However, a clear definition of the underlying concept is also a prerequisite for its application to other fields such as air transportation. The label and associations model (LAM) presented in this chapter offers clarity when examining important branding topics. The LAM of the brand is as a name and logo, and brand associations are the associations with those names and logos. In the aviation sector, it is important to understand how air travellers associate with airlines and airports via their names and logos. Chapters 2, 3 and 4 in this thesis examine the nature of these associations and how air travellers use them to make decisions with regard to airlines and airports for their trips. While this chapter deals with brands in general and is aimed at the marketing discipline, it does lay the foundation for later work within air transport and is important for establishing a common theoretical linkage between the chapters of this thesis.

Study One – A Solution to the Problem of Brand Definition

Publication Status and Candidate Contribution

This study has been submitted to a highly ranked marketing journal and is currently under review. Although the doctoral candidate is the first author on all of the other articles in the thesis, the doctoral candidate is the second author for this publication, with Dr. Mark Avis (one of the doctoral co-supervisors) as the first author. However, the doctoral candidate made a substantive and clearly defined contribution. The research method and approach were designed by the doctoral candidate, and all of the research and analysis was undertaken by the doctoral candidate. The doctoral candidate also provided some minor contributions towards the conceptual critique and definition, although these were primarily the work of the first author. Accordingly, the doctoral candidate has made a substantial and significant contribution towards the overall work through providing the research method, conducting the research, and undertaking the analysis of the research.

1.0 Abstract

The brand is one of the most widely used and discussed marketing concepts, but a *status quo* has developed whereby the brand concept sits in a definitional quagmire. The reason for the quagmire can be traced to the way in which the brand concept transitioned from a relatively simple description of a name and logo used to stimulate associations into a complex component model. This transition took place with no clear boundaries around the brand concept, derived from a multiplication of perspectives. The result is a brand concept that is increasingly opaque, whereby the scope, complexity, and diverging understandings mean that it is unclear what a brand is. This study presents an empirical study that serves to illustrate the consequences: an explosion in the number of brand-related concepts. The result is confusion in both research and theory. This study proposes a way out of the quagmire, removing the confusions in research and theory to allow for advances in marketing knowledge. In doing so, it also presents a case study on how to address seemingly 'intractable' definitional problems.

1.1 Introduction

"Here in lies today's problem, because most, if not almost all, definitions that we come across aren't definitions, but rather descriptions – most often they describe the effect brands have and call that brand, or something similar. Almost none of the practitioners and academics have an actual definition of brand to start with". Johannes Christensen, Director Strategy, Interbrand, Email correspondence, 2018.

What is a brand? Gabbott and Jevons (2009) examine this question with a concern that, like many other definitions, the concept is falling into a spiral of ambiguity. The quote given above suggests that the problems of brand definition have practical consequences and reminds us that academic marketing has a real constituency of practitioners to serve, highlighting that academics are failing to deliver adequate guidance to this constituency (Reibstein et al., 2009). The idea that conceptual definitions are an important subject has a long history in marketing (e.g., Alexander, 1937; Bartels, 1951) and this study's purpose is to reiterate this point. Furthermore, this study critically examines the absence of an agreed definition of the brand concept, whereby different theorists develop their own understandings of the concept (Schultz & Schultz, 2004). It has been accepted by some theorists as the *status quo* that a unified brand definition is increasingly impossible to achieve (Brodie & de Chernatony, 2009). In light of the considerable body of literature that emphasises the importance of definitions (e.g., MacKenzie, 2003; Summers, 2001) the *status quo* on brand definition should be questioned.

In seeking to address the problem of brand definition, there are some fundamental challenges. Firstly, reviews and syntheses have been tried but these have not resolved the problems of defining the brand concept (e.g., de Chernatony & Dall'Olmo Riley, 1998; Stern, 2006; Wood, 2000). Secondly, the huge volume of brand literature (e.g., Ballantyne & Aitken, 2007) means that claims of a 'comprehensive' review would likely be disputed and this study's research will demonstrate that it would, in any case, be impossible.

The brand concept is not unique in business and the social sciences as a definitional quagmire (e.g., Collier & Mahon, 1993; Gerring, 1999). Considering this study's review and research, it is argued that a reconsideration of the brand concept is not only overdue but also essential. Moreover, this study provides a solution which will answer many of the problems identified. The framework may initially perturb some brand theorists, but it nevertheless allows for extant research and theory to be adapted and continue to contribute towards brand theory. Lack of agreement on basic definitions can lead theorists to *talk past one another* (Stern et al., 2001), and this study's most important contribution is that its definition allows everyone to finally *better talk with each other*. However, it is also hoped that the study will present a case study for similar analyses in marketing, but also more broadly over business and the social sciences.

As such, where relevant, this study will draw insights from other disciplines (e.g., Gerring, 1999; Sartori, 1970).

This study commences with a review of why definitions matter (e.g., Anker et al., 2012; Gilliam & Voss, 2013), and proceeds to a critical examination of how the brand concept evolved (e.g., see Avis & Aitken, 2015). Next it provides a broad conceptual review of the brand (Yadav, 2010), identifying the problems that prompted this research. This study argues that the lack of brand definition has seen the brand concept expand in a way that diminishes its utility. After presentation of research to empirically illustrate the scope of the problems, a solution is proposed to overcome those same problems. The study ends by calling for a renewed focus on definitions in marketing and the social sciences.

Throughout this study, the term 'concept' is used, but the related term 'construct' also appears in some reviewed literature. As such, this study would like to clarify 'concept' in relation to 'construct' by using Carey's (2009, p. 5) definition of concepts as 'units of thought, the constituents of beliefs and theories' and note that Edwards (2011) defines a construct as being a *conceptual* term, such that construct is encompassed within the term 'concept'. This study uses the broader term concept in its discussions and research.

1.2 Conceptual Critique

1.2.1 The Problems of Definitions in Marketing

Within the marketing discipline, there have been periodic appeals to marketers to refine marketing thought, such as considerations of marketing in light of the philosophy of science (e.g., Hunt, 1991; Tadajewski, 2008), to more technical considerations such as 'construct validity' (e.g., Churchill, 1979; Jarvis et al., 2003). Theorists argue that, before measuring a concept, it is first necessary to identify what is actually being measured (Jarvis et al., 2003). As Edwards and Bagozzi (2000, p. 155) express the point, constructs "are the causes of measure, meaning that variation in a construct leads to variation in its measures". It is, therefore, unsurprising to find arguments that poor definitions lead to poor or problematic theory development (e.g., Dobni & Zinkhan, 1990; Harmancioglu et al., 2009). In discussion of marketing definitions, it is apparent that there are commonalities in many critiques (Gilliam & Voss, 2013). For example, contesting definitions of the same concept leads to studies of incomparable entities, preventing meta-analysis and the synthesis of findings (Jacoby, 1978;

Kollat et al., 1970; Stern et al., 2001), and also impeding development of empirical generalisations (Hunt, 1991).

Concerns over definitions have a long history (Alexander, 1937; AMA, 1948; Bartels, 1951; Hollander, 1956; Kollat et al., 1970; Schutte, 1969), with Jacoby (1978, p. 91) long ago describing the “bewildering array of definitions” within marketing as a “horrendous state of affairs”. Former editors of the Journal of Marketing and the Journal of the Academy of Marketing Science have expressed concerns about poor definitions (MacKenzie, 2003; Summers, 2001; Varadarajan, 1996). Their concerns include poorly defined/undefined new vocabulary, ambiguity, overlap of concepts and conceptual redundancy. The idea of ‘pseudo-definitions’ has been proposed: definitions of concepts by antecedents and consequences, creating theoretical linkages that cannot be falsified, or definitions determined by what is included in a concept but not clarifying what is excluded (Summers, 2001). Stern et al. (2001, p. 202) suggest for one marketing concept “no two researchers are necessarily talking about the same phenomenon”. The point captures the idea that theorists may be at odds with one another, not because they disagree, but because they are examining different entities that are given the same name.

The problems seem to persist despite scholarly discussion of the nature of definitions (e.g., Gilliam & Voss, 2013; Rossiter, 2001; Teas & Palan, 1997), and despite advocacy for good definitions (Zinkhan & Williams, 2007). As such, it is puzzling that a marketing concept as important as the brand might have numerous and variable definitions and for this to be accepted as the *status quo* (Brodie & de Chernatony, 2009). The problem may have arisen from viewing concepts as the ‘handmaidens of theory’, where the very abstract nature of many concepts in the social sciences allows for malleability (Gerring, 1999). Moreover, this study’s empirical illustration (presented later) demonstrates that the *status quo* has acted as a catalyst for the proliferation of brand concepts and needs to be strongly challenged.

Early concerns about brand definition focussed on clarifying ‘fuzziness’ around terms such as ‘private label’ (Schutte, 1969) but more recent definitional discussions have addressed the core concept of the brand (e.g., Conejo & Wooliscroft, 2014; Ind, 2004; Kapferer, 2004). Furthermore, brand definitions have been described as “personal”, “idiosyncratic”, and even “renegade” (Gaski, 2014, p. 1). The extent of the problem is further highlighted in Wood (2000) and Stern’s (2006) reviews, both of which capture the variability in the nature of brand definitions and prompted both authors to create ‘typologies’ for the definitions. Wood proposes consumer perspectives, brand owner perspectives and notes that brands may also be defined by their characteristics or purpose, whilst Stern uses literal/metaphoric, entity/process, world/mind, positive/negative valence and integrative categories (including brands as an entity and process, as mental representation and meaning in the world). It is interesting to note how fundamentally different the typologies are, for example with metaphor not included in Wood's discussion. Further, whilst Stern sees the brand concept as open-ended and developing, Wood synthesises the definitions to provide a unified definition. As Stern was writing after Wood, the latter's attempt at unification of perspectives did not succeed in its aim and this can be said of other similar attempts (e.g., de Chernatony & Dall'Olmo Riley, 1998). Kapferer (1992, p. 3) similarly, complained that "nobody is talking about precisely the same thing", "nobody can propose a satisfying definition" and proposed that their book would unify the understanding of the brand concept. Nevertheless, in a later book, Kapferer reiterated the same concerns, acknowledging that there had been no unification (Kapferer, 2004). With a few notable exceptions (e.g., Conejo & Wooliscroft, 2014), the inability to unify brand definition has been *de facto* accepted as the *status quo*:

> "These different perspectives [on brand] are an inevitable part of understanding such a contextual and dynamic phenomenon as a brand. Thus it is suggested that there never will be a unifying definition of 'brand' but a constantly evolving series of contexts of lenses through which the phenomenon is viewed" (Brodie & de Chernatony, 2009, p. 97).

The quote above is drawn from the work of Gabbott and Jevons (2009, p. 119), who observe that the "multiplicity of [brand] definitions are a serious hindrance to theory development". The quote captures why this is the case, as it describes a *status quo* in which the brand is an ephemeral entity. The essence of the problem is that the lenses must be trained on *something* and describing the brand as a 'phenomenon' does not actually describe what the *something* is. Further, in the context of research, it begs the question of how a researcher might identify that they are training their lens on a 'brand'? A field of study must have an identifiable subject that is being studied but the quote above suggests that the brand concept does not even qualify as a field of study on this most basic criterion. In the next sections, this study will provide its interpretation of why and how the brand concept became such an ephemeral entity.

1.2.2 Historical Perspectives and the Evolution of the Brand Concept

Originally, the brand was a means of identifying cattle (Hem & Iversen, 2004), and the first record of marketing usage of 'brand' can be found in a 1922 dictionary (Stern, 2006). There are several accounts that portray the brand as something that emerged in the 19th century as a Western innovation (e.g., Feldwick, 1991; McCrum, 2000), but other accounts propose that the brand commenced evolution in the classical world, ending with the 'modern' brand (e.g., Moore & Reid, 2008; Roper & Parker, 2006). The problem is that accounts and timelines for brand evolution diverge so much that even the most basic historic questions are disputed (e.g., compare Bastos & Levy, 2012; Moore & Reid, 2008). By contrast, Merz et al.'s (2009) account of brand history leans towards being an account of the evolution of the lenses (theory) rather than the brand entity itself. In their summary of brand evolution, for the 1900s–1930s they describe brands as identifiers of physical goods, the 1930s–1990s as functional and symbolic images, the 1990s–2000s as knowledge/relationship partners/promises and a final stage, 2000s onwards, of brands as dynamic and social processes.

The interesting point in the evolution is to compare the start and end points; the brand concept commences as a simple physical label but ends as a complex and abstract entity. The two understandings at these different points in time are entirely different, with the only commonality being the use of the term 'brand'. Nevertheless, this very startling point garnered no comment. The reason for the absence of comment may be that the supporting account of the evolution describes the changes as incremental. For example, the evolution to the stage of 'symbolic images' (e.g., Levy, 1959) was a continuation from a wider body of work (e.g., Haire, 1950). The implicit assumption is that the evolution of the brand concept is a progression of knowledge whereby a critical mass of research and theory prompts a change, and whereby the brand concept is understood in a new way. However, this view is debatable, as the change is not in the knowledge about the entity but is instead a change of the entity being studied. This becomes apparent in the brand definitions in Table 2.

Table 2

Example brand definitions

No.	Source	Brand Definition
1	American Marketing Association (1948, p. 205)	"A name term, symbol, or design, or a combination of them which identifies the goods or services of seller or group of sellers and distinguishes them from those of competitors".
2	Gardner and Levy (1955, p. 35)	"It is a complex symbol that represents a variety of attributes. It tells the consumers many things, not only by the way it sounds (and its literal meaning if it has one) but, more importantly, via the body of associations it has built up and acquired as a public object over a period of time".
3	Brown (1992)*	"Nothing more or less than the sum of all the mental connections people have around it".
4	de Chernatony and McDonald (1994)*	"an identifiable product, service, person or place augmented in such a way that the buyer or user perceives relevant unique added values which match their needs more closely".
5	Wood (2000, p. 666)	"A brand is a mechanism for achieving competitive advantage for firms, through differentiation (purpose). The attributes that differentiate a brand provide the customer with satisfaction and benefits for which they are willing to pay (mechanism)".
6	Conejo and Wooliscroft (2014, p. 11)	"Brands are re-defined as complex multidimensional constructs with varying degrees of meaning, independence, co-creation and scope. Brands are semiotic marketing systems that generate value for direct and indirect participants, society, and the broader environment, through the exchange of co-created meaning".

Remark: * Quote taken from Wood (2000), no page numbers given.

The interesting question that arises from the varied definitions in Table 2 is how researchers might, without being aware of it, be studying very different entities if they differ in what they think a brand is. The same question applies when looking at Merz et al.'s (2009) brand evolution. Sartori (1970) recognised the nature of the problem when discussing concepts as containers: meaningful research requires that the containers have comparable content (e.g., rabbits and stones cannot be meaningfully compared). If looking at Definition 1 versus definition 6 (Table 2), or brand as a logo versus a social process, the container content is not comparable. In their discussion of the definition of brand loyalty, Kollat et al. (1970) make a similar point with a very practical application: lack of agreed definition translates into a situation in which it is not possible for meaningful comparison of research findings, synthesis or meta-analysis.

Nevertheless, brand theorists believe that they are progressing knowledge, for example, Merz et al. (2009) implicitly paint the evolution of the brand in this way. In some ways this is understandable as, due to the incremental evolution of the brand, it is not always apparent to researchers and theorists that they are not examining the same object; in place of the rabbit in the container there is a hare, and it looks similar enough to the rabbit for researchers to assume it is the same object. However, as time progresses, the content of the container evolves further away from the rabbit, but the extent of the change only becomes apparent when looking at a long sweep of time.

The problems of the incremental evolution of the brand concept is further exacerbated by different theorists evolving the brand concept in different directions; in incremental steps, the rabbit in the container in one case evolves to the point whereby it becomes a cow and in another it becomes a cat. Thus, this study finds the different entities portrayed in Definitions 5 and 6 (Table 2). They may have some points in common, just as a rabbit, cow and cat are all mammals, but they are still very different entities. This is the 'ephemeral entity' *status quo* that was described earlier, and it is worrying that there is so little debate about the diverging and expanding understandings of the brand concept. There are some limited exceptions (e.g., Wood, 2000), but they have had little impact on the *status quo*. With no expectation as to what the brand container *should* hold, anything might be placed in it, whether a rabbit, a cow, a cat or even a stone. The point is that the purpose of a definition is to determine what should, and should not, be held in the container. In the next sections, this study will examine how and why the brand concept evolved.

1.2.3 The Transition to the Component Model of the Brand

Although Gerring (1999) observes that concepts are the 'handmaidens of theory', Gerring also recognised that concepts must have utility, for example, delineating the concept from other concepts. Provided by the American Marketing Association (1948, see Table 2), their early definition describes a relatively simple entity, a physical identifier to allow consumers to differentiate based on product origin. The definition represents a concept with relatively clear and delineating boundaries and excludes many entities that would today be considered part of the brand concept. This definition provides a straightforward model of the brand concept that this study describes as the Label and Associations Model (LAM). In this model, the physical identification acts as a stimulus for consumer associations and the important point in the model is that the associations 'belong' in the mind of the consumer (e.g., Loken & John, 1993). Although there is some implicit dissent from the model, in particular in some practitioner literature (King, 1973; Levy, 1959; Plummer, 1984/1985), the American Marketing Association (AMA) definition nevertheless captures the dominant academic view of the brand concept until the early 1990s.

The change in the understanding of the brand concept that took place in the 1990s is captured in the work of two leading brand theorists of the period: David Aaker and Kevin-Lane Keller. At the start of the decade, in a co-authored paper (Aaker & Keller, 1990), they discuss using a *brand name* to enter a new market and whereby the extensions are considered in relation to *associations* with the brand name (also see Keller & Aaker, 1992). Although this is less clear in some sections, the overall discussion is built on an assumption of a LAM. However, in the decade that followed, there was a gradual shift in their perspective, from and identifier to "brand and product together" (Aaker, 1991, 1996; as discussed by Ambler & Barwise, 1998). However, the evolution was more expansive and this study refers to this as the component model (CM). In addition to sometimes incorporating the product as part of the brand, the model also incorporated consumer associations such that they 'belonged' to the brand.

The process of transition towards a CM can be found in the literature of the 1990s, for example in Aaker's (1992) discussion of brand equity as assets *linked* to the brand name, but whereby the equity concept is itself comprised of components. Notably, *associations* appear as a component alongside those of loyalty, awareness, perceived quality, and other "proprietary assets". As the equity is implicitly a component of the brand, and the associations a component of the equity, it is possible to see how the associations are themselves drifting into 'belonging' to the brand. Whilst both Aaker and Keller never fully abandon the LAM, their later work nevertheless becomes more oriented towards the CM. For example, Keller (2000) and Aaker (2004) describe brands as having *characteristics/traits/attributes* (CM) but both studies also discuss brand associations (LAM).

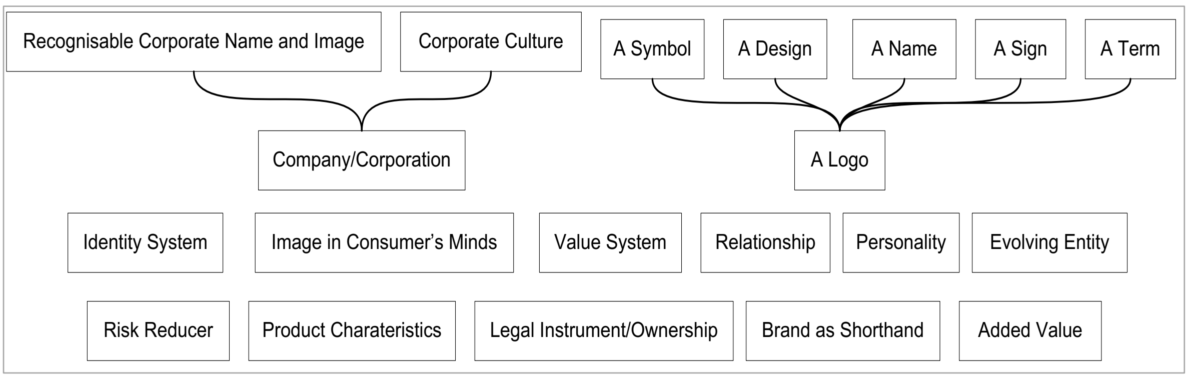
The drift to a CM can be found in other work. For example, Wood (2000) observes that theorists were adding '*any other feature*' to the identifying role of the brand and argues that the addition opens the way for the definition to include intangible brand attributes such as image to be the source of differentiation, and thus allows for the concept of brand image to 'belong' to the brand. However, other theorists were providing more explicit discussions of a CM. For example, Selame (1993, p. 22) states that "a brand comprises many elements", and gives examples such as trust, perception, value, and label. Similarly, Kapferer's (1992) influential brand identity prism is a variant of a CM.

As a result of the shift to the CM, at the end of the 1990s, Patterson (1999) could list 77 brand-related concepts, and observed the "almost unceasing introduction of new concepts to the branding literature" (also see Veloutsou, 2008). The multiplication of new components was not taking place in a vacuum, but could be seen in the multiplying number of 'lenses' (approaches) that were being trained on the brand concept, for example, managerial, psychological, sociological and anthropological (El-Amir & Burt, 2010). Other approaches continue to be introduced, derived from the adaptation of a wide variety of theoretical models into branding, such as stakeholder theory (Ind, 2004), service dominant logic (Ballantyne & Aitken, 2007) or from combinations of theories, for example, systems theory and consumer culture theory (e.g., Arnould & Thompson, 2005; Conejo & Wooliscroft, 2014). More brand components are being added through the extension of the scope of the brand into new areas, for example, subsuming managerial fields such as human resources under the banner of branding (Sirianni et al., 2013).

Of particular interest is the CM provided by de Chernatony and Riley (1998) as it is a synthesis of research and literature, encompassing academic and practitioner views in the early stages of the move to the CM, thus providing a 'snapshot' that captures the shift in thinking (see Figure 1). In addition to highlighting the move to CMs, the article highlights the importance of practitioner views in the development of the brand CM, as the review draws extensively on practitioner literature (e.g., Alt & Griggs, 1988; Blackston, 1992; King, 1973). The use of practitioner literature as a source of theory was not unusual at the time; Aaker (1991) and Keller (1993) both cite Plummer (1984/1985), and Aaker and Biel's (1993) edited book on brand equity drew both from practitioners and academic authors. The CM was often the implicit default of practitioners, for example in the work of King (1973) and Biel (1997).

Figure 1

Brand component model



Source: de Chernatony and Dall'Olmo Riley (1998, p. 426)

A likely driver towards adoption of the CM was the growing interest in the brand as a financial asset. Interest in the idea was exemplified by the 1989 valuation of the brands of RHM (Penrose & Moorhouse, 1989), generating interest from financial executives (Doyle, 1990), thus raising the profile of marketing and further growing interest in brands and branding (Louro & Cunha, 2001). It is probably no coincidence that the Journal of Brand Management and the Journal of Product and Brand Management were established in the 1990s.

Although there was enthusiasm for the brand as a financial asset, there was a fundamental problem with the notion: under the LAM, the value did not 'belong' to the brand but was located elsewhere in the associations in the minds of consumers. Notably, in the accounting literature, the idea that "placing of a financial value on customers has been acknowledged not to be a viable option" (Roslender & Hart, 2010, p. 739). Whilst early work used the LAM (Srivastava & Shocker, 1991), the problem remained that associations in the mind of a consumer were problematic as an equity asset. Further, questions were being raised about the validity of the brand as an asset with some questioning the separability of the brand from product and firm (Barwise et al., 1990). As such, it seems reasonable to propose that the development of the CM was a reformulation of the brand concept to overcome the fundamental problems of the LAM for brand equity (e.g., Aaker, 1992); the CM allowed 'ownership' of the value (in the associations) to be 'transferred' into the brand entity. Thus, the brand entity could 'have' value.

However, the transference of brand associations to the brand was taking place in a vacuum of clarity; the LAM definition was not applicable to the CM, but there was also no clarity of definition for the emerging CM brand. In creating their CM, de Chernatony and Riley (1998, p. 428), recognised the problem and thus created a 'unified' brand definition, setting boundaries around the brand concept; "the firm's activities (input) and consumers' perceptions (output)". Later, de Chernatony acknowledged that the definition did not unify (Brodie & de Chernatony, 2009), and their (very) broad boundaries have been breached (e.g., see Conejo & Wooliscroft, 2014). This is unsurprising as their synthesis was drawn from brand literature whereby the brand-related concepts were generated without clarity of brand definition: the components were generated in absence of definition, and thus without any boundaries on what might be included/excluded in the brand concept (i.e., rabbits and stones may have been placed in the same container, Sartori, 1970). The result of the open-ended CM was a massive expansion in the number of brand-related concepts (see section 1.3.2). Bearing in mind this expansion, and the failure of synthesis to unify in the 1990s (de Chernatony & Dall'Olmo Riley, 1998), it seems any hope of a CM synthesis would now be a fool's errand. The fundamental problem was that the CM evolved without any constraining definition.

1.2.4 The Case of Brand Equity

In this study, the case has been made that the brand concept has evolved unconstrained by any definition, and that this has seen an explosion in the number of concepts. This in turn has led to further problems in the understanding of the brand-related concepts themselves. Brand equity makes for an interesting case study for the examination of brand definitional problems as it is one of the most important brand-related concepts, led the adoption of the CM, and mirrors many problems of brand definition. Even as the concept emerged in the literature, Winters (1991) was questioning the development of multiple meanings for the concept. A few years later, Feldwick (1996) could already identify three broad and incompatible perspectives; the total value of a brand as a separable asset, the strength of consumer attachment to the brand, and a description of consumer brand associations and beliefs. Feldwick (2002, p. 57) later proposes that “we might find the whole area easier to understand if people stopped using those words [brand equity] altogether”. Despite this proposal, the brand equity concept instead grew in importance and scope and became more confused. For example, Brodie et al. (2002) argue that new perspectives on brand equity were encompassing new components (e.g., relational) which were stretching the brand equity concept too far, and propose using a broader concept of marketplace equity. A few years later, Christodoulides and de Chernatony (2010, p. 44) observed that the brand equity literature, “although substantial, is largely inconclusive”. A little later, Veloutsou et al. (2013) further note that there is no consensus on definition and very little agreement on the components of equity. Continuing the theme, Davcik et al. (2015, p. 5) titled a section of their review as “Brand equity: a measurement and conceptual disarray”.

It is apparent that the brand equity concept has proven to be difficult to define and conceptualise, and it is still mired in confusion. This raises the question of why this is the case. This study will use the example of brand image, proposed as a dimension of brand equity, to illustrate the problems. Firstly, although brand image is given as a dimension of brand equity by some theorists, other theorists propose different dimensions (Christodoulides & de Chernatony, 2010), such that image’s inclusion is itself contested. For example, in addition to brand image, brand associations, brand knowledge and brand meaning have all been proposed as dimensions (Christodoulides & de Chernatony, 2010). The problem is that Stern et al. (2001) consider brand meaning to be a subset of brand image, and Keller (1993, 2003) includes brand image as a subset of brand knowledge. Further, associations with a brand can encompass multiple concepts, such as brand personality (e.g., Aaker, 1997), and indeed anything else (Newman, 1957), such that associations start to merge with ‘blanket’ definitions of brand image

(Dobni & Zinkhan, 1990). As such, even at a superficial level, it is apparent that there is potential for confusion, both in terms of overlaps and how one brand-related concept relates to another brand-related concept.

The definition, meaning and boundaries of brand image are also problematic (Dobni & Zinkhan, 1990). Stern et al. (2001) review the concepts of 'marketing image' and, even if brand image is accepted as a dimension of brand equity, brand image is itself beset with problems. Firstly, Stern et al. divide the marketing image concept into corporate image, store image and brand image. Brand image is further divided into five perspectives: generic, symbolic, meaning and message, personification, and cognitive/psychological. Even within the perspectives there are sometimes divergent views; for example, Stern et al. (2001, p. 210) report that the "the meaning of meaning varies among researchers". There are several points in the review of marketing image that stand out. The first problem that the article highlights is the contested boundaries of the brand concept, captured in the delineation of image into store, corporate and brand. There is considerable confusion over whether the brand concept should be delineated from corporations and stores, and this is sometimes implicit. As an illustration, Aaker (1997), proposed a brand personality scale which was generalisable to *all* brands, and the stimuli used for the scale development included Kmart (store) and McDonald's (corporation). Nevertheless, separate store and corporate personality scales have been developed (d'Astous & Lévesque, 2003; van Rekom et al., 2006), suggesting disagreement with Aaker (1997) on the boundaries of the brand concept.

Notably, corporations are increasingly viewed as brands in their own right (Muzellec & Lambkin, 2009), and the concept of a corporate brand is causing conceptual confusion, overlap and conceptual redundancy in relation to concepts such corporate/organisational identity (Cornelissen et al., 2012; Singh, 1991). It is, therefore, unsurprising to see brand equity is encompassing ever more aspects of the firm; for example, King and Grace (2008) highlight the role of employees, and corporate social responsibility as important elements in building brand equity (also see Jones et al., 2007; Middlemiss, 2003). The logic of this thinking can be best illustrated with theory which ties brand equity to the concept of marketing orientation (Clark, 1999; Ind & Bjerke, 2007), a concept that encompasses firm-wide activity (Narver & Slater, 1990). In light of this, it is unsurprising to find theorists proposing that the "company is the brand" (Berry, 2000, p. 136) and "the brand promise becomes the firm promise" (Jones, 2005, p. 11). These theoretical perspectives are such that the firm and brand are starting to merge (i.e., rabbits and stones are being placed in the same container). This supports the prescient concerns about whether brand equity might be separable from the firm (Barwise et al., 1990).

The points above start to illustrate the problems surrounding brand equity. If just looking at brand image as a dimension, the brand image concept is sometimes overlapping with the brand concept, subject to varied definitions, with variable boundaries, and question marks surround how brand image and other brand-related concepts relate to one another. This creates a quagmire. The brand equity concept is comprised of components, and if brand image is a component of equity, then the meaning of the equity component will become contingent upon the meaning used for brand image. However, what brand image means is itself contingent on the understanding of the brand, for example whether corporate image is really the same as brand image.

The problem is that the brand concept is itself seen as being comprised of components and the nature of these components determines the understanding of the brand concept. As such a situation arises in which image is contingent on the understanding of the brand concept, brand equity is contingent on the understanding of image, and the brand concept is contingent upon the understanding of both brand equity and brand image; but these are also contingent on the understanding of the brand concept. One might continue in these circularities, but the point is clear: *the brand equity concept is built upon an infinite regress of confusion*. It is why Wood's (2000) review of brand equity commenced with questions of brand definition, and why there is persistent confusion surrounding the conceptualisation and components of brand equity (Christodoulides & de Chernatony, 2010; Feldwick, 2002; Veloutsou et al., 2013; Winters, 1991).

There is one point about brand image that Stern et al. (2001) do not raise in their paper, but which perhaps highlights just how muddled the brand concept has become. Some definitions of the brand concept look remarkably like 'blanket' brand image definitions (Dobni & Zinkhan, 1990; Wood, 2000), for example, defining the brand as "simply a collection of perceptions in the mind of consumers" (Fournier, 1998, p. 345). As such, the brand concept has evolved, according to some theorists, into what appears to be a variant of brand image, and thus brand equity becomes brand image equity, despite brand image being a dimension of brand equity.

The final point in this case study of equity is to further highlight the confusion surrounding relationships between brand-related concepts. Regarding antecedents and consequences, some theorists propose a direction of brand loyalty to brand equity (Aaker, 1991), but others propose the *vice versa* (Pitta & Katsanis, 1995; Taylor et al., 2004). As can be seen, antecedents become consequences, and consequences become antecedents. There are further problems of endogeneity and multicollinearity. Brand awareness, brand perceived quality, brand associations, and brand image not only predict brand equity (Aaker, 1991; Keller, 1993) but also brand loyalty (Buil et al., 2013; Da Silva & Alwi, 2008; MacDonald & Sharp, 2000), which itself is supposed to predict brand equity (Aaker, 1991). The problem extends back further into the literature, with antecedents of brand equity often cited as antecedents and consequences of each other, for example, brand associations result in brand loyalty (Buil et al., 2013) and brand loyalty results in brand associations (Romaniuk & Nenycz-Thiel, 2013). The interesting point is that each of the articles referenced is coherent in isolation, but when placed within the broader context of the brand literature loses coherence. Considering the literature that theorists draw from, such confusion becomes understandable, but also should raise serious concerns about the direction of the branding literature.

1.2.5 Summary of Conceptual Critique

The conceptual critique addressed an early book-length attempt to unify brand definition (Kapferer, 1992), which failed on its own terms (Kapferer, 1997). This study highlighted the problems of the brand concept as an evolving entity, proposed the source of the evolution and examined how this translated into open-ended boundaries, which in turn translated into ever more perspectives. This study's critique addressed practical outcomes, highlighting how the many problems of brand definition translate into problems in trying to conceptualise, organise and understand key brand-related concepts. It is therefore unsurprising that brand definition is described with terms such as "personal", "idiosyncratic", and "renegade" (Gaski, 2014, p. 1).

The case study for brand equity provides an illustration of the real problems that arise as a result of the problems of brand definition, resultant from an open-ended CM. As far as possible, this study avoids highlighting any individual scholar's work as a problem, but instead highlights how the literature as a whole creates incoherence. Most of the work reviewed was scholarly, thoughtful, well-researched and, on its own terms, quite reasonable. The problem with such worthy efforts is the definitional framework in which they are set. *Definitions do matter.*

Overall, this study argues that there is very genuine cause for concern about the coherence and current direction of brand literature and theory. The brand concept continues to evolve in multiple directions built upon a CM that is lacking boundaries and definitional coherence. The result is that the brand continues to become an ever less useful concept. Whilst the problems in the literature provide support for this view, in the next sections this study presents research findings which confirm that the adoption of the CM has seen an 'explosion' in the number of brand concepts.

1.3 Empirical Illustration

1.3.1 Purpose and Approach

The conceptual critique identified that the brand concept has become a definitional quagmire with ever-expanding boundaries and little coherence. To further examine these issues, an empirical study was undertaken to examine the impact of this definitional quagmire upon the proliferation of brand-related concepts. This sought to answer one question: *What has been the extent of the increase in number of brand concepts, if any?* To examine this question, three major academic databases were searched, selected on the basis of their breadth of coverage and varied advantages (Avis et al., 2012): Google Scholar, Scopus, and Web of Science (searching between 31 July–2 August, 2018). For inclusion, an article needed to have 'brand' in its title, be about branding (marketing), had to be a journal article, and selection was based on each database's internal relevance algorithm. No judgement was made about the quality of the articles or any other subjective factor. The top 250 eligible results from each database comprised the sample used for analysis. This resulted in a total sample of 730 articles (some articles were in more than one database) over a period of 73 years, with the earliest article published in 1946 and the most recent 2019 (published in advance and available in 2018).

For article analysis, this study established a set of protocols to search for and identify brand-related concepts, with codified rules so that other researchers could replicate the results. The replicability of this protocol was tested using a brand expert[1] (not connected to the project) to replicate the process for a random sample of 30 articles from the total sample. The rules developed were resultant from several iterations of trial and error by the researchers aimed at capturing 'genuine' brand-related concepts (see definition for what is considered as a concept just above the title to section 1.2) and avoiding spurious data. However, during the iterations,

[1] Explanatory note for thesis (not for publication): The brand expert was a PhD student in the area of marketing/branding, but not affiliated with the project.

it was very apparent, even with rules, that there were many fine-grained judgement calls required.

The process of identification commenced using the search function to identify all mentions of the word 'brand' (picking up all *brand* words, e.g., branding). Where the article was not available electronically, the researcher highlighted all brand mentions manually. When examining an article, concepts contained within areas such as biographical information, keywords, journal titles and survey instruments were excluded. Using the set of codified rules, it was important to first determine whether it was a brand-related concept (as defined by the rules), and secondly whether it was a new concept in the article being examined (e.g. 'new brand' and 'old brand' would be treated as the same concept 'brand age'). There were also lists of alternative terms (i.e., where the same concept had more than one label) and excluded terms (e.g., methodological terms). Descriptive analysis was then carried out using an Excel spreadsheet and regressions were carried out using SPSS 22 to examine the relationships between publication year and number of brand-related concepts, as well as publication year and percentage of new brand-related concepts.

Due to the large volume of rules and data points stemming from the empirical illustration, they are not reproduced in this study for the sake of brevity. However, the following three supplemental material files can be downloaded to help contextualise the findings of this research, validate and replicate this study's results, and to allow for other researchers to conduct their own analyses (full links in footnotes for readers of print version):

1. List of Codified Rules and Raw Data for each Article (word file)[2]
2. Inputted Data for Analysis (excel file)[3]
3. Replication for 30 Articles by Independent Coder (excel file)[4]

1.3.2 Results and Discussion

The analysis identified 11,390 unique brand-related concepts from the sample of 730 articles (Figures 2, 3 and 4 are based upon this sample). From the total number of unique brand-related concepts, this study also examined the total number of unique brand-related concepts mentioned in at least *x* number of articles (

[2] Full link: https://www.dropbox.com/s/w1ysooaa0npcqv1/Brand%20Concepts%20-%20Rules%20and%20Raw%20Data.docx?dl=1
[3] Full link: https://www.dropbox.com/s/qp798lwdf3j1p9j/Brand%20Concepts%20-%20Inputted%20Data%20for%20Analysis.xlsx?dl=1
[4] Full link: https://www.dropbox.com/s/8f2pyd113yjvxbl/Brand%20Concepts%20-%20Independent%20Coder%27s%20Results.xlsx?dl=1

Figure 4). This study considers separate identical/similar wording (e.g., strong brand and brand strength) in five articles unlikely to be a coincidental stringing-together of the same words, and thus represents a brand-related concept that is either 'established' or in the process of becoming so. Using the threshold of five articles, there are at least 851 unique brand-related concepts. The comparison between this study's results and those of the independent brand expert reflected the necessity of fine-grained judgement calls. In the first rendition, 22.44% (298) of brand-related concepts mentioned across the 30 randomised articles were not replicated, and there were an additional 21.16% (281) in new brand-related concepts mentioned. This meant the initial replication had a net change of 1.28% (17) less concepts mentioned. Following this, there were two rounds of result reconciliation with the independent coder, however, five differences could not be reconciled and had to be put to a third person. After reconciliation, only 3.01% (40) of brand-related concepts mentioned in the analysis were not replicated, and an additional 11.60% (154) in new brand-related concepts were found. The result is a net addition of 8.58% (114) in the number of brand-related concepts in the replication versus the analysis.

There was a statistically significant exponential relationship between the number of brand-related concepts in an article (c) and year of publication (y), $c = 7.98614e^{0.02386(y-1945)}$ (R^2 = .0135, $p < 0.001$, $y \geq 1946$). This means that the number of brand-related concepts exponentially increased each year between 1946 and 2019. However, the percentage of *new* brand-related concepts per article (C) decreased over time. This significant relationship can be quantified by the following quadratic equation: $C = 0.913 - 1.346e^{-2}(y-1945) + 7.453e^{-5}(y-1945)^2$ ($R^2 = 0.652$, $p < 0.001$, $y \geq 1946$). However, the results below indicate that this reduction in the percentage of new brand-related concepts per article was outweighed by the size of the increase in the number of different brand-related concepts mentioned per article.

Figure 2

Total number of unique brand-related concepts over time

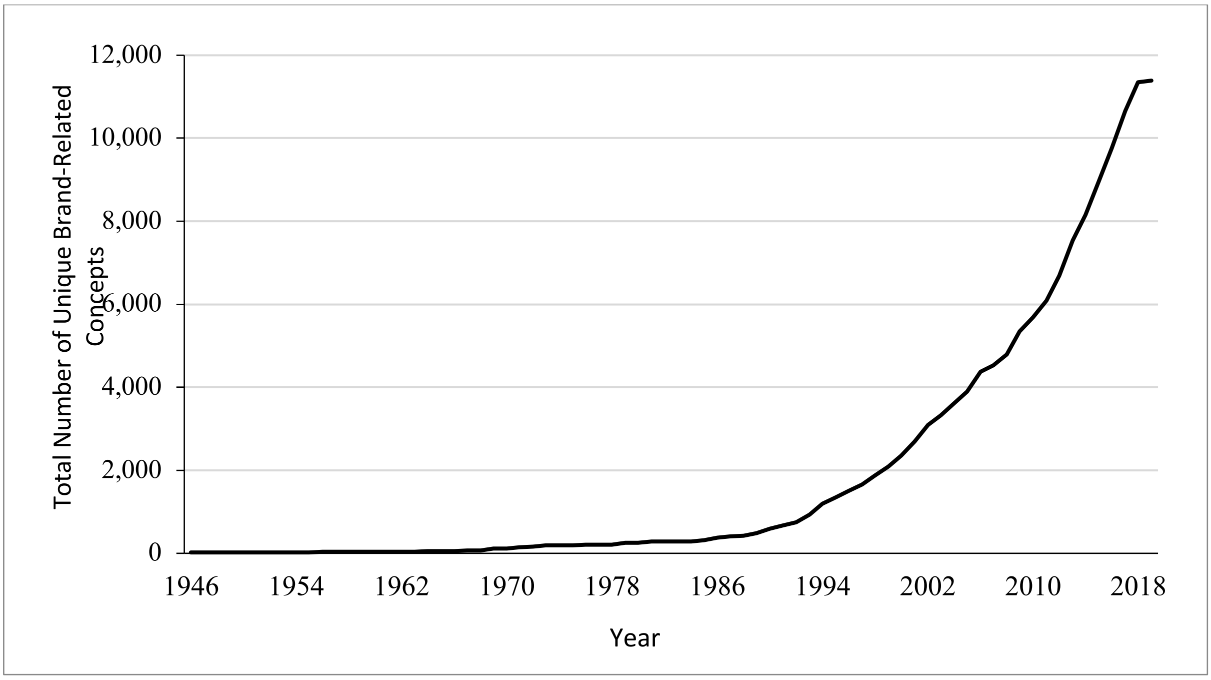


Figure 3

Average and moving average number of brand-related concepts per article by year of publication

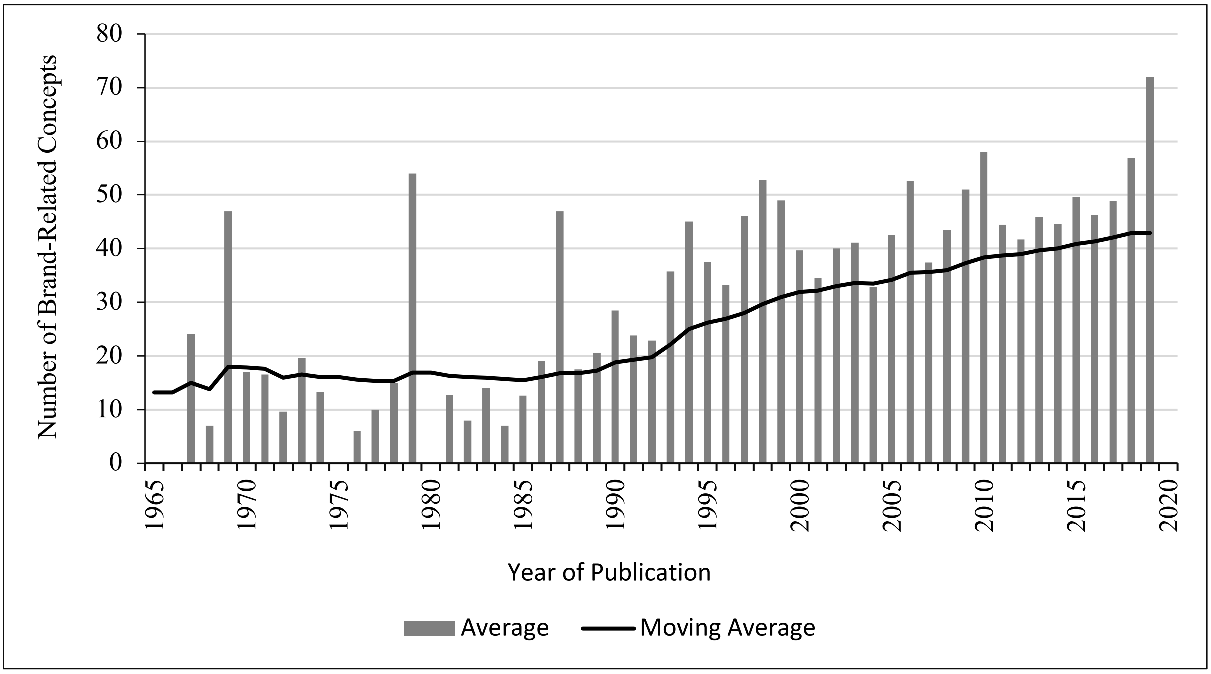
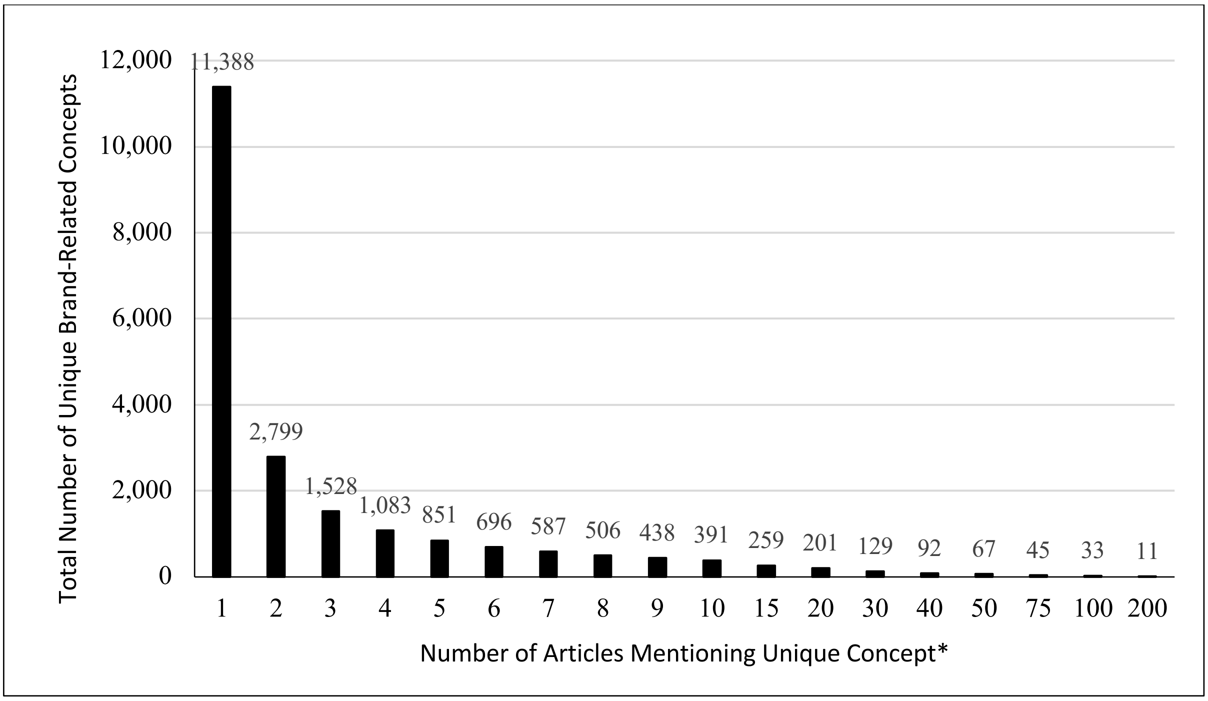


Figure 4

Total number of unique brand-related concepts mentioned in at least x number of articles



Remark: * If a unique concept appears in five different articles, it will be included in the total for the column labelled '5'.

Despite using a conservative threshold of five articles for a concept to appear in, 851 brand-related concepts were found for 2018. This large proliferation of brand-related concepts should raise concerns for researchers. It is also worth highlighting that this study's findings are from just 730 articles, which draw from a massive body of branding literature. The total number of concepts found reflect the casual language applied to the brand concept, which can develop into more formal concepts (e.g., the brand's ability to do '*x*' becomes the brand ability concept). The sheer volume of different brand-related concepts may serve to raise concerns, but the devil is in the detail. Table 3 shows the ranking of brand-related concepts by numbers of mentions, however, also displays the number of variants for each brand-related concept. The results show that even core concepts like brand equity (403 variants) and brand image (280 variants) are mired in definitional and theoretical confusion (e.g., Brodie et al., 2002; Christodoulides & de Chernatony, 2010; Feldwick, 2002; Veloutsou et al., 2013).

Table 3

Ranking of brand-related concepts by number of mentions

Rank	Concept	Mentions	Variants	Examples of variants
1	Branding	408	1128	Anti-branding, Branding Capability, Sub-branding
2	Brand Name	357	303	Umbrella Brand Name, Brand Name Appropriateness
3	Brand Image	340	280	Brand Image Cohesiveness, Parent Brand Image
4	Brand Loyalty	312	122	Product Brand Loyalty, Behavioural Brand Loyalty
5	Brand Category	305	48	Retail Brand Category, Brand Category Breadth
6	Brand Equity	300	403	Attendee-Based Brand Equity, Brand Equity Evaluation
7	Brand Associations	243	158	Abstract Brand Associations, Brand Association Desirability
8	Brand Knowledge	229	55	Brand Knowledge Dimensions, Constituent Brand Knowledge
9	Brand Manager	209	58	Corporate Brand Manager, Brand Manager Authority
10=	Brand Awareness	208	38	Destination Brand Awareness, Brand Awareness Enhancement
10=	Brand Strength	208	79	Affective Brand Strength, City Brand Strength
12	Brand Identity	180	148	Community Brand Identity, Brand Identity Building Blocks
13	Brand Management	177	204	Brand Management Approach, Brand Management Myopia
14	Brand Personality	175	218	Brand Personality Appeal, Corporate Brand Personality Characteristics
15	Brand Value	171	168	Green Brand Value, Brand Value Chain Process
16	Brand Extension	165	187	Brand Extension Evaluation, Athlete Brand Extension
17	Brand Attitude	161	70	Focal Brand Attitude, Brand Attitude Change
18	Brand Relationship	157	134	Brand Relationship Commitment, Brand as a Self-Verifying Brand Relationship Partner
19	Brand Age	156	27	Consumer Brand Age, Industrial Brand Age
20	Brand Preference	131	25	Luxury Brand Preference, Brand Preference Homogeneity

In the review, this study provides an explanation of what has taken place to allow the brand concept to expand into the current state of incoherence. As was surmised before the research, the introduction of the brand equity concept and the subsequent adoption of the CM appears to be the foundation of the problem. The dramatic growth in the number of brand-related concepts (in absolute terms and on a per article basis) commences in the 1990s, exactly when the transition to CM was beginning. The incremental transition from the LAM to the CM took place without any agreement of what the CM version of the brand concept was, and without any clarity on the boundaries of the new concept. With different lenses, theoretical perspectives, and an absence of boundaries, the brand concept grew and started encompassing business concepts such as the firm. Thus, it became impossible to stop the multiplication of brand-related concepts, whose sheer volume and breadth make any attempt at defining the CM brand concept impossible.

What the brute numbers of concepts found in the research cannot express is the qualitative nature of the literature. This study urges readers to browse through the data documents and consider the content as this may be surprising to many. Again, this study stresses here that it is not the individual work that is a problem, but rather the problem lies in the body of work as a whole. The review commenced with the many scholarly considerations of the importance of definitions which makes the development of the brand concept puzzling; *the brand concept has grown to be one of the most important marketing concepts, but that growth has taken place without any clarity of definition*. As has been pointed out, brand theorists have themselves admitted that this is the case, and the absence of any agreed definition has become the *status quo*. The research findings highlight exactly why this *status quo* is a problem and, in the next section, this study provides a solution to resolving the problems of brand definition.

Although the findings of this research may be seen as a problem by some theorists, other theorists might argue that the expansion of the brand concept is a sign of a dynamic area of study (Patsiaouras, 2019). However, as is illustrated with the examples such as brand equity, it is apparent that the rapidly expanding numbers of concepts is leading to confusion about what, *exactly*, the concepts are. This is not a matter of theory alone; the quote at the start of the study highlights that it translates into problems of practice. Although some may argue that the problem this study highlights is not a problem, there is a real constituency seeking clarity. As such, this study argues that conceptual clarity matters.

1.4 A Return to the LAM?

It could be argued that the variability of brand definition is nothing unusual since there are similar problems with other marketing and social science concepts, so there is no cause for concern. This would be akin to suggesting that, because your neighbour's house has poor foundations, it is okay for your own house to have poor foundations. Further, taking this *status quo* approach is unnecessary because the problems of brand definition can be fixed. The solution this study proposes draws from the research and review presented thus far. If the root of the problem was the transition from LAM to CM, the solution is to return to the LAM as it was conceived in the early 1990s. This study therefore redefines, or rather returns, the brand concept to be defined as:

> A brand is a trade name/logo that *identifies* a product and/or service or firm, usage of which may be limited by legal structures and practice.

In constructing the definition, this study has followed some of the key principles outlined by Gilliam and Voss (2013): it is unambiguous, it creates clear boundaries, and implicitly excludes many other concepts/components that have previously been attached to the brand concept, including intangibles as well as tangible elements such as packaging. Most importantly, this study argues that it adds significant value to the development of marketing theory and research by returning to the LAM. However, in order to achieve that value, this study provides the following clear definition of brand associations:

> Brand associations are what comes into the mind of individuals on the presentation of a brand [name or logo].

Note here that the source of the 'associations' is tightly bounded whilst also being open ended in respect to any kind of association. This is important, as it allows much extant research, theory and concepts to be encompassed as brand associations (e.g., brand personality, corporate, website etc.). Further, each type of association can be formally defined, for example, corporate associations might be defined as 'any associations that come into the mind of an individual on the presentation of a brand [name or logo] which relates to a corporation'. Corporate associations might be further sub-classified, for example corporate social responsibility associations, with similar potential for clarity.

As such, the return to a LAM, purposefully and carefully constructed, will allow for the importation of current theory and knowledge (e.g., see Oklevik et al., 2020 for a 'nascent' example of returning to the LAM), but in a definitional framework which will allow for the development of a coherent body of knowledge, thus providing for more sophisticated forms of knowledge (e.g., comparison, synthesis, meta-analysis, Kollat et al., 1970). There are many questions that can be examined within the definitional framework: the antecedents, combinations, strength of associations, the impact of different types of associations on consumer choice, the impact of portfolio strategy, how associations can be used and so forth. Furthermore, brand associations within the LAM reflect and incorporate the holistic nature of the associations that consumers make when presented with a brand name or logo (e.g., Aaker, 1996; John et al., 2006). It does not matter whether the subject is ‘McDonald’s’ or ‘Big Mac’, ‘Pampers’ or ‘P&G’, the same concept is the subject of inquiry, research and theory.

Some of the current brand-related concepts may be retained, for example, brand attitude. However, any such concepts also need to be clearly defined and their retention should be contingent on the definition delineating the concepts from brand associations (i.e., there should be no overlap of concepts). Perhaps the most troublesome of the brand concepts is brand equity. This study endorses the view that brands influence marketplace choices and financial returns (e.g., price premiums for luxury ‘designer’ brands or distribution intensity for FMCG) and think the proposed framework will help clarify research and theory on these topics. However, this study also agrees with Feldwick’s (2002) proposal that the term ‘brand equity’ is a hindrance to clarity of thought. In any event, it is argued that a return to the LAM will be an aid in consideration of the questions surrounding the role of brands in marketplace choice and financial returns.

1.5 Conclusion

This study has detailed the many problems of brand definition, both in principle, and in the practice of research and theory, and provided empirical support for the problems identified. The argument of this study is that the marketing discipline has a choice over how the brand concept might be defined and conceptualised. It may continue to be what Schultz and Schultz (2004) describe as a ‘Humpty Dumpty’ concept, whereby the brand concept is whatever any theorist wants it to be. If this continues, this study’s research shows that the brand concept will become an ever more unwieldy and amorphous concept and the confusion in research and theory will only increase. Therefore, the first contribution is the resolution of the problem of brand definition and the provision of a framework which can see clear and coherent advances in marketing thought and knowledge. This study is fundamentally optimistic; the marketing discipline has a wealth of creativity and intelligence to draw upon, and therefore this study considers that with a reset, existing knowledge can be adapted into a new and more productive definitional framework. The second contribution is forward-looking: the approach taken by this study can be used as a future case study or template for future research and theory development (see below). The last contribution can be found in this study's detailed research on brand-related concepts, which can serve as a starting point for the development of a new LAM for the brand concept.

1.6 Future Research and Theory Development

Although the focus of this study was brand definition, it is argued that this study has broader significance. The problems of brand definition may be a particularly acute example of a wider and enduring problem in marketing, and in the social sciences more broadly (e.g., Sartori, 1970). As such, this study can be seen as a case study of how seemingly intractable definitional problems might be addressed. The key elements of the case study are: (1) identifying whether there is a genuine problem, (2) tracing the source of the problem by identifying the evolution of the concept, and (3) empirically identifying the scope of the problem. One might expect that the problems and the source of the problems are going to be shared for many other concepts. This then leaves a question mark as to how to resolve any problems that are identified, and it is hoped that the *principles* that have been applied in the case study can serve as a guide for resolution of similar underlying problems. This study found a specific solution to the problem of brand definition but addressing other conceptual problems will need to be done on a case-by-case basis. For marketing specifically, it is hoped that the future might see the development of taxonomies of brand associations, and conceptual work to translate existing literature into the brand LAM. Both tasks will be challenging but will also spur lively and scholarly debate. Alongside these tasks, there is the challenge of evaluating which of the current brand-related concepts might be retained. This is likely to be contentious, and this study encourages civil and thoughtful debate to resolve the issues that arise.

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Chapter Two – Applying Brands to Airlines

Preamble

Having addressed the issue of brand definition in Chapter 1, this chapter examines how consumers choose between airline brands within New Zealand's duopolistic market. By elucidating brand associations that were used by participants to choose their most recent domestic flight, and also the criteria they apply more generally when choosing between airlines, the chapter's theoretical underpinnings are consistent with the LAM presented in Chapter 1. Accordingly, this chapter meets the second research objective of the thesis: an examination of airline brand choice in a manner that is consistent with the conceptualisation of the brand construct achieved in Chapter 1. The chapter shows both the clarity and the flexibility that the LAM brings because the brand associations that determine airline brand choice may take many different forms, but also are clearly linked back to the brand by identifying the product, service or firm (in this case an airline). In this case, the two key airline brands were Air New Zealand and Jetstar – both of which can be clearly identified with their name and logo. Participants had associations linked via memory to these brands to form brand associations, and described these in terms of the reasons for choosing their most recent airline flight (thus only capturing the brand associations relevant to the last purchase decision). This conceptualisation is consistent with the LAM presented in Chapter 1. The important factors for airline brand choice highlight the sorts of brand associations that airlines *should* have if they wish to have a more favourable likelihood of brand choice. Thus, the LAM provided an effective framework to work within and sufficient clarity for the research to be conducted and interpreted.

The drivers of brand choice and brand loyalty are important considerations within air transportation, with a significant extant body of research into the two related areas. However, as will become apparent when reading through this study, past research on airline brand choice and loyalty suffers from two significant issues: (1) self-generated validity, where research begins with assumptions about what knowledge, attitudes and beliefs exist in consumers' long-term memory, and (2) the use of attitudinal measures as proxies for actual consumer behaviour. The methods applied in this chapter are new to air transportation but are established within marketing. Aside from this methodological contribution, the chapter also empirically demonstrates the existence of 'double jeopardy' within air transport markets, whereby smaller brands have less loyal customers because they are more difficult to purchase from than larger brands. This finding is based upon real consumer behaviours, rather than attitudinal measures, explaining the contrast in findings with extant literature. When double jeopardy is taken into account, only price, time and reliability are significant factors in determining airline choice. Accordingly, this chapter also presents an important managerial contribution by questioning the efficacy of long-established strategies such as the development of frequent flyer programmes.

Study Two – Airline Brand Choice in a Duopolistic Market: The Case of New Zealand

Publication Status and Candidate Contribution

This study was published in *Transportation Research Part A: Policy and Practice* in March 2019. The doctoral candidate is the first author of the publication, with the doctoral supervisors being co-authors. The doctoral candidate is the first and corresponding author of the publication who contributed the most to the work, with all the doctoral supervisors being co-authors.

2.0 Abstract

This study examines how consumers choose between airlines for domestic flights within New Zealand, where there are only two major airlines, a full-service carrier (FSC) and a low-cost carrier (LCC). Using semi-structured qualitative interviews, information about 209 participants' most recent domestic flights is elicited. The authors identify the reason(s) behind why passengers chose their airline (i.e., post-consumption) as well as the important factor(s) in determining which airline they will fly on in the future (i.e., pre-consumption). There are 11 major reasons (post-consumption), and 10 major important factors (pre-consumption). These are associated with gender, age, occupation, citizenship, travel characteristics (frequency, recency and purpose) and whether the flight was for/from international transit. Probit regressions are used to predict airline choice based upon the pre-consumption and post-consumption themes, respectively. The findings suggest that airline managers should focus on market penetration through fundamental airline attributes (price, time and reliability) to grow market share.

2.1 Introduction

Airline choice is a well-studied area of the air transport literature (e.g., Hess et al., 2007; Pels et al., 2001). Of particular interest has been how consumers choose between airlines with different business models, such as low-cost carriers (LCCs) and full-service carriers (FSCs) (e.g., Pearson et al., 2015; Proussaloglou & Koppelman, 1999). Such research has also identified many potential airline and consumer variables (e.g., price, purpose of travel, frequent flyer programmes, etc.) that play a role in the consumer airline choice process (e.g., Carlsson & Löfgren, 2006; Dolnicar et al., 2011). By understanding differences between travellers and how they view different attributes, airlines are able to adjust their strategies in order to align with consumer preferences (Balcombe et al., 2009; Getz & Brown, 2006).

The New Zealand domestic airline market is an interesting place to study airline choice because it is a market with only two major carriers: (1) a full-service flag carrier (Air New Zealand); and (2) a low-cost carrier that is a relatively new entrant (Jetstar[5]). Air New Zealand has market dominance in terms of routes, offering flights to 20 different destinations within New Zealand compared with the nine destinations serviced by Jetstar (Air New Zealand, 2018; Jetstar, 2018). Collectively, the two airlines account for around 99% of the domestic airline market (Forsyth Barr, 2018; Jetstar, 2017). This allows airline choice to be represented as a dichotomous variable between an FSC and an LCC because the vast majority of the time consumers face a choice between only two carriers. This provides a certain ecological validity (see Brunswick, 1955) that would not be attainable in international markets, which typically involve more competitors. Consumers' observed decisions for either carrier in the New Zealand domestic airline market can be compared against their subjective preferences to see what drives consumer choice in a basic FSC vs. LCC market. To make this comparison, interviews are used to produce qualitative data, ameliorating the potential problem of self-generated validity (discussed later, Feldman & Lynch, 1988). Furthermore, the large number of interviews (n = 209) are sufficient for the thematically classified qualitative data to be used to construct probit models.

This study finds that there are specific attributes that airline customers use, but the study nevertheless confirms key branding principles (e.g., Ehrenberg et al., 1990) in the airline industry and discusses their implications for airline managers. Specifically, the study concludes that airline managers should focus on increasing market penetration through simpler measures (price for LCCs and time and reliability for FSCs) as opposed to focussing on customer loyalty to increase market share (Sharp, 2010). In addition to the managerial implications in terms of airline attributes, this study also provides unique insights into the role of demographics in the importance of airline attributes and how airline managers can leverage this in their use of marketing communications.

The study is divided as follows: first, a review of literature on airline choice and related subjects is presented to identify the contribution of this study; second, the method is outlined and

[5] Note: where this study refers to 'Jetstar' in the New Zealand domestic airline market, this is specifically referring to Jetstar New Zealand Limited.

justified; third, the results are presented; fourth, the results of the study are discussed in terms of their managerial implications; and finally, the study concludes its findings and identifies its limitations.

2.2 Literature Review

Airline competition has been an important point of study within the aviation industry ever since its deregulation in the United States and subsequent liberalisations throughout the world (Borenstein, 1992; Graham et al., 1983; Wang et al., 2016). Particular focus since deregulation has been placed upon competition between airlines with different business models (FSC *vs.* LCC) and ownership structures (government-owned *vs.* privatised) (Franke, 2004; K. Wang et al., 2018). As with other industries, competition for market share involves ensuring that the airline has aligned its strategies and operations with consumer preferences. Direct competition between FSCs and LCCs has led to a number of distinctions between such airlines from a consumer perspective (O'Connell & Williams, 2005). However, both these business models have evolved and changed in different ways in different parts of the world. For example, in Europe, there has been convergence between the business models, where former FSCs have adopted practices like axing business class or charging for checked baggage and LCCs have adopted practices like interlining (Daft & Albers, 2015). The International Air Transport Association (IATA) also notes the blurring of the original LCC/FSC distinction, with the Asia Pacific region being the only one with airlines surveyed that still adopt pure FSC business models (Angiolelli-Meyer, 2017). This is true in the case of the New Zealand domestic market too, with Air New Zealand adopting practices such as a single-class cabin and charging an extra NZ$10 to have a checked bag. However, other typical FSC attributes such as the serving of food and drink on-board are present despite the fact that most flights within New Zealand last around 1 hour. Jetstar largely follows the typical LCC business model, but unlike most LCCs, it does not use secondary airports. This is because the large distances between airports in New Zealand makes airport competition largely unviable (Forsyth, 2006). Because of the duopolistic nature of New Zealand's domestic airline market, Air New Zealand can be seen as the FSC/legacy carrier/national carrier and Jetstar as the LCC alternative. This provides a unique methodological advantage that would not be possible in other parts of the world by providing only two clearly differentiated choices between an FSC and an LCC.

Loyalty and its determinants may be important for this study in that loyalty would imply that air passengers are biased towards choosing one airline over the other (Chaudhuri & Holbrook, 2001; Jacoby & Kyner, 1973). Various airline attributes have been identified as determinants of airline loyalty, however, some common examples include price/fare, flight frequency, in-flight services, reputation, safety, loyalty programmes/frequent flyer membership and the status of being the national carrier (Chang & Hung, 2013; Dolnicar et al., 2011; Fourie & Lubbe, 2006; Vlachos & Lin, 2014). The idea of airline loyalty is predicated upon relationship marketing: the idea that airlines should focus on customer retention and repeat sales by building long-term relationships (Fournier, 1998; Gilbert, 1996). The long-term nature of airline loyalty means that some researchers have looked at antecedents/predictors of long-term purchasing behaviours such as satisfaction, trust, corporate image, service quality, and brand affect (Anuwichanont, 2010; Forgas et al., 2010; Zins, 2001). Aside from increasing customer retention in the long-term by increasing customer satisfaction, it is also possible for airlines to introduce switching barriers (Chang & Chen, 2007). This relates to marketing activities in that airlines can either positively frame messages (emphasise the benefits of flying with the airline) or negatively frame messages (emphasise the loss of the same benefits if another airline is flown with), where positively framed messages have been shown to be more persuasive when air travellers are under time pressure, and negatively framed messages are more persuasive when there are no great time constraints (Lin et al., 2006).

The impact of various airline attributes upon customer satisfaction has been the subject of much research, often with particular focus on the effect of service quality (e.g., An & Noh, 2009; Hussain et al., 2015). A common reason given for the importance of customer satisfaction is that it is said to be the most important predictor of customer loyalty (Oliver, 1999; Ringle et al., 2011). Moreover, it has also been found that air passengers' perceived satisfaction has a significant and positive effect on their behavioural intentions (Chen, 2008; Halil et al., 2008). Passenger satisfaction also enhances loyalty for LCCs and has been found to be more important than price (Akamavi et al., 2015).

According to Driver (1999), airlines' primary marketing decisions centre around product/service provision to routes, seat allocation and types, in-flight and ground-based services, the price structure, distribution channels and promotional activity. FSCs and LCCs differ in their marketing strategies, with FSCs typically focussing on product differentiation and LCCs focussing on price structures (Hazledine, 2011; Mason, 2001). The marketing of airline services is affected by passenger characteristics such as gender, age, occupation and travel purpose (Aksoy et al., 2003; Westwood et al., 2000). LCCs have been shown to be less efficient marketers despite their relative productive efficiencies (Lu et al., 2012). When examining the impacts of service quality and marketing variables, Park et al. (2006) find that perceived price, perceived value, passenger satisfaction and airline image all affected passengers' future behavioural intentions.

A commonplace approach to choice studies in the aviation and wider literature is that researchers often use past literature, their own hypotheses or the opinions of a select few individuals (e.g., airline managers) to create measures to study the importance of product attributes (Chandon et al., 2005). By starting with assumptions about how consumers think about a subject, it is possible to self-validate one's hypotheses by limiting consumer responses to measures that do not exist in their long-term memory (Feldman & Lynch, 1988). For example, if one asks a consumer the importance of leg room, then the consumer is forced to respond, giving a measurement for a variable that perhaps the consumer has never considered when making an actual purchasing decision. To complicate matters, few studies observe or measure real consumer behaviour, but use consumer intentions as a proxy for actual consumer decisions (i.e., which product they intend to purchase or whether they intend on repurchasing a product, rather than which product they last purchased or observing a real purchase). Tourism research shows that there is often an attitude–behaviour gap, where tourists intend on doing something but their behaviour contradicts their intentions (e.g., Juvan & Dolnicar, 2014). This is another potential source of self-generated validity as the measurement of purchase intentions relies upon the association between latent intentions and purchase behaviour, and thus research should not begin with the assumption that consumers have a latent intention for purchase/repurchase prior to the study (Chandon et al., 2005; Morwitz et al., 1993).

Another potentially important distinction when studying airline choice is how the decision is framed. Evidence suggests that consumers evaluate products differently based upon whether they are evaluated pre-consumption, during consumption or post-consumption (Guolla, 1999; O'Cass & Grace, 2004). Consumers also exhibit different behaviours at each stage of the consumption process (Gretzel et al., 2006; Liao et al., 2007). In the pre-consumption phase, consumers are creating expectations, during consumption these expectations influence performance judgements (and thus satisfaction), and post-consumption consumers will have retrospective expectations (Oliver & Burke, 1999). Leong (2008) mirrors these terms by examining evaluations of airline service quality based on whether the services are 'pre-flight', 'in-flight' and 'post-flight'. As this study focusses on airline choice, an examination of choice during consumption is not particularly relevant because passengers have already chosen the airline that they are flying on. However, it is possible that consumers view airline choice differently when examined from a pre-consumption frame (before booking a flight or flying on the booked flight) or a post-consumption frame (after their most recent flight). To make this more user friendly, this study examines airline choice post-consumption (i.e., consumers' reasons for their most recent airline choice) prior to examining airline choice pre-consumption (i.e., the important factors that consumers use when choosing between airlines). Accordingly, the aim of this study is to evaluate which airline attributes consumers identify as reasons for their most recent airline purchase (post-consumption) and which are used more generically as important factors for choosing between airlines (pre-consumption). By starting with no assumptions and by using a duopolistic aviation market in New Zealand, the study has the potential to provide a more ecologically valid (Brunswick, 1955) and 'purer' picture of how consumers choose between airlines.

2.3 Method

2.3.1 Participants

There were 209 participants in this study, comprising participants from 31 different countries. Participants were primarily New Zealand citizens (143, 68.42%), with 60 foreign citizens (28.71%) and 6 dual citizens (2.87%). Dual citizens were grouped with New Zealand citizens for statistical analyses as they all held New Zealand citizenship. The mean age of the sample was 39.72 years (*SD* = 17.52, range 16 to 83) and there were 90 males (43.06%) and 119 females (56.94%). A full list of participants can be viewed in Appendix A.

2.3.2 Materials

This study used semi-structured interviews with an open answer format. There was no specific probing from the researcher. This was critical as "belief, attitude, or intention can be created by measurement if the measured constructs do not already exist in long-term memory" (Feldman & Lynch, 1988, p. 421). In other words, researchers must be careful not to self-validate their hypotheses by limiting consumer responses at the commencement of research (i.e., not assume that a particular factor is important in airline choice). The interview also asks about the most recent airline purchase decision and how they choose between airlines generically, rather than using purchase or repurchase intentions, as this is another known source of self-generated validity (Chandon et al., 2005). The change in methods was designed to produce a more objective picture of consumer perceptions. The following questions were used:

1. Could you please state your:
    a. Gender
    b. Age
    c. Occupation
    d. Nationality
2. How often do you fly?
3. When was your most recent domestic flight in New Zealand?
4. What was the purpose of travel for that flight?
5. Which airline did you fly on?
6. Why did you choose to fly on that airline?
7. What factors are important to you when deciding which domestic airline to fly with?
8. Do you have any additional comments about flying domestically in New Zealand?

2.3.3 Procedure

This study used convenience sampling at two different cities in the Lower North Island of New Zealand. This involved standing in major public thoroughfares and asking passers-by to participate in the study. Participants had to be at least 16 years of age, must have flown domestically in New Zealand and could not be employed by an airline in order to be able to participate. By standing in busy, public thoroughfares, it was hoped that the sample would represent a useful and pragmatic cross-section of the flying population. Once informed consent had been obtained from participants, the questions were asked verbally and conversations were recorded and then transcribed at a later date. This study was deemed to be low-risk and was therefore registered as such on the Massey University Human Ethics Database.

Wellington has an international airport that acts as one of the major regional hubs in the country and has flights to multiple locations. It is serviced by five different domestic airlines (Air New Zealand, Jetstar, Sounds Air, Air Chathams and Golden Bay Air). Palmerston North has a regional airport with limited direct flights outside of the country's main centres. It is serviced by three domestic airlines (Air New Zealand, Jetstar and Originair). By incorporating both airports, the entire domestic fleet for both major airlines (Air New Zealand and Jetstar) will be covered as each airport is serviced with different sized aircraft by each airline. This will help ensure that fleet characteristics do not confound the results of the study.

2.3.4 Analysis

Using the transcripts of the recordings, thematic analyses were used to identify key 'themes' within the qualitative data. These thematic analyses were conducted using Braun and Clarke's (2006) 15-point checklist for a good thematic analysis. Once the key themes were identified, descriptive data were created to describe the importance of each theme in relation to other themes and in terms of the number of participants. To examine the role of demographic variables, each theme was then tested against the demographic variables using linear regressions (age) and chi-squared tests of independence (other demographic variables). To predict airline choice, each of these themes were then used as explanatory variables with probit regression models. Probit models are well-suited when qualitative choice is the dependent variable (Hausman & Wise, 1978). By going through these steps of analysis from thematic analyses through to inferential statistical tests, this study aims to describe the unadulterated opinions of consumers and validate their importance in real airline choices.

2.4 Results

The results are separated into seven sections: (1) demographic information; (2) airline and flight information, describing the most recent domestic flight experience for participants; (3) reasons for most recent airline choice, which details how participants chose the airline that they flew on in their most recent trip (i.e., post-consumption); (4) important factors when choosing airline, which details how participants would choose an airline without reference to their most recent decision and in a generic fashion (i.e., pre-consumption); (5) predicting airline choice, where the reasons and important factors from the thematic analysis are used to predict which airline participants last flew on; and (6) a summary of the additional comments made by participants.

2.4.1 Demographic Information

Table 4 displays demographic information that has not yet been presented under 'Participants'.

2.4.2 Airline and Flight Information

The data covered flights between 18 different airports within New Zealand, with most of the flights routed between the country's three largest airports, Auckland, Christchurch and Wellington, as well as one of the study locations, Palmerston North. Most of the participants (165, 78.95%), had flown on Air New Zealand in their most recent flight, while 41 participants

(19.62%) flew on Jetstar and 3 participants (1.44%) flew on other airlines[6]. This split broadly resembles the market share for each airline within the New Zealand domestic market (Forsyth Barr (2018) estimates the market share of Air New Zealand to be around 80%, and Jetstar (2017) estimates their own market share to be up to 20%). This study also examines whether participants' most recent flights were direct or whether there was a transit involved. While 145 participants (69.38%) had been on a direct flight, 16 participants (7.66%) had transited to another domestic flight, and 48 participants (22.97%) had transited to or from an international flight before or after their domestic one[7].

Table 4

Demographic variables by number and percentage of participants

Demographic Variable	Number of Participants (%)
Frequency of travel	
More than 6 times per year[#]	32 (15.31%)
3–6 times per year[#]	65 (31.10%)
1–2 times per year	72 (34.45%)
Once every 2–3 years	25 (11.96%)
Less than every 3 years	15 (7.18%)
Most recent domestic flight	
Within last fortnight	48 (22.97%)
Within last 3 months	59 (28.23%)
Within last year	63 (30.14%)
Within last 1–3 years	23 (11.00%)
Within last 3–5 years	8 (3.83%)
More than 5 years ago	8 (3.83%)
Purpose of most recent domestic flight	
Visiting friends and/or relatives	77 (36.84%)
Business	42 (20.10%)
Holiday or leisure	65 (31.10%)
Other (e.g., relocating)	25 (11.96%)
Occupation	
Employed or self-employed	154 (73.68%)
Unemployed^	10 (4.78%)
Retired^	12 (5.74%)
Student^	26 (12.44%)
Domestic duties (e.g., stay at home parent)^	7 (3.35%)

Remark: All categories for each demographic are mutually exclusive.
[#] These were grouped together to mean 'frequent travellers' for statistical analyses.
^ These were grouped together as 'unwaged' for statistical analyses.

[6] There was no evidence of any statistically significant association between purpose of travel and airline choice, $\chi^2(3) = 0.586$, $p = 0.9$.
[7] There was no evidence of any statistically significant association between transit to/from an international flight and airline choice, $\chi^2(1) = 0.411$, $p = 0.521$.

2.4.3 Reasons for Most Recent Airline Choice (Post-Consumption)

On average, participants had 1.90 reasons (*SD* = 1.41, range 1 to 8) for choosing the airline they used in their most recent flight, with a median of 1 reason (*IQR* = 1, 2).

2.4.3.1 Major Reasons

The thematic analysis revealed 13 themes for airline choice, as shown in Table 5. All of these themes except for safety and uncategorised can be thought of as the 'major reasons' for airline choice. Hence, there are 11 major reasons for most recent airline choice. Each theme has its subthemes shown underneath it. These can be thought of as the key components that make up a theme. Under the reasons column, the raw number of reasons within each theme and subtheme is shown with a percentage of total reasons. The unique number of reasons in each theme and subtheme is also shown to give an idea of how heterogeneous each theme is (i.e., if there are more unique reasons, then the theme is more heterogeneous). Although the number of reasons provides some indication of importance, it could be biased by individual participants who have multiple reasons within the same theme or subtheme. Accordingly, in the next column, the number of participants in each theme and subtheme is also shown as a raw number and as a percentage of total participants. These are presented dichotomously (i.e., a participant either has 1 or more reasons in a theme, or none, the exact number becomes irrelevant). Example quotes are also provided using the real words of participants.

To explore how demographic variables interact with the major themes for participants' most recent domestic airline choice, chi-squared tests of independence were conducted, and where significant, associations are shown in Table 6. To help interpret the effect size of each statistically significant association, Cramer's V is also reported. According to Cohen (1988), Cramer's V can be interpreted as 0.1 = small effect, 0.3 = medium effect, and 0.5 = large effect. For age, the only continuous demographic variable, linear regressions were used instead, and where significant, the standardised beta coefficient is reported. For all significant associations, an indication as to the category that is more likely to be in the major theme is given (e.g., if 'Male' is written, then males were more likely to fall in the major theme than females).

2.4.4 Important Factors when Choosing an Airline (Pre-Consumption)

On average, participants had 2.80 important factors (*SD* = 1.72, range 1 to 10) for choosing between airlines, with a median of 3 important factors (*IQR* = 2, 3).

2.4.4.1 Major Important Factors

The thematic analysis revealed 11 themes for choosing between airlines, as shown in Table 7. All of these themes except for ‘uncategorised’ can be thought of as the ‘major important factors’ for choosing between airlines. The themes along with their subthemes are displayed in the same fashion as for Table 5 and can be interpreted in the same way. To explore how demographic variables interact with the major important factors for choosing between airlines, chi-squared tests of independence and linear regressions were conducted (significant associations are shown in Table 8). These interactions are presented in the same fashion as for Table 6 and can be interpreted in the same way.

Table 5

Reasons for most recent airline choice

Themes	Reasons			Participants		Example Quotes
	Number	%	Unique	Number	%	
Price	85	21.41%	11	81	38.76%	
Cheap	54	13.60%	1	54	25.84%	"It was the cheapest"
Price	19	4.79%	2	19	9.09%	"They were well priced"
Sale	8	2.02%	5	7	3.35%	"They had a sale on"
Other	4	1.01%	3	4	1.91%	"Tends to have a good price point"
Time	29	7.30%	8	27	12.92%	
Time of the flight	24	6.05%	6	24	11.48%	"Most suitable time"
Availability of flight times	5	1.26%	2	5	2.39%	"Flight frequency"
Past Experiences	39	9.82%	21	29	13.88%	
Familiarity	19	4.79%	12	16	7.66%	"What I have always used"
Positive	12	3.02%	6	10	4.78%	"I have had very good experiences on Air New Zealand"
Negative	8	2.02%	3	8	3.83%	"I have had problems with Air New Zealand"
Loyalty	43	10.83%	27	34	16.27%	
Loyal to the airline	32	8.06%	17	25	11.96%	"I try to be loyal to them"
Loyal to an alliance	6	1.51%	6	6	2.87%	"It allowed me to continue on Star Alliance"
Animosity towards competitors	5	1.26%	4	5	2.39%	"Not comfortable using other airlines"
Rewards Programme	20	5.04%	12	13	6.22%	
Rewards programme	20	5.04%	12	13	6.22%	"Had loyalty points to use"
Reliability	27	8.06%	14	26	12.44%	
Reliability	17	4.28%	6	17	8.13%	"Generally reliable airline"
To avoid delays/cancellations	5	1.26%	3	5	2.39%	"I don't want delays"
Punctuality	5	1.26%	2	5	2.39%	"They run on time"
Ability to handle issues	5	1.26%	3	4	1.91%	"They will deal with any hassles"
Reputation	25	6.30%	19	21	10.05%	
Social responsibility	9	2.27%	6	8	3.83%	"They are not just in it for profit"
What they hear	9	2.27%	6	8	3.83%	"You hear so many bad things about Jetstar"
Bad	4	1.01%	4	4	1.91%	"Jetstar has a bad reputation"
Good	3	0.76%	3	3	1.44%	"They are reputable"

Airline Experience	29	7.30%	18	21	10.05%	
Service	11	2.77%	5	10	4.78%	"Good service"
Staff	8	2.02%	6	6	2.87%	"The air hostesses are brilliant"
Comfort	5	1.26%	2	5	2.39%	"They've always been the most comfortable"
Experience	3	0.76%	3	3	1.44%	"Quality experience"
Other	2	0.50%	2	2	0.96%	"They have nice planes"
Convenience	18	4.53%	6	16	7.66%	
Convenience	18	4.53%	6	16	7.66%	"Because it is easier, more convenient"
Not Booked	41	10.33%	6	41	19.62%	
Non-specific	17	4.28%	1	17	8.13%	"Booked by someone else"
Employer	12	3.02%	1	12	5.74%	"Booked by employer"
Family member	6	1.51%	1	6	2.87%	"My son booked it for me"
Travel agent	6	1.51%	3	6	2.87%	"It was booked through a travel agent"
Limited Choice	28	7.05%	12	27	12.92%	
No choice	20	5.04%	7	20	9.57%	"It is the only one that flies there"
Limited choice	6	1.51%	3	6	2.87%	"Not a lot of choice"
Company policy	2	0.50%	2	2	0.96%	"It is business policy"
Safety	3	0.76%	3	3	1.44%	
Safety	3	0.76%	3	3	1.44%	"Their safety record is good"
Uncategorised	5	1.26%	5	5	2.39%	

Table 6

The associations between demographic variables and major reasons for most recent domestic airline choice

Reason	Gender	Age	Occupation	Citizenship	Frequency	Most Recent Domestic Flight	Purpose	Airline[#]	International Transit
Price	Male* (0.119)	Young*** (-0.202)	-	-	-	-	Leisure* (0.230)	Jetstar*** (0.507)	-
Time	Female* (0.104)	-	-	-	-	-	-	-	-
Past Experiences	-	-	-	-	-	-	-	Air New Zealand* (0.132)	Yes* (0.110)
Loyalty	Female*** (0.219)	Old*** (0.317)	-	-	-	-	-	Air New Zealand*** (0.202)	Yes*** (0.230)
Rewards Programme	-	Old* (0.140)	-	New Zealand* (0.147)	-	-	Leisure** (0.016)	Air New Zealand** (0.179)	-
Reliability	-	-	-	-	-	-	Business* (0.178)	Air New Zealand*** (0.189)	-
Reputation	-	-	-	-	-	-	-	Air New Zealand*** (0.168)	Yes* (0.120)
Airline Experience	-	-	-	New Zealand* (0.107)	Frequent** (0.239)	-	-	-	Yes* (0.120)
Convenience	-	-	Unwaged* (0.114)	-	-	-	-	-	Yes** (0.142)
Not Booked	-	-	-	-	Infrequent*** (0.357)	> 1 year*** (0.315)	Business** (0.229)	Air New Zealand** (0.148)	-
Limited Choice	-	-	-	-	-	-	-	Air New Zealand** (0.153)	-
Safety[a]	-	-	-	-	-	-	-	-	-
Uncategorised[a]	-	-	-	-	-	-	-	-	-

Remark: *, **, *** denote statistical significance at $p < 0.1$, 0.05 and 0.01 levels, respectively.
[a] Not tested due to having less than 2% of participants in theme.
[#] Tested on the 206 participants who flew on Air New Zealand or Jetstar.
Note: the numbers in parentheses are either the standardised beta coefficient (age) or Cramer's V (other columns).

Table 7

Important factors for choosing between airlines

Themes	Important Factors			Participants		Example Quotes
	Number	%	Unique	Number	%	
Price	143	24.44%	5	138	66.03%	
Price	135	23.08%	2	135	64.59%	"I just go for the cheapest flight possible"
Sale	6	1.03%	1	6	2.87%	"Good deals are very attractive"
Reassuringly more expensive	2	0.34%	2	2	0.96%	"They are reassuringly more expensive"
Time	65	11.11%	15	55	26.32%	
Time of the flight	43	7.35%	5	41	19.62%	"Time of the flight"
Availability of flight times	15	2.56%	6	15	7.18%	"Great variety of time options"
Duration of flight	3	0.51%	1	3	1.44%	"Speed of the flight"
Fits with other flights	2	0.34%	1	2	0.96%	"Linking times to other flights"
Waiting time	2	0.34%	2	2	0.96%	"Time spent waiting"
Past Experiences	35	5.98%	20	25	11.96%	
Familiarity	14	2.39%	9	11	5.26%	"Names that I am familiar with"
Positive	8	1.37%	5	7	3.35%	"Air New Zealand has been really good"
Negative	7	1.20%	4	7	3.35%	"Have had issues with other airlines"
Past experiences	6	1.03%	2	6	2.87%	"Previous experience"
Loyalty	38	6.50%	19	32	15.31%	
Loyal to an airline	29	4.96%	16	26	12.44%	"I prefer Jetstar"
Animosity towards competitors	9	1.54%	3	9	4.31%	"I won't fly on Jetstar"
Rewards Programme	10	1.71%	4	9	4.31%	
Rewards programme	10	1.71%	4	9	4.31%	"I get to use my Airpoints"
Reliability	79	13.50%	14	64	30.62%	
Reliability	49	8.38%	10	44	21.05%	"Reliability of the airline"
Punctuality	13	2.22%	1	13	6.22%	"Leaving on time"
To avoid delays/cancellations	11	1.88%	1	11	5.26%	"Not getting cancelled"
Ability to handle issues	6	1.03%	2	6	2.87%	"That I am looked after if something goes wrong"
Reputation	35	5.98%	27	25	11.96%	
Social responsibility	10	1.71%	10	6	2.87%	"Whether the money is going back into our economy"
What they hear	9	1.54%	5	8	3.83%	"I've just heard those horror stories about Jetstar"

Good	8	1.37%	7	8	3.83%	“Air New Zealand has a better reputation”
Bad	8	1.37%	5	7	3.35%	“Media coverage in terms of people’s bad experiences”
Airline Experience	105	17.95%	49	72	34.45%	
Service	41	7.01%	12	35	16.75%	“Quality of service”
Staff	22	3.76%	13	18	8.61%	“Friendly people”
Aircraft	17	2.91%	12	16	7.66%	“I think in terms of the aircraft itself”
Comfort	14	2.39%	2	14	6.70%	“They are comfortable”
Marketing	6	1.06%	5	5	2.39%	“Their branding”
Experience	5	0.85%	4	5	2.39%	“To have a positive experience”
Convenience	44	7.52%	22	37	17.70%	
Convenience	12	2.05%	5	12	5.74%	“Convenience”
Destination choice	11	1.88%	6	11	5.26%	“The range of places they have on offer”
Availability of direct flights	5	0.85%	2	5	2.39%	“If I can take a direct flight and not with stopover”
Booking the flight	4	0.68%	2	4	1.91%	“How easy it is to book”
Checking in	3	0.51%	2	2	0.96%	“Ease of checking in”
Transporting pets	3	0.51%	2	2	0.96%	“Whether they take dogs”
Boarding	2	0.34%	1	2	0.96%	“Easy to get on and off”
Communication	2	0.34%	1	2	0.96%	“Great communication systems”
Efficiency	2	0.34%	1	2	0.96%	“How efficient it is”
Safety	22	3.76%	9	17	8.13%	
Safety	16	2.74%	3	16	7.66%	“Safety”
Staff	4	0.68%	4	3	1.44%	“Well trained staff”
Equipment	2	0.34%	2	2	0.96%	“The maintenance of the planes”
Uncategorised	12	2.05%	11	11	5.26%	

Table 8

The associations between demographic variables and important factors for choosing between airlines

Important Factor	Gender	Age	Occupation	Citizenship	Frequency	Most Recent Domestic Flight	Purpose	Airline	International Transit
Price	-	Young** (-0.141)	-	-	-	-	-	Jetstar*** (0.225)	No* (0.113)
Time	-	-	-	-	-	-	Business* Leisure* (0.174)	Air New Zealand** (0.131)	-
Past Experiences	-	-	-	-	-	-	-	Air New Zealand** (0.153)	-
Loyalty	-	Old** (0.200)	-	-	-	-	-	-	Yes* (0.153)
Rewards Programme	-	Old** (0.165)	-	-	-	-	-	-	-
Reliability	-	-	-	New Zealand** (0.140)	Frequent*** (0.255)	< 1 year*** (0.272)	-	Air New Zealand** (0.146)	-
Reputation	-	-	-	-	-	1–3 years* (0.220)	-	-	-
Airline Experience	-	Young* (-0.116)	Unwaged* (0.105)	New Zealand** (0.137)	-	-	-	-	-
Convenience	-	Old* (0.117)	-	-	-	-	-	Air New Zealand** (0.133)	-
Safety	-	Old*** (0.205)	-	-	-	-	-	-	-
Uncategorised[a]	-	-	-	-	-	-	-	-	-

Remark: *, **, *** denote statistical significance at $p < 0.1$, 0.05 and 0.01 levels, respectively.
[a] Not tested due to being redundant.
[#] Tested on the 206 participants who flew on Air New Zealand or Jetstar.
Note: the numbers in parentheses are either the standardised beta coefficient (age) or Cramer's V (other columns).

2.4.5 Predicting Airline Choice

Thus far, this study has shown the major reasons and important factors that consumers use to choose between airlines, and how these reasons and important factors interplay with demographic variables. However, of particular interest is whether these reasons and important factors can be used to predict airline choice. To this end, binary probit regressions are used to predict the airline that participants flew on in their most recent trip. Binary probit models were used because the airline choice (the dependent variable) is dichotomous (0 = Air New Zealand and 1 = Jetstar). Two regression models were run for both reasons (post-consumption) and important factors (pre-consumption), one with the raw number of reasons/important factors in each theme, and the other with this written as a dichotomous variable (i.e., if the participant had one or more reasons/important factors in the theme, then the value is set to 1, otherwise set to 0). This is important as some explanatory variables (e.g., price) usually had someone only give one reason/important factor in a theme, whereas others (e.g., loyalty) had fewer participants in the theme, but those in the theme gave more reasons/important factors. In each regression, the dependent variable was most recent airline choice, coded as a dichotomous variable between those who flew on Air New Zealand and those who flew on Jetstar. Probit models are well-suited when qualitative choice is the dependent variable (Hausman & Wise, 1978). The three participants who flew on an airline other than Air New Zealand or Jetstar are excluded from these analyses.

All major reasons (Models 1 and 2) and major important factors (Models 3 and 4) were used as the explanatory variables. For models using important factors (Models 3 and 4), participants who fell into the not booked or limited choice themes for reasons were removed. This was to ensure that any relationship between the important factors and most recent airline choice was not confounded by those who did not choose their flight or did not have sufficient choice. In this sense, the models based upon reasons (Models 1 and 2) can be thought of as 'real-world' models because they reflect that a number of participants either did not book their flights or had limited choice of airline based upon the route they flew. However, the models based upon important factors (Models 3 and 4) may be thought of as 'theoretical' models because they are based only upon participants who booked the airline themselves and had complete choice in doing so, conditions that often do not exist in the 'real-world'.

In terms of interpretation, a significant positive beta can be interpreted as meaning the predictor increases the probability of the participant choosing Jetstar, and a significant negative beta can be interpreted as meaning the predictor increases the probability of the participant choosing Air New Zealand (this study uses 'heads towards' and 'pulling towards' as synonymous with the predictor increasing the probability towards either airline). For the models using the raw number of reasons/important factors (Models 1 and 3) for each participant in each theme, the beta reflects the change toward either airline according to each additional reason/important factor that is in the theme. For the models using the dichotomous variables (Models 2 and 4), the beta reflects the change from being in the theme[8]. For example, think of three participants, who made 0, 1 and 2 comments in the same theme. In all models, participant 1 will be unaffected by the beta for that theme (due to making no comments in the theme). In models 1 and 3 (raw numbers), participant 3 will be affected by the beta twice as much as participant 2 (due to making twice the number of comments in the theme), but in models 2 and 4 (dichotomous) participants 2 and 3 will be treated the same and affected by the beta equally (due to both being 'in' the theme).

The 'real-world' models where the major reasons were represented either as a raw number (Model 1) or a dichotomous variable (Model 2) both indicated statistically significant results $X^2(11) = 76.251$, $p < 0.001$, $X^2(11) = 85.373$, $p < 0.001$, respectively. Similarly, the 'theoretical' models where the major important factors were represented as a raw number (Model 3) or a dichotomous variable (Model 4) both indicated statistically significant results $X^2(10) = 43.409$, $p < 0.001$, $X^2(10) = 46.177$, $p < 0.001$, respectively. The results of the models are shown in Table 9.

2.4.6 Additional Comments

At the end of each interview, participants were asked if they had any other comments about flying domestically in New Zealand. While not directly related to airline choice, the additional comments provide some idea of what consumers think of about the market 'in general'. There were 254 additional comments, made by 119 participants (56.94% of the sample). No participant had more than six additional comments. A thematic analysis revealed 15 themes for additional comments, as shown in Table 21 in Appendix B. These are displayed in the same way as for Table 5 and the results can be interpreted in the same way.

[8] Models 2 and 4 work mainly as robustness checks for Models 1 and 3 and show that the results are very consistent, even though Models 2 and 4 may suffer from multicollinearity (due to only consisting of dummy variables).

Table 9

Results of binary probit regression models

Explanatory Variables	Model 1 (Reasons, raw number)		Model 2 (Reasons, dichotomous)		Model 3 (Important Factors, raw number)		Model 4 (Important Factors, dichotomous)	
	β	χ^2	β	χ^2	β	χ^2	β	χ^2
Intercept	-0.544*	3.000	-1.067***	8.368	-1.056**	5.505	-0.796*	3.106
Price	0.736***	7.640	1.434***	16.099	1.233***	8.257	1.100***	6.615
Time	-0.543	2.551	-0.718*	3.221	-0.553**	4.887	-0.897***	7.809
Past Experiences	-0.862**	4.491	-1.030**	4.477	-6.404	0.000	-6.546	0.000
Loyalty	-0.461	1.676	0.026	0.003	-0.354	0.839	-0.250	0.333
Rewards Programme	-6.332	0.000	-6.452	0.000	-5.741	0.000	-5.299	0.000
Reliability	-6.292	0.000	-6.540	0.000	-0.661**	6.063	-0.967***	8.813
Reputation	-6.314	0.000	-6.389	0.000	-0.026	0.008	0.125	0.052
Airline Experience	0.301	0.659	-0.371	0.412	0.084	0.263	0.053	0.031
Convenience	-1.062	1.892	-0.456	0.442	-0.354	1.376	-0.597	2.213
Not Booked	-1.066***	6.894	-0.812*	3.442	-	-	-	-
Limited Choice	-0.980*	2.897	-0.526	0.821	-	-	-	-
Safety	-	-	-	-	-1.014	1.753	-0.828	1.394

Remark: *, **, *** denote statistical significance at the $p < 0.1$, 0.05, and 0.01 levels, respectively.
n = 206 in Models 1 and 2, and n = 143 in Models 3 and 4. All values are rounded to 3 decimal places.

2.5 Discussion

There are three sections of discussion, each related to the overall findings of this study. First, the marketing principle of double jeopardy is discussed in relation to the results of this study. Second, this study discusses how some of the most fundamental airline attributes (i.e., price, time and reliability) are the best predictors of airline choice. Finally, a discussion of how demographics interplay with the importance of airline attributes is provided. Each section of the discussion identifies implications for airline managers.

2.5.1 Double Jeopardy?

There are some surprising and anomalous results (e.g., that airline experience and loyalty programmes do not predict airline choice) that need explanation and one plausible explanation is double jeopardy. In marketing, the notion of double jeopardy suggests that smaller brands get hit twice in that they have lower sales because they have fewer buyers who buy their brand slightly less often (Sharp, 2010). Consumer loyalty towards a brand can be measured by how many customers it has and how often they buy the brand (Blattberg & Sen, 1974; Ehrenberg et al., 1990; Sharp, 2010). This is known as behavioural (purchase) loyalty as it is characterised by purchasing and repurchasing behaviour (Chaudhuri & Holbrook, 2001; Jacoby & Kyner, 1973). Attitudinal loyalty is an alternative view that argues that consumer's relative attitudes towards brands are a better measure of loyalty because these are what create the behaviours (Dick & Basu, 1994; Jacoby & Kyner, 1973). While neither behavioural or attitudinal loyalty predict all loyalty outcomes (i.e., retention is better predicted by behavioural loyalty and recommendation is better predicted by attitudinal loyalty), using one or the other has been empirically proven to be a better predictor than an approach that integrates both types (East et al., 2005). In relation to this study and the application of double jeopardy, the discussion is restricted to behavioural loyalty. Because Jetstar has lower market penetration (less people with experience with the Jetstar brand) one would also expect its customers to be slightly less loyal, partially due to limited choice. Double jeopardy has been observed in many different markets (Ehrenberg et al., 1990), including aviation (Lynn, 2008) and has also been used to explain brand defection (Wright & Riebe, 2010).

The notion that double jeopardy exists in the airline industry stems from several findings in this study, primarily related to the themes of past experience, loyalty, rewards programmes, 'not booked' and limited choice. While a major theme, the importance given to past experiences in this study is substantially less than in other studies. For example, Pakdil and Aydın (2007) find that 56% of participants gave past experience as their most important reason for their airline choice (compared to 13.88% in this study). This is potentially due to their study design and use of SERVQUAL to probe this area explicitly (rather than allowing consumers to produce their own responses). Prior experience has also been shown to influence future consumer behaviours within tourism (Chen & Tsai, 2007; Lehto et al., 2004). Mackay and Crompton (1988) note that past experience allows for comparisons to be made and thus allow consumers to form expectations (positive or negative). Passengers on Air New Zealand were more likely to mention past experience as a reason or important factor. Past experience was a significant predictor of airline choice in both real-world models (Models 1 and 2) with betas pulling towards Air New Zealand, however, it was not a significant predictor in either of the theoretical models (Models 3 and 4). While loyalty and rewards programmes were major themes throughout the study, they were not significant predictors of airline choice in any of the probit models. These findings align well with the concept of double jeopardy in that market penetration and past experience are closely related concepts (i.e., market penetration is measured by how many consumers have experienced an airline). Accordingly, past experience (positive or negative) should be a significant determinant of airline choice as a proxy for market penetration, and this should be in lieu of loyalty and rewards programmes. This was the case in both real-world models (Models 1 and 2). The reason that this is not replicated in the theoretical models (Models 3 and 4) is because the possibility of having limited choice is removed (all participants in the themes 'not booked' and 'limited choice' removed) and consumers are imagining a perfect world where they can choose airlines based upon one or more factors of importance. Although the dependent variable is still a choice between Air New Zealand or Jetstar, in the theoretical models (Models 3 and 4) consumers will not be considering real-world limitations (e.g., which routes each airline flies and what the flight frequency for each route is) that act to enforce double jeopardy (i.e., Air New Zealand offers more routes and higher flight frequencies, and thus has higher market penetration).

Double jeopardy has large implications for airline managers, as to grow market share would mean focussing primarily on market penetration, rather than loyalty. Take the analogy of airports as supermarkets and flight times as shelf space. Not every airport stocks every airline. In the case of this study, more airports stock Air New Zealand than Jetstar, and those that do stock both airlines have more shelf space and better-positioned shelf space dedicated to Air New Zealand. In this situation, it is clearly better for Jetstar to get more people to buy its products (e.g., air tickets) rather than to try and get its existing customers to buy it more often. Likewise, Air New Zealand is better off guarding its air routes and market dominance as opposed to trying to make its existing customers more loyal. The monopolistic nature of airports potentially exacerbates double jeopardy in the airline industry as if an airline doesn't fly to a particular airport, then consumers wishing to fly out of that airport must use a different airline, increasing their behavioural loyalty towards competitors regardless of relative attitudes. This is why bigger airline brands (in a particular market) will always have slightly more loyal customers than smaller brands. Indeed, it has been observed in the United States airline industry that one of the key motives for some airlines to adopt hub-and-spoke networks has been entry deterrence (Aguirregabiria & Ho, 2012). The findings of this study that Air New Zealand passengers were less likely to book their own flight and were more likely to mention limited choice are consistent with the notion of double jeopardy. By having more routes and higher flight frequencies, Air New Zealand is more likely to be chosen by someone else (e.g., employer or family member) and is more likely to have customers exhibit behavioural loyalty (because Air New Zealand is more likely to be flying to a particular destination at a particular time than their competitors). Accordingly, double jeopardy helps explain why 'not booked' and limited choice were significant determinants of airline choice in the real-world models (Models 1 and 2 for ‘not booked’ and Model 1 for limited choice). Though not attributed to double jeopardy, Lederman (2007) found that enhancements to airline frequent flyer programmes are associated with increases in demand only on routes that depart from airports where the airline is dominant. This is exactly what might be expected if double jeopardy is taking place. Lederman (2007) used a very large data set and measures demand in terms of actual purchasing behaviours in the United States. The measurement of demand in such a way ties in with the traditional view of brand loyalty as behavioural (e.g., Tucker, 1964). This similarity in findings suggests that our finding of double jeopardy is not unique to New Zealand nor the design of this study.

The notion that it is a more effective strategy to get more people to buy a brand (market penetration) rather than get existing customers to buy the same brand more often (loyalty) is not novel (Meyer-Waarden & Benavent, 2006; Sharp & Sharp, 1997), with Dowling and Uncles (1997) specifically relating this concept to why airline loyalty schemes have little effect upon market share. Despite broad literature making this point, recent literature in air transport and tourism still encourages airlines to invest in measures to improve customer loyalty, such as loyalty programmes (Akamavi et al., 2015; Song et al., 2017; Vlachos & Lin, 2014; Wang et al., 2015). This study’s findings align better with those of Lynn (2008) who instead argues that airlines should create value with superior service offerings, communicate this value to consumers and capture that value through pricing.

Indeed, there have been many instances worldwide (e.g., Ryanair, easyJet, Air Asia, Jetstar) where new entrants have captured market share with different (and to some consumers, better) value propositions than what was on offer by incumbents (Lawton & Solomko, 2005; Vlaar et al., 2005). In these instances, brand loyalty for incumbent companies did not present a formidable barrier to entry because incumbent brand loyalty could be easily eroded using the new entrant’s value proposition. Jetstar operates as an LCC as part of Qantas Group’s airline-within-airline strategy (Homsombat et al., 2014) and was able to enter the domestic New Zealand market in 2009 thanks to the single aviation market that exists between New Zealand and Australia (Kissling, 1998). The impact of Jetstar’s services on New Zealand’s domestic tourism shows that they have helped provide low-cost domestic air travel and provide greater intermodal competition with land transport alternatives, allowing them to grow the market (Tsui, 2017). Accordingly, one possible explanation of why brand loyalty has not posed a significant barrier to Jetstar's growth is because its value proposition is fundamentally different to Air New Zealand's. From a policy perspective, this suggests that the New Zealand government's decision of air transport liberalisation (which allows foreign carriers to operate domestic services) has presented advantages in terms of consumer welfare by increasing competition and diversifying the available value propositions for passengers (Duval & Schiff, 2011; Warnock-Smith & Morrell, 2008).

2.5.2 Re-evaluating the Fundamentals

While there is much literature studying various airline attributes (e.g., service quality) in isolation, by providing a more holistic approach that carefully avoids self-generated validity, it is clear that some of the most fundamental airline attributes are the most important reasons/factors for predicting airline choice. Accepting the premise that market penetration is more important than customer loyalty, the fundamental attributes of price, time and reliability can be used by airlines to build their market share.

Price was the most common reason and important factor and was a significant predictor of airline choice in every regression model. Jetstar passengers were more likely to mention price as a reason or an important factor, and price pulled towards Jetstar, the LCC, in all the regression models. This suggests that it doesn't matter whether a participant mentions price as a reason for their last airline choice, or as an important factor more generically, this will increase the likelihood of them having flown on an LCC in their most recent trip. There are both similar and contrasting findings in the literature. While most studies find price to be important in choosing between FSCs and LCCs (e.g., Evangelho et al., 2005; Mason, 2000), others find that the importance of price does not vary between FSCs and LCCs (e.g., Fourie & Lubbe, 2006). The differing findings could be due to the blurring of the traditional distinctions between FSCs and LCCs that have been observed in many parts of the world (Angiolelli-Meyer, 2017; Daft & Albers, 2015). Indeed, Berry and Jia (2010) found that between the late 1990s and the mid 2000s, the price sensitivity of the United States market as a whole increased. This study suggests that price is the only significant determinant of airline choice that pulls consumers towards LCCs. Because LCCs base their entire low-cost business model on being cheaper than competitors at the expense of other attributes, the findings of this study simply validate the fact that this is the best way for LCCs to increase market penetration. FSCs cannot replicate such cost structures and thus this is how LCCs achieve competitive advantage.

Time also proves to be incredibly important. In this study, the two most important components of 'time' across each scenario (post-consumption and pre-consumption) were the time of the flight and the availability of flight times. This provides validation from a consumer point of view about the importance of timetable development and frequency planning activities in order to meet demand (Etschmaier & Mathaisel, 1985; Lohatepanont & Barnhart, 2004). Flight frequency has also been used as a determinant of service quality (e.g., Chang & Yeh, 2001). Time was a significant determinant of airline choice in most of the regression models (Models 2, 3 and 4), pulling towards Air New Zealand, the FSC. Time-sensitive travellers are commonly assumed to use FSCs over LCCs (Flouris & Walker, 2005). FSCs are better placed to put on more regular point-to-point flights with lower load factors and to have flights available at the most desirable times as their customers are more likely to pay a premium to cover the extra costs. Accordingly, these are two effective means for FSCs to increase market penetration that cannot be easily replicated by LCCs.

Reliability was also perceived to be very important throughout the study. Reliability was the third most important factor for choosing between airlines in this study. This finding is similar to that of Stone (2016), who find that reliability was the most important choice factor after price. A major component of reliability is on-time performance. On-time performance or punctuality is widely acknowledged as an important attribute for airlines. This is partly because an experience of poor on-time performance increases the likelihood of a consumer switching to a competitor, where this experience is more important than 'advertised' on-time performance (Suzuki, 2000). Likewise, it has been shown that an increase in actual on-time performance reduces the number of customer complaints (Chow, 2015). However, reliability is not limited solely to on-time performance but also the likelihood of service failure (e.g., lost luggage) and the perception of an airline's ability to manage service recovery (Boshoff, 1997; Wyld et al., 2005). That said, it is still better to focus on avoiding service failure than to focus on superior service recovery (McCollough et al., 2000). Passengers on Air New Zealand were more likely to mention reliability as a reason or important factor and reliability was a significant predictor of airline choice in both theoretical regression models (Models 3 and 4) with betas pulling towards Air New Zealand, the FSC. It is interesting to note that reliability was not significant in either real-world model, however, this is possibly because FSC and LCC passengers only differ when examining reliability from a pre-consumption point of view. In this study, reliability pulled customers towards the FSC. While reliability can be achieved by LCCs, investing in the prevention of service failures and service recovery processes can be costly on top of service recovery costs themselves (e.g., accommodation and reimbursements, etc.), making this a more suitable focus point for FSCs to build competitive advantage.

While studies have found the importance of airline experience, airline reputation, rewards programmes, convenience and safety in determining airline choice (e.g., Kos Koklic et al., 2017; Park et al., 2004; Vlachos & Lin, 2014), they do not appear to be attributes that predict airline choice in this study. Specifically, airline experience, reputation, rewards programmes, convenience and safety were not significant predictors of airline choice in any regression model. Therefore, they do not appear to be ways to establish meaningful competitive advantage in an FSC *vs*. LCC market scenario. The reasons why the findings of this study are different to others most likely stem from the aforementioned issue of self-generated validity, where researchers probe areas that are not otherwise in consumer's long-term memory or begin with the assumption that consumers have a latent intention to purchase or repurchase an airline product. By using consumers' unadulterated narratives and real airline choices to examine airline choice, this study confirms the value of qualitative consumer research (Denzin, 2001; Deshpande, 1983).

To increase market share, LCCs should focus on price and FSCs should focus on time and reliability as these are attributes that consumers identified themselves and have been empirically shown to drive real airline purchasing decisions (as opposed to behavioural intentions). This does not suggest that other attributes are completely unimportant, indeed, a major part of customer satisfaction with an airline's service is whether expectations align with experiences and perceptions. While airline experience, reputation, rewards programmes, convenience and safety did not determine which airline people flew on, consumers inevitably will have expectations for each airline on these attributes and these will vary from individual to individual (Gilbert & Wong, 2003). In this study, Air New Zealand passengers appeared to value these attributes more than Jetstar passengers, and while they were not significant predictors of real purchasing decisions, this suggests that expectations do differ between passengers on FSCs and LCCs. Indeed, significant product differentiation has been identified between the services provided by LCCs and FSCs (Fu, Dresner, et al., 2011), so it is unsurprising that passenger expectations would also vary. If expectations are met or exceeded, then the consumer is satisfied, nominally increasing their loyalty (An & Noh, 2009). While this study argues that focussing on customer loyalty is not as effective as focussing on market penetration, this does not mean that airlines should actively disregard customer satisfaction and customer loyalty, as this can lead to spurious loyalty towards competitors in the form of animosity towards the airline in question. This was observed to a small extent in this study where some participants were loyal to one airline because of their dislike for the other one (2.39% of participants for reasons, and 4.31% of participants for important factors). Accordingly, this study suggests that going back to the fundamentals (price, time and reliability) to increase market penetration could be the best strategy for airlines, but does not argue that this should be at the expense of other airline attributes. However, as most aviation markets in other countries and regions have more than two major carriers and more blurring of the lines between FSCs and LCCs, it is likely that the effect of these attributes upon airline choice will be less distinct.

2.5.3 The Role of Demographics

Different demographic groups placed greater value on different airline attributes. It was also observed in this study that this varied between whether these were used as reasons (post-consumption) or important factors (pre-consumption). Gender differences in the importance of price, time and reliability do not appear to have been observed in airline services before. Gender had a small effect size on each of these attributes, and this was only true when examined post-consumption (i.e., reasons, not important factors). The findings of this study suggest that females were more loyal than males (post-consumption), adding to existing literature that has shown that consumer loyalty varies between genders (Melnyk et al., 2009). Age also influenced the importance of various airline attributes. Consistent with this study's finding that younger people place more importance on price, Evangelho et al. (2005) find that in Brazil passengers on LCCs tended to be younger compared to those who flew on FSCs. Increasing age also meant increasing loyalty in this study. This is consistent with the notion of double jeopardy as older persons will typically have more past experience with airlines, a proxy for market penetration. Older persons also cared more about rewards programmes and convenience. Younger persons were more likely to give airline experience as an important factor, seemingly going against the importance that they placed on price. Other differences were also observed according to occupation and citizenship. Such information about how demographics interact with the importance of airline attributes can be used by airline managers to better target their marketing communications. For example, females have been observed to use social media more than men (Correa et al., 2010) and also dominate certain social media outlets such as Pinterest (Gilbert et al., 2013). The finding that females place greater importance on time and on loyalty suggests that messages emphasising these points may be better communicated on mediums where there are more female users.

Frequency and recency of air travel also influenced the importance of airline attributes. Airline experience was more important to frequent travellers (post-consumption), and reliability was more important to frequent travellers and those who had travelled by air in the last year (pre-consumption). This shows the differing expectations of frequent travellers and reiterates the importance of reliability for FSCs in penetrating the frequent flyer segment of the market. Conversely, those who are infrequent travellers and those who had not travelled by air in the last year were less likely to have booked their own ticket. This suggests that infrequent travellers have lower involvement in purchasing decisions.

Leisure travellers are generally accepted as being more price sensitive (Brons et al., 2002; Buhalis, 2000; Kashyap & Bojanic, 2000). In this study this only proved true from a post-consumption point of view (as a reason, not an important factor), perhaps due to social desirability and not wanting to say that price is important more generally. The idea that business and leisure travellers were more likely to give time as an important factor when compared to visiting friends and relatives (VFR) and other types of travellers adds to conflicting findings on this matter in the literature. Evangelho et al. (2005) find that business travellers valued flight frequency more than leisure travellers, but this was not found in other studies (Fourie & Lubbe, 2006; Mason, 2001). Leisure travellers have been found to be more time-sensitive due to personal circumstances, such as having children who need to be at school (Buhalis, 2000). Business travellers considered reliability as more important than other forms of travellers.

Interestingly, leisure travellers were more likely to choose their airline due to rewards programmes, directly contradicting the common assumption that business travellers care more about points accumulation (Evangelho et al., 2005; Mason, 2000). This is perhaps because business travellers were less likely to have booked their own tickets (i.e., they are often booked by employers) and thus are not as involved in the decision-making process as are leisure travellers who are paying out of their own pocket. This is an important finding for airlines as it further mitigates the importance of rewards programmes for attracting high-value business travellers, instead suggesting that airlines are primarily rewarding price-sensitive leisure travellers.

Because this study only examined domestic flights in order to use the purity of the duopolistic market, whether the flight was for international transit was also captured as a variable. The finding that those flying on purely domestic routes were more likely to mention price aligns with the notion that price elasticity decreases as flight distance increases, and *vice versa* (Brons et al., 2002). Those who were transiting onto an international flight were also more likely to mention past experience, loyalty, reputation, airline experience and convenience. This suggests that when a domestic flight is one leg of a longer, international trip, then consumers have higher expectations with respect to these. While not conclusive, this suggests that FSCs are better placed to undertake domestic flights that transit onto international flights as the key driver of price may have less effect on market penetration and thus limit the potential market share of LCCs.

2.6 Conclusion

This study has examined how consumers choose between airlines within New Zealand's domestic aviation market where there are only two major carriers, one that is an FSC (Air New Zealand) and one that is an LCC (Jetstar). Due to studying airline choice within a duopolistic market, this has provided a 'purer' study of airline choice by turning this into a dichotomous variable. This study also demonstrated that self-generated validity issues may be commonplace through the extant literature on airline choice. Accordingly, this study has created an approach that avoids the self-generated validity issues of probing areas that are not otherwise in consumer's long-term memory (Feldman & Lynch, 1988) and using behavioural intentions as a proxy for actual behaviours (Chandon et al., 2005). Instead, this study begins with a purely qualitative approach where consumers identify the airline attributes they used as reasons to purchase their most recent flight, and the airline attributes they use to decide between airlines more generically. This study examines consumer's unadulterated thoughts that are only elucidated due to already being present in long-term memory and also measures an actual airline purchase decision, as opposed to the intention of an airline purchase decision. Accordingly, this study contributes to the literature by providing an objective and consumer-centric methodology for examining airline choice.

Surprise and anomalous findings were apparent, and these were plausibly explained by the notion of double jeopardy. The customers of the larger airline were more loyal, yet past experience was a significant predictor of airline choice (post-consumption) as opposed to loyalty and rewards programmes (which were not significant in any regression model). Small brands experience double jeopardy because they get hit twice (less customers who are also slightly less loyal). When applied to the airline industry, this means that it is a more effective strategy to increase market penetration (the number of consumers who use the airline) as opposed to increase customer loyalty (how often people buy the airline's products). This is because greater loyalty is a consequence of being a bigger brand (because it is more readily available and thus purchased more often than smaller brands). By empirically testing which airline attributes are used by consumers to make real airline purchasing decisions, this study found evidence to suggest that the most effective strategy for increasing market penetration may be for airlines to re-evaluate the most fundamental airline attributes. This is to say that the only significant determinants of airline choice are price, time and reliability, where price pulls towards the use of LCCs (Jetstar) and the other two pull towards the use of FSCs (Air New Zealand). This is not to say that other airline attributes do not matter as they will contribute towards consumer expectations, and thus consumer satisfaction. However, because other airline attributes do not predict actual purchasing decisions, they may not be effective strategies for increasing market penetration and behavioural loyalty.

In addition to the methodological and strategic contributions of this study, interactions between demographic variables and the importance of airline attributes are identified and discussed. Specifically, differences in the importance of certain airline attributes can be used by airline managers to better inform which mediums will be the most effective for certain marketing communications. In addition, this study demonstrates that some of the commonly held assumptions about business and leisure travellers do not always hold true (e.g., this study finds that leisure travellers value rewards programmes more than business travellers due to their higher involvement in the decision-making process). The study also observes differences between those who travelled purely domestically and those who used their domestic flight as part of an international trip.

In sum, this study contributes to the aviation literature in the following ways: (1) to provide an alternative methodology for studying airline choice that is both objective and robust; (2) to identify the issue of double jeopardy in the airline industry and how this makes market penetration more important than customer loyalty; (3) to identify strategies for FSCs and LCCs to increase market share through market penetration; (4) to provide airline managers with guidance on how to better utilise marketing communications based upon consumer's demographic variables; and (5) the key themes identified in this study provide a well-grounded and empirical foundation for the future development of survey instruments examining airline choice.

2.7 Limitations

This study was conducted in New Zealand, which is a Western, Educated, Industrialised, Rich and Democratic (WEIRD) country. As Henrich et al. (2010) identify, WEIRD subjects are unusual compared to the rest of the human species. Therefore, it must be noted that the findings of this study may not generalise to countries that are not WEIRD. This provides the opportunity for this study to be replicated in other parts of the world to see if the findings can be generalised or not.

Because this study is the first to approach airline choice using mixed methods, there may be improvements that can be made to the proposed methodology to make it more robust in studying airline choice. As similar methodologies are applied to study airline choice, there may be the opportunity for researchers to add to this discussion and improve how self-generated validity is addressed in the airline choice literature.

This study did not gather the income levels of participants as it was considered that it might confuse foreign participants who would have to convert their income in the local currency into New Zealand Dollars. Accordingly, it would be useful for future studies using similar methods to investigate whether income levels relate to reasons for choosing an airline or important factors in choosing between airlines.

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Chapter Three – Airports as Compound Brands

Preamble

This chapter presents a new marketing concept underpinned by empirical research. It began as an investigation into the creation of airport brand associations, on the premise that airports may have their brand associations created differently due to the presence of multiple actors within an airport space (e.g., airlines, security, shops, restaurants, etc.). The initial investigation shows that, as suspected, other actors played an important part in both creating airport brand associations, and in determining airport brand choice. It became clear that no existing brand type in the literature addressed the peculiarities of airport brand association structures. Accordingly, this initial study shows clear evidence that airport brands were created differently from other types of brands – which had not yet been identified in the air transport literature. However, rather than focussing only on the implications for airports, it was identified that the characteristics that made an airport brand unique also apply to other types of entities (e.g., casinos, theme parks, universities, etc.), and thus other types of entities may also have their brands created in a unique way. Specifically, the presence of tenants and ancillary entities within the branded entity's 'owned' space meant that consumers compounded the brand associations of the focal branded entity (e.g., an airport) with its tenants (e.g., airlines, food providers), and other entities (e.g., government security) such that the associations with those tenants and other entities also became associations with the branded entity itself. This is termed as a 'compound' brand.

In considering the unique characteristics of compound brands, shopping malls seemed to be another likely candidate because their tenants and other entities also play a role in creating or hindering value-creation within their 'owned' space. Accordingly, the investigation on airports was replicated for shopping malls, and both airports and shopping malls were treated as case studies. The results for shopping malls confirmed that the 'compound' nature of their brands was even more pronounced than for airports. This led to the conclusion that a compound brand continuum exists, whereby different types of entities will be positioned differently according to how important tenants and ancillary entities are in the creation of compound brand associations and in brand choice.

In this chapter the use of the LAM is evident. The airports that participants travelled through on their most recent trip using air travel are recalled by participants using their names (where they are known by the participants). Thus, participants are identifying the airport brand using its name. Next, associations with the airport brand are recalled for each of the airports they travelled through. This provides a clear distinction between the airport brand and the airport brand associations. Important associations for choosing between airports are also collected and highlight the sorts of associations that airport managers should seek for their airport in order to maximise the likelihood of favourable airport brand choice. Thus, the conceptualisation for conducting the research and interpreting the results in both studies is consistent with the LAM introduced in the Chapter 1. Collectively with Chapter 4, this chapter fulfils research objective three: to examine the nature of brand associations that air travellers make with airports and how they influence airport brand choice.

Study Three – Compound Brands: Multi-Creation of Brand Associations

Publication Status and Candidate Contribution

This study has been submitted highly ranked marketing journal and is currently under review. For this study, the doctoral candidate is the first and corresponding author, with the doctoral supervisors being co-authors. The doctoral supervisors provided minor contributions towards the methods, analysis and review of the study, however, the work is primarily that of the doctoral candidate.

3.0 Abstract

This study theorises that some brands are multi-created (between multiple entities) rather than co-created (between customer and firm), for example through the associations with tenants in an entity such as an airport. Based upon Human Associative Memory (HAM) theory, this study terms this as a 'compound brand'. The study delineates compound brands from existing marketing concepts, defines compound brands in unambiguous terms, and provides potential examples of compound brands for future research. To test the possibility of compound brands, two potential compound brands, airports and shopping malls, were studied by undertaking 480 semi-structured interviews (240 for each entity) to identify the underlying brand association structure and which associations are important for consumer brand choice. Thematic analysis was used to analyse the qualitative data. Participant responses support that compound brand association structures are created by the focal branded entity (e.g., an airport), its tenants (e.g., shops and restaurants), as well as ancillary entities (e.g., location and customers). A continuum exists as to how much of the compound brand's association structure is created by its tenants.

3.1 Introduction

A key foundation for brand research has been the examination of associations that are linked via memory to a brand name (Meyers-Levy, 1989; Park et al., 1989). Strong, unique and favourable brand associations are proposed to be the source of customer-based brand equity because they affect how consumers respond to the marketing of the brand (Keller, 1993). In addition, brand associations have been linked to behavioural brand loyalty (Romaniuk & Nenycz-Thiel, 2013), consumer response (del Río et al., 2001), brand extension evaluation (Aaker & Keller, 1990), as well as having influence on other fields of brand performance (e.g., brand attitude). According to Aaker (1991, p. 109), a brand association is “anything linked in memory to a brand”. The relationship between associations and other key concepts, such as brand image, is not always clear (Stern et al., 2001). However, Low and Lamb Jr (2000) offer some clarity when they conceptualise brand associations as having three dimensions: brand image, brand attitude and perceived quality.

HAM theory suggests that humans create associations between different mental elements (such as senses, ideas, data) through experience, that simple ideas will underly these associations, that elementary sensations can be used to identify these simple ideas, and that complex associative configurations can be examined from studying the underlying simple ideas (Anderson & Bower, 1973). This theory has been used as the basis for how consumers make brand associations and store them in memory to form brand knowledge, which can be retrieved upon presentation of the brand name (Mitra & Jenamani, 2020; Romaniuk & Gaillard, 2007). This study will discuss HAM in greater detail later, as it uses HAM as the theoretical foundation for the introduction of a new type of brand termed as a ‘compound brand’. Specifically, this study considers that each of the following characteristics might make compound brands unique:

1. Compound brands have tenants;
2. Compound brands facilitate the value-creation of their tenants;
3. Tenants provide value back to the compound brand through the provision of services to the compound brand’s customers;
4. Compound brands are location-bound and manage an ‘owned’ physical space;
5. Ancillary entities (e.g., the city, government, transport providers), including non-commercial entities, can also enhance or hinder the value-creation processes of the compound brand and its tenants.

In considering the potentially unique characteristics of compound brands and how brand associations are formed in memory according to HAM, this research was premised on the idea that a compound brand’s associations will be made up of associations sourced from the compound brand entity itself, from the tenants of the compound brand, and from ancillary entities. All these associations will be linked together in memory and may be recalled upon presentation of the compound brand name. This study also considers it likely that, when retrieving choice sets and making evaluations between brands, these different associations linked in memory will also contribute to brand choice (Nedungadi, 1990). Considering these points, this research aimed to answer four research questions, as follows:

1. Do consumer associations support the idea of multi-creation of brand associations to form compound brands?
2. Do compound brand tenants act as sources of brand associations with the compound brand entity itself?
3. Are compound brand tenant associations important in determining choice between compound brands?
4. If the answer to Question 3 is yes, then, are there differences between compound brand entities in terms of the importance of compound brand associations sourced from tenants?

This study commences with a review of HAM. Next, it establishes clear lines of demarcation between compound brands and potentially related concepts. The research findings are then presented, which provide empirical support for the proposed concept of compound brands, and this study proposes that these brands should be considered a new type of brand for both managerial and theoretical purposes. This study ends with a formal definition of a compound brand and presents some thoughts on future research for the concept. In totality, this study contributes to existing knowledge within the marketing literature by identifying a new and distinct type of brand. The distinctive nature of compound brands mean that they have theoretical and managerial implications that are distinct from other types of brands. Further, this study identifies that different compound brands, whilst sharing structural commonalities, also sit on a continuum whereby different compound brands have higher or lower proportions of associations sourced from their tenants and ancillary entities as compared with those sourced from the focal brand (e.g. an airport). This continuum provides a potentially rich vein of future managerial research and will provide impetus for further research to deepen the theoretical understanding of compound brands.

3.2 Human Associative Memory (HAM)

As previously noted, HAM is a theory that suggests humans connect associations together in memory through experience to construct complex associative networks that can be recalled through presentation of stimuli that link the associations together (Anderson & Bower, 1973). The HAM theory has had some updates, such as the adaptive control of thought – rational model (Anderson et al., 2004; Kim & Nam, 2020), which provides a more detailed account of how different elements combine to provide integrated cognition. Such a level of detail is not necessary for the purposes of this study, which is why the underlying HAM theory is used.

There are a range of models that provide different accounts of how HAM functions. For example, despite agreement with the premise that humans can relate seemingly unrelated items in episodic memory as part of a common experience, there are different models of how recognition of the associated items occurs. Studies on associative learning and recognition (i.e., how the items become related in memory) tend to fall into three types of models: (1) those that use single-process recall-only models, where cued-recall tasks are used to elucidate paired associates and the recall is measured as either a match or a mismatch (e.g., Anderson & Watts, 1971; Diller et al., 2001); (2) those that use single-process familiarity-only models that assume that recognition of paired associates can be measured by the level of familiarity, which is viewed as a continuous variable (e.g., Clark & Gronlund, 1996; Hintzman, 1986); and (3) dual-process models, which use both familiarity and recollection details to make judgements as to the speed and accuracy of recognition using likelihood models (e.g., Glanzer & Adams, 1990; Shiffrin & Steyvers, 1997). Malmberg and Xu (2007) acknowledge the relative strengths in the different models, highlighting that humans are flexible and adopt whichever associative recognition strategy gives the highest accuracy with the greatest efficiency.

One of the underlying assumptions in dual process models is that single-item recognition is the result of a process where a retrieval cue is compared with a large number of memory traces in episodic memory (Dennis & Humphreys, 2001; Xu & Malmberg, 2007). In studies of associative recognition, a common method is to use experiments where participants are given items to study (known as targets) and then must discriminate these from unstudied items (known as foils). Recognition is considered as successful when participants are able to identify targets while rejecting foils (Malmberg & Xu, 2007). There have been several studies that highlight how the similarity of the targets and foils affects recognition accuracy. For example, process-discrimination where participants discriminate between items that appeared in similar contexts (Jacoby, 1991), exemplar discrimination where participants discriminate between exemplars within the same semantic category (Morrell et al., 2002), and plurality discrimination where participants discriminate between singular and plural forms of the same words (Malmberg et al., 2004). While this study is not measuring recognition of compound brand associations (i.e., examining accuracy), the studies on associative recognition show that humans tend to be better at remembering generalities rather than specifics (e.g., are better at discriminating between words with different semantic meanings rather than words with similar semantic meanings) and that the mind uses retrieval cues in working memory as a means of comparing various memory traces present in episodic memory. This study's research method is informed by this, prompting episodic memory by asking for brand associations from recent visits to what are considered potential compound brand entities. These research findings also direct attention to the key role played by episodic memory in the formation of the structure of compound brands.

Episodic memory is the part of long-term memory that stores past experiences (Tulving, 2002), whereby associations from experiences are stored and inter-related with each other in memory (Anderson & Bower, 1973), and where cues in working memory can be compared against memory traces in episodic memory in order for recognition to occur (Xu & Malmberg, 2007). Using this framework, because consumers have experiences that take place within compound brand entities (e.g., an airport) then such experiences are stored in episodic memory (e.g., each visit to the airport). Therefore, the use of a retrieval cue (e.g., an airport brand name) will trigger the working memory to compare the retrieval cue with the various episodes stored in episodic memory. Because of the presence of tenants and ancillary entities in the same episodes, the single retrieval cue (i.e., the name of the compound brand) will trigger recall of associations sourced from the compound brand entity, its tenants and ancillary entities related to the different episodes stored in memory. Thus, it can be seen that the 'location-bound' nature of compound brands is an important element in making them unique, in other words, the brand associations are derived from the totality of the episode, whereby all the episodic associations (regardless of their source entity) are linked via memory back to the focal brand entity (e.g., an airport).

3.3 Similar and Related Concepts

3.3.1 Ingredient Branding, Co-Branding and Compound Brands

There are two existing concepts in the branding literature that need to be conceptually distinguished from compound brands. Firstly, ingredient branding describes two or more brand names used on the same product in order to achieve greater product differentiation (e.g., Intel processors contained within Apple Macs) (Swaminathan et al., 2012). Desai and Keller (2002) identify that ingredient branding combines the existing brand name with a new brand name from the same company, or combines the existing brand name with another established brand name. The latter type of ingredient branding is similar to compound brands in that two (or more) different brand names may be closely connected in consumer product evaluations. However, the compound brand concept differs in two ways. Firstly, the brand associations do not just derive from other brands but may also include non-commercial entities such as governmental entities. Secondly, a compound brand requires that all the tenants are located in an 'owned' geographic location.

Another similar concept is that of co-branding (also known as a brand alliance), where two partner brands (also known as constituent brands) form a new co-brand or 'composite' brand (Washburn et al., 2000), whereby the co-brand results from associations being transferred from the constituent brands (Bengtsson & Servais, 2005). This is similar to the proposed compound brand but differs in that no new brand is being created for a compound brand; instead, the associations transfer from a tenant to the compound brand entity, both of which are usually established brands in their own right.

3.3.2 Brand Co-Creation vs. Brand Multi-Creation

The idea of brand co-creation originates from service-dominant logic (Merz et al., 2009) and considers that the value of brands and brands themselves are co-created by firms and their consumers (Christodoulides, 2008; Gregory, 2007; Hatch & Schultz, 2010). While this model of brand creation can be widely applied and could be said to be a part of the formation of a compound brand, there are nevertheless unique characteristics of compound brands which create clear lines of delineation. Although the co-creation may take place at a tenant level, the positive or negative associations from this process will transfer to the focal brand entity and thus serve to 'multi-create' the focal brand associations. Thus, the value of the brand is also not created from a single focal brand but is instead derived from multiple brands and ancillary entities. A further delineation is that the transfer of any co-created association may also derive from non-commercial entities (e.g., location). Finally, the source of the associations is derived from actors who have a variable degree of independence (e.g., an airport shop may be semi-independent, but government security is independent).

3.3.3 Brand Architecture in Relation to Compound Brands

Brand architecture can be thought of as "the way in which companies organise, manage and go to market with their brands" (Petromilli et al., 2002, p. 23). Aaker and Joachimsthaler (2000) classify various types of brand architecture strategies into a brand relationship spectrum, with branded house and house of brands as the overarching relationship types. Within the spectrum, the most relevant relationship types to inform an understanding of compound brands are brand endorsement strategies and the house of brands strategy. The latter is described as "an independent set of stand-alone brands", (Aaker & Joachimsthaler, 2000, p. 10) which captures that compound brands do not share a brand identity. For the former, the strategy involves sharing a brand identity (name or logo) of the parent brand with the endorsed brand, but where the endorsed brand acts independently within the marketplace (Rajagopal & Sanchez, 2004). Although not always explicit, there is an implicit endorsement of tenant brands by the brand of the focal entity. Compound brands are location-bound, and tenants occupy space within them, the two brand identities will be inadvertently presented next to each other in a similar way to an endorsed brand and its parent brand.

Whilst a compound brand is not the same as a parent brand, it nevertheless shares some similarities in relationships with traditional brand architecture. As discussed, compound brands share commonalities with houses of brands. The associations of the independent stand-alone brands can be seen as entirely separate in their own right. As such, the individual brands will have the benefits of distinctive associations that accompany this strategy. However, when located within a focal compound brand entity, there are also (either implicit or explicit) endorsement strategies at play. For example, if a less well-known brand of café is in a shopping mall, the café will potentially benefit from the endorsement of the shopping mall brand. Conversely, one might expect that McDonald’s is a stronger and more recognisable brand than that of a shopping mall (i.e., the focal brand), meaning that McDonald’s is arguably the endorsing brand. Therefore, although endorsement benefits may apply, compound brands differ in the respect that the endorsing relationship may be in either direction.

As the discussion suggests, traditional brand architecture can be applied in part to compound brands and inform understanding of compound brands. However, it should be noted that the focal compound brand can still fit into traditional brand architecture. For example, The Mall of America is owned by the Triple Five Group and is a thus part of a house of brands strategy. As such, compound brands both fit within a traditional brand architecture, and compound brands may share features with some facets of brand architecture, but they nevertheless should be seen as conceptually distinct.

3.3.4 Place Brands and Compound Brands

Because compound brands occupy a geographic location, a conceptual delineation between place brands and compound brands is needed. For the purposes of this delineation, this study uses the term ‘place brand’ as an all-encompassing term, including destination brands (Kerr, 2006), city brands (Zenker & Braun, 2017), country brands (Florek, 2005), regional brands (Lucarelli & Giovanardi, 2016) and any other brand where the branded entity is a geographic location (Hankinson, 2001; Medway & Warnaby, 2008). A place brand can be defined as "a network of associations in the consumers' mind based on the visual, verbal, and behavioural expression of a place, which is embodied through the aims, communication, values, and the general culture of the place's stakeholders and the overall place design" (Zenker & Braun, 2010, p. 3). At first glance, this appears to, at least, capture some elements of compound brands. However, when examining the literature on place branding, it is apparent that there are some significant differences. The most fundamental of these differences is that the underlying entity behind the brand is very different. The 'place' in a place brand is a geographic location rather than a commercial entity. This difference is important because place brands (as geographic locations) have diffuse control over the entities and stakeholders located within their geographic location. By contrast, compound brands have tightly bound control over which tenants are located within their premises.

Although compound and place brands have differences, there are elements of place branding that can inform the understanding of compound brands. For example, Nghiêm-Phú and Suter (2018) highlight that airports and their attributes become associated with place brand names. Similarly, Zenker and Beckmann (2013) note that entities like shopping malls can be important in order for a place to be able to satisfy the needs of certain traveller groups. Because compound brands occupy a physical space and can be quite prominent within their geographic area, they can be important parts of a place brand. Equally, the geographic location of a compound brand could be an important contributor to the value of its physical space (e.g., sufficient population, nearby tourist attractions, etc.). This potentially explains why around three-quarters of all airports are named after the place that they are located in (Halpern & Regmi, 2011). Similarly, Burns and Warren (1995) highlight that the location of regional shopping centres is often the primary discriminator in determining consumer choice. Accordingly, location will likely be part of a compound brand's associations, just as a compound brand may also be part of a place brand's associations.

3.4 Premise for Case Studies: Airports and Shopping Malls

This study uses the examples of airports and shopping malls as its case studies because these can be considered to be good compound brand candidates. The research aim was to establish whether compound brands are a veridical concept by answering the four research questions highlighted earlier. This study chose airports and shopping malls as the case studies partly because they meet each of the five unique characteristics of compound brands, but also for pragmatic reasons: both entities are used by most consumers with some degree of regularity. Accordingly, one can expect that most consumers are able to recall associations with airports and shopping malls. As highlighted in the literature review, it can also be reasonably expected that at least some of the branded tenants of these entities are better known than the branded entities themselves (i.e., Lacoste may be better-known than Soekarno-Hatta International Airport, and Starbucks may be better-known than the Dubai Mall). Accordingly, if the compound brand concept is veridical, then this should become apparent in the research.

3.5 Methods

3.5.1 Participants

Out of the 240 participants interviewed about airports, 43.75% were male and 56.25% were female. Residents (including dual citizens) made up 66.25% of the sample, with 33.75% of the sample representing overseas visitors. The average age of participants was 39.18 (*SD* = 17.11, range 16–83 years old). 73.33% of participants were employed or self-employed, 4.16% unemployed, 13.75% students, 5% retired, and 3.75% full-time parents. A full list of participants interviewed about airports can be viewed in Appendix C.

The interviews covered 642 airport visits, including 88 airports spread across 36 different countries. A full list of airports along with their number of visits can be viewed in Appendix D. In terms of the recency of the airport visits, 26.67% of participants had travelled through the airports in the last fortnight, 31.25% within the last three months, 24.58% within the last year, 13.75% within the last three years, and 3.75% over three years ago. Out of the airport visits discussed, 21.5% were the first time the participant had visited that airport, 12.46% had been visited 1–2 times prior, 15.26% 3–5 times prior, 8.57% 6–10 times prior, 30.06% 10–50 times prior, and 12.15% had been visited more than 50 times prior. The primary purpose of the travel also varied among participants, with 35.42% travelling to visit friends and relatives, 32.92% travelling for a holiday or for leisure, 16.25% travelling for business, 3.33% travelling for education, and 12.08% travelling for other reasons.

Out of the 240 participants interviewed about shopping malls, 48.33% were male, 51.25% were female, and 0.42% were non-binary. Residents (including dual citizens) made up 76.67% of the sample, with 23.33% of the sample representing overseas visitors. The average age of participants was 45.53 (*SD* = 19.04, range 16–86 years old). 61.25% of the participants were employed or self-employed, 8.33% unemployed, 12.5% students, 17.08% retired, and 0.83%

full-time parents. A full list of participants interviewed about shopping malls can be viewed in Appendix E.

The interviews covered 240 different shopping mall visits, including 35 shopping malls spread across seven countries. A full list of shopping malls along with their number of visits can be found in Appendix F. Of the most recent shopping mall visits of participants (i.e., the one they were interviewed about), 32.5% of them were on the same day as the interview, 39.58% were within the last week, 12.92% within the last month, 8.33% within the last three months, and 6.25% were more than three months ago. The number of past visits participants had made to the shopping mall they last visited also varied: 19.17% had visited less than five times, 18.33% had visited 5–50 times, 12.5% had visited 50–100 times, and 48.33% had visited more than 100 times. Regarding the purpose of their most recent shopping mall visit, 54.17% of participants were shopping for something specific, 11.67% were there for food or drink (other than groceries), 11.25% were there to visit a different type of tenant (i.e., not a shop or food provider), 7.5% were there to go shopping as an activity, 5.42% were there to spend time with friends or family, 4.58% were there to have a walk or look around, 3.75% were there to fill in time, and 1.67% were there for other purposes.

3.5.2 Materials

Two different interview formats were used, one for airports (see Appendix G) and one for shopping malls (see Appendix H). It should be noted that the interviews rely on unprompted recall of airport and shopping mall brand names, and also unprompted recall of brand associations and participant views of what were important brand associations for choosing between airports or shopping malls. This methodology is premised on two very important principles. The first is to align with the theory of HAM, where the brand name is used as the retrieval cue to capture the complex network of brand associations connected to it in episodic memory. The second is to avoid self-generated validity, in other words, to avoid creating associations that do not already exist in long-term memory by including interview questions that assume the sorts of associations participants might already have (Feldman & Lynch, 1988; Forbes & Avis, 2020). Both interview formats also asked about recent experiences (either the participant's most recent trip using air travel, or the participant's most recent visit to a shopping mall) as a probe to stimulate episodic memory.

3.5.3 Procedure

Convenience sampling was used whilst standing on major thoroughfares in two cities in the Lower North Island of New Zealand. Both cities have airports with scheduled airline flights, both cities have shopping malls. Participants needed to be at least 16 years old, to have been to an airport or shopping mall before, and not be employed within an airport or shopping mall. The two formats for the semi-structured interviews were administered independently of each other (i.e., no participant did both). This was to ensure that participants did not confuse the two entities (due to the similarity of the questions) and also to avoid participant fatigue or other such order effects (Krosnick, 1999). The interviews were recorded on a smart phone or tablet and then later transcribed. Due to the exploratory nature of this research, there needed to be enough data to estimate the veridicality of the concept. Based upon initial interviews, 240 participants for each interview format was estimated to be a reasonable and pragmatic number, for a total of 480 participants. This study was deemed to be low-risk and was therefore registered as such on the Massey University Human Ethics Database.

3.5.4 Analysis

For the analysis, this study focussed on answers which related most directly to the conceptual research questions (i.e., non-managerial), specifically; demographics, associations, and important associations. For the purposes of the analysis and answering the research questions, this study provides definitions for two key terms:

1. *Associations* were anything consumers linked in memory to the brand, and
2. *Important associations* were associations that consumers used to choose between different branded entities.

Note that a few associations (less than 50 collectively) were removed because they were generic and not related to a specific branded entity of an airport or shopping mall (e.g., being excited to travel applies to any airport and enjoying shopping applies to any shopping mall). Demographics are reported with descriptive data. Associations and important associations were grouped using thematic analysis. While all the associations and important associations are made with an airport or shopping mall in the minds of the participants, the actual source of associations may be from tenants or ancillary entities within the focal brand. For example, if a participant mentions a food provider, shop, or location then the association or important association will be grouped to the corresponding entity (i.e., tenants for food providers and shops and ancillary entities for location). These groupings are reported with descriptive data.

3.6 Results and Discussion

3.6.1 Airports

When participants were asked to identify the airports that they travelled through on their most recent trip, 87.38% of airports were correctly identified with their brand name (or very close to it: words like "international" were not deemed consequential). However, 12.62% of airports mentioned were of the location only (i.e., where the participant mentioned the location of the airport but did not know its official name). Correct brand names were taken from the airport's website as some airports are branded under more than one name (e.g., Los Angeles International Airport is also branded as LAX).

Across all airport visits, participants made 2,049 associations, 1,303 of which were unique[9]. The median number of associations was three per airport visit (*IQR* = 1–4). For 3.73% of airport visits, participants made associations with the airport by mentioning the brand name of one of its tenants. These included airlines (e.g., British Airways), food providers (e.g., Subway), bookshops (e.g., Relay) and other tenants. It is also worth pointing out that 18.85% of airport visits resulted in no associations with the airport itself (i.e., the branded entity), but only 7.17% of airport visits resulted in no associations at all.

Between the participants, there were 896 important associations, 605 of which were unique. The median number of important associations was three per participant (*IQR* = 2–5). For important associations, only one participant mentioned a specific brand of tenant. 19.58% of participants had no important associations with the airport itself (i.e., the branded entity), compared with only 5% of participants that had no important associations for choosing between airports. An overview of the associations and important associations made with entities at airports is shown in Table 10.

With regard to airports, Table 10 shows that participants associated airport brands with tenants such as airlines, food and beverage providers, and shops, among others. There were also

[9] Explanatory note for thesis (not for publication): a *unique* association is an association that is different from all the others. For example, if there are two participants, one with the associations 'food' and 'parking', the other with the associations 'food' and 'shops', then there are 4 associations, but only 3 *unique* associations as 'food' is a shared association amongst the two participants.

ancillary entities such as the city that the airport was located in and the government-imposed security measures. In the mind of the participants, all of these were connected by the brand name of the airport. Demonstrably, for airports, the answer to Research Question 1 is 'yes' – consumers do multi-create brand associations to create compound brands.

The descriptive data shown in Table 10 supports the idea that tenants provide a source of brand associations for airports (i.e., the answer to Research Question 2 is yes) because 14.59% of all brand associations with airports are sourced from tenants, and 28.97% of all airport visits have at least one association sourced from tenants. If tenants did not act as a source of brand associations for airports, then one would expect that the median percentage of brand associations sourced from tenants would not be statistically significantly different from 0% across participants. A One-Sample Wilcoxon Signed Rank Test (e.g., Harris & Hardin, 2013) revealed a statistically significant difference between the observed median of 7.69% and the hypothetical median of 0%, z = 9.744, $p < 0.001$, with a large effect size (r = 0.64).[10] This provides empirical evidence in support of Research Question 2. The same procedure can be followed for examining Research Question 3 – that is whether or not tenants act as a source of important associations for choosing between compound brand entities (in this case airports). The One-Sample Wilcoxon Signed Rank Test revealed a statistically significant difference between the observed median of 20.71% and the hypothetical median of 0%, z = 9.880, $p < 0.001$, with a large effect size (r = 0.65). In addition, Table 10 shows that 26.34% of important associations were sourced from tenants and 53.75% of all participants had an important association sourced from tenants. These results provide empirical support for an affirmative answer to Research Question 3.

To add further support to Research Question 1, One-Sample Wilcoxon Signed Rank Tests were also run to see whether the percentages of associations and important associations sourced from ancillary entities were also statistically significant. For associations, the test revealed a statistically significant difference between the observed median of 16.67% and the hypothetical median of 0%, z = 11.077, $p < 0.001$, with a large effect size (r = 0.72). For important associations, the test revealed a statistically significant difference between the observed median

[10] Explanatory note: the figures of percentages were used for calculating the differences between medians in the Wilcoxon Signed Rank Tests because the proportion of associations sourced from different entities might be a more useful measure than the raw number of associations. This is likely given the large differences between participants in the number of associations made.

of 0% and the hypothetical median of 0%, z = 8.311, $p < 0.001$, with a large effect size (r = 0.54).[11]

[11] Explanatory note: the figure of 0% is the observed median because more than 50% of participants had 0% of their associations sourced from ancillary entities.

Table 10

Associations and important associations sourced from entities at airports

Entity	Associations		Important Associations		Common Examples[4]
	Percentage[1]	Percentage of Visits[2]	Percentage[1]	Percentage of Participants[3]	
Airport	66.57%	81.15%	59.82%	80.42%	
Airport	64.52%	80.53%	57.37%	79.17%	Facilities, atmosphere, design, airport service quality
Transport (within airport control)	2.05%	5.92%	2.46%	7.92%	Parking, buses between terminals
Tenants	14.59%	28.97%	26.34%	53.75%	
General	1.95%	5.92%	3.24%	11.67%	Variety of services available, price point
Airlines	4.29%	10.9%	7.37%	19.58%	Check-in procedures, airline staff, airline names
Food and Beverage	4.29%	11.06%	9.49%	27.92%	Restaurants, cafes, bars, types of cuisine
Shops	3.76%	9.81%	5.13%	14.17%	Duty free, clothing, cosmetics, bookstores, souvenir shops
Others	0.29%	0.93%	1.12%	3.75%	Hotels, banks, phone companies, rental car companies
Ancillary Entities	18.84%	39.56%	13.84%	38.75%	
Customers	3.56%	9.19%	1.9%	6.25%	User imagery, number of people
Government	3.9%	8.72%	5.8%	18.33%	Security, customs, immigration
Location	9.32%	22.12%	2.23%	8.33%	City, country, views, weather, local attractions
Transport (outside of airport control)	2.05%	5.3%	3.91%	12.08%	Buses, trains, taxis, roads

Remark: [1] Percentages of associations and important associations are calculated by dividing the number in each category by the total number.
[2] Percentage of visits is calculated by dividing the number of visits with at least one association with the entity by the total number of visits.
[3] Percentage of participants is calculated by dividing the number of participants with at least one important association by the total number of participants.
[4] The examples column is not exhaustive and only presents a few prominent examples for each entity.

3.6.2 Shopping Malls

When participants were asked to identify the shopping mall they most recently visited, 76.67% of shopping malls were correctly identified with their brand name (or very close to it: differences between words like “mall” and “centre” were not deemed consequential) and 23.33% of shopping malls mentioned were of the location only (i.e., where the participant mentioned the location of the shopping mall but did not know its name). Correct brand names were taken from the shopping malls’ websites as some shopping malls are branded under more than one name.

Across the shopping mall visits, participants made 773 associations, 476 of which were unique. The median number of associations was three per shopping mall visit (*IQR* = 2–4). For 16.67% of shopping mall visits, participants made associations with the shopping mall by mentioning the brand name of one of its tenants. These were primarily food providers (e.g., McDonald’s) and retail stores (e.g., Kmart), but also included supermarkets, banks, technology stores, and phone companies, among others. Interestingly, 54.17% of shopping mall visits resulted in no associations with the branded entity itself (i.e., the shopping mall), but only 2.5% of shopping mall visits resulted in no associations at all.

Participants had 679 important associations, 424 of which were unique. The median number of important associations was two per participant (*IQR* = 1–4). For important associations, 6.67% of participants mentioned the brand name of a tenant, these were all brands of shops (e.g., Cotton On, Kmart, Nike). 40.83% of participants had no important associations with the branded entity itself, compared with only 4.17% of participants who had no important associations for choosing between shopping malls.

With regard to shopping malls, Table 11 shows that participants created associations with shopping mall brands that are sourced from tenants and ancillary entities. According to the responses of the participants, all of these were connected by the brand name of the shopping malls, providing further support in favour of Research Question 1[12] – consumers do multi-create brand associations to create compound brands.

The descriptive data shown in Table 11 supports the idea that tenants provide a source of brand associations for shopping malls (i.e., the answer to Research Question 2 is yes) because 58.99%

[12] Explanatory note for the thesis (not for submission): the research questions mentioned in this study are found in section 3.1 and are not to be confused with the research objectives of the wider thesis.

of all brand associations with shopping malls are sourced from tenants, and 77.92% of all shopping mall visits have at least one association sourced from tenants. The same procedure was used as for airports to compare the median percentage of associations with tenants against the hypothetical median of 0%. A One-Sample Wilcoxon Signed Rank Test revealed a statistically significant difference between the observed median of 75% and the hypothetical median of 0%, z = 12.19, $p < 0.001$, with a large effect size (r = 0.80). This provides empirical evidence in support of Research Question 2. The same procedure can be followed for examining Research Question 3 (tenants as sources of important associations). A One-Sample Wilcoxon Signed Rank Test revealed a statistically significant difference between the observed median of 66.67% and the hypothetical median of 0%, z = 11.808, $p < 0.001$, with a large effect size (r = 0.78). In addition, Table 11 shows that 54.34% of important associations were sourced from tenants and 74.58% of all participants had an important association sourced from tenants. These results provide empirical support for an affirmative answer to Research Question 3.

To add further support to Research Question 1, One-Sample Wilcoxon Signed Rank Tests were also run to see whether the percentages of associations and important associations sourced from ancillary entities were also statistically significant. For associations, the test revealed a statistically significant difference between the observed median of 0% and the hypothetical median of 0%, z = 6.634, $p < 0.001$, with a medium effect size (r = 0.43).[13] For important associations, the test revealed a statistically significant difference between the observed median of 0% and the hypothetical median of 0%, z = 5.533, $p < 0.001$, with a medium effect size (r = 0.36).[13]

[13] Explanatory note: 0% is the observed median because more than 50% of participants had 0% of their associations sourced from ancillary entities.

Table 11

Associations and important associations sourced from different entities at shopping malls

Entity	Associations		Important Associations		Common Examples[4]
	Percentage[1]	Percentage of Visits[2]	Percentage[1]	Percentage of Participants[3]	
Shopping Mall	30.14%	45.83%	37.56%	59.17%	
Shopping Mall	28.59%	40.83%	30.93%	42.5%	Facilities, atmosphere, design
Transport (within shopping mall control)	1.55%	5%	6.63%	16.67%	Parking
Tenants	58.99%	77.92%	54.34%	74.58%	
General	7.76%	17.5%	10.31%	25%	Variety of services available, price point
Food and Beverage	13.2%	32.92%	10.16%	22.92%	Restaurants, cafes, food courts, fast food outlets, grocery stores, bars
Shops	34.54%	59.17%	32.11%	53.33%	Retail, clothing, technology, bookstores, variety of shops
Others	3.49%	8.33%	1.77%	4.58%	Banks, phone companies, optometrists
Ancillary Entities	10.87%	26.67%	8.1%	20.83%	
Customers	7.5%	17.92%	1.47%	4.17%	Number of people, customer behaviour, user imagery
Location	2.98%	7.5%	3.53%	9.58%	City, proximity to other places
Transport (outside of shopping mall control)	0.39%	1.25%	3.09%	7.08%	Public transport, roads

Remark: [1] Percentages of associations and important associations are calculated by dividing the number in each category by the total number.
[2] Percentage of visits is calculated by dividing the number of visits with at least one association with the entity by the total number of visits.
[3] Percentage of participants is calculated by dividing the number of participants with at least one important association by the total number of participants.
[4] The examples column is not exhaustive and only presents a few prominent examples for each entity.

3.6.3 Brand Association Multi-Creation

The results presented thus far support the idea that the unique characteristics of compound brands result in the multi-creation of brand associations between different entities (Research Question 1). In other words, the combination of the different entities within the focal brand leads to associations from those entities becoming connected with the brand name of the compound brand. In some cases, participants were unable to correctly recall the brand name of the compound brand (12.62% for airports and 23.33% for shopping malls). This study's proposal that compound brands were related to experience stored in episodic memory is supported by the fact that so many participants could not even correctly name the compound brand.

The structure of the brand associations and important brand associations also highlight the interconnectedness of associations related to different entities. Tenants comprise a significant part of the association structure for both airports and shopping malls (14.59% for airports and 58.99% for shopping malls, respectively). This is in line with the theorised model of the unique characteristics of compound brands (see Section 3.1). The same can be said with regard to tenants' contributions to the important associations that are used to choose between compound brands (26.34% for airports, 54.34% for shopping malls). For many participants (19.58% for airports, 40.83% for shopping malls), the branded entity itself (i.e., the airport or shopping mall) did not feature in the important brand associations used to choose between airports/shopping malls. Accordingly, those participants would choose between airports or shopping malls solely based upon their tenants and other related entities. These findings combined with the statistical analyses confirm that tenants not only comprise a significant portion of the compound brand's association structure (Research Question 2), but also that the associations sourced from tenants influence choice in relation to compound brands (Research Question 3). This was also true for ancillary entities as demonstrated with the statistical analyses, supporting the importance of the fifth unique characteristic of compound brands. However, this study places limited emphasis on these statistics as the focal brand entity often has limited or no control over the operations of ancillary entities.

3.6.4 The Compound Brand Continuum

As can be seen in Tables 10 and 11, while the underlying association structures for airports and shopping malls are sourced from the same sorts of entities, their size and importance vary. It seems that airports play a more significant role than their tenants in creating their brand associations and in determining brand choice (e.g., airports have some control over flight connectivity and service standards). However, for shopping malls, tenants create more of the brand associations and have more influence over brand choice than the shopping mall itself as the branded entity. These results support an affirmative answer to Research Question 4 (that the importance of associations sourced from tenants varies according to the compound brand entity). To provide further support, Wilcoxon Signed Rank Tests were performed to see whether the difference between the median percentage of associations and important associations sourced from tenants were statistically significantly different between airports and shopping malls. For associations, the median for shopping malls of 75% was statistically significantly higher than the median of 7.69% for airports, $z = 12.311$, $p < 0.001$, with a large effect size (0.80). A similar result was obtained for important associations, where the median for shopping malls of 66.67% was statistically significantly higher than the median of 20.71% for airports, $z = 10.015$, $p < 0.001$, with a large effect size (0.66).

These results relate back to the theory behind HAM: associations become connected through experience, so it is a participant's past experience that determine the structure of brand associations in memory (Alba & Hutchinson, 1987; Romaniuk & Gaillard, 2007). Importantly, the differences in the proportionality of associations and important associations between airports and shopping malls suggests that a continuum exists as to how important tenants are as a source of brand associations and in determining brand choice. This study would expect that other potential compound brands will exist in different locations along this continuum despite having the same underlying structure (i.e., branded entity, tenants and ancillary entities). For example, many universities also have tenants (such as food outlets, banks and travel agencies), however, they are likely to play less of a role in student experiences than tenants do in air traveller experiences at airports.

The existence of a continuum based upon how much of the brand association structure is created by tenants has significant managerial implications. Whilst a shopping mall must treat tenants as being a critical element of their compound brand, a university may see this as a lesser priority. As tenants can be seen to influence compound brand choice, it is of vital importance for managers to understand what factors consumers are using to determine brand choice and the relative importance of those factors (Baltas, 1997; Evans, 1959).

3.6.5 Defining Compound Brands

This study considered that there are certain characteristics that delineate compound brands from other brand concepts. In addition to the review, the findings of the research support the introduction of compound brands as a distinct concept. In line with many theorists, this paper considers it important to provide a clear definition when introducing a new concept and, importantly, a definition which sets clear boundaries around the concept (e.g., Alexander, 1937; Summers, 2001). This study therefore provides a definition for compound brands that is unambiguous, but also with clear boundaries to delineate the concept from extant concepts. The definition is:

> A compound brand is a focal branded entity whereby its brand associations are multi-created with associations sourced from other entities such that these associations become part of the focal brand's associations. Specifically, they must include 'tenant' associations, but may also include associations from ancillary entities such as customer associations, location associations, and transport associations. In order for a brand to be described as a compound brand, it requires that there are tenants within its 'owned' physical space that can contribute to the compound brand's associations, and that the compound brand facilitates the value creation of the tenants and *vice versa*.

There are three key elements of this definition that are worthy of further elaboration. Firstly, a compound brand represents an 'owned' geographic space where tenants and ancillary entities are co-located. As discussed, this is not the same as a place brand. Secondly, tenants and ancillary entities are a source of associations from which the compound brand is comprised. Thirdly, there must be tenants such that the distinct relationship between tenants and the compound brand makes it fundamentally different from relationships such as co-branding. These points in the definition mean that a compound brand does not overlap with an entity such as a store which stocks multiple brands.

3.7 Conclusion

This study has introduced the concept of compound brands to the marketing literature, providing a theoretical basis for the concept, delineating it from other concepts, and supporting its veridicality through empirical research. Because of the presence of tenants, a significant portion of the brand association structures for airports and shopping malls are created by tenants. This study considers this to be an important finding with both theoretical and managerial implications. Considerable interest has been given to how brands are constructed and stored in memory, and how brand associations influence choice. To date, consideration has been given to a wide variety of brand types, whether place brands or product brands. However, it is apparent that compound brands represent a new category of brand and one which is likely to have many instances in the marketplace. Understanding compound brands allows for improved understanding of brand choice. This research focussed on two potential examples of compound brands (i.e., airports and shopping malls), and further research will identify many more categories that include compound brands. Whilst these are likely to vary on the compound brand continuum, they nevertheless share common underlying characteristics, and it will therefore be of significant value for theorists, researchers and managers to understand the positioning of different types of compound brands on the continuum.

3.8 Limitations and Future Research

This study has focussed on whether compound brands are veridical. However, there needs to be further research into the managerial implications of this fundamental difference in the structure of brand associations. Specifically, this study examined important associations for choosing between airports and shopping malls, but did so based upon consumer responses (i.e., attitudinally) rather than using actual choice. While attitudinal loyalty does help predict behavioural loyalty, it is not a perfect predictor (Baldinger & Rubinson, 1996; Jacoby & Kyner, 1973) and, therefore, it is still important to verify the findings with actual consumer behaviour.

This study only investigated two types of entities (i.e., airports and shopping malls) as being compound brands. Using the definition and unique characteristics that was provided; this study believes that other compound brands exist. This study predicts that the following may be compound brands given that they typically have tenants: other transportation hubs (e.g., train stations, bus terminals, ports), hospitals, universities, stadiums, theatres, museums, theme parks, medical centres, casinos, hotels, office buildings and business parks. Further research is needed to assess firstly whether these entities are examples of compound brands, and secondly, to see where on the continuum they sit in terms of the role that tenants play in the compound brand's association structures. It would also be a useful contribution to examine such compound brands from a practitioner point of view, interviewing managers within the compound brands to see how the peculiar brand association structures of such entities are managed in practice.

Another interesting area of future research would be to compare the relationships between tenants and compound brands with the relationship between principals and agents. This relationship has been widely studied from the point of view of executive compensation to recognise that executives (as the agents) have control over the corporation, but do not own the corporation, and thus must be motivated to act in the best interests of the shareholders (the principals) who actually own the corporation (Garen, 1994; Jensen & Meckling, 1976). While not identical, there is a similarity in that tenants have a certain degree of control over a compound brand, but they are not owners of it. Accordingly, there are issues of control versus ownership that could be investigated further by drawing upon the extant literature on principal-agent theory.

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Chapter Four – Airport Brand Associations

Preamble

Using the LAM framework, this thesis found evidence that air travellers associate with airport brands (names & logos) differently under the so-called 'compound brand' principle (see Chapter 3) and, therefore, this thesis can provide different insights for airport managers. This is the fundamental purpose of this chapter. While Chapter 3 focusses more on the conceptual framework of compound brands, its managerial implications are limited. Thus, Chapter 4 examines the same dataset under a different lens: the nature of airport brand associations from a practical point of view to provide more insights to airport managers. This chapter addresses airport brand associations and their influence upon airport brand choice and highlights the importance of airports as providers of aviation infrastructure, as this was the single biggest source of brand associations and airport brand choice. However, there were 13 themes for 'associations' (i.e., those linked via memory back to the airport brand name) and 'important associations' (i.e., those used to choose between airports) all with varying effect sizes and with their own detailed subthemes (presented with rich qualitative data in Appendix I). Unlike the compound brand study in Chapter 3, this chapter also analyses the reasons that underly why some associations are important for airport brand choice and others are not. It also shows how associations vary according to airport size. The managerial implications of the study's findings are discussed in some detail, but are also contextualised within the compound brand framework introduced in Chapter 3.

Study Four – The Nature of Airport Brand Associations and Their Influence on Brand Choice

Publication Status and Candidate Contribution

This study is completed and revised, but has not been submitted to any journal yet. This is because its findings and discussions make a greater contribution to the aviation literature within the framework of 'compound brands' and thus, it should be submitted/published after Study Three. For this study, the doctoral candidate is the first and corresponding author, with the doctoral supervisors being co-authors. The doctoral supervisors provided minor contributions towards the methods, analysis and review of the study, however, the work is primarily that of the doctoral candidate.

4.0 Abstract

This study examines the nature of brand associations that air travellers form with airports and how these are used to choose between airports. Using semi-structured qualitative interviews, this study collected information about 240 participants' most recent trips using air travel, encompassing 642 airport visits and 88 airports worldwide. The associations that participants made with the airports they travelled through were collected, as well as the sorts of associations that are important for choosing between airports and why those associations are important. The data was analysed using thematic analysis, revealing 13 themes for airport brand associations and important associations for choosing between airports, and 14 themes for reasons why those associations were important. Single-sample *t*-tests reveal that each of these themes have different effect sizes in terms of their effect on airport brand association formation and their effect upon attitudinal brand choice. This study contributes to the air transport and marketing literature by providing a detailed account of which associations air travellers form with airports and are used for choosing between airports, and by contextualising these findings by viewing airports as compound brands. Managerial implications are also provided along with avenues for future research.

4.1 Introduction

Airports can be defined as providers of "all the infrastructure needed to enable passengers and freight to transfer from surface and air modes of transport and to allow airlines to take off and land" (Graham, 2014, p. 1). While airports usually provide these core services themselves, there are also trends of airport commercialisation and privatisation worldwide that encourage enterprise and efficiency (Freathy, 2004; Ison et al., 2011) and thus diversification into non-aeronautical commercial activities (Freathy & O'Connell, 1999; Oum et al., 2006). Accordingly, airports have become facilities that tend to have tenants that assist in providing services for air passengers by providing food and beverages, retail, duty free shops, car rentals and other special services (Jimenez et al., 2014; Rhoades et al., 2000). In turn, airports facilitate the value-creation of their tenants by providing facilities that allow access to the airport's clientele (Appold & Kasarda, 2011). Airlines provide passenger traffic to airports, but also rely on airport support to be able to implement strategies such as point-to-point and hub-and-spoke networks (Chang & Lee, 2010; Fu, Homsombat, et al., 2011). As identified in Chapter 3, these peculiarities of airports result in the multi-creation of brand associations sourced from different entities to form a compound brand. Their study provides evidence that airport brands are compound brands by analysing airport associations and important associations for choosing between airports in terms of which entity is the source of such associations. This study builds upon the work of Chapter 3 using the same data set to examine the sorts of associations passengers make with airports they travel through (hereafter called 'associations'), which ones are perceived to be important for choosing between airports for future trips (hereafter called 'important associations'), and the reasons for important associations. However, this study examines these thematically and treats all themes for associations, important associations and reasons for important associations as potentially having multiple entities as sources. Accordingly, this study aims to contextualise airport brand management within the framework of compound brands. Specifically, this study aims to answer the following research questions:

1. What sorts of associations do air travellers recall with an airport brand name from a recent trip?
2. What sorts of associations are perceived to be important in determining airport brand choice?
3. Why are some associations more important than others in determining airport brand choice?

This study begins by reviewing brands and branding, branding in the context of airports, and the idea of airports as compound brands. The research method and results are presented and discussed, followed by a series of managerial implications and avenues for future research. Collectively, this study provides a holistic overview of the nature of brand associations air travellers make with airports, which ones matter, and why. Importantly, it also begins the application of the compound brand concept to airports by contextualising the concept's importance for the creation and management of airport brand associations. Past research on airport branding has been framed from the perspective of conventional branding and has not sufficiently addressed the peculiarities of multi-creation of brand associations from different entities at airports. This study applies a different approach to airport branding, providing clear and practical managerial implications within the framework of compound brands.

4.2 Literature Review

4.2.1 Brand Associations

According to Aaker (1991, p. 109), brand associations can be thought of as "anything linked in memory to a brand". Brand associations are studied for a number of reasons, including their effect upon consumer behaviour (del Río et al., 2001), their contribution to brand equity (Chen, 2001), and because more behaviourally loyal customers tend to have more brand associations (Romaniuk & Nenycz-Thiel, 2013). Keller (1993, p. 10) highlights that marketing programmes are aimed at establishing "favourable, strong, and unique brand associations in memory so that consumers purchase the product or service", conceptualising how certain brand associations lead to customer-based brand equity. van Osselaer and Janiszewski (2001) identify two ways in which consumers form brand associations: (1) through human associative memory (HAM), where feature-benefit associations of brands develop independently, and; (2) through adaptive learning, where different features of a brand compete in memory to predict benefits and feature-benefit associations form interdependently. The likelihood of a consumer using either one is influenced by their level of motivation to learn to predict benefits from associations, where higher motivational significance increases the likelihood of adaptive learning, and lower motivational significance increases the likelihood of HAM learning. In terms of recalling brand associations, brand usage is very important in influencing a consumer's propensity to give brand associations (Bird et al., 1970; Romaniuk & Sharp, 2000), and hence unprompted brand association recall will adversely affect the number of associations for nonusers of a brand (Romaniuk, 2006). This consideration has influenced the method of this study, which uses unprompted recall of brand associations for airports that a participant travelled through on their last trip (i.e., only examines brand user's associations, not those of brand nonusers).

4.2.2 Airport Branding

One key area of research within airport branding has been examining the influence of an airport's brand upon different aspects of performance. Marcucci and Gatta (2012) treat customer loyalty and branding as synonymous by using a 'brand coefficient' defined in terms of customer loyalty for explaining heterogeneity in airport preference. Lee and Park (2016) find that sustainable airport brands have a strong and positive mediating effect on airport business performance. Chung et al. (2013) instead focus on the financial value of an airport brand by valuing the brand equity of Incheon International Airport using financial techniques. They suggest several ways of increasing the financial value of the airport's brand as an intangible asset.

Instead of examining business performance in relation to branding, Halpern and Regmi (2011) examine 1,562 airport brands worldwide in terms of their names and their slogans to see if there are differences internationally. They find that approximately three quarters of all airports are named after the place that they are located (and/or the nearest main city or town), for example, Hong Kong International Airport or Beijing International Airport. They also find that only one tenth of airports have a slogan (e.g., "LAX is happening" for Los Angeles International Airport or "Hello World" for Birmingham Airport), with North American and privatised airports being more likely to have one. Accordingly, their study provides evidence that brand names and slogans are a greater consideration for airports that are operated by private companies rather than those that are publicly owned. In a study on marketing innovations at European airports, Halpern (2010) shows that airport managers tend to focus more attention on targeting specific airlines, modifying facilities and developing strategic marketing partnerships rather than on aspects such as promoting a recognised brand.

Kefallonitis and Kalligiannis (2019, p. 523) find that airport branding helps to create "a sense of place" and "unification of like-minded passengers based upon their choice of airport or members of a like-minded group (imagined-communities; such as a social media group of aviation geeks)". They also find that the brand of an airport is determined by its service quality, variety of shops, passenger lounges, and other benefits. Airport brands may also incorporate certain "cultural, artistic, architectural and customary characteristics of the local city" (p. 523). Kefallonitis and Kalligiannis (2019) appear to be implicitly acknowledging that airport brands are multifaceted and created by multiple entities, including shops (operated by tenants) and the location that the airport is situated. However, there is also a tacit assumption that airport brands are always positive given that the term 'benefit' is used, but no negative terms are. This is a common issue within the branding literature with many definitions taking positive and evangelical stances towards the brand (Manning, 2010). Nevertheless, there will likely be negative associations made with airports according to the nature of experiences that air travellers have when travelling through them (e.g., some passengers have issues getting through security checks or have to pay fees for services like parking).

Tse (2007) identifies eight elements of airport branding strategies: (1) retail pricing strategies; (2) selection of retail outlets; (3) choice of food and beverage outlets; (4) architectural layout and design; (5) artwork; (6) services and entertainment; (7) service staff; and (8) airport logos, slogans and wordmarks. Firsty et al. (2019) use these eight elements to explore the impact of airport branding strategies upon customer experience and find that collectively these eight elements accounted for 49.5% of customer experiences at Soekarno-Hatta International Airport's Terminal 3. All eight elements had over 75% of their sample of 120 participants agreeing or strongly agreeing that they are important. Importantly, such strategies recognise that airports do have some control over the other stakeholders that help create their brands, for example, by selecting tenants to get a variety of shops and restaurants. While Ijevleva and Paramonovs (2015) find that no airports within the Baltic States used terms like "branding" within their vision statements, usually at least some of the eight elements of airport branding strategies were present. Accordingly, while not all airports may be explicitly focussing on branding, there are usually elements of their strategies that appear to implicitly affect their brands by affecting their underlying brand associations.

Paternoster (2008) outlines the difficulty of airport customer service in that air travellers hold airports to account for the performance of many stakeholders and theorise that airport branding can be improved only by taking a strategic and holistic approach. Similarly, Castro and Lohmann (2014) analyse airport vision statements to identify marketing and branding strategies. They find that airports tend to use branding strategies similar to large corporations, despite acknowledging that the way airports develop their brands is complex and involves "a number of stakeholders with potentially different representations of the single corporate brand" (p. 4). In this sense, both articles highlight a similar issue regarding airport branding: airport brands are created by multiple stakeholders and are likely to need their own strategies because they are unlikely to fit conventional brand types, such as corporate or product brands.

4.2.3 Airports as Compound Brands

A common theme within the reviewed literature has been that airport branding relies upon many different stakeholders, regardless of what brand concept is being measured. This aligns well with the findings presented by Chapter 3, which suggest that airports are compound brands because their brand associations are multi-created by the focal branded entity (the airport), its tenants (airlines, shops, food and beverage outlets, and others), and ancillary entities (location, government security measures and transport providers). Their paper was focussed on conceptually delineating compound brands from other types of brands using airports and shopping malls as case studies. Due to this purpose, its analysis for airports was limited to examining which entities acted as the source of different airport brand associations.

This study presents a different analysis of the same data based upon managerial themes for associations, and also presents the reasons for why some associations are important among air travellers in choosing between airports (and others are not) for their journey based upon data collected from the same interviews that has not been analysed in Chapter 3. Importantly, this study can commence by acknowledging that airport brand associations are sourced from multiple different entities and that airports have varying levels of control over those entities (e.g., airport management can choose tenants, but have little or no control over government-mandated security protocols). This is a critical consideration when interpreting the results of this study and attempting to find managerial implications that are actionable and realistic given the constraints and resources an airport has in managing its own brand.

4.2.4 Airport Brand Choice

Because this study addresses the topic of how air travellers choose between airports (called airport brand choice), it is relevant to briefly discuss airport competition because if air travellers can choose between airports in their journey then this implies airports compete with one another. While this may be true, levels of airport competition vary between cities, regions and countries (Chi-Lok & Zhang, 2009; Forsyth, 2006; Thelle & la Cour Sonne, 2018). For example, in New Zealand and Australia, distance between airports makes airport competition for origin-destination travel negligible (Forsyth, 2006). In other parts of the world, substantial intra-urban (within a city), inter-urban (between cities) or multi-airport region (MAR) competition exists. For example, there are high levels of intra-urban airport competition in the city of London because it has six airports competing with each other: Heathrow, Gatwick, Stansted, Luton, City, and Southend (Burghouwt et al., 2014; Graham, 2020). Inter-urban competition is particularly prominent between major hub airports (e.g. Hong Kong and Singapore Changi), primarily determined by their geographic position and specialisation towards particular markets (Redondi et al., 2011; Halpern, 2018). In light of these differences, the findings as to which airport brand associations are important for determining airport choice might be most relevant to airports that have higher levels of competition. However, the act of finding what is important for air travellers is still a useful exercise for airports with lower levels of competition because it can help their managers prioritise different activities from an air traveller perspective.

4.3 Method

4.3.1 Participants

4.3.1.1 Demographic Information

There were 240 participants in the study, comprising participants from 35 different countries. The mean age of the sample was 39.18 years (*SD* = 17.11, range 16 to 83). There were 105 males (43.75%) and 135 females (56.25%). Participants were primarily New Zealand citizens (153, 63.75%), with 81 foreign citizens (33.75%) and 6 dual citizens (2.5%). Table 12 shows other demographic variables. A full list of participants interviewed about airports can be found in Appendix C.

Table 12

Demographic variables by number and percentage of participants

Demographic Variables	Number of Participants (%)
Frequency of travel	
More than 6 times per year	38 (15.83%)
3–6 times per year	70 (29.17%)
1–2 times per year	84 (35%)
Once every 2–3 years	29 (12.08%)
Less than every 3 years	19 (7.92%)
Most recent trip using air transport	
Within last fortnight	64 (26.67%)
Within last 3 months	75 (31.25%)
Within last year	59 (24.58%)
Within last 1–3 years	33 (13.75%)
Within last 3–5 years	4 (1.67%)
More than 5 years ago	5 (2.08%)
Purpose of most recent domestic flight	
Visiting friends and/or relatives	85 (35.42%)
Business	39 (16.25%)
Holiday or leisure	79 (32.92%)
Other (e.g., education)	37 (15.42%)
Occupation	
Employed or self-employed	176 (73.33%)
Unemployed	10 (4.16%)
Retired	12 (5%)
Student	33 (13.75%)
Domestic duties (e.g., stay at home parent)	9 (3.75%)

4.3.1.2 Airport Information

The study summarises 642 airport visits, comprising 88 unique airports worldwide. The median duration for an airport visit was 1:00 hour (*IQR* = 30 minutes to 2 hours, range 2 minutes to 24 hours). Table 13 summarises other airport characteristics, and a full list of airport visits that comprise the sample can be found in Appendix D.

Table 13

Airport variables by number and percentage of airport visits

Airport Variables	**Number of Airport Visits (%)**
Type of visit	
Departure	247 (38.47%)
Transit	148 (23.05%)
Arrival	247 (38.47%)
Number of times visited	
Never before	138 (21.50%)
1–2 times	80 (12.46%)
3–5 times	98 (15.26%)
6–9 times	55 (8.57%)
10–49 times	193 (30.06%)
More than 50 times	78 (12.15%)
Airport size (passengers)*	
Small (<5 million)	134 (20.87%
Medium (5–10 million)	186 (28.97%)
Large (10–25 million)	176 (27.41%)
Very large (>25 million)	146 (22.74%)
Location of airport visit	
Africa	3 (0.47%)
Asia	67 (10.42%)
Europe	29 (4.51%)
Middle East	13 (2.02%)
New Zealand	431 (67.03%)
North America	22 (3.42%)
Oceania (excl. New Zealand)	78 (12.13%)
Duration of airport visit	
Less than 1 hour	307 (47.74%)
1–3 hours	233 (36.24%)
3–5 hours	75 (11.66%)
5–10 hours	20 (3.11%)
10 or more hours	8 (1.24%)

Remark: * 2017 figures obtained from airport websites, annual reports, and government publications. Classifications based upon those of Martin-Domingo and Martín (2016).

4.3.2 Materials

This study used semi-structured interview questions (see Appendix G) to examine airport brand associations, important airport brand associations, and reasons for important airport brand associations. This instrument was piloted on 15 participants to check for ease of completion.

As no issues were identified, these 15 participants comprise part of the sample of 240 participants.

To provide ecological validity for this study, the semi-structured interview asks about a participant's most recent trip using air travel and identifies the airports that they travelled through on that trip (i.e., departure airport(s), transit airport(s), and arrival airport(s)). The name of each airport is then used to ask the participant to recall associations that they have with the airport (if any). This is consistent with the conceptualisation of airport brand associations as anything that comes to mind when presented with the airport brand, in this case the airport's name. By probing the participant's most recent trip using air transport, the interview is randomising which airports the participants are discussing, and also providing an easy conversational basis to discuss airport brands. The interview used open-ended questions to ensure that the airport associations that are recalled are already stored in participants' long-term memories and are not the result of self-generated validity, where participants might create associations in working memory as a result of participating in the study (Feldman & Lynch, 1988).

After identifying the associations made with each airport, participants were asked what sorts of associations are important for choosing between airports, as "important associations", and why those associations are important. These questions provide a more generalised account of what is important for choosing between airports and are not specific to participants' most recent trips using air transport. However, a comparison can be made between the airport brand associations that participants actually made versus those that would maximise the likelihood of an air traveller choosing that airport over others.

4.3.3 Procedure

Participants were recruited at major thoroughfares in two cities in the Lower North Island of New Zealand. Both cities have airports with scheduled flights from multiple airlines. Participants needed to be 16 years old, to have travelled through an airport before, and not be employed in an airport. The interviews were recorded on a tablet and then later transcribed. This study was deemed to be low-risk and was therefore registered as such on the Massey University Human Ethics Database.

4.3.4 Analysis

The transcriptions of interviews were analysed using thematic analysis. These thematic analyses were conducted using Braun and Clarke's (2006) 15-point checklist for a good thematic analysis. These analyses produced themes and subthemes that help describe the discourse from participants that were interviewed. While the method employed is designed to describe what participants said, there is always a certain amount of interpretation based upon the context of each conversation. The analysis is somewhat weighted towards providing richer and more detailed accounts of the data to help provide airport managers with the level of detail required to make informed decisions. This also allows for many avenues for future research based upon the many different perspectives of participants, which may or may not be generalisable to wide portions of society. In particular, it will become obvious that some themes have contradictory comments from different participants, capturing that associations and determinants of airport choice are inherently subjective and unique to each individual's experience.

4.4 Results

4.4.1 Themes for Associations and Important Associations

A total of 2,529 associations (1,051 of which were unique)[14] with airports were elicited from participants, with a mean of 3.94 associations per airport (*SD* = 2.77, *Mdn* = 3, range 0 to 18). A total of 971 important associations (394 of which were unique) for choosing between airports were also elicited from participants, with a mean of 4.05 important associations per participant (*SD* = 3.00, *Mdn* = 3, range 0 to 27). The thematic analysis revealed 13 themes for associations (which were also found for important associations), as well as those that could not be categorised. Each type of association and a description of it is presented in Table 14. Each of the 13 themes could be further broken down into subthemes, which can be viewed in Tables 26 – 51 contained within Appendix I.

[14] Explanatory note for the thesis (not for submission): these numbers are different to Chapter 3 because of the difference in how the analysis was conducted. For Chapter 3, narratives were studied to find where associations were sourced from. Thus, if a participant said, "good food", this would be one association linked to tenants. For this study, it would be represented as two associations because implies the existence of both an *evaluation* (good) and *facilities & infrastructure* (food).

Table 14

Themes and their descriptions

Themes	Description	% Associations	% Important Associations
Airline/Flight	Their flight experience or experience with an airline while at the airport	3.12%	5.63%
Atmosphere	The atmosphere inside the airport	11.78%	6.14%
Comparative	Compare the airport with other airports or other things	4.19%	2.97%
Cultural	Cultural elements present at the airport	4.9%	1.54%
Customer Service	The customer service from airport staff	2.73%	7.68%
Evaluation	The participant's overall evaluation of the airport	15.38%	5.33%
Experience	What the participant experienced at the airport	6.17%	3.89%
Facilities & Infrastructure	The facilities and infrastructure of the airport	23.45%	41.27%
Getting Around	How they get to, from and around the airport	7.59%	16.59%
Literal	What an airport literally is	3.44%	0.82%
Scenery & Surrounds	What can be seen from the airport or what surrounds the airport	2.73%	1.18%
Security	The security, customs, and immigration measures experienced at the airport	3.91%	5.53%
Travel	How they see the airport as part of their travel experience	9.92%	0.41%
Uncategorised	All other associations	0.67%	1.02%

4.4.2 Differences according to Airport Size

It is also possible to see how the proportion of associations within each theme changes according to airport size. Airports that serve greater numbers of passengers achieve economies of scale due to having larger commercial areas and a greater mix of retailers and food/beverage providers (Fuerst & Gross, 2018). Accordingly, there may also be differences in the nature of airport brand associations according to airport size. This is examined in Table 15, showing the percentage of associations in each theme for airports of different sizes. As can be seen, the *facilities & infrastructure* theme makes up the largest portion of associations regardless of airport size. However, there were also some interesting differences, such as medium-sized airports having less *atmosphere* associations (presumably because *busyness* was the largest subtheme, and they are neither busy nor quiet), *literal* and *scenery & surrounds* associations being less likely in large and very large airports (potentially because there is a greater variety of things inside the terminal to associate), and *security* associations being more common for large and very large airports (presumably due to greater numbers of international flights).

Table 15

Percentage of associations in each theme by airport size

Items/Themes	Airport Size (passengers)* Small <5 million	 Medium 5–10 million	 Large 10–25 million	 Very Large >25 million
Number of visits	134	186	176	146
Number of associations	504	700	676	649
Mean number of associations	3.76 (*SD* = 2.27)	3.76 (*SD* = 2.74)	3.84 (*SD* = 2.76)	4.45 (*SD* = 3.16)
Airline/Flight	4.37%	3.00%	3.85%	1.54%
Atmosphere	13.49%	6.57%	13.91%	13.87%
Comparative	4.96%	3.43%	3.70%	4.93%
Cultural	0.99%	9.57%	3.25%	4.62%
Customer Service	4.37%	1.57%	2.66%	2.77%
Evaluation	12.70%	15.00%	14.79%	18.49%
Experience	5.56%	4.29%	7.25%	7.55%
Facilities & Infrastructure	23.41%	26.14%	20.12%	24.04%
Getting Around	6.94%	6.14%	8.88%	8.32%
Literal	5.75%	3.71%	3.40%	1.54%
Scenery & Surrounds	3.97%	5.43%	0.74%	0.92%
Security	1.98%	3.71%	4.59%	4.93%
Travel	10.71%	10.00%	12.57%	6.47%
Uncategorised	0.79%	1.43%	0.30%	0.15%

Remark: * Classifications based upon those of Martin-Domingo and Martín (2016).

4.4.3 Statistical Significance and Effect Size of Themes

To examine the different themes in terms of their contribution towards brand associations and airport brand choice (in terms of important associations), single sample *t*-tests were run to test the number of associations and important associations against a value of 0 (see Posten, 1979, for the procedure and robustness levels of this analysis method). For associations, this was calculated as the mean number of associations in each theme per airport per participant (i.e., the total number in each theme for each participant divided by their number of airport visits). For important associations, this was the raw number of important associations in each theme per participant. As the means for associations and important associations were slightly positively skewed, One-Sample Wilcoxon Signed Rank tests (with a Bonferroni correction) were also conducted using medians (e.g., see Meek et al., 2007). However, the results were the same in terms of which themes were statistically significant and are thus not reported. Table 16 shows the results of the single sample *t*-tests tests.

Table 16

Statistical significance and effect size for associations and important associations

Themes	Associations			Important Associations		
	Mean	*t*-value (df = 239)	Effect size (*d*)	Mean	*t*-value (df = 239)	Effect size (*d*)
Airline/Flight	0.14	6.23*	0.40	0.23	6.45*	0.42
Atmosphere	0.45	10.86*	0.70	0.25	6.74*	0.43
Comparative	0.16	8.13*	0.52	0.12	5.00*	0.32
Cultural	0.21	7.53*	0.49	0.06	3.52*	0.23
Customer Service	0.10	5.20*	0.34	0.31	7.36*	0.47
Evaluation	0.58	13.87*	0.89	0.22	6.55*	0.42
Experience	0.23	9.81*	0.63	0.16	5.72*	0.37
Facilities/Infrastructure	0.92	14.54*	0.94	1.68	12.67*	0.82
Getting Around	0.30	8.86*	0.57	0.68	11.25*	0.73
Literal	0.15	8.01*	0.52	0.03	2.87	0.19
Scenery/Surrounds	0.12	5.39*	0.35	0.03	2.48	0.16
Security	0.14	5.52*	0.36	0.23	7.09*	0.46
Travel	0.39	10.44*	0.67	0.02	2.01	0.13
Uncategorised	0.03	2.86	0.18	0.04	3.22*	0.21

Remarks: * denotes statistical significance at the $p < 0.0037$ level, which is the equivalent to $p < 0.05$ level after applying a Bonferroni correction (Bonferroni, 1936). Effect sizes can be interpreted as small ($d = 0.2$), medium ($d = 0.5$), large ($d = 0.8$) (Cohen, 1988).

4.4.4 Reasons for Important Associations

This study elicited 507 reasons (219 of which are unique) for why certain associations are important in choosing between airports, with a mean of 2.11 ($SD = 1.33$, $Mdn = 2$, range 0 to 7) reasons per participant. The thematic analysis revealed 14 types of reasons for why associations were important for choosing between airports, these along with their descriptions are shown in Table 17. Most of the reasons that underly important associations are analogous with themes previously linked to related concepts like airport service quality and airport design (e.g., Bagler, 2008; Fodness & Murray, 2007; Gkritza et al., 2006; Kotopouleas & Nikolopoulou, 2018; Moon et al., 2016; Nakagawa et al., 2005; Nelson, 2015; Taufik & Hanafiah, 2019; Tierney & Kuby, 2008; Tseng & Wu, 2019; Wattanacharoensil et al., 2017). The reasons are often related to multiple important associations across different themes and accordingly this study does not provide subthemes for each type of reason. This is because the reasons are often intrinsically related back to the specific important associations of the participants. However, they capture the general theme behind each reason regardless of what specifically was important.

Table 17

Types of reasons and their descriptions

Type of Reason	Description	% Reasons	% Participants*
Comfort	It makes the airport more comfortable	7.30%	14.58%
Emotion	It positively effects the traveller's emotions while at the airport (e.g., reduces stress)	14.79%	26.67%
Empathy for the traveller	To show that the airport empathises with the needs of travellers	10.45%	18.33%
Entertainment	It is important for providing entertainment while at the airport	10.65%	18.75%
Human interaction	Because they need human interaction	2.76%	4.58%
Impressions	To give a good impression of the city, country or airport	2.37%	4.17%
Money	It saves them money	2.96%	5.83%
Other benefits	It provides some benefit, otherwise not categorised	7.69%	14.17%
Past experience	Because they have past experiences that suggest the association is important	1.58%	3.33%
Personal viewpoint	To align with their personal opinions of what airports should do	2.56%	5.42%
Security/Safety	To make them feel safe and/or secure	3.75%	6.25%
Time	To minimise the amount of time spent travelling and/or at the airport	13.81%	25.42%
To make travelling easier	It makes travelling easier	15.78%	29.17%
To provide a better experience	It helps to provide a better experience	3.55%	6.25%

Remark: * Does not sum to 100% because one participant may give more than one reason.

To give airport managers an idea of what sorts of improvements at their airport to prioritise and invest, it is useful to examine the statistical significance and effect size for each of the reasons. Single sample *t*-tests were run to test the mean number of reasons against a value of 0. Ten participants were excluded from the tests because they had no important associations, and therefore no reasons for important associations. As the mean for reasons was slightly positively skewed, One-Sample Wilcoxon Signed Rank tests (with a Bonferroni correction) were also conducted using medians. However, the results were the same in terms of which themes achieved statistical significance and are thus not reported. The results of the single-sample *t*-tests are shown in Table 18.

Table 18

Statistical significance and effect size for reasons for important associations

Type of Reason	Mean	*t*-value (df = 229)	Effect Size (*d*)
Comfort	0.16	6.24*	0.41
Emotion	0.33	8.44*	0.56
Empathy for the traveller	0.23	6.47*	0.43
Entertainment	0.24	6.77*	0.45
Human interaction	0.06	3.19*	0.21
Impressions	0.05	3.05*	0.20
Money	0.07	3.74*	0.25
Other benefits	0.17	5.84*	0.39
Past experience	0.04	2.87	0.19
Personal viewpoint	0.06	3.70*	0.24
Security/Safety	0.08	3.76*	0.25
Time	0.30	8.43*	0.56
To make travelling easier	0.35	8.92*	0.59
To provide a better experience	0.08	3.78*	0.25

Remarks: * denotes statistical significance at the $p < 0.0037$ level, which is the equivalent to $p < 0.05$ level after applying a Bonferroni correction (Bonferroni, 1936). Effect sizes can be interpreted as small ($d = 0.2$), medium ($d = 0.5$), large ($d = 0.8$) (Cohen, 1988).

The results of Table 18 show that three themes have a medium effect size (*to make travelling easier*, *emotion*, and *time*), indicating that air passengers would like airports to make their travel experience as easy and seamless as possible, to keep them in a good state of mind emotionally (e.g., reduce stress of travel), and to minimise the amount of time they have to spend within the airport or in transit. However, aiming to reduce the time spent within the airport may seem somewhat self-defeating for airport managers given that they want passengers to spend money and buy goods and products within the airport terminal to maximise non-aeronautical revenue (Freathy & O'Connell, 2012). Accordingly, a balancing act is needed between participant's desire to minimise time within airports and airport managers' imperative to maximise passenger revenues for the airport.

The other themes have small effect sizes but are all still statistically significant, except for *past experiences*. One that is particularly interesting is the idea that airports need to be empathetic towards their passengers. Many of the participants within this theme were specific to their circumstances and coming across airports that were particularly accommodating or unaccommodating. For example, some participants were smokers, some had children, others were physically disabled. Having the appropriate facilities to accommodate their particular needs was important for these participants and when such facilities were not present, those participants felt like the airport was unempathetic towards their circumstances and that affected their airport experience and satisfaction levels.

4.4.4.1 Reasons for having no important associations

There were 10 participants who had no important associations with the airports in their most recent trip using air travel. Those participants were still probed with the "why" question, and hence reasons for having no associations can be deduced. Four participants suggested that airports don't matter and that they would always just choose the quickest flight route to their destination, three participants noted that the only thing that matters is the location (e.g., city or country) they want to get to and choosing the airport that is most logical for that, two participants highlighted that they would choose an airline and wouldn't be concerned which airports they were routed through, and one participant said that airports were not important to them.

4.4.5 Additional Comments

There were 281 additional comments (233 of which were unique) made by 125 participants. These were divided into 13 themes as well as those that could not be further categorised. These are shown in Table 19.

Table 19

Themes for additional comments

Additional Comment Theme	% Additional Comments	% Participants
Airports considered as bad role models for other airports to follow	7.47%	7.08%
Airports considered as good role models for other airports to follow	13.88%	10%
Comments regarding the airline they flew on or the characteristics of their flight	3.56%	4.17%
Comments relating to airports being necessities	2.85%	3.33%
Comments relating to the relationship airports have with local and national cultures	1.42%	1.67%
Difficulties experienced at airports	4.98%	5.42%
How airports have changed over time	3.20%	2.5%
Other observations about airports	6.76%	5.83%
Relating to their own experience as air travellers	7.12%	7.92%
Security or safety related	4.27%	4.17%
Things they dislike about airports	10.32%	10%
Things they like about airports	17.44%	13.33%
Things they want from airports	11.03%	8.33%
Uncategorised	5.69%	6.67%

Remark: * Does not sum to 100% because participants varied in the number of additional comments they had.

4.5 Discussion and Managerial Implications

4.5.1 The Fundamentals versus the 'Nice-to-haves'

The results of this study highlight that it is the fundamental facilities and infrastructure provided by an airport that have the greatest effect upon the creation of the airport's brand associations and upon airport brand choice. The *facilities & infrastructure* theme accounted for the largest portion of associations (23.45%) and important associations (41.27%) and was found to have a statistically significant and large effect (see Tables 14 and 16) upon the make-up of brand associations and the associations participants use to choose between airports. These findings should not be surprising considering that the very definition of an airport is as a provider of aviation infrastructure (Graham, 2014). This does not discount the role of other sources of brand associations (e.g., *customer service* or *atmosphere*); however, it does highlight the need for airports to do their core business well.

While the results clearly show the diversity of association types the participants made with airport brands, there is a clear difference between various themes in terms of their contribution toward the overall airport brand association structure and toward choosing between different airports. The findings of this study validate the findings of Kefallonitis and Kalligiannis (2019) that airport service quality, shop variety, passenger lounges, an incorporating the culture, art and architecture of a city are important aspects of airport branding. However, in this study all of these aspects have a small effect size ($d < 0.5$) and would not likely be the core areas of focus of airport managers. In this sense, this study is consistent with Halpern's (2010) finding that airport managers tend to focus on targeting specific airlines, modifying facilities and developing strategic marketing partnerships as opposed to promoting a recognised brand. The term "strategic marketing partnerships" for airports in the context of Halpern's (2010) study meant collaboration with local business and tourism. In the context of this study, these strategic marketing partnerships could help with a number of the themes that rely on tenants or ancillary entities to provide the service (e.g., food and beverage, transport to the city, etc.). The recognised brand comes about through its associations, so the idea airport managers are already focussed on fundamentals (e.g., facilities and infrastructure, food providers, transport providers, etc.) rather than the 'nice-to-haves' (e.g., artwork, scenery, customer service, etc.) emphasises that an airport brand cannot be separated from the travel experiences that passengers have travelling through airports that lead to brand associations. Ultimately, the brand associations that matter most to air travellers when choosing between airports come from these fundamentals more so than the ‘nice-to-haves’, again highlighting the importance of getting an airport’s core business sorted prior to working on any of the ‘nice-to-haves’.

4.5.2 Attitudes vs. Behaviours

This study examines airport brand choice in terms of the brand associations that are important for air travellers to choose between airports. This is an attitudinal measure that indicates the criteria air travellers (i.e., the participants) might use to choose and evaluate between airports when planning their journey. However, attitudes do not always predict behaviours. For example, despite attitudinal concerns of air travellers towards air transport’s role in anthropogenic climate change, most air travellers are unwilling to modify existing air travel behaviours (Filimonau & Högström, 2017; Higham et al., 2016). Nonetheless, behavioural measures also have drawbacks. For example, when examining brand loyalty, the use of only behavioural measures ignores the role of mental processes in forming loyalty and can conceal spurious brand loyalty, where repeat purchase of the same brand may be due to lack of availability rather than loyalty (Bennett & Rundle-Thiele, 2002; Day, 1969; Jacoby & Kyner, 1973). While this phenomenon has not been directly observed for airports, spurious brand loyalty has been observed in airline markets (Henderson et al., 2019; Voorhees et al., 2015; Whyte, 2004). Thus, both attitudinal and behavioural measures are important in gaining a holistic understanding of air traveller behaviour when choosing between airports.

Because of the use of only attitudinal measures to examine how to maximise the likelihood of airport brand choice, this study does not capture some of the real-world constraints that will likely influence actual behaviours. In particular, this study finds that relatively small percentages of participants mentioned flight connectivity/frequency (3.33%), airline choice (18.75%), and airport accessibility (9.17%) as important associations for choosing between airports, with an additional nine (3.75%) participants giving these as reasons for having no important associations. Nonetheless, each of these have been shown to predict airport choice behaviours (Marcucci & Gatta, 2011; Pels et al., 2001; Skinner, 1976; Windle & Dresner, 1995).

As Başar and Bhat (2004) highlight, it is important to learn how air travellers form their consideration sets for airport choice (i.e., how they choose the set of airports to be considered, which happens prior to choosing one airport from that set). Geographic location can rule airports out of a consideration set as ultimately airports facilitate air travel to and from countries and cities, and ground accessibility to and from those locations must be realistic otherwise the airport will not be under consideration (Bao et al., 2016; Koster et al., 2011). Following that, due to the effects of double jeopardy (i.e., the idea that small brands have smaller customer bases who are also less loyal, Ehrenberg et al., 1990), it is easier for air travellers to buy a flight that operates from an international hub airport with higher flight connectivity and flight frequency because there are more flight options available to purchase (and thus they are more likely to be in the consideration set), potentially explaining why flight connectivity and frequency are important for air travellers. This is similar to observations of double jeopardy within airline markets (Henderson et al., 2019; Lynn, 2008; Voorhees et al., 2015). Finally, the different airports in the consideration set of air travellers may involve different airlines, where airline choice becomes a driving factor of airport choice. For example, air travellers may have to compromise with regard to airport choice due to the importance they place on factors such as airline type (legacy or low-cost carrier), airfare, total flight times (including transit time), meals, on-board flight service and entertainment, aircraft used, a particular airline, frequent flyer programmes and so on (e.g., see Jung & Yoo, 2016; Tierney & Kuby, 2008; Zhang & Xie, 2005).

This section has highlighted that there may be a number of behavioural factors that are not fully captured within this study due to its focus on attitudinal measures. Nonetheless, understanding the mental processes that underly airport brand choice is important to airport managers for understanding how air traveller behaviours can be changed in the future. While real-world constraints such as flight connectivity and airport accessibility will influence air traveller behaviours, those constraints may change over time. For example, changes in socio-political and economic status may result in rapid increases in flight connectivity (Graham, 1998; Wang et al., 2014). Similarly, ground access to airports may change due to improved or new ground transport options, expanding existing catchment areas for established airports (Bergantino et al., 2020; Kim & Ryerson, 2018). Accordingly, when these constraints that moderate behavioural change, air travellers' attitudes will influence how future behaviours will change in relation to those constraints (Friese et al., 2008), where future-oriented behaviours are better predicted by attitudes than near-future behaviours (Rabinovich et al., 2010). This study thus contributes towards understanding those future-oriented behaviours of air travellers using attitudinal brand choice for airports.

4.5.3 Relating Airport Branding to Airport Service Quality

This study finds that airport customer service was only mentioned by 22.5% of participants as an important association for choosing between airports. This may appear lower than expected, based upon past research regarding the role of customer service in airport choice (e.g., see Choi et al., 2019; Paternoster, 2008; Prentice & Kadan, 2019). However, this study was very strict in its boundaries around the *customer service* theme, limiting it to customer service directly from airport staff. The term 'airport service quality' is often used to indicate a much broader swathe of variables, including facilities, check-in, servicescape, security screening, ambience, concessions, wayfinding, total time, and satisfaction (e.g., compare the measures of Correia et al., 2008; Prentice & Kadan, 2019; Tam & Lam, 2004). All of these factors are mentioned to varying degrees by participants during interviews, however, they are thematically grouped and divided into different themes (i.e., infrastructure/facilities, airline/flight, security, atmosphere, getting around, and evaluation). It is very likely that if this study had used the more encompassing idea of airport service quality, a lot of an airport's brand associations would be captured by the concept. Indeed, Paternoster (2008) suggests that airport service quality and providing outstanding customer experiences are what turn 'typical' airports into unique brands. Given the wide range of brand associations that could be created from the activities of airport service quality, this suggestion is unsurprising. Nonetheless, the focus of this study was to aid managers in influencing brand associations rather than improving airport service quality. By delineating customer service provided by airport staff from those provided by other entities (e.g., airlines, shops, restaurants, etc.), it makes it clearer where airport brand associations are being sourced from, in turn, aiding managers in influencing such associations.

4.5.4 Through the Compound Brand Lens

The results of this study highlight the importance of viewing airports through the lens of being compound brands (see Chapter 3). When examining the themes and the subthemes for both associations and important associations, it becomes clear that while the airport may be the source of many of the associations, other entities also act as sources for associations and important associations for airport brand choice. This may be very clear with themes such as *airline/flight*, *security*, *cultural*, and *scenery & surrounds* because these are primarily sourced from airlines, government agencies, and the cultural and geographic location (city, region, country, etc.) of the airport. However, it may also be less overt, such as the *food/beverage* subtheme within the wider *facilities & infrastructure* theme. For an airport to have positive associations within this subtheme, the airport would need to provide suitable and well-designed facilities for such services, but the actual tenants who occupy those spaces and sell the food and beverages to air passengers will also act as important sources of associations. In each sense, the brand associations of the airport are being multi-created by different entities.

This multi-creation of brand associations is also important when considering how air travellers choose which airports to travel through, with the *infrastructure & facilities* and the *getting around* themes having the largest effect among the themes. The former relies on the relationship between an airport and its tenants to ensure that the right infrastructure is not just being built by the airport, but also occupied by the right tenants to ensure that the right facilities are available to passengers. This is consistent with past research in the airport management domain showing the interaction between airports and tenants in provision of facilities (e.g., Chen et al., 2020; Freathy & O'Connell, 2012; Goetz & Szyliowicz, 1997). Equally, the *getting around* theme relies not just on effective design of airport terminals and systems for air passengers to get around the airport (including between terminals) and the building of suitable facilities to allow for transfer from air transport to other modalities, but also the availability of transport providers for passengers to transfer onto to get to their ultimate destination (e.g., taxis, buses, trains). Again, the importance of interactions between airports and ground transport providers has been emphasised by past research (e.g., Lian & Rønnevik, 2011; Orth et al., 2015; Tam et al., 2008). In these two themes (i.e., the *infrastructure & facilities* and the *getting around* themes) with the largest influence upon airport choice, the associations that are used to choose between airports are again multi-created by different entities. The reasons for important associations may also relate back to tenants, although this could not be directly observed in this study. For example, providing *entertainment*, *comfort* or *empathy towards travellers* may involve the provision of goods and services from the airport's tenants to meet these needs.

The importance of viewing airports as compound brands is not simply an academic exercise. When examining branding strategies for airports, it is important to consider where the airport is actually able to make a difference itself and where the airport may have only limited control. As mentioned above, past work in the field of airport branding has highlighted eight elements of airport branding strategies: (1) retail pricing strategies; (2) selection of retail outlets; (3) choice of food and beverage outlets; (4) architectural layout and design; (5) artwork; (6) services and entertainment; (7) service staff; and (8) airport logos, slogans and wordmarks (Figueiredo & Castro, 2019; Firsty et al., 2019; Ijevleva & Paramonovs, 2015; Tse, 2007). While all but the last of these strategies (logos, slogans and wordmarks) can be directly observed to have an effect in this study (i.e., there are similar terms within themes and subthemes, see subthemes in Tables 26 – 51 in Appendix I), each of these strategies rely to varying degrees upon the assistance and cooperation of tenants and ancillary entities. For example, unless an airport is directly running the shops within its terminals, then retail pricing strategies are not something that the airport management would have direct control over. However, strategies like selecting retail outlets and food and beverage providers are areas that airport management does have direct control over. This diffusion of control is a unique characteristic of a compound brand (see Chapter 3) and is an important consideration alongside the relative importance of each strategy in terms of its contribution to airport brand associations and airport brand choice.

4.5.5 Practical Implications

Every airport has unique opportunities and challenges as well as finite resources. While the broad themes of airport brand associations and how they affect airport brand choice have been addressed, these show the 'big picture'. In Appendix I, all of these broad themes are broken down into specific associations. This provides a level of granularity and richness of data that allows airport managers to assess the relevance of particular associations for their airport. For example, some airport managers may be intrigued by the number of cultural associations air travellers make with airports. When examining Table 32, they will find that 2.5% of participants made associations with aspects of indigenous culture found at a particular airport (e.g., some participants referred to the tomokanga, a Māori carved gateway that arriving international passengers must walk through at Auckland Airport). While this may not be significant for many airports, for those that are situated where there are local indigenous peoples, incorporating aspects of indigenous culture into the design of the airport (e.g. airport terminals – arrival and departure halls) may be highly relevant. While this is merely a single example, there are many associations contained within the tables of Appendix I that airport managers can ponder over and assess the relevance for their airport's particular situation. This may in turn prompt further investigation to assist in the prioritisation of resource allocation towards initiatives aimed in part at improving the favourability of brand associations for the airport (e.g., Brochado & Oliveira, 2018; Worthington et al., 2010). Such richness of data can only be gathered using qualitative techniques (Petrescu & Lauer, 2017), the richness of which has already been identified as useful for processes such as new product development and examining brand identity creation (Alam, 2005; Underwood, 2003). As Gummesson (2005, p. 309) highlight, "complexity, ambiguity, fuzziness, chaos, change, uncertainty and unpredictability are characteristics of a market economy", requiring qualitative marketing data to allow practitioners to make the right decisions. This study thus reiterates the practical usefulness of its qualitative approach, suggesting that the application of similar techniques to a particular airport would be very insightful for that airport's management.

4.5.6 Policy Implications

The theme of *security* was found to be a source of associations for 9.5% of airport visits, and 19.58% of participants had at least one important association for determining airport choice within this theme. In Table 48, one can see that 2.92% of participants had a bad experience with airport security and 5.83% of participants felt that the security was too strict during airport visits in their most recent trips. Conversely, when examining which *security* associations are important for choosing between airports, terms such as 'easiness' and 'expediency' are common (see Table 49). The difficulty with this theme is that airports have almost no control over airport security because airport security is typically the responsibility of a government agency (Hainmüller & Lemnitzer, 2003; Seidenstat, 2004). There are substantial differences between countries in terms of aspects such as levels of intervention, number and nature of checks, staffing and equipment budgets and levels of discretion for security officials (Gillen & Morrison, 2015; Hasisi & Weisburd, 2011; Lum et al., 2015; Wheeler, 2005). In the United States, Gkritza et al. (2006) find that there are no systemic differences between airports in terms of passenger satisfaction, highlighting the influence of the federalised approach. Because security measures form a significant part of airport brand associations and are used by nearly one in every five participants for choosing between airports, this suggests that airports in countries with easier and seamless security systems will have more favourable brand associations and likelihood of brand choice. Airport management may need to lobby their governments accordingly as from the passengers' perspective airport security is viewed as being part of the airport. This means that associations sourced from government security measures compound back to the airport brand itself, affecting the favourability of associations for the overall airport brand.

4.6 Conclusion

As airports become increasingly commercialised and seek non-aeronautical revenue, airport branding has become a more salient concern (Castro & Lohmann, 2014; Firsty et al., 2019). However, present literature on the topic provides a piecemeal application of the brand construct to airports. This study ameliorates this research gap by examining airport brands in terms of the associations that air passengers make with airports, which ones are important for choosing between airports and why. In doing so, this study provides a holistic overview of airport branding. It also shows that the various themes identified in this study do not have a uniform effect upon airport brand association creation and airport brand choice, and accordingly need to be prioritised. This study also views airports through the lens of being ‘compound brands’, which offers insight into the role of tenants and ancillary entities in creating airport brand associations and maximising the likelihood of airport brand choice. However, this study also affirms past research highlighting the importance of focussing on the fundamental business of airports: providing *facilities & infrastructure*. Accordingly, this study contributes to the literature on airport branding by providing a detailed account of airport brand association creation and airport brand choice through the compound brand lens.

To provide insights for airport managers, this study provides a detailed account of the sorts of associations that air passengers make with airports, but also which ones are important for choosing between airports and why. Each airport has its own unique opportunities, strengths and circumstances and so it is not possible to make blanket generalisations about how to best create and manage an airport’s brand. However, the themes presented in this study are useful for understanding the sorts of associations that might be creating an airport’s brand and also their relative importance. This study provides an approach that can be easily replicated for an airport to provide a snapshot of airport brand performance from an air traveller perspective. The same themes could be used by airport managers to help categorise associations, and the importance of each theme can be tested within the context of their airport. Similarly, by seeking to understand the reasons behind why some associations are important and others not, airport managers can evaluate how certain strategic directions and opportunities may change the make-up of associations and the propensity for favourable airport brand choice.

4.7 Limitations and Future Research

While this study captured information from 240 different participants, incorporating 642 airport visits, it did take place within New Zealand and most of the airport visits discussed were of New Zealand airports. Accordingly, there may be differences in the findings if the research was replicated in other parts of the world. This would be an interesting opportunity to replicate the approach in this study in another country to see whether the results are comparable. In particular, future research may like to also focus on airport choice in a market with competition between specific primary and secondary airports or in a multi-airport region. These were not possible in this study due to the study location and the fact that participants could talk about airports they travelled through in their journey.

This study has presented several themes for associations, important associations and reasons for important associations for airport choice, but it did so based upon unaided recall. Using the data from this study to create survey instruments or other approaches to study the same topic using recognition (as opposed to recall) may yield different results. Indeed, both recognition and recall have been shown to produce different results in research areas such as advertising and price awareness (e.g., Jin et al., 2008; Monroe et al., 1986). However, as du Plessis (1994, p. 90) observes, it is important to understand what recognition and recall each measure, and the "shortcomings and strengths of the experimental environment one is applying" when using one or the other.

Another limitation of this study that has already been alluded to is that it has only used attitudinal measures to determine what are important for participants (i.e., air travellers) when choosing between airports. This was done to avoid spurious brand loyalty, where behavioural constraints determine choice (e.g., only having one airport in the city, or needing to transit through an airport to fly with a particular airline), from obfuscating what is important to consumers where genuine choice does exist (e.g., choice of transit hubs). While it would have been ideal to have behavioural measures to compare these to, past research has indicated that it is better to study one or the other (i.e., behavioural or attitudinal) and acknowledge that they measure different things, rather than try to combine the measures into a single study (East et al., 2005). Nonetheless, this does provide a potential avenue for future research to examine which airport brand associations are important in determining past behaviours (i.e., why they travelled through the airports they did on a particular trip), in a similar vein to what has been done with airline brand associations (Henderson et al., 2019).

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General Discussion

Linking Back to Research Objectives

Collectively, the chapters presented in this thesis address the three research objectives that were outlined in the Introduction. Chapter 1 addresses the definitional problems associated with the brand concept, traces the source and scope of the problem, and offers a solution in the form of the LAM. The LAM was used as the key foundation for Chapters 2, 3 and 4, which also sought to generate data that, as far as practicable, would be ecologically valid. These foundations provide the basis for the study of airline brand choice and airport brand choice. The thesis can thus be seen as resultant from both conceptual and methodological approaches that are not entirely new individually but, when combined, are a novel approach. More so, both the conceptual and methodological approaches used in this thesis are newly introduced to the field of aviation, and the results of the research reflect their potential for gathering new and challenging insights for airline and airport management.

Clarity of Brands vs. Brand Associations

The seemingly intractable definitional problems surrounding the brand concept are potentially hindering the progression of knowledge because researchers using different definitions are not necessarily talking about the same entity (Stern, 2006). Chapter 1 identifies through its conceptual critique that the problems stemmed from the adoption of a CM of branding. Under the CM, brands moved from being identifiers for products, services and firms, and instead the brand began to subsume the product (Ambler & Barwise, 1998) and associations (Aaker, 2004; Keller, 2000). Brand theorists began to argue that a "brand comprises many elements" (Selame, 1993, p. 22), rather than seeking unifying definitions. Due to the lack of definitional boundaries around the CM, many new brand-related concepts were being developed, with Patterson (1999) identifying 77 brand-related concepts, and Chapter 1 of this thesis identifying 851 established brand-related concepts. This is what Tähtinen and Havila (2019) term as conceptual confusion.

Rather than applying the CM and its conceptual confusion to air transportation, Chapters 2,3 and 4 of this thesis apply the LAM, which was proposed as the solution in Chapter 1 of the thesis. The LAM provides clarity regarding the distinction between the brand concept and brand associations. The brand is a name or logo used to identify a product, service or firm. Using such rationale, every airline and airport has a brand because their names and logos are used to identify their offerings in the highly competitive aviation marketplace. However, associations are the interesting point to study under the LAM, and are simply defined as what comes into the mind of individuals on the presentation of a brand (name or logo). This allowed Chapters 2, 3 and 4 to simply use the name of an airline or airport as the brand, and then ask participants to recall associations from their memory in relation to that brand. No assumptions are made as to what those associations might be, nor how they are used. However, it is very clear that the brand belongs to the company (e.g., airlines and airports) providing the products or services, and the associations belong in the minds of consumers (e.g., air travellers). Such clarity would be impossible to achieve using the CM.

The Importance of Product and Experience (over the Abstract)

One interesting observation when examining Chapters 2, 3 and 4 in combination is that the most important brand associations for determining brand choice for both airlines and airports were the fundamentals that related to the observable product and experience. For airline brand choice within New Zealand's duopolistic domestic aviation market, it was price, time and reliability that predicted airline choice. These are very tangible attributes of airline services and can be objectively observed. Other tangible aspects were attitudinally important despite being insignificant for predicting airline choice behaviour (e.g., past experiences, rewards programmes, safety, etc.).

Similarly, for airports, the biggest source of brand associations, including those used to choose between airports, was the *infrastructure & facilities* theme, highlighting airports' fundamental role as providers of aviation infrastructure for aircraft operations and air travel. Nevertheless, none of the themes for airport brand associations or important airport brand associations were abstract – every theme was made up of associations that could be directly related back to the tangible products and services that the airports made available to air travellers either directly or through their tenants or ancillary entities. Thus, while no limitations were placed upon participants with regard to the nature of associations that they may recall with airlines and airports, it seems that air travellers are focussed on the tangible aspects of the product and experience rather than more abstract considerations (e.g., reputation, loyalty, social responsibility, etc.).

The findings of this thesis go against the *status quo* in the branding literature, which tends to emphasise the importance of abstract brand components, such as brand personality (e.g., Aaker, 1997; Davies et al., 2018; Geuens et al., 2009; Roy et al., 2016). This is consistent with the CM of the brand concept, where different components are studied independently of each other, leading to conceptual confusion as to the entity under study. The CM has seen such brand components applied in a piecemeal way to the study of airlines and airports, for example, applying brand equity, brand personality, brand credibility and brand value as individual components (e.g., Chen & Chang, 2008; Chung et al., 2013; Jeng, 2016; Lu & Siao, 2019). Because the application of individual brand components is consistent with the CM, the work of these air transport researchers is not to be criticised, as the issues stem from those identified within the wider branding literature in Chapter 1. However, the piecemeal application of brand components, combined with the use of methods that may result in self-generated validity and construct creation should raise questions about the status of branding research within aviation. Taking the example of brand personality, no participants interviewed in Chapters 2, 3 or 4 described an airline or airport as having a personality despite the supposed importance of this component. Because free elicitation of associations was the method employed in Chapters 2, 3 and 4, participants were not driven to say particular things, avoiding the issues of self-generated validity and construct creation (Feldman & Lynch, 1988; Forbes & Avis, 2020). Thus, the combination of the LAM, which avoids the piecemeal application of individual brand components, along with the use of methods that are more ecologically valid, produced results that are different to the extant literature.

Interestingly, the results presented in this thesis tended to align better with econometric studies (e.g., Lederman, 2007; Pels et al., 2001), where behaviours that had been empirically shown to exist could be better explained with the qualitative findings. This is consistent with the point made by Hunt (2010) that quantitative and qualitative methods should be seen to *complement* each other rather than *compete* with each other. Because econometric studies in aviation observe actual behaviours, they do not suffer from the same issues of self-generated validity and construct creation that can be seen in extant survey research examining airline and airport choice. The combination of econometric techniques with the methodological approach (i.e., the mixed-method approach) presented in this thesis thus shows promise for future research.

For managers of airlines and airports, the key findings of Chapters 2, 3 and 4 offer a simple message: air travellers care about the tangible, observable aspects of the product/service being offered. Air travellers may differ as to which attributes of the product/service are more important, but they are highly unlikely to mention abstract, intangible or unobservable attributes. To pursue such attributes would therefore come at great opportunity cost. Instead, airline and airport management can consider how different brand associations are created in memory and used by air travellers to inform airline and airport choice for their past and future trips. In doing so, managers can seek to influence such brand associations to improve the likelihood of favourable brand choice within the highly competitive aviation landscape. While caution must be exercised when generalising the findings of this thesis to specific airlines and airports, the generality of focussing on the tangible over the abstract aligns well with extant literature. Specifically, airlines should create superior service offerings, communicate this value to passengers and travellers and capture that value through pricing (Lynn, 2008). Chapter 2 provides the means of doing so – FSCs should focus on having better flight times and more reliable services, while LCCs should focus on price – other factors do not affect behavioural choices, only attitudes. Similarly, for airports, Chapters 3 and 4 support the importance of well-established branding strategies that emphasise tangible elements: (1) retail pricing strategies; (2) selection of retail outlets; (3) choice of food and beverage outlets; (4) architectural layout and design; (5) artwork; (6) services and entertainment; (7) service staff; and (8) airport logos, slogans and wordmarks (Firsty et al., 2019; Ijevleva & Paramonovs, 2015; Tse, 2007).

Conclusion

This thesis began by identifying a core issue within the branding literature: the lack of an agreed upon definition for the brand concept itself. The *status quo* of branding is the use of a component model (CM), where the brand is defined by a series of overlapping components, causing an infinite regress of confusion. Not only has this led to issues within the branding literature, but this has led to a piecemeal application of the brand concept to airlines and airports where individual brand components are applied in isolation without ever addressing what the brand is as the entity under study. More so, the application of individual brand components has also led to the adoption of methodologies that may suffer from issues of self-generated validity and/or construct creation because the questions are designed to measure constructs that may not exist in participant's long-term memory. It is telling that the methodologies applied in this thesis, which use free elicitation of brand associations, produce results that contrast with the extant literature in branding regarding the importance of abstract brand components such as brand personality. These abstract brand components have since been applied to airlines and airports in a piecemeal way, extending the confusion to air transportation. However, this is no criticism of the aviation authors/researchers because they drew their conceptual and methodological bases from a broader body of branding research that was mired in confusion. The case is made for returning to a conceptualisation of the brand under the label and associations model (LAM). The application of the LAM, combined with the guiding methodological principles of the thesis, provided a basis for new managerial insights, new theory and results that question some of the key elements of extant theory (e.g., emphasising the importance of fundamental product/service attributes, identifying the existence of compound brands, highlighting the role of double jeopardy, etc. – see full list of contributions in the Introduction).

In totality, the thesis fulfils its three research objectives, solving definitional problems related to the brand construct (research objective one), examining airline brand choice in a way that is consistent with this solution (research objective two), and identifying the nature of associations air travellers make with airports and their importance in determining airport brand choice (research objective three). However, this thesis also makes some important methodological contributions. Firstly, it advances the use of qualitative methods (in combination with quantitative methods) to study the attitudes and behaviours of air travellers based upon trying to minimise self-generated validity and construct creation, as well as taking into account the air traveller's subjective realities as premised by heterophenomenology. Secondly, it clarifies the difference between attitudinal and behavioural measures of brand choice and brand loyalty and uses both approaches via the cases of airlines and airports to show how they examine different, but equally useful phenomena. Accordingly, it is the combination of both the LAM and the guiding methodological principles of the thesis that form the unique contributions that tie the entire thesis together. The key contributions made across this thesis show the potential for improving research and theory for the study of branding within air transportation by moving to the LAM and adopting methods that involve the free elicitation of brand associations. Critically, airline and airport managers and academics can now talk with one another about the same topic and be clear as to what is being measured and why.

Limitations and Future Research

All of the research presented in this thesis was conducted in New Zealand, which is a Western, Educated, Industrialised, Rich and Democratic (WEIRD) country. As Henrich et al. (2010) identify, WEIRD subjects are unusual compared to the rest of the human species. Therefore, it must be noted that the findings of some chapters in this thesis may not generalise to countries that are not WEIRD. This provides the opportunity for replication of the studies in other parts of the world to see if the findings can be generalised or not.

Chapters 2, 3 and 4 in this thesis used recall measures rather than recognition measures to examine airline/airport associations and airline/airport choice. Both recognition and recall have been shown to produce differing, yet similar results (Durso & Johnson, 1980; Gillund & Shiffrin, 1984). This also presents an opportunity for future research to design survey measures or other instruments based upon the qualitative themes presented in the chapters of this thesis to examine whether differences exist when using a recognition measure. Because the existence of such themes has already been demonstrated in the research presented in this thesis, there is a basis for the creation of such measures, and thus they are less likely to suffer from self-generated validity or construct creation. Future research using free elicitation of brand associations may also consider the roles of stress, anxiety and arousal on memory processes (e.g., Nielson et al., 1996; Schwabe et al., 2012; Walkenhorst & Crowe, 2009) and how these might be affecting brand association recall. This was not possible in the studies presented throughout this thesis due to the use of street intercepts and convenience sampling.

Finally, as highlighted within this thesis, qualitative and quantitative studies can complement each other when trying to understand consumer behaviours within a marketplace. One strength of the aviation literature is the volume of econometric studies, which empirically demonstrate certain air traveller behaviours exist within air transport markets. The qualitative techniques presented in this thesis help to explain some of these behaviours, but also identify behaviours that have not previously been studied using econometric methods. Accordingly, there is an opportunity for future research in air transportation to adopt mixed-method approaches where new air traveller behaviours are identified qualitatively, and then tested econometrically over entire markets to improve generalisability. Equally, econometric studies that find unexpected air traveller behaviours may benefit from follow-up qualitative studies to try and understand *why* air travellers are behaving in a certain way. While the data presented throughout this thesis is informing and useful, it is not argued to be generalisable due to the use of convenience samples.

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Appendices

Appendix A – Complete List of Participants Interviewed about Airline Brand Choice

Table 20

Complete list of participants interviewed about airline brand choice

No.	Gender	Age	Occupation	Nationality	Frequency of Air Travel	Most Recent Domestic Flight	Purpose of Trip
1	Male	31	Student	Singapore	1-2 times per year	Within last year	Visiting friends or relatives
2	Male	20	Student	United States	1-2 times per year	Within last 3 months	Holiday or leisure
3	Female	58	Administrator	New Zealand	3-6 times per year	Within last year	Holiday or leisure
4	Female	61	Administrator	United Kingdom & New Zealand	1-2 times per year	Within last year	Visiting friends or relatives
5	Male	28	Student	Singapore	3-6 times per year	Within last 3 months	Visiting friends or relatives
6	Female	22	Student	Japan	Once every 2-3 years	Within last 1-3 years	Other
7	Male	27	Soldier	New Zealand	More than 6 times per year	Within last 3 months	Visiting friends or relatives
8	Female	45	Dietician	New Zealand	1-2 times per year	Within last year	Visiting friends or relatives
9	Male	23	Press Brake Operator	New Zealand	Less than every 3 years	Within last year	Visiting friends or relatives
10	Female	69	Retired	United States & New Zealand	1-2 times per year	Within last year	Holiday or leisure
11	Female	40	Graphic Designer	New Zealand	3-6 times per year	Within last year	Business
12	Female	61	IT Manager	New Zealand	More than 6 times per year	Within last fortnight	Holiday or leisure
13	Female	68	Retired	New Zealand	1-2 times per year	Within last 1-3 years	Visiting friends or relatives
14	Female	59	Teacher	New Zealand	Once every 2-3 years	Within last 1-3 years	Visiting friends or relatives
15	Male	45	Manager	New Zealand	1-2 times per year	Within last 3 months	Visiting friends or relatives
16	Male	53	Police Officer	New Zealand	More than 6 times per year	Within last fortnight	Business
17	Female	63	Care Coordinator	New Zealand	3-6 times per year	Within last fortnight	Business
18	Male	47	Lecturer	New Zealand	3-6 times per year	Within last year	Visiting friends or relatives
19	Female	52	Student	New Zealand	3-6 times per year	Within last year	Visiting friends or relatives
20	Male	28	Unemployed	United States	1-2 times per year	Within last 1-3 years	Holiday or leisure
21	Female	46	Packhouse Operator	New Zealand	1-2 times per year	Within last 3 months	Business
22	Male	48	Salesperson	New Zealand	3-6 times per year	Within last year	Business
23	Female	26	Healthcare Assistant	Philippines	1-2 times per year	Within last year	Visiting friends or relatives
24	Female	61	Public Servant	New Zealand	3-6 times per year	Within last fortnight	Visiting friends or relatives

No.	Gender	Age	Occupation	Nationality	Frequency of Air Travel	Most Recent Domestic Flight	Purpose of Trip
25	Female	37	Registered Nurse	United Kingdom	1-2 times per year	Within last year	Business
26	Female	48	Administrator	United Kingdom	Once every 2-3 years	Within last year	Visiting friends or relatives
27	Male	68	Labourer	United Kingdom & New Zealand	Less than every 3 years	More than 5 years ago	Visiting friends or relatives
28	Female	44	Salesperson	China	Once every 2-3 years	Within last 1-3 years	Visiting friends or relatives
29	Female	47	Manager	New Zealand	3-6 times per year	Within last 3 months	Business
30	Male	41	Scientist	Colombia	1-2 times per year	Within last 3 months	Business
31	Male	73	Curtain Fitter	New Zealand	Once every 2-3 years	More than 5 years ago	Business
32	Male	46	Chef	New Zealand	Once every 2-3 years	Within last year	Visiting friends or relatives
33	Male	17	Student	New Zealand	Once every 2-3 years	Within last 1-3 years	Other
34	Male	39	Teacher	New Zealand	3-6 times per year	Within last 3 months	Business
35	Female	28	Forestry	New Zealand	3-6 times per year	Within last 3 months	Other
36	Male	22	Radiographer	New Zealand	1-2 times per year	Within last 1-3 years	Business
37	Female	44	Practice Manager	New Zealand	1-2 times per year	Within last 3 months	Holiday or leisure
38	Female	26	Medical Laboratory Technician	New Zealand	3-6 times per year	Within last 1-3 years	Visiting friends or relatives
39	Female	16	Student	Vietnam	1-2 times per year	Within last year	Other
40	Male	17	Retail	Philippines	Once every 2-3 years	Within last year	Holiday or leisure
41	Female	64	Teacher	New Zealand	3-6 times per year	Within last year	Other
42	Female	47	Teacher	New Zealand	Once every 2-3 years	Within last year	Business
43	Female	56	Academic Coordinator	New Zealand	1-2 times per year	Within last year	Business
44	Female	56	Teacher	New Zealand	3-6 times per year	Within last 3 months	Holiday or leisure
45	Female	52	Programme Coordinator	Belgium	More than 6 times per year	Within last 3 months	Visiting friends or relatives
46	Male	25	Retail	New Zealand	Less than every 3 years	Within last 1-3 years	Holiday or leisure
47	Female	62	Library Manager	New Zealand	1-2 times per year	Within last year	Business
48	Female	49	Human Resources Advisor	New Zealand	1-2 times per year	Within last year	Visiting friends or relatives
49	Male	23	Barista	New Zealand	3-6 times per year	Within last fortnight	Holiday or leisure
50	Female	24	Administrator	Finland	More than 6 times per year	Within last 3 months	Business
51	Female	35	Director	Singapore	More than 6 times per year	Within last fortnight	Holiday or leisure
52	Male	24	Builder	New Zealand	More than 6 times per year	Within last 3 months	Business
53	Male	75	Hotelier	New Zealand	More than 6 times per year	Within last 3 months	Visiting friends or relatives
54	Male	28	Designer	Colombia	3-6 times per year	Within last year	Visiting friends or relatives
55	Male	29	Doctor	New Zealand	1-2 times per year	Within last fortnight	Visiting friends or relatives
56	Male	55	Public Servant	New Zealand	More than 6 times per year	Within last year	Holiday or leisure
57	Male	52	Engineering Manager	New Zealand	3-6 times per year	Within last 3 months	Business
58	Female	44	Agile Coach	New Zealand	1-2 times per year	Within last year	Visiting friends or relatives
59	Male	19	Student	New Zealand	Less than every 3 years	Within last year	Other

No.	Gender	Age	Occupation	Nationality	Frequency of Air Travel	Most Recent Domestic Flight	Purpose of Trip
60	Female	57	Librarian	New Zealand	1-2 times per year	Within last 3 months	Holiday or leisure
61	Female	71	Musician	New Zealand	3-6 times per year	Within last 3 months	Other
62	Male	24	Commercial Fisherman	United States	More than 6 times per year	Within last fortnight	Business
63	Male	49	Teacher	New Zealand	Once every 2-3 years	Within last year	Visiting friends or relatives
64	Female	37	Ballet Teacher	United Kingdom	3-6 times per year	Within last fortnight	Business
65	Male	37	Resource Scientist	United States	1-2 times per year	Within last 1-3 years	Other
66	Female	30	Analyst	Vietnam	Less than every 3 years	More than 5 years ago	Other
67	Female	28	Marketing	New Zealand	1-2 times per year	Within last fortnight	Business
68	Male	36	Manager	New Zealand	Once every 2-3 years	More than 5 years ago	Holiday or leisure
69	Male	59	Science Manager	New Zealand	More than 6 times per year	Within last fortnight	Business
70	Female	22	Accountant	Ireland	3-6 times per year	Within last 3 months	Business
71	Female	23	Research Assistant	New Zealand	3-6 times per year	Within last fortnight	Visiting friends or relatives
72	Female	42	Mother	New Zealand	3-6 times per year	Within last fortnight	Holiday or leisure
73	Female	22	Data Analyst	New Zealand	1-2 times per year	Within last year	Holiday or leisure
74	Female	20	Au Pair	France	More than 6 times per year	Within last fortnight	Business
75	Female	35	Mental Health Support Worker	New Zealand	Once every 2-3 years	More than 5 years ago	Holiday or leisure
76	Male	62	Office Manager	New Zealand	3-6 times per year	Within last fortnight	Holiday or leisure
77	Male	35	IT	New Zealand	More than 6 times per year	Within last 3 months	Visiting friends or relatives
78	Male	29	Teacher	South Africa	1-2 times per year	Within last year	Holiday or leisure
79	Female	26	Government Employment Relations	New Zealand	3-6 times per year	Within last 3 months	Holiday or leisure
80	Female	49	Audience Engagement	New Zealand	Less than every 3 years	Within last 3-5 years	Business
81	Male	65	Compliance Officer	New Zealand	3-6 times per year	Within last 3 months	Holiday or leisure
82	Male	68	Retired	Canada	Less than every 3 years	Within last fortnight	Holiday or leisure
83	Female	21	Police Officer	New Zealand	More than 6 times per year	Within last 3 months	Visiting friends or relatives
84	Male	23	Chef	New Zealand	3-6 times per year	Within last 3 months	Other
85	Male	18	Unemployed	Australia	1-2 times per year	Within last fortnight	Holiday or leisure
86	Female	66	Administrator	New Zealand	Once every 2-3 years	Within last fortnight	Visiting friends or relatives
87	Male	39	Mechanical Engineer	New Zealand	1-2 times per year	Within last 3-5 years	Holiday or leisure
88	Male	68	Retired	Germany	More than 6 times per year	Within last fortnight	Holiday or leisure
89	Female	26	Unemployed	Taiwan	1-2 times per year	Within last fortnight	Other
90	Male	36	Artist	New Zealand	More than 6 times per year	Within last fortnight	Visiting friends or relatives
91	Male	42	Architect	New Zealand	More than 6 times per year	Within last 3 months	Business
92	Female	26	Office Manager	Nigeria	1-2 times per year	Within last year	Other
93	Male	26	Architect	Nigeria	3-6 times per year	Within last year	Visiting friends or relatives
94	Male	21	Intern	Ireland	1-2 times per year	Within last 3 months	Business

No.	Gender	Age	Occupation	Nationality	Frequency of Air Travel	Most Recent Domestic Flight	Purpose of Trip
95	Male	69	Semi-retired Engineer	New Zealand	1-2 times per year	Within last 3 months	Business
96	Male	34	Software Engineer	Egypt	Once every 2-3 years	Within last 3 months	Other
97	Male	29	Professional Gambler	Tonga	More than 6 times per year	Within last year	Visiting friends or relatives
98	Female	51	Director	New Zealand	More than 6 times per year	Within last fortnight	Business
99	Male	52	Self-employed Landscaper	Ireland	3-6 times per year	Within last year	Holiday or leisure
100	Male	31	Economist	Argentina	More than 6 times per year	Within last fortnight	Holiday or leisure
101	Female	45	Civil Servant	Germany	1-2 times per year	Within last fortnight	Holiday or leisure
102	Female	25	Barista	New Zealand	1-2 times per year	Within last year	Other
103	Female	29	Administrator	United Kingdom	3-6 times per year	Within last year	Holiday or leisure
104	Male	71	Analyst	New Zealand	More than 6 times per year	Within last fortnight	Other
105	Male	56	Engineer	Australia	More than 6 times per year	Within last fortnight	Holiday or leisure
106	Male	42	Software Test Analyst	India	More than 6 times per year	Within last 3 months	Visiting friends or relatives
107	Female		Unemployed	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
108	Male	27	Sales Assistant	New Zealand	1-2 times per year	Within last year	Business
109	Female	66	Medical Receptionist	New Zealand	3-6 times per year	Within last 3 months	Holiday or leisure
110	Female	83	Retired	New Zealand	Less than every 3 years	Within last 3-5 years	Holiday or leisure
111	Male	22	Retail	New Zealand	3-6 times per year	Within last fortnight	Holiday or leisure
112	Female	21	Student	Malaysia	1-2 times per year	Within last year	Visiting friends or relatives
113	Female	69	Medical Record Administration Clerk	New Zealand	3-6 times per year	Within last year	Visiting friends or relatives
114	Male	24	Reporting Analyst	New Zealand	More than 6 times per year	Within last 3 months	Holiday or leisure
115	Male	69	Paralegal	New Zealand	1-2 times per year	Within last 1-3 years	Holiday or leisure
116	Male	62	Database Engineer	United States	Once every 2-3 years	Within last 1-3 years	Visiting friends or relatives
117	Female	67	Retired	New Zealand	3-6 times per year	Within last year	Visiting friends or relatives
118	Male	19	Tennis Coach	South Africa	1-2 times per year	Within last year	Other
119	Female	23	Technology Consultant	New Zealand	More than 6 times per year	Within last fortnight	Visiting friends or relatives
120	Male	38	Unemployed	Netherlands	3-6 times per year	Within last year	Holiday or leisure
121	Male	36	Carpenter	New Zealand	3-6 times per year	Within last year	Holiday or leisure
122	Female	51	Mother	New Zealand	1-2 times per year	Within last year	Other
123	Female	22	Student	New Zealand	3-6 times per year	Within last 3 months	Holiday or leisure
124	Male	49	Consultant	United States & New Zealand	1-2 times per year	Within last fortnight	Business
125	Male	20	Student	New Zealand	Once every 2-3 years	Within last 3-5 years	Visiting friends or relatives
126	Female	53	Motel Cleaner	New Zealand	Less than every 3 years	More than 5 years ago	Visiting friends or relatives
127	Male	24	Unemployed	New Zealand	Once every 2-3 years	More than 5 years ago	Holiday or leisure
128	Female	40	Instructional Designer	Malaysia	3-6 times per year	Within last 1-3 years	Business
129	Female	17	Student	New Zealand	More than 6 times per year	Within last 3 months	Visiting friends or relatives

No.	Gender	Age	Occupation	Nationality	Frequency of Air Travel	Most Recent Domestic Flight	Purpose of Trip
130	Female	17	Student	New Zealand	1-2 times per year	Within last 1-3 years	Other
131	Female	17	Student	New Zealand	3-6 times per year	Within last 3 months	Holiday or leisure
132	Female	18	Student	India	Once every 2-3 years	Within last fortnight	Business
133	Male	25	Fast Food Worker	New Zealand	Once every 2-3 years	Within last year	Visiting friends or relatives
134	Female	47	Unemployed	New Zealand	1-2 times per year	Within last 1-3 years	Visiting friends or relatives
135	Female	28	Sales Assistant	New Zealand	3-6 times per year	Within last 3 months	Holiday or leisure
136	Female	22	Mother	New Zealand	Once every 2-3 years	Within last 1-3 years	Visiting friends or relatives
137	Female	50	Unemployed	New Zealand	1-2 times per year	Within last year	Visiting friends or relatives
138	Male	27	Unemployed	New Zealand	1-2 times per year	Within last year	Visiting friends or relatives
139	Female	31	Research Officer	China	More than 6 times per year	Within last 3 months	Business
140	Female	68	Retired	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
141	Female	41	Care Assistant	New Zealand	1-2 times per year	Within last year	Visiting friends or relatives
142	Female	63	Organic Grower	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
143	Female	27	Barista	Sweden and New Zealand	1-2 times per year	Within last year	Holiday or leisure
144	Female	39	Finance Administrator	New Zealand	Less than every 3 years	Within last 3-5 years	Visiting friends or relatives
145	Male	16	Student	New Zealand	1-2 times per year	Within last 3 months	Other
146	Male	20	Student	New Zealand	Once every 2-3 years	Within last 1-3 years	Holiday or leisure
147	Female	18	Student	New Zealand	3-6 times per year	Within last fortnight	Visiting friends or relatives
148	Female	18	Student	New Zealand	Once every 2-3 years	Within last 3-5 years	Visiting friends or relatives
149	Male	56	Self-employed	New Zealand	Less than every 3 years	More than 5 years ago	Holiday or leisure
150	Female	40	Nurse	New Zealand	3-6 times per year	Within last 3 months	Holiday or leisure
151	Female	20	Parent	New Zealand	Less than every 3 years	Within last 3-5 years	Other
152	Female	58	Housewife	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
153	Female	55	Retail Assistant	New Zealand	3-6 times per year	Within last year	Visiting friends or relatives
154	Male	68	Accountant	New Zealand	1-2 times per year	Within last 3 months	Holiday or leisure
155	Female	54	Housewife	New Zealand	1-2 times per year	Within last year	Visiting friends or relatives
156	Female	30	Barista	New Zealand	Less than every 3 years	Within last 1-3 years	Other
157	Male	63	Fabricator Welder	New Zealand	Once every 2-3 years	Within last 1-3 years	Business
158	Male	43	Self-employed Tradesman	New Zealand	1-2 times per year	Within last 1-3 years	Visiting friends or relatives
159	Female	52	Coroner	New Zealand	More than 6 times per year	Within last 3 months	Business
160	Female	75	Retired	New Zealand	1-2 times per year	Within last year	Visiting friends or relatives
161	Female	58	Budget Advisor	New Zealand	Less than every 3 years	Within last year	Business
162	Female	21	Teacher	New Zealand	1-2 times per year	Within last 3 months	Other
163	Female	24	Pharmacist	Malaysia	3-6 times per year	Within last 3 months	Visiting friends or relatives
164	Female	55	Nurse	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
165	Female	71	Retired	New Zealand	Once every 2-3 years	Within last 3-5 years	Holiday or leisure

No.	Gender	Age	Occupation	Nationality	Frequency of Air Travel	Most Recent Domestic Flight	Purpose of Trip
166	Male	26	Student	New Zealand	More than 6 times per year	Within last fortnight	Visiting friends or relatives
167	Male	38	Public Policy Interviewer	New Zealand	Less than every 3 years	Within last 1-3 years	Visiting friends or relatives
168	Male	60	Retired	New Zealand	3-6 times per year	Within last year	Visiting friends or relatives
169	Male	20	Warehouse Worker	New Zealand	1-2 times per year	Within last year	Visiting friends or relatives
170	Female	58	English Language Teacher	New Zealand	1-2 times per year	Within last fortnight	Holiday or leisure
171	Female	65	Language Teacher	New Zealand	1-2 times per year	Within last year	Business
172	Male	32	Software Developer	New Zealand	1-2 times per year	Within last year	Holiday or leisure
173	Female	73	Compliance Administrator	New Zealand	1-2 times per year	Within last fortnight	Holiday or leisure
174	Female	75	Retired	New Zealand	3-6 times per year	Within last year	Holiday or leisure
175	Male	37	Infrastructure Analyst	Mexico	3-6 times per year	Within last fortnight	Other
176	Female	57	Housing Support Officer	United Kingdom	1-2 times per year	Within last fortnight	Visiting friends or relatives
177	Female	19	Shepherd	New Zealand	1-2 times per year	Within last year	Holiday or leisure
178	Female	32	Waitress	Turkey	1-2 times per year	Within last year	Holiday or leisure
179	Female	24	Full-time Employee	New Zealand	1-2 times per year	Within last 3 months	Business
180	Male	47	Self-employed	New Zealand	More than 6 times per year	Within last fortnight	Business
181	Female	29	Senior Researcher	Tunisia	3-6 times per year	Within last fortnight	Business
182	Male	48	Scientist	United Kingdom & New Zealand	1-2 times per year	Within last fortnight	Visiting friends or relatives
183	Male	37	Energy Trader	New Zealand	More than 6 times per year	Within last fortnight	Holiday or leisure
184	Male	18	Student	New Zealand	3-6 times per year	Within last fortnight	Holiday or leisure
185	Male	27	Software Engineer	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
186	Female	27	Interior Designer	Netherlands	1-2 times per year	Within last fortnight	Holiday or leisure
187	Female	19	Customer Service	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
188	Female	17	Student	New Zealand	More than 6 times per year	Within last 3 months	Holiday or leisure
189	Female	19	Sales Assistant	Canada	1-2 times per year	Within last year	Other
190	Female	17	Student	New Zealand	3-6 times per year	Within last fortnight	Visiting friends or relatives
191	Male	19	Unemployed	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
192	Female	19	Publisher	Malaysia	1-2 times per year	Within last 3 months	Visiting friends or relatives
193	Male	19	Employee	Vietnam	1-2 times per year	Within last year	Holiday or leisure
194	Female	31	Policy Analyst	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
195	Female	70	Retired	United Kingdom	1-2 times per year	Within last fortnight	Holiday or leisure
196	Male	23	Hospitality	New Zealand	3-6 times per year	Within last year	Visiting friends or relatives
197	Male	30	Market Analyst	New Zealand	3-6 times per year	Within last fortnight	Holiday or leisure
198	Male	25	Student	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
199	Female	32	Student	South Korea	Once every 2-3 years	Within last year	Business
200	Male	60	Engineer	New Zealand	1-2 times per year	Within last fortnight	Holiday or leisure
201	Female	50	Caregiver	New Zealand	3-6 times per year	Within last year	Visiting friends or relatives

No.	Gender	Age	Occupation	Nationality	Frequency of Air Travel	Most Recent Domestic Flight	Purpose of Trip
202	Female	31	Lawyer	New Zealand	1-2 times per year	Within last 3 months	Visiting friends or relatives
203	Male	57	Civil Servant	New Zealand	1-2 times per year	Within last 1-3 years	Business
204	Female	25	Employee	Indonesia	1-2 times per year	Within last fortnight	Holiday or leisure
205	Female	29	Quantity Surveyor	South Africa	3-6 times per year	Within last 3 months	Holiday or leisure
206	Female	18	Au Pair	Germany	3-6 times per year	Within last fortnight	Holiday or leisure
207	Female	23	Human Resources	New Zealand	1-2 times per year	Within last 1-3 years	Holiday or leisure
208	Female	31	Administrator	New Zealand	1-2 times per year	Within last 3 months	Visiting friends or relatives
209	Female	27	Student	Indonesia	3-6 times per year	Within last 3 months	Other

Appendix B – Additional Comments about Flying Domestically

Table 21

Additional comments about flying domestically

Themes	Additional Comments		Participants			Example Quotes
	Number	%	Unique	Number	%	
Aircraft	8	3.15%	6	7	3.35%	
Small	4	1.57%	3	4	1.91%	"Sometimes [the] planes seem a bit small"
Outdated	2	0.79%	1	2	0.96%	"All the planes are outdated"
Prefer larger aircraft	2	0.79%	2	1	0.48%	"I would prefer to fly on the bigger plane"
Airlines	25	9.84%	22	17	8.13%	
Air New Zealand (good)	9	3.54%	9	6	2.87%	"I think Air New Zealand is a really reliable airline"
Air New Zealand (bad)	4	1.57%	3	5	2.39%	"Air New Zealand should pull their head in"
Both major airlines	3	1.18%	3	3	1.44%	"I don't see a whole lot of difference between them"
Jetstar (good)	3	1.18%	1	3	1.44%	"Jetstar is cheap"
Jetstar (bad)	3	1.18%	3	3	1.44%	"Jetstar is unreliable"
Other	3	1.18%	3	3	1.44%	"Air Chathams is easy"
New Zealand Airports	15	5.91%	15	11	5.26%	
Good	8	3.15%	8	6	2.87%	"They are quite friendly and comfortable"
Neutral	3	1.18%	3	3	1.44%	"The airports are all the same"
Bad	2	0.79%	2	2	0.96%	"The signage is really poor"
Other	2	0.79%	2	2	0.96%	"Not all the places have airports"
Flight Availability	11	4.33%	11	10	4.78%	
Limited	10	3.94%	10	9	4.31%	"It is too limited from region to region"
Plenty	1	0.39%	1	1	0.48%	"A lot of domestic flights going on"
Bad Things	13	5.12%	11	12	5.74%	
Generic issues	4	1.57%	4	4	1.91%	"It's rubbish"
Lack of competition	3	1.18%	1	3	1.44%	"We don't have enough competition"
Food	2	0.79%	2	2	0.96%	"The food's crap"
People take too much carry-on	2	0.79%	2	2	0.96%	"The carry-on policies are not enforced"
Disadvantages the regions	2	0.79%	2	2	0.96%	"If you're in any of the regions, you just get screwed"
Convenience	15	5.91%	10	14	6.70%	
Easy	11	4.33%	8	11	5.26%	"It's generally fairly simple"

Fast	4	1.57%	2	4	1.91%	"It's very quick"
Decision Making	7	2.76%	7	7	3.35%	
Personal strategies	7	2.76%	7	7	3.35%	"Generally, I will impulse buy"
Experiences	18	7.09%	14	16	7.66%	
Positive	7	2.76%	5	6	2.87%	"A pretty good experience"
Past experience	6	2.36%	4	6	2.87%	"I haven't experienced much of it"
Neutral	4	1.57%	4	3	1.44%	"I've mostly had an okay time"
Negative	1	0.39%	1	1	0.48%	"[Shared a story of a bad experience]"
Flight Duration	9	3.54%	2	9	4.31%	
Short	9	3.54%	2	9	4.31%	"It's mostly just short flights"
Good Things	55	21.65%	40	38	18.18%	
General	34	13.39%	24	29	13.88%	"I think it's good"
Service	8	3.15%	5	7	3.35%	"You get good service"
Staff	8	3.15%	6	6	2.87%	"Some of the most friendly air hostesses I have seen"
Reliability	4	1.57%	4	3	1.44%	"Extremely reliable"
Other	1	0.39%	1	1	0.48%	"There is no racism or abuse towards the customer"
Price	35	13.78%	22	24	11.48%	
Expensive	29	11.42%	16	21	10.05%	"It's really expensive"
Reasonable	4	1.57%	4	3	1.44%	"Pretty happy with how cheap it is"
Other	2	0.79%	2	2	0.96%	"You have to look out for the deals"
Security	11	4.33%	8	7	3.35%	
Lack of security	11	4.33%	8	7	3.35%	"There's no sort of screening"
Other Modes of Transport	10	3.94%	8	10	4.78%	
Road	6	2.36%	4	5	2.39%	"It's like catching a bus"
Non-specific	2	0.79%	2	2	0.96%	"It is just another travel experience"
Maritime	1	0.39%	1	1	0.48%	"A lot quicker than catching a boat"
Rail	1	0.39%	1	1	0.48%	"I wish the trains were still going on the same level"
Wants	10	3.94%	10	10	4.78%	
Food	4	1.57%	4	4	1.91%	"Wine and cheese combo"
More flights	2	0.79%	2	2	0.96%	"More flights"
Window Seats	2	0.79%	2	2	0.96%	"A view out the window"
Other	2	0.79%	2	2	0.96%	"I need human interaction"
Other	12	4.72%	11	11	5.26%	

Appendix C – Complete List of Participants Interviewed about Airports

Table 22

Complete list of participants interviewed about airports

No.	Gender	Age	Occupation	Nationality	Frequency of Air Travel	Most Recent Trip via Air Travel	Purpose of Trip
1	Female	53	Administrator	United Kingdom	Once every 2-3 years	Within last 1-3 years	Visiting friends or relatives
2	Female	29	Student	Singapore	1-2 times per year	Within last year	Other
3	Female	27	Student	Indonesia	1-2 times per year	Within last year	Holiday or leisure
4	Female	37	Teacher	New Zealand	1-2 times per year	Within last year	Holiday or leisure
5	Male	55	Teacher	New Zealand	Once every 2-3 years	Within last 1-3 years	Holiday or leisure
6	Female	64	Teacher	New Zealand	Less than every 3 years	Within last 3-5 years	Visiting friends or relatives
7	Female	24	Administrator	New Zealand	3-6 times per year	Within last year	Visiting friends or relatives
8	Female	46	Teacher	New Zealand	1-2 times per year	Within last 3 months	Holiday or leisure
9	Female	45	Administrator	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
10	Female	60	Administrator	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
11	Male	31	Student	Singapore	1-2 times per year	Within last year	Visiting friends or relatives
12	Male	20	Student	United States	1-2 times per year	Within last 3 months	Holiday or leisure
13	Female	58	Administrator	New Zealand	3-6 times per year	Within last year	Holiday or leisure
14	Female	61	Administrator	United Kingdom & New Zealand	1-2 times per year	Within last 3 months	Visiting friends or relatives
15	Male	28	Student	Singapore	3-6 times per year	Within last 3 months	Visiting friends or relatives
16	Female	22	Student	Japan	Once every 2-3 years	Within last 1-3 years	Other
17	Male	27	Soldier	New Zealand	More than 6 times per year	Within last 3 months	Visiting friends or relatives
18	Female	45	Dietician	New Zealand	1-2 times per year	Within last year	Visiting friends or relatives
19	Male	23	Press Brake Operator	New Zealand	Less than every 3 years	Within last year	Visiting friends or relatives
20	Female	69	Retired	United States & New Zealand	1-2 times per year	Within last year	Holiday or leisure
21	Female	40	Graphic Designer	New Zealand	3-6 times per year	Within last year	Business
22	Female	61	IT Manager	New Zealand	More than 6 times per year	Within last fortnight	Holiday or leisure
23	Female	68	Retired	New Zealand	1-2 times per year	Within last 1-3 years	Visiting friends or relatives
24	Female	59	Teacher	New Zealand	Once every 2-3 years	Within last 1-3 years	Holiday or leisure
25	Male	45	Manager	New Zealand	1-2 times per year	Within last 3 months	Visiting friends or relatives
26	Male	53	Police Officer	New Zealand	More than 6 times per year	Within last fortnight	Business
27	Female	63	Care Coordinator	New Zealand	3-6 times per year	Within last fortnight	Business
28	Male	47	Lecturer	New Zealand	3-6 times per year	Within last fortnight	Visiting friends or relatives

No.	Gender	Age	Occupation	Nationality	Frequency of Air Travel	Most Recent Trip via Air Travel	Purpose of Trip
29	Female	52	Student	New Zealand	3-6 times per year	Within last year	Visiting friends or relatives
30	Male	28	Unemployed	United States	1-2 times per year	Within last year	Visiting friends or relatives
31	Female	46	Packhouse Operator	New Zealand	1-2 times per year	Within last 3 months	Business
32	Male	48	Salesperson	New Zealand	3-6 times per year	Within last 3 months	Other
33	Female	26	Healthcare Assistant	Philippines	1-2 times per year	Within last year	Visiting friends or relatives
34	Female	61	Public Servant	New Zealand	3-6 times per year	Within last fortnight	Visiting friends or relatives
35	Female	37	Registered Nurse	United Kingdom	1-2 times per year	Within last year	Business
36	Female	48	Administrator	United Kingdom	Once every 2-3 years	Within last year	Visiting friends or relatives
37	Male	66	Labourer	United Kingdom & New Zealand	Less than every 3 years	More than 5 years ago	Visiting friends or relatives
38	Female	44	Salesperson	China	Once every 2-3 years	Within last 1-3 years	Visiting friends or relatives
39	Female	47	Manager	New Zealand	3-6 times per year	Within last fortnight	Business
40	Male	41	Scientist	Colombia	1-2 times per year	Within last 3 months	Business
41	Male	73	Curtain Fitter	New Zealand	Once every 2-3 years	Within last 1-3 years	Visiting friends or relatives
42	Male	46	Chef	New Zealand	Once every 2-3 years	Within last 1-3 years	Visiting friends or relatives
43	Male	17	Student	New Zealand	Once every 2-3 years	Within last 1-3 years	Other
44	Male	39	Teacher	New Zealand	3-6 times per year	Within last 3 months	Business
45	Female	28	Forestry	New Zealand	3-6 times per year	Within last 3 months	Other
46	Male	22	Radiographer	New Zealand	1-2 times per year	Within last 1-3 years	Business
47	Female	44	Practice Manager	New Zealand	1-2 times per year	Within last 3 months	Holiday or leisure
48	Female	26	Medical Laboratory Technician	New Zealand	3-6 times per year	Within last 1-3 years	Visiting friends or relatives
49	Female	16	Student	Vietnam	1-2 times per year	Within last year	Other
50	Male	17	Retail	Philippines	Once every 2-3 years	Within last year	Holiday or leisure
51	Female	64	Teacher	New Zealand	3-6 times per year	Within last 3 months	Other
52	Female	47	Teacher	New Zealand	1-2 times per year	Within last year	Business
53	Female	56	Academic Coordinator	New Zealand	1-2 times per year	Within last year	Business
54	Female	56	Teacher	New Zealand	3-6 times per year	Within last 3 months	Holiday or leisure
55	Female	52	Programme Coordinator	Belgium	More than 6 times per year	Within last 3 months	Visiting friends or relatives
56	Male	39	Student	Indonesia	More than 6 times per year	Within last 3 months	Other
57	Male	25	Retail	New Zealand	Less than every 3 years	Within last 3 months	Holiday or leisure
58	Female	62	Library Manager	New Zealand	1-2 times per year	Within last year	Business
59	Female	49	Human Resources Advisor	New Zealand	1-2 times per year	Within last 3 months	Holiday or leisure
60	Male	23	Barista	New Zealand	3-6 times per year	Within last fortnight	Holiday or leisure
61	Male	29	Consultant	Australia	Once every 2-3 years	Within last fortnight	Holiday or leisure

No.	Gender	Age	Occupation	Nationality	Frequency of Air Travel	Most Recent Trip via Air Travel	Purpose of Trip
62	Female	24	Administrator	Finland	More than 6 times per year	Within last 3 months	Business
63	Female	35	Director	Singapore	More than 6 times per year	Within last fortnight	Holiday or leisure
64	Male	24	Builder	New Zealand	More than 6 times per year	Within last 3 months	Business
65	Male	75	Hotelier	New Zealand	More than 6 times per year	Within last 3 months	Visiting friends or relatives
66	Male	28	Designer	Colombia	3-6 times per year	Within last year	Visiting friends or relatives
67	Male	29	Doctor	New Zealand	1-2 times per year	Within last fortnight	Visiting friends or relatives
68	Male	55	Public Servant	New Zealand	More than 6 times per year	Within last year	Holiday or leisure
69	Male	52	Engineering Manager	New Zealand	3-6 times per year	Within last 3 months	Business
70	Female	44	Agile Coach	New Zealand	3-6 times per year	Within last fortnight	Business
71	Male	19	Student	New Zealand	Less than every 3 years	Within last year	Other
72	Female	57	Librarian	New Zealand	1-2 times per year	Within last 3 months	Holiday or leisure
73	Female	71	Musician	New Zealand	3-6 times per year	Within last 3 months	Other
74	Male	24	Commercial Fisherman	United States	More than 6 times per year	Within last fortnight	Business
75	Male	49	Teacher	New Zealand	Once every 2-3 years	Within last 1-3 years	Visiting friends or relatives
76	Female	37	Ballet Teacher	United Kingdom	3-6 times per year	Within last fortnight	Business
77	Female	40	Head of Compliance	Finland	More than 6 times per year	Within last fortnight	Holiday or leisure
78	Male	37	Resource Scientist	United States	1-2 times per year	Within last 1-3 years	Other
79	Female	30	Analyst	Vietnam	Less than every 3 years	More than 5 years ago	Other
80	Female	28	Marketing	New Zealand	3-6 times per year	Within last fortnight	Business
81	Male	36	Manager	New Zealand	Once every 2-3 years	Within last 1-3 years	Business
82	Male	59	Science Manager	New Zealand	More than 6 times per year	Within last fortnight	Business
83	Female	22	Accountant	Ireland	3-6 times per year	Within last 3 months	Business
84	Female	23	Research Assistant	New Zealand	3-6 times per year	Within last fortnight	Visiting friends or relatives
85	Female	42	Mother	New Zealand	3-6 times per year	Within last fortnight	Holiday or leisure
86	Female	22	Data Analyst	New Zealand	1-2 times per year	Within last year	Visiting friends or relatives
87	Female	20	Au Pair	France	More than 6 times per year	Within last fortnight	Business
88	Female	35	Mental Health Support Worker	New Zealand	Once every 2-3 years	Within last 1-3 years	Other
89	Male	62	Office Manager	New Zealand	3-6 times per year	Within last fortnight	Holiday or leisure
90	Male	35	IT	New Zealand	More than 6 times per year	Within last fortnight	Visiting friends or relatives
91	Male	29	Teacher	South Africa	1-2 times per year	Within last year	Holiday or leisure
92	Male	25	Architect	France	3-6 times per year	Within last year	Other
93	Female	26	Government Employment Relations	New Zealand	3-6 times per year	Within last 3 months	Holiday or leisure
94	Female	49	Audience Engagement	New Zealand	Less than every 3 years	Within last 3-5 years	Holiday or leisure
95	Male	65	Compliance Officer	New Zealand	3-6 times per year	Within last 3 months	Holiday or leisure
96	Male	68	Retired	Canada	Less than every 3 years	Within last fortnight	Holiday or leisure

No.	Gender	Age	Occupation	Nationality	Frequency of Air Travel	Most Recent Trip via Air Travel	Purpose of Trip
97	Female	21	Police Officer	New Zealand	More than 6 times per year	Within last 3 months	Visiting friends or relatives
98	Male	23	Chef	New Zealand	3-6 times per year	Within last 3 months	Other
99	Male	18	Unemployed	Australia	1-2 times per year	Within last fortnight	Holiday or leisure
100	Female	66	Administrator	New Zealand	Once every 2-3 years	Within last fortnight	Visiting friends or relatives
101	Female	29	Journalist	India	More than 6 times per year	Within last fortnight	Holiday or leisure
102	Male	39	Mechanical Engineer	New Zealand	1-2 times per year	Within last fortnight	Holiday or leisure
103	Male	68	Retired	Germany	More than 6 times per year	Within last fortnight	Holiday or leisure
104	Male	23	Unemployed	United Kingdom	1-2 times per year	Within last fortnight	Holiday or leisure
105	Female	26	Unemployed	Taiwan	1-2 times per year	Within last fortnight	Other
106	Male	36	Artist	New Zealand	More than 6 times per year	Within last fortnight	Visiting friends or relatives
107	Male	42	Architect	New Zealand	More than 6 times per year	Within last 3 months	Business
108	Female	17	Student	Austria	1-2 times per year	Within last 3 months	Other
109	Female	26	Office Manager	Nigeria	1-2 times per year	Within last year	Other
110	Male	26	Architect	Nigeria	3-6 times per year	Within last year	Visiting friends or relatives
111	Male	34	Barista	Saudi Arabia	1-2 times per year	Within last year	Other
112	Male	21	Intern	Ireland	1-2 times per year	Within last 3 months	Business
113	Male	69	Semi-retired Engineer	New Zealand	1-2 times per year	Within last 3 months	Business
114	Male	34	Software Engineer	Egpyt	Once every 2-3 years	Within last 3 months	Other
115	Male	29	Professional Gambler	Tonga	More than 6 times per year	Within last 3 months	Business
116	Female	51	Director	New Zealand	More than 6 times per year	Within last fortnight	Business
117	Male	45	Sales Manager	Canada	1-2 times per year	Within last fortnight	Holiday or leisure
118	Male	42	Self-employed Landscaper	Ireland	3-6 times per year	Within last 3 months	Holiday or leisure
119	Male	31	Economist	Argentina	More than 6 times per year	Within last fortnight	Holiday or leisure
120	Female	45	Civil Servant	Germany	1-2 times per year	Within last 3 months	Holiday or leisure
121	Female	25	Barista	New Zealand	1-2 times per year	Within last 1-3 years	Other
122	Female	29	Administrator	United Kingdom	3-6 times per year	Within last year	Holiday or leisure
123	Male	71	Analyst	New Zealand	More than 6 times per year	Within last fortnight	Other
124	Male	56	Engineer	Australia	More than 6 times per year	Within last fortnight	Holiday or leisure
125	Male	42	Software Test Analyst	India	More than 6 times per year	Within last 3 months	Visiting friends or relatives
126	Male	60	Sickness Beneficiary	New Zealand	1-2 times per year	Within last fortnight	Visiting friends or relatives
127	Female		Unemployed	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
128	Male	27	Sales Assistant	New Zealand	1-2 times per year	Within last year	Business
129	Male	30	Museum Educator	Australia	1-2 times per year	Within last 1-3 years	Holiday or leisure
130	Female	25	Student	Denmark	3-6 times per year	Within last fortnight	Holiday or leisure
131	Female	19	Student	United States	Less than every 3 years	Within last fortnight	Other
132	Male	18	Student	Belgium	1-2 times per year	Within last 3 months	Other

No.	Gender	Age	Occupation	Nationality	Frequency of Air Travel	Most Recent Trip via Air Travel	Purpose of Trip
133	Female	66	Medical Receptionist	New Zealand	3-6 times per year	Within last 3 months	Holiday or leisure
134	Female	83	Retired	New Zealand	Less than every 3 years	Within last 3-5 years	Holiday or leisure
135	Male	22	Retail	New Zealand	3-6 times per year	Within last fortnight	Holiday or leisure
136	Female	21	Student	Malaysia	1-2 times per year	Within last year	Visiting friends or relatives
137	Female	69	Medical Records Administration Clerk	New Zealand	3-6 times per year	Within last year	Visiting friends or relatives
138	Male	24	Reporting Analyst	New Zealand	More than 6 times per year	Within last 3 months	Holiday or leisure
139	Male	69	Paralegal	New Zealand	1-2 times per year	Within last year	Holiday or leisure
140	Male	62	Database Engineer	United States	Once every 2-3 years	Within last 1-3 years	Visiting friends or relatives
141	Female	67	Retired	New Zealand	1-2 times per year	Within last 3 months	Visiting friends or relatives
142	Male	19	Tennis Coach	South Africa	1-2 times per year	Within last 3 months	Other
143	Female	23	Technology Consultant	New Zealand	More than 6 times per year	Within last fortnight	Visiting friends or relatives
144	Male	38	Unemployed	Netherlands	3-6 times per year	Within last year	Holiday or leisure
145	Male	36	Carpenter	New Zealand	3-6 times per year	Within last fortnight	Holiday or leisure
146	Male	32	Executive	Canada	3-6 times per year	Within last fortnight	Holiday or leisure
147	Female	51	Mother	New Zealand	1-2 times per year	Within last 1-3 years	Holiday or leisure
148	Female	22	Student	New Zealand	3-6 times per year	Within last 3 months	Holiday or leisure
149	Male	49	Consultant	United States & New Zealand	1-2 times per year	Within last fortnight	Business
150	Male	20	Student	New Zealand	Once every 2-3 years	Within last 1-3 years	Visiting friends or relatives
151	Female	53	Motel Cleaner	New Zealand	Less than every 3 years	More than 5 years ago	Visiting friends or relatives
152	Male	24	Unemployed	New Zealand	Once every 2-3 years	Within last 1-3 years	Visiting friends or relatives
153	Female	40	Instructional Designer	Malaysia	3-6 times per year	Within last 1-3 years	Business
154	Female	17	Student	New Zealand	More than 6 times per year	Within last 3 months	Other
155	Female	17	Student	New Zealand	1-2 times per year	Within last 1-3 years	Other
156	Female	17	Student	New Zealand	3-6 times per year	Within last 3 months	Holiday or leisure
157	Female	18	Student	India	Once every 2-3 years	Within last year	Other
158	Male	25	Fast Food Worker	New Zealand	Once every 2-3 years	Within last year	Visiting friends or relatives
159	Female	47	Unemployed	New Zealand	1-2 times per year	Within last 1-3 years	Visiting friends or relatives
160	Female	28	Sales Assistant	New Zealand	3-6 times per year	Within last 3 months	Holiday or leisure
161	Female	22	Mother	New Zealand	Once every 2-3 years	Within last 1-3 years	Visiting friends or relatives
162	Female	50	Unemployed	New Zealand	1-2 times per year	Within last year	Visiting friends or relatives
163	Male	27	Unemployed	New Zealand	1-2 times per year	Within last year	Visiting friends or relatives
164	Female	31	Research Officer	China	More than 6 times per year	Within last 3 months	Business
165	Female	68	Retired	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
166	Female	41	Care Assistant	New Zealand	1-2 times per year	Within last year	Visiting friends or relatives
167	Female	63	Organic Grower	New Zealand	More than 6 times per year	Within last 3 months	Visiting friends or relatives
168	Female	27	Barista	Sweden and New Zealand	1-2 times per year	Within last year	Holiday or leisure

No.	Gender	Age	Occupation	Nationality	Frequency of Air Travel	Most Recent Trip via Air Travel	Purpose of Trip
169	Female	39	Finance Administrator	New Zealand	Less than every 3 years	Within last 1-3 years	Holiday or leisure
170	Male	16	Student	New Zealand	1-2 times per year	Within last 3 months	Other
171	Male	20	Student	New Zealand	Once every 2-3 years	Within last 1-3 years	Holiday or leisure
172	Female	18	Student	New Zealand	3-6 times per year	Within last fortnight	Visiting friends or relatives
173	Female	18	Student	New Zealand	Once every 2-3 years	Within last 1-3 years	Other
174	Male	56	Self-employed	New Zealand	Less than every 3 years	More than 5 years ago	Holiday or leisure
175	Female	40	Nurse	New Zealand	3-6 times per year	Within last 3 months	Holiday or leisure
176	Female	20	Parent	New Zealand	Less than every 3 years	Within last 3-5 years	Other
177	Female	58	Housewife	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
178	Female	55	Retail Assistant	New Zealand	3-6 times per year	Within last year	Visiting friends or relatives
179	Male	68	Accountant	New Zealand	1-2 times per year	Within last 3 months	Holiday or leisure
180	Female	54	Housewife	New Zealand	1-2 times per year	Within last year	Visiting friends or relatives
181	Female	30	Barista	New Zealand	Less than every 3 years	Within last year	Other
182	Male	63	Fabricator Welder	New Zealand	Once every 2-3 years	Within last 1-3 years	Business
183	Male	43	Self-employed Tradesman	New Zealand	1-2 times per year	Within last 1-3 years	Visiting friends or relatives
184	Female	52	Coroner	New Zealand	More than 6 times per year	Within last 3 months	Business
185	Female	75	Retired	New Zealand	1-2 times per year	Within last year	Visiting friends or relatives
186	Female	58	Budget Advisor	New Zealand	Less than every 3 years	Within last year	Business
187	Female	21	Teacher	New Zealand	1-2 times per year	Within last 3 months	Other
188	Female	24	Pharmacist	Malaysia	3-6 times per year	Within last 3 months	Visiting friends or relatives
189	Female	23	Student	New Zealand	Once every 2-3 years	Within last year	Holiday or leisure
190	Female	55	Nurse	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
191	Female	71	Retired	New Zealand	Once every 2-3 years	Within last 1-3 years	Holiday or leisure
192	Male	26	Student	New Zealand	3-6 times per year	Within last fortnight	Visiting friends or relatives
193	Male	27	Chef	New Zealand	Less than every 3 years	More than 5 years ago	Holiday or leisure
194	Male	38	Public Policy Interviewer	New Zealand	Less than every 3 years	Within last 1-3 years	Visiting friends or relatives
195	Male	60	Retired	New Zealand	3-6 times per year	Within last year	Visiting friends or relatives
196	Male	20	Warehouse Worker	New Zealand	1-2 times per year	Within last year	Visiting friends or relatives
197	Female	58	English Language Teacher	New Zealand	1-2 times per year	Within last fortnight	Holiday or leisure
198	Female	65	English Language Teacher	New Zealand	1-2 times per year	Within last year	Business
199	Male	32	Software Developer	New Zealand	1-2 times per year	Within last 3 months	Holiday or leisure
200	Female	73	Compliance Administrator	New Zealand	1-2 times per year	Within last fortnight	Holiday or leisure

No.	Gender	Age	Occupation	Nationality	Frequency of Air Travel	Most Recent Trip via Air Travel	Purpose of Trip
201	Female	40	Researcher	Sweden	Once every 2-3 years	Within last fortnight	Holiday or leisure
202	Female	31	Administrator	New Zealand	1-2 times per year	Within last 3 months	Visiting friends or relatives
203	Female	75	Retired	New Zealand	3-6 times per year	Within last year	Visiting friends or relatives
204	Male	37	Infrastructure Analyst	Mexico	3-6 times per year	Within last fortnight	Other
205	Female	57	Housing Support Officer	United Kingdom	1-2 times per year	Within last fortnight	Visiting friends or relatives
206	Female	19	Shepherd	New Zealand	1-2 times per year	Within last year	Holiday or leisure
207	Female	32	Waitress	Turkey	1-2 times per year	Within last year	Holiday or leisure
208	Female	24	Full-time employee	New Zealand	1-2 times per year	Within last 3 months	Business
209	Male	47	Self-employed	New Zealand	More than 6 times per year	Within last fortnight	Business
210	Female	29	Senior Researcher	Tunisia	3-6 times per year	Within last fortnight	Business
211	Male	25	Claims Handler	United Kingdom	3-6 times per year	Within last fortnight	Visiting friends or relatives
212	Male	48	Scientist	United Kingdom & New Zealand	1-2 times per year	Within last fortnight	Visiting friends or relatives
213	Male	37	Energy Trader	New Zealand	More than 6 times per year	Within last fortnight	Holiday or leisure
214	Male	18	Student	New Zealand	3-6 times per year	Within last fortnight	Holiday or leisure
215	Male	27	Software Engineer	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
216	Female	27	Interior Designer	Netherlands	1-2 times per year	Within last fortnight	Holiday or leisure
217	Female	19	Customer Service	New Zealand	More than 6 times per year	Within last 3 months	Visiting friends or relatives
218	Female	17	Student	New Zealand	More than 6 times per year	Within last 3 months	Holiday or leisure
219	Female	19	Sales Assistant	Canada	1-2 times per year	Within last year	Other
220	Female	17	Student	New Zealand	3-6 times per year	Within last fortnight	Visiting friends or relatives
221	Male	19	Unemployed	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
222	Female	23	Publisher	Malaysia	1-2 times per year	Within last 3 months	Visiting friends or relatives
223	Male	19	Employee	Vietnam	1-2 times per year	Within last year	Holiday or leisure
224	Male	21	Farmer	Switzerland	1-2 times per year	Within last 3 months	Other
225	Female	31	Policy Analyst	New Zealand	More than 6 times per year	Within last 3 months	Visiting friends or relatives
226	Female	70	Retired	United Kingdom	1-2 times per year	Within last fortnight	Holiday or leisure
227	Male	23	Hospitality/Waiter	New Zealand	3-6 times per year	Within last year	Visiting friends or relatives
228	Male	65	Psychologist	United States	More than 6 times per year	Within last fortnight	Holiday or leisure
229	Male	30	Market Analyst	New Zealand	3-6 times per year	Within last fortnight	Holiday or leisure
230	Male	25	Student	New Zealand	3-6 times per year	Within last 3 months	Visiting friends or relatives
231	Female	32	Student	South Korea	Once every 2-3 years	Within last 1-3 years	Visiting friends or relatives
232	Male	60	Engineer	New Zealand	1-2 times per year	Within last fortnight	Holiday or leisure
233	Female	50	Caregiver	New Zealand	3-6 times per year	Within last year	Visiting friends or relatives
234	Female	31	Lawyer	New Zealand	1-2 times per year	Within last 3 months	Visiting friends or relatives
235	Male	57	Civil Servant	New Zealand	1-2 times per year	Within last year	Holiday or leisure

No.	Gender	Age	Occupation	Nationality	Frequency of Air Travel	Most Recent Trip via Air Travel	Purpose of Trip
236	Female	25	Employee	Indonesia	1-2 times per year	Within last fortnight	Visiting friends or relatives
237	Female	29	Quantity Surveyor	South Africa	3-6 times per year	Within last 3 months	Holiday or leisure
238	Female	23	Human Resources	New Zealand	1-2 times per year	Within last 3 months	Visiting friends or relatives
239	Female	18	Au Pair	Germany	3-6 times per year	Within last year	Holiday or leisure
240	Female	30	IT Consultant	India	1-2 times per year	Within last fortnight	Other

Appendix D – Complete List of Airports in Sample

Table 23

Complete list of airports in the sample of airport visits

Airport Name	IATA Code	City	Country	Number of Visits
Africa				
Cairo International Airport	CAI	Cairo	Egypt	1
O. R. Tambo International Airport	JNB	Johannesburg	South Africa	1
Murtula Muhammed International Airport	LOS	Lagos	Nigeria	1
Asia				
Beijing Capital International Airport	PEK	Beijing	China	3
Changi Airport	SIN	Singapore	Singapore	21
Changsha Huanghua International Airport	CSX	Changsha	China	1
Hong Kong International Airport	HKG	Hong Kong	China	8
I Gusti Ngurah Rai International Airport	DPS	Denpasar	Indonesia	1
Incheon International Airport	ICN	Seoul	South Korea	1
Indira Gandhi International Airport	DEL	New Delhi	India	1
Kota Kinabalu International Airport	BKI	Kota Kinabalu	Malaysia	1
Kuching International Airport	KCH	Kuching	Malaysia	1
Kuala Lumpur International Airport	KUL	Kuala Lumpur	Malaysia	6
Narita International Airport	NRT	Tokyo	Japan	1
Netaji Subhas Chandra Bose International Airport	CCU	Kolkata	India	1
Ninoy Aquino International Airport	MNL	Manila	Philippines	1
Noi Bai International Airport	HAN	Hanoi	Vietnam	4
Qingdao Liuting International Airport	TAO	Qingdao	China	1
Shanghai Pudong International Airport	PVG	Shanghai	China	2
Siem Reap International Airport	REP	Siem Reap	Cambodia	1
Soekarno-Hatta International Airport	CGK	Jakarta	Indonesia	2
Suvarnabhumi Airport	BKK	Bangkok	Thailand	6
Taiwan Taoyuan International Airport	TPE	Taipei	Taiwan	1
Tribhuvan International Airport	KTM	Kathmandu	Nepal	1
Xi'an Xianyang International Airport	XIY	Xi'an	China	1
Europe				
Belfast International Airport	BFS	Belfast	United Kingdom	1
Brussels Airport	BRU	Brussels	Belgium	1

Airport Name	IATA Code	City	Country	Number of Visits
Charles de Gaulle Airport	CDG	Paris	France	2
Dublin Airport	DUB	Dublin	Ireland	1
Düsseldorf Airport	DUS	Düsseldorf	Germany	1
Francisco Sá Carneiro Airport	OPO	Porto	Portugal	1
Frankfurt Airport	FRA	Frankfurt	Germany	1
Heathrow Airport	LHR	London	United Kingdom	11
Helsinki Airport	HEL	Helsinki	Finland	1
Istanbul Atatürk Airport	IST	Istanbul	Turkey	1
İzmir Adnan Menderes Airport	ADB	İzmir	Turkey	1
Manchester Airport	MAN	Manchester	United Kingdom	3
Munich Airport	MUC	Munich	Germany	1
Vienna International Airport	VIE	Vienna	Austria	1
Zurich Airport	ZRH	Zurich	Switzerland	2
Middle East				
Abu Dhabi International Airport	AUH	Abu Dhabi	United Arab Emirates	1
Dubai International Airport	DXB	Dubai	United Arab Emirates	6
Hamad International Airport	DOH	Doha	Qatar	4
New Zealand				
Auckland Airport	AKL	Auckland	New Zealand	141
Bay of Islands Airport	KKE	Kerikeri	New Zealand	1
Christchurch Airport	CHC	Christchurch	New Zealand	43
Dunedin Airport	DUD	Dunedin	New Zealand	8
Gisborne Airport	GIS	Gisborne	New Zealand	1
Hamilton Airport	HLZ	Hamilton	New Zealand	3
Hawkes Bay Airport	NPE	Napier	New Zealand	3
Invercargill Airport	IVC	Invercargill	New Zealand	2
Kapiti Coast Airport	PPQ	Paraparaumu	New Zealand	3
Marlborough Airport	BHE	Blenheim	New Zealand	3
Nelson Airport	NSN	Nelson	New Zealand	5
New Plymouth Airport	NPL	New Plymouth	New Zealand	1
Palmerston North Airport	PMR	Palmerston North	New Zealand	74
Picton Aerodrome	PCN	Picton	New Zealand	1
Queenstown Airport	ZQN	Queenstown	New Zealand	6
Rotorua Airport	ROT	Rotorua	New Zealand	2
Tauranga Airport	TRG	Tauranga	New Zealand	1
Wellington International Airport	WLG	Wellington	New Zealand	133
Whangarei Airport	WRE	Whangarei	New Zealand	2

Airport Name	IATA Code	City	Country	Number of Visits
North America				
Boise Airport	BOI	Boise	United States	1
Boston Logan International Airport	BOS	Boston	United States	1
Calgary International Airport	YYC	Calgary	Canada	2
George Bush Intercontinental Airport	IAH	Houston	United States	3
Los Angeles International Airport	LAX	Los Angeles	United States	5
McAllen International Airport	MFE	McAllen	United States	1
Phoenix Sky Harbor International Airport	PHX	Phoenix	United States	1
San Francisco International Airport	SFO	San Francisco	United States	4
Seattle-Tacoma International Airport	SEA	Seattle	United States	1
Vancouver International Airport	YVR	Vancouver	Canada	3
Oceania (Excluding New Zealand)				
Adelaide Airport	ADL	Adelaide	Australia	1
Aitutaki Airport	AIT	Aitutaki	Cook Islands	1
Bathurst Airport	BHS	Bathurst	Australia	1
Brisbane Airport	BNE	Brisbane	Australia	9
Cairns Airport	CNS	Cairns	Australia	1
Canberra Airport	CBR	Canberra	Australia	3
Daniel K. Inouye International Airport	HNL	Honolulu	United States	2
Fa'a'ā International Airport	PPT	Tahiti	French Polynesia	1
Faleolo International Airport	APW	Apia	Samoa	2
Gold Coast Airport	OOL	Gold Coast	Australia	3
Karratha Airport	KTA	Karratha	Australia	1
Melbourne Airport	MEL	Melbourne	Australia	23
Nadi Airport	NAN	Nadi	Fiji	1
Perth Airport	PER	Perth	Australia	4
Rarotonga International Airport	RAR	Avarua	Cook Islands	2
Sydney Airport	SYD	Sydney	Australia	23

Appendix E – Complete List of Participants Interviewed about Shopping Malls

Table 24

Complete list of participants interviewed about shopping malls

No.	Gender	Age	Occupation	Nationality	Frequency of Visiting Shopping Malls	Most Recent Visit to Shopping Mall	Purpose of Visit
1	Female	18	Student	New Zealand	Less than every 3 months	More than 3 months ago	To walk/look around
2	Male	76	Retired	New Zealand	Less than every 3 months	More than 3 months ago	Spend time with friends/family
3	Female	35	Sponsorship Manager	New Zealand	Less than every 3 months	More than 3 months ago	Shopping for something specific
4	Male	29	Student	New Zealand	Once every 3 months	Within last 3 months	Food/Drink
5	Male	51	Marketing Manager	Australia	More than 3 times per week	Within last week	Shopping for something specific
6	Female	33	Doctor	New Zealand	Less than every 3 months	Within last 3 months	Shopping for something specific
7	Female	64	Counsellor/Therapist	New Zealand	Less than every 3 months	Within last week	Food/Drink
8	Female	24	Spanish Teacher	Spain	Less than every 3 months	More than 3 months ago	Shopping for something specific
9	Female	20	Student	New Zealand	Once every 3 months	Within last 3 months	Shopping for something specific
10	Male	34	Government Worker	New Zealand	1-2 times per week	Within last week	Shopping for something specific
11	Male	18	Unemployed	New Zealand	More than 3 times per week	Within last week	To walk/look around
12	Male	25	Student	New Zealand	1-2 times per month	Within last 3 months	Shopping for something specific
13	Male	18	Student	New Zealand	1-2 times per week	Within last week	To go shopping
14	Female	21	Nurse	Germany	1-2 times per month	Within last week	To walk/look around
15	Female	68	Editor	Ireland	Less than every 3 months	More than 3 months ago	Shopping for something specific
16	Male	22	Student	New Zealand	1-2 times per week	Within last week	Food/Drink
17	Male	67	Self-Employed	New Zealand	1-2 times per week	Within last week	Shopping for something specific
18	Male	47	Test Analyst	New Zealand	1-2 times per month	Within last month	To fill in time
19	Male	73	Retired	New Zealand	Less than every 3 months	Within last week	To walk/look around
20	Female	19	Student	New Zealand	1-2 times per month	Within last week	Spend time with friends/family
21	Male	46	IT	New Zealand	1-2 times per month	Within last month	Shopping for something specific
22	Female	22	Journalist	New Zealand	1-2 times per week	Today	To go shopping
23	Female	58	Director	New Zealand	Once every 3 months	Within last 3 months	Shopping for something specific
24	Female	25	Admin	New Zealand	1-2 times per month	Within last week	To fill in time
25	Female	56	Supervisor	New Zealand	1-2 times per week	Within last week	Spend time with friends/family
26	Male	25	Finance Analyst	New Zealand	1-2 times per month	Today	To go shopping
27	Female	21	Student	New Zealand	Less than every 3 months	Within last month	Shopping for something specific
28	Male	54	Lawyer	New Zealand	1-2 times per month	Within last month	Shopping for something specific
29	Female	24	Barista	New Zealand	Less than every 3 months	Within last 3 months	Shopping for something specific

No.	Gender	Age	Occupation	Nationality	Frequency of Visiting Shopping Malls	Most Recent Visit to Shopping Mall	Purpose of Visit
30	Male	60	Office Worker	New Zealand	1-2 times per week	Within last week	Shopping for something specific
31	Male	17	Student	New Zealand	More than 3 times per week	Today	Shopping for something specific
32	Male	39	Unemployed	New Zealand	More than 3 times per week	Within last week	Shopping for something specific
33	Male	40	IT Consultant	Philippines	1-2 times per week	Within last week	To walk/look around
34	Male	20	Unemployed	New Zealand	1-2 times per month	Within last month	To walk/look around
35	Female	19	Cabin Attendant	New Zealand	1-2 times per week	Within last week	To go shopping
36	Male	53	Project Manager	United Kingdom	1-2 times per month	Within last month	Shopping for something specific
37	Female	68	Retired	Netherlands	Less than every 3 months	More than 3 months ago	Spend time with friends/family
38	Female	42	Lecturer	New Zealand	1-2 times per week	Within last week	Shopping for something specific
39	Female		School Teacher	United Kingdom	More than 3 times per week	Today	To visit different type of tenant
40	Male	39	Academic	New Zealand	Less than every 3 months	More than 3 months ago	Shopping for something specific
41	Female	58	Structural Engineer	New Zealand	Once every 3 months	Within last week	Food/Drink
42	Male	45	School Principal	New Zealand	1-2 times per month	Within last week	Shopping for something specific
43	Female	40	Operations Manager	New Zealand	1-2 times per month	Within last month	To go shopping
44	Female	33	Relationship Manager	Ireland	1-2 times per week	Within last week	Shopping for something specific
45	Male	26	Unemployed	Hong Kong	Once every 3 months	Within last 3 months	Spend time with friends/family
46	Male	54	Police Officer	New Zealand	1-2 times per week	Within last week	Food/Drink
47	Male	38	Doctor	Ireland	1-2 times per month	Within last month	Shopping for something specific
48	Female	36	Cleaner	New Zealand	Less than every 3 months	Within last month	To visit different type of tenant
49	Male	49	Electrician	New Zealand	1-2 times per week	Within last week	Shopping for something specific
50	Male	55	Banker	New Zealand	Less than every 3 months	Within last month	Shopping for something specific
51	Male	70	Academic	New Zealand	FALSE	More than 3 months ago	To fill in time
52	Female	70	Retired	New Zealand	1-2 times per month	Within last week	Shopping for something specific
53	Female	44	Craft Person	New Zealand	Less than every 3 months	More than 3 months ago	Shopping for something specific
54	Female	16	Student	New Zealand	Less than every 3 months	More than 3 months ago	Shopping for something specific
55	Male	74	Retired	Singapore	Less than every 3 months	Within last week	Shopping for something specific
56	Male	70	Retired	New Zealand	More than 3 times per week	Today	Food/Drink
57	Male	42	Researcher	New Zealand	1-2 times per month	Within last month	Shopping for something specific
58	Male	45	Consultant	New Zealand	Less than every 3 months	More than 3 months ago	To fill in time
59	Male	65	Retired	New Zealand	Less than every 3 months	More than 3 months ago	Shopping for something specific
60	Female	39	Student	United States	1-2 times per month	Within last week	Shopping for something specific
61	Female	67	Tour Guide	United Kingdom	Less than every 3 months	Within last 3 months	Shopping for something specific
62	Male	25	Office Manager	New Zealand	Less than every 3 months	Within last 3 months	Shopping for something specific
63	Female	58	Retired	United States	1-2 times per week	Within last week	To walk/look around
64	Female	27	Scientist	New Zealand	1-2 times per week	Within last month	Food/Drink
65	Male	72	Retired	New Zealand	More than 3 times per week	Within last week	Shopping for something specific
66	Female	40	Artist	New Zealand	Less than every 3 months	Within last 3 months	Shopping for something specific

No.	Gender	Age	Occupation	Nationality	Frequency of Visiting Shopping Malls	Most Recent Visit to Shopping Mall	Purpose of Visit
67	Female	60	Office Assistant	New Zealand	Less than every 3 months	Within last 3 months	Spend time with friends/family
68	Female	70	Retired	New Zealand	1-2 times per month	Within last week	To visit different type of tenant
69	Male	20	Student	Canada	Once every 3 months	More than 3 months ago	Shopping for something specific
70	Male	59	Social Worker	Australia	1-2 times per month	Today	Spend time with friends/family
71	Female	50	Lawyer	Australia	More than 3 times per week	Today	Shopping for something specific
72	Female	28	Student	Indonesia	1-2 times per week	Within last week	Shopping for something specific
73	Female	57	Executive Assistant	United Kingdom	1-2 times per week	Within last week	Shopping for something specific
74	Female	29	Food Technologist	Indonesia	1-2 times per month	Within last week	Shopping for something specific
75	Male	17	Working	New Zealand	1-2 times per week	Today	Shopping for something specific
76	Female	26	Cheese Maker	New Zealand	Once every 3 months	Today	Shopping for something specific
77	Male	24	Creative Designer	New Zealand	1-2 times per week	Today	Shopping for something specific
78	Female	52	Administration	New Zealand	1-2 times per week	Within last week	Shopping for something specific
79	Female	29	PhD Student	Australia	1-2 times per month	Today	Shopping for something specific
80	Female	34	Unemployed	New Zealand	More than 3 times per week	Today	Other
81	Male	27	Research Associate	United Kingdom	1-2 times per month	Today	Other
82	Female	28	Research Technician	United Kingdom	1-2 times per month	Within last month	Shopping for something specific
83	Male	45	Quality Controller	New Zealand	1-2 times per week	Within last week	To visit different type of tenant
84	Female	80	Retired	New Zealand	1-2 times per week	Within last week	Shopping for something specific
85	Female	62	Nurse	Canada	1-2 times per week	Today	Shopping for something specific
86	Male	28	Employed	New Zealand	1-2 times per week	Within last week	To walk/look around
87	Female	67	Retired	New Zealand	1-2 times per month	Within last month	To visit different type of tenant
88	Female	66	Executive Assistant	New Zealand	More than 3 times per week	Within last week	Shopping for something specific
89	Male	43	Unemployed	New Zealand	Less than every 3 months	Today	Shopping for something specific
90	Male	27	Ministry of Justice	India	More than 3 times per week	Within last week	Shopping for something specific
91	Male	26	Student	Saudi Arabia	1-2 times per week	Within last week	Shopping for something specific
92	Male	51	IT Security	New Zealand	1-2 times per week	Today	Shopping for something specific
93	Male	30	Sales	Australia	1-2 times per week	Within last week	Shopping for something specific
94	Female	60	Teacher Aide	Australia	1-2 times per month	Within last 3 months	Shopping for something specific
95	Male	75	Retired	New Zealand	Less than every 3 months	Within last 3 months	Shopping for something specific
96	Female	64	Academic	New Zealand	1-2 times per month	Within last week	Shopping for something specific
97	Female	44	Pharmacist	New Zealand	Less than every 3 months	Today	Shopping for something specific
98	Female	83	Retired	New Zealand	More than 3 times per week	Today	Food/Drink
99	Female	69	Tutor	New Zealand	1-2 times per week	Today	To visit different type of tenant
100	Female	36	Student	New Zealand	1-2 times per month	Today	Shopping for something specific
101	Male	32	PhD Student	Greece	Less than every 3 months	Today	To visit different type of tenant
102	Female	24	Receptionist	Canada	More than 3 times per week	Within last week	Shopping for something specific
103	Male	24	Diesel Mechanic	New Zealand	1-2 times per month	Within last week	Food/Drink

No.	Gender	Age	Occupation	Nationality	Frequency of Visiting Shopping Malls	Most Recent Visit to Shopping Mall	Purpose of Visit
104	Female	49	Admin	New Zealand	More than 3 times per week	Today	Shopping for something specific
105	Male	42	Unemployed	South Africa	1-2 times per week	Today	To visit different type of tenant
106	Male	75	Dairy Farmer	New Zealand	1-2 times per month	Today	To walk/look around
107	Male	47	Town Planner	New Zealand	1-2 times per week	Today	To visit different type of tenant
108	Male	51	Education	New Zealand	Once every 3 months	Within last 3 months	Shopping for something specific
109	Female	55	Teacher	New Zealand	1-2 times per month	Today	Shopping for something specific
110	Male	49	Farmer	New Zealand	1-2 times per month	Within last month	To visit different type of tenant
111	Female	18	Unemployed	New Zealand	Less than every 3 months	Today	Shopping for something specific
112	Female	39	Health Coach	New Zealand	1-2 times per week	Within last week	Shopping for something specific
113	Male	48	Engineering	New Zealand	1-2 times per month	Today	Shopping for something specific
114	Female	26	Audiometrist	New Zealand	Less than every 3 months	Today	To visit different type of tenant
115	Female	23	Student	United States	Less than every 3 months	Today	To visit different type of tenant
116	Female	48	Research Scientist	United Kingdom	1-2 times per week	Today	Shopping for something specific
117	Female	18	Working	New Zealand	1-2 times per month	Today	Shopping for something specific
118	Male	36	Factory Worker	Papua New Guinea	1-2 times per week	Today	Shopping for something specific
119	Male	70	Retired	New Zealand	1-2 times per week	Within last week	Spend time with friends/family
120	Male	48	Sales	New Zealand	1-2 times per week	Within last week	Food/Drink
121	Male	44	Public Servant	New Zealand	1-2 times per month	Within last month	To walk/look around
122	Male	26	Police Officer	New Zealand	1-2 times per month	Today	To go shopping
123	Female	27	Police Officer	New Zealand	1-2 times per month	Today	Shopping for something specific
124	Female	77	Retired	New Zealand	1-2 times per month	Within last week	To fill in time
125	Male	63	Beneficiary	United Kingdom	1-2 times per week	Today	To visit different type of tenant
126	Female	32	Government Worker	New Zealand	1-2 times per week	Within last week	Food/Drink
127	Female	73	Retired	New Zealand	1-2 times per month	Today	To visit different type of tenant
128	Female	36	Unemployed	New Zealand	Once every 3 months	Within last month	To walk/look around
129	Female	69	Homemaker	New Zealand	1-2 times per week	Within last week	To fill in time
130	Female	70	Retired	New Zealand	1-2 times per week	Within last week	Shopping for something specific
131	Female	22	Unemployed	United States	1-2 times per month	Within last week	Shopping for something specific
132	Male	73	Retired	New Zealand	Less than every 3 months	Within last week	Shopping for something specific
133	Male	20	Café Worker	New Zealand	More than 3 times per week	Within last week	Shopping for something specific
134	Male	24	Soldier	New Zealand	1-2 times per week	Within last week	Shopping for something specific
135	Female	53	Unemployed	New Zealand	1-2 times per week	Within last week	Shopping for something specific
136	Female	64	Qualified Caregiver	New Zealand	1-2 times per week	Within last week	Spend time with friends/family
137	Female	69	Retired	United Kingdom	1-2 times per month	Within last month	Spend time with friends/family
138	Male	63	Self-Employed	New Zealand	1-2 times per month	Today	To visit different type of tenant
139	Male	74	Retired	New Zealand	More than 3 times per week	Within last week	Shopping for something specific
140	Female	58	Lecturer	New Zealand	1-2 times per week	Within last week	Shopping for something specific

No.	Gender	Age	Occupation	Nationality	Frequency of Visiting Shopping Malls	Most Recent Visit to Shopping Mall	Purpose of Visit
141	Male	62	Unemployed	New Zealand	1-2 times per month	Today	To visit different type of tenant
142	Male	23	Pastor	New Zealand	1-2 times per week	Today	Shopping for something specific
143	Male	43	Ambulance Officer	New Zealand	1-2 times per month	Today	To visit different type of tenant
144	Female	78	Retired	New Zealand	Less than every 3 months	Within last 3 months	To go shopping
145	Female	78	Retired	New Zealand	1-2 times per week	Today	Spend time with friends/family
146	Male	21	Not working	New Zealand	1-2 times per week	Today	Spend time with friends/family
147	Female	39	Student	New Zealand	1-2 times per month	Within last month	To go shopping
148	Male	32	Retail Manager	New Zealand	More than 3 times per week	Within last week	Food/Drink
149	Male	43	Software Developer	New Zealand	1-2 times per week	Within last week	To visit different type of tenant
150	Female	63	Administrator	New Zealand	1-2 times per week	Within last week	Shopping for something specific
151	Male	22	Student	New Zealand	1-2 times per month	Today	Shopping for something specific
152	Female	41	Nurse	New Zealand	1-2 times per week	Today	Shopping for something specific
153	Female	29	Student	New Zealand	1-2 times per week	Today	Food/Drink
154	Female	18	Student	New Zealand	1-2 times per month	Within last week	To go shopping
155	Male	55	Lecturer	United Kingdom	1-2 times per month	Within last month	Food/Drink
156	Male	42	Sales Assistant	New Zealand	1-2 times per week	Today	Shopping for something specific
157	Female	26	City Planner	New Zealand	More than 3 times per week	Within last week	Shopping for something specific
158	Female	20	Government Worker	New Zealand	1-2 times per week	Within last week	Shopping for something specific
159	Male	20	Working	New Zealand	1-2 times per week	Today	Shopping for something specific
160	Male	73	Retired	United Kingdom	1-2 times per month	Within last month	Food/Drink
161	Female	56	Semi-Retired	New Zealand	1-2 times per month	Within last 3 months	Shopping for something specific
162	Male	70	Semi-Retired	New Zealand	1-2 times per month	Within last month	Shopping for something specific
163	Female	67	Self-Employed	New Zealand	More than 3 times per week	Within last week	To visit different type of tenant
164	Male	71	Retired	New Zealand	More than 3 times per week	Within last week	To go shopping
165	Male	48	Unemployed	New Zealand	1-2 times per month	Within last week	Shopping for something specific
166	Female	52	Student	New Zealand	1-2 times per week	Today	Shopping for something specific
167	Female	76	Retired	New Zealand	Once every 3 months	Within last 3 months	Shopping for something specific
168	Male	66	Student	New Zealand	More than 3 times per week	Within last week	Shopping for something specific
169	Female	53	Early Childhood Teacher	New Zealand	1-2 times per week	Within last week	Shopping for something specific
170	Male	60	Manager	New Zealand	1-2 times per week	Within last week	Food/Drink
171	Female	55	Accountant	New Zealand	1-2 times per month	Within last week	Shopping for something specific
172	Male	35	Cyber Security	New Zealand	More than 3 times per week	Today	Food/Drink
173	Female	67	Retired	New Zealand	1-2 times per month	Today	Shopping for something specific
174	Female	60	Beneficiary	New Zealand	1-2 times per week	Within last week	Shopping for something specific
175	Female	73	Retired	United Kingdom	1-2 times per month	Today	To visit different type of tenant
176	Female	44	Stay-at-home Mother	United Kingdom	1-2 times per week	Within last week	Shopping for something specific
177	Female	16	Student	Nepal	1-2 times per month	More than 3 months ago	To go shopping

No.	Gender	Age	Occupation	Nationality	Frequency of Visiting Shopping Malls	Most Recent Visit to Shopping Mall	Purpose of Visit
178	Female	77	Retired	United Kingdom	1-2 times per month	Within last week	To go shopping
179	Female	64	Account Manager	New Zealand	Less than every 3 months	Within last 3 months	Shopping for something specific
180	Female	62	Teacher	New Zealand	1-2 times per month	Within last month	Shopping for something specific
181	Male	18	Temp	New Zealand	1-2 times per week	Within last week	Shopping for something specific
182	Male	47	Asset Manager	New Zealand	More than 3 times per week	Today	Food/Drink
183	Female	35	Beneficiary	New Zealand	More than 3 times per week	Within last week	Shopping for something specific
184	Male	37	Unemployed	New Zealand	More than 3 times per week	Today	Shopping for something specific
185	Male	26	Customer Service Representative	New Zealand	More than 3 times per week	Within last week	Food/Drink
186	Male	67	Retired	The Netherlands	1-2 times per week	Within last month	Other
187	Male	63	Unemployed	New Zealand	1-2 times per month	Within last month	To visit different type of tenant
188	Male	57	Farm Manager	New Zealand	Less than every 3 months	Today	To visit different type of tenant
189	Female		Environmental Coordinator	New Zealand	1-2 times per month	Within last 3 months	Shopping for something specific
190	Male	30	Social Worker	New Zealand	1-2 times per month	Within last 3 months	Shopping for something specific
191	Female	50	Administration	New Zealand	1-2 times per week	Within last week	Shopping for something specific
192	Male	49	Neuro-Psychologist	United Kingdom	1-2 times per week	Today	Shopping for something specific
193	Male	55	Caregiver	New Zealand	1-2 times per week	Within last week	Shopping for something specific
194	Male	86	Retired	New Zealand	1-2 times per week	Today	To visit different type of tenant
195	Male	42	School Teacher	New Zealand	1-2 times per month	Today	Shopping for something specific
196	Male	23	Student	New Zealand	More than 3 times per week	Within last week	To go shopping
197	Male		Mechanic	New Zealand	1-2 times per month	Today	To visit different type of tenant
198	Female	27	Student	Laos	1-2 times per week	Within last week	To go shopping
199	Male	39	Public Servant	New Zealand	1-2 times per week	Within last week	Food/Drink
200	Male	69	Retired	New Zealand	More than 3 times per week	Within last week	Shopping for something specific
201	Female	28	Student	New Zealand	1-2 times per month	Within last week	Shopping for something specific
202	Female	36	Petrol Station Worker	Samoa	More than 3 times per week	Within last week	To go shopping
203	Female	69	Retired	New Zealand	1-2 times per week	Today	Shopping for something specific
204	Male	48	IT	New Zealand	1-2 times per month	Today	Food/Drink
205	Male	61	Retired	United Kingdom	1-2 times per month	Within last month	To go shopping
206	Female		Retired	New Zealand	1-2 times per week	Today	Food/Drink
207	Non-binary	19	Supermarket Worker	France	1-2 times per week	Within last week	Spend time with friends/family
208	Female	24	Student	New Zealand	1-2 times per week	Within last week	Shopping for something specific
209	Male	71	Teacher	New Zealand	More than 3 times per week	Within last week	Shopping for something specific
210	Male	25	Graphic Designer	New Zealand	More than 3 times per week	Within last week	To fill in time
211	Female	40	Physiotherapist	New Zealand	1-2 times per week	Within last week	Shopping for something specific
212	Male	79	Retired	New Zealand	1-2 times per month	Today	Shopping for something specific
213	Female	48	Teacher	New Zealand	1-2 times per week	Today	Shopping for something specific

No.	Gender	Age	Occupation	Nationality	Frequency of Visiting Shopping Malls	Most Recent Visit to Shopping Mall	Purpose of Visit
214	Male	27	Public Servant	New Zealand	Less than every 3 months	More than 3 months ago	To go shopping
215	Male	17	Student	New Zealand	1-2 times per week	Today	Food/Drink
216	Male	73	Retired	India	1-2 times per week	Within last week	Shopping for something specific
217	Female	29	Office Coordinator	New Zealand	1-2 times per week	Within last month	Shopping for something specific
218	Female	65	Retired	New Zealand	1-2 times per week	Today	Other
219	Male	41	IT	Australia	1-2 times per week	Today	Food/Drink
220	Male	74	Retired	New Zealand	More than 3 times per week	Today	To go shopping
221	Female	42	Church Worker	New Zealand	1-2 times per month	Today	Shopping for something specific
222	Female	52	Test Analyst	United Kingdom	1-2 times per month	Today	Shopping for something specific
223	Female	58	Chartered Accountant	New Zealand	1-2 times per week	Within last week	Shopping for something specific
224	Female	39	E-Commerce	New Zealand	Once every 3 months	Within last month	To visit different type of tenant
225	Male	29	Insurance Consultant	New Zealand	1-2 times per week	Within last week	Food/Drink
226	Female	58	Social Worker	New Zealand	FALSE	Within last month	Food/Drink
227	Female	51	Environmental Health Officer	New Zealand	More than 3 times per week	Today	To visit different type of tenant
228	Female	25	Retail Assistant	New Zealand	1-2 times per month	Within last week	Shopping for something specific
229	Female	40	Teacher	New Zealand	1-2 times per month	Today	Shopping for something specific
230	Male	28	Software Developer	New Zealand	1-2 times per month	Within last month	Shopping for something specific
231	Male	58	Self-Employed	New Zealand	More than 3 times per week	Within last week	Shopping for something specific
232	Female	46	Job Seeker	New Zealand	1-2 times per month	Within last month	Shopping for something specific
233	Male	53	Lecturer	New Zealand	1-2 times per week	Today	Food/Drink
234	Female	27	Early Childcare Teacher	New Zealand	Once every 3 months	Today	Shopping for something specific
235	Female	40	Environmental Planner	New Zealand	Once every 3 months	Within last week	Shopping for something specific
236	Male	28	Youth Student City Coordinator	New Zealand	More than 3 times per week	Today	Food/Drink
237	Female	25	Early Childhood Teacher	New Zealand	1-2 times per month	Today	To fill in time
238	Female	18	Student	New Zealand	1-2 times per week	Today	To visit different type of tenant
239	Male	68	Retired	Australia	1-2 times per month	Today	To fill in time
240	Female	81	Retired	New Zealand	1-2 times per month	Within last week	Shopping for something specific

Appendix F – Complete List of Shopping Malls in Sample

Table 25

Complete list of shopping malls in the sample of shopping mall visits

Shopping Mall Name*	City	Country	Number of Visits
New Zealand			
Bayfair Shopping Centre	Tauranga	New Zealand	1
Centre City Shopping Centre	New Plymouth	New Zealand	1
Chartwell Shopping Centre	Hamilton	New Zealand	2
Coastlands Shopping Centre	Paraparaumu	New Zealand	4
Cuba Street Mall	Wellington	New Zealand	4
Johnsonville Shopping Centre	Wellington	New Zealand	4
LynnMall	Auckland	New Zealand	1
North City Shopping Centre	Porirua	New Zealand	4
Outlet City	Wellington	New Zealand	1
Queensgate Shopping Centre	Lower Hutt	New Zealand	18
Richmond Mall	Nelson	New Zealand	2
Summerhill Shopping Centre	Palmerston North	New Zealand	1
Sylvia Park	Auckland	New Zealand	1
The Base	Hamilton	New Zealand	2
The Hub Hornby	Christchurch	New Zealand	1
The Plaza	Palmerston North	New Zealand	123
Westfield Riccarton	Christchurch	New Zealand	3
Westfield St. Luke's	Auckland	New Zealand	2
(Unsure)	Auckland	New Zealand	3
(Unsure)	Hastings	New Zealand	1
(Unsure)	Lower Hutt	New Zealand	2
(Unsure)	Nelson	New Zealand	1
(Unsure)	Palmerston North	New Zealand	35
(Unsure)	Porirua	New Zealand	1
(Unsure)	Rotorua	New Zealand	1
(Unsure)	Tauranga	New Zealand	2
(Unsure)	Wellington	New Zealand	4
Overseas			
Bondi Junction	Sydney	Australia	1

Shopping Mall Name*	City	Country	Number of Visits
CF Pacific Centre	Vancouver	Canada	1
Churchill Square Shopping Centre	Brighton	United Kingdom	1
Karratha City Shopping Mall	Karratha	Australia	1
MediaMarkt	The Hague	The Netherlands	1
Queen Street Mall	Brisbane	Australia	1
Westfield Stratford City	London	United Kingdom	1
Wynnum Plaza	Brisbane	Australia	1
(Unsure)	Brisbane	Australia	1
(Unsure)	Melbourne	Australia	1
(Unsure)	Newcastle	Australia	1
(Unsure)	Port Augusta	Australia	1
(Unsure)	Kuala Lumpur	Malaysia	1
(Unsure)	Oviedo	Spain	1
(Unsure)	Portland, Oregon	United States	1

* (Unsure) has been used to denote where participants were unsure of the shopping mall's name, only its location.

Appendix G – Airport Semi-Structured Interview Questions

1. Could you please state your:
    a. Gender
    b. Age
    c. Occupation
    d. Nationality
2. How often do fly?
3. Think of the most recent time you flew somewhere.
4. When was it?
5. What was the purpose of the trip?
6. Which airport did you depart from?
7. How long did you spend at that airport?
8. Was that your first time travelling through that airport? [If not, how many times have you previously travelled through that airport?]
9. Which airline were you flying on?
10. Which class were you flying in?
11. How long was the flight?
12. Which airport did you arrive at next?
13. Was this for transit, or what it your destination?
14. How long did you spend at that airport?
15. Was that your first time travelling through that airport? [If not, how many times have you previously travelled through that airport?]
16. [If transiting, go back to question 9]
17. Continue until all airports are covered.
18. Was there a return flight?
19. Did you return home using the same route? (if not, then cover other airports too)
20. Thinking back to the airport you departed from when you began your trip, what associations do you make with that airport? (If participants do not understand, this can be rephrased to: "What comes to mind when I say [airport name]?")
21. Think back to the next airport you went through on that trip, what associations do you make with that airport? (If participants do not understand, this can be rephrased to: "What comes to mind when I say [airport name]?")
22. Continue until all airports are covered.
23. If you were given a choice between airports, which associations would be important in making your decision? (If participants do not understand, this can be rephrased to: "If you imagine that you are in a situation where you can choose between several airports to travel through, what sort of things would be important in choosing which one you would rather go through?")
24. Why are those things important?
25. Any further comments?

Appendix H – Shopping Mall Semi-Structured Interview Questions

1. Could you please state your:
    a. Gender
    b. Age
    c. Occupation
    d. Nationality
2. How often do you visit shopping malls?
3. How long do you typically spend at shopping malls at each visit?
4. Think of the most recent time you visited at a shopping mall.
5. When was it?
6. What was the purpose of the visit?
7. Which shopping mall was it?
8. How long did you spend at that shopping mall?
9. How many times had you been to that shopping mall before?
10. Thinking about the last shopping mall that you visited, what associations do you make with that shopping mall? (If participants do not understand, this can be rephrased to: “What comes to mind when I say [shopping mall name]?”)
11. If you were given a choice between shopping malls, which associations would be important in making your decision? (If participants do not understand, this can be rephrased to: “If you imagine that you are in a situation where you can choose between several shopping malls to go to, what sort of things would be important in choosing which one you would rather visit?”)
12. Why are those things important?
13. Any further comments?

Appendix I – Themes and Subthemes for Associations and Important Associations

Airline/Flight

There was a total of 79 associations (56 of which were unique) that comprised the *airline/flight* theme. This represents 3.12% of all associations, with 9.03% of airport visits involving the participants making at least one association within the theme. The *airline/flight* theme represented 55 important associations (34 of which were unique), comprising 5.66% of important associations. 18.75% of participants had at least one important association within this theme. The *airline/flight* theme could be broken up into several smaller subthemes, which are shown in Table 26 and Table 27.

Table 26

Subthemes of airline/flight associations

Subthemes	No. Associations	% Participants	Example Quote(s)
Aircraft	4	1.25%	“Flight was on a small aircraft”
Airline	23	7.08%	“British Airways”, “Flight attendants”
Baggage	7	2.92%	“Electronic bag drop”
Check-in	10	4.17%	“Check-in”, “Bad check-in area”
Cost	2	0.83%	“Cheap flights”
Reliability	17	5.42%	“Delayed flight”, “Cancelled flight”
Flight Time	4	1.67%	“Good times for flights”
Lounge	3	1.25%	“Frequent flyer lounge”
Other	10	3.33%	“Have to arrive early”

Table 27

Subthemes of important airline/flight associations

Subthemes	No. Important Associations	% Participants	Example Quote(s)
Aircraft	2	0.83%	“Bigger aircraft”, “Small aeroplanes”
Airline	5	2.08%	“Friendly airline staff”
Baggage	6	2.08%	“Lots of lanes for bag drop”
Check-in	10	4.17%	“Efficient check-in”
Connectivity	8	3.33%	“Flight connectivity”, “Direct flights”
Cost	7	3.33%	“Fair pricing”, “Cheap flights”
Flight time	2	0.83%	“Good flight times”
Lounge	2	0.83%	“Business class lounge”
Other	2	0.83%	“Prompt flights”

Atmosphere

There was a total of 298 associations (82 of which were unique) that comprised the *atmosphere* theme. This represents 11.78% of all associations, with 30.37% of airport visits involving the participants making at least one *atmosphere* association. However, the *atmosphere* theme only represented 60 important associations (of which 27 were unique), comprising 6.18% of important associations. 19.17% of participants had at least one important association in the *atmosphere* theme. The *atmosphere* theme could be broken up into several smaller subthemes, which are shown in Table 28 and Table 29.

Table 28

Subthemes of atmosphere associations

Subthemes	No. Associations	% Participants	Example Quote(s)
Air	3	1.25%	"Clean air", "Air conditioned"
Busyness	128	30.42%	"Busy", "Queues", "Not busy"
Familiarity	17	6.25%	"Familiar"
Lighting	2	0.83%	"Well lit"
Noise	5	1.25%	"Noisy"
Other Users	60	14.58%	"Lots of people", "People waiting"
Temperature	18	5%	"Hot", "Cold", "Warm"
Vibe	61	16.25%	"Laid back", "Peaceful", "City vibe"
Other	3	1.25%	"Outdoors"

Table 29

Subthemes of important atmosphere associations

Subthemes	No. Important Associations	% Participants	Example Quote(s)
Air	3	1.25%	"Air conditioning"
Busyness	19	7.92%	"Busy", "Not too busy"
Familiarity	3	1.25%	"Familiar"
Noise	6	2.5%	"Not noisy", "Quietness"
Other Users	10	4.17%	"Less people"
Vibe	19	6.25%	"Inviting", "That airport feeling"

Comparative

There was a total of 106 associations (51 of which were unique) that comprised the *comparative* theme. This represents 4.19% of all associations, with 14.64% of airport visits involving the participants making at least one association within the theme. The *comparative* theme represented 29 important associations (13 of which were unique), comprising 2.99% of important associations. 10.42% of participants had at least one important association within this theme. The *comparative* theme could be broken up into several smaller subthemes, which are shown in Table 30 and Table 31.

Table 30

Subthemes of comparative associations

Subthemes	No. Associations	% Participants	Example Quote(s)
Airports (general)	21	8.33%	"Similar to other airports"
Airports (specific)	65	19.17%	"It wasn't the best airport like Singapore"
Same airport	5	2.08%	"Different to what it was"
Other	15	4.58%	"It felt a little bit more like a bus stop"

Table 31

Subthemes of important comparative associations

Subthemes	No. Important Associations	% Participants	Example Quote(s)
Specific	28	10.42%	"Prefer Singapore to all others"
Other	1	0.42%	"Airports in New Zealand"

Cultural

There was a total of 124 associations (72 of which were unique) that comprised the *cultural* theme. This represents 4.9% of all associations, with 13.08% of airport visits involving the participants making at least one association within the theme. The *cultural* theme represented 15 important associations (13 of which were unique), comprising 1.54% of important associations. 5.42% of participants had at least one important association within this theme. The *cultural* theme could be broken up into several smaller subthemes, which are shown in Table 32 and Table 33.

Table 32

Subthemes of cultural associations

Subthemes	No. Associations	% Participants	Example Quote(s)
Architecture	3	1.25%	"Intrigued by the architecture"
Art	4	1.25%	"Lots of arty things to look at"
Cosmopolitan	14	4.58%	"Cosmopolitan", "Multi-cultural"
Cuisine	2	0.83%	"Local cuisine", "Asian style food"
Foreign	5	2.08%	"A bit alien", "Foreign"
Indigenous	7	2.5%	"Māori culture", "Greeted with lei"
Language	3	1.25%	"Multiple languages"
Local	36	12.92%	"Matches local icons"
Museum	2	0.83%	"Museum", "Antarctic Museum"
Music	3	1.25%	"String Quartet", "Singing", "Music"
National Culture	11	4.17%	"Very American", "Indian culture"
Statues	25	9.17%	"Statues", "Dragon Sculpture"
Other	6	2.5%	"No culture", "Cultural familiarity"

Table 33

Subthemes of important cultural associations

Subthemes	No. Important Associations	% Participants	Example Quote(s)
Art	4	1.25%	"Artwork", "Arty things to look at"
History	2	0.42%	"Historic aircraft", "Historic buildings"
Language	1	0.42%	"English-friendly"
Local	2	0.83%	"Matches local attractions"
National Culture	3	1.25%	"Arriving into a different culture"
Other	3	1.25%	"The culture side of it"

Customer Service

There was a total of 69 associations (38 of which were unique) that comprised the *customer service* theme. This represents 2.73% of all associations, with 8.26% of airport visits involving the participants making at least one association within the theme. The *customer service* theme represented 75 important associations (43 of which were unique), comprising 7.72% of important associations. 22.5% of participants had at least one important association within this theme. The *customer service* theme could be broken up into several smaller subthemes, which are shown in Table 34 and Table 35.

Table 34

Subthemes of customer service associations

Subthemes	No. Associations	% Participants	Example Quote(s)
Availability	7	2.92%	"Lots of people were available to help"
Difficulties	5	1.67%	"Difficult to find assistance"
Friendliness	10	3.33%	"Friendly staff", "Unfriendly"
Good/Bad	9	2.5%	"Good staff", "Bad service"
Helpfulness	17	5.83%	"Helpful staff", "Unhelpful staff"
Language	5	1.67%	"The staff could speak in my language"
Other	16	6.25%	"Very official", "Consistent"

Table 35

Subthemes of important customer service associations

Subthemes	No. Important Associations	% Participants	Example Quote(s)
Availability	12	5%	"Having lots of staff to help"
Friendliness	19	7.92%	"Friendly staff"
General	12	5%	"Customer service"
Good/Bad	5	2.08%	"Good service"
Helpfulness	2	0.83%	"Helpful staff"
Language	1	0.42%	"Can speak my language"
Other	24	7.92%	"How you are treated"

Evaluation

There was a total of 389 associations (127 of which were unique) that comprised the *evaluation* theme. This represents 15.38% of all associations, with 41.12% of airport visits involving the participants making at least one association within the theme. The *evaluation* theme represented 52 important associations (21 of which were unique), comprising 5.36% of important associations. 17.5% of participants had at least one important association within this theme. The *evaluation* theme could be broken up into several smaller subthemes, which are shown in Table 36 and Table 37.

Table 36

Subthemes of evaluation associations

Subthemes	No. Associations	% Participants	Example Quote(s)
Average	60	15.42%	"Average", "Alright", "Okay"
Bad	19	6.25%	"Not nice", "Dreadful", "Horrific"
Boring	12	4.58%	"Boring"
Comfortability	16	5.42%	"Comfortable", "Uncomfortable"
Confusing	7	2.92%	"Confusing"
Dislike	7	2.5%	"I don't like it", "I dislike it"
Easiness	20	7.08%	"Easy", "Difficult"
Efficiency	27	10%	"Efficient", "Inefficient"
Emotion	14	4.58%	"Emotional", "Sad", "Stressful"
Extraordinary	8	2.92%	"Magical", "Ostentatious"
Good	114	30%	"Good", "Nice", "Great", "Perfect"
Like	16	6.25%	"I like it"
Organisation	17	5.83%	"Well organised", "Poorly organised"
Price	17	6.67%	"Expensive", "Budget", "Cheap"
Simple	9	3.33%	"Simple", "Plain", "Staid"
Style	8	2.92%	"Stylish", "Glamourous", "Not classy"
Welcoming	3	1.25%	"Welcoming", "Unwelcoming"
Other	14	5%	"Commercial", "Less parochial"

Table 37

Subthemes of important evaluation associations

Subthemes	No. Important Associations	% Participants	Example Quote(s)
Average	1	0.42%	"Not unpleasant"
Comfortability	7	2.92%	"Comfortable"
Confusing	1	0.42%	"Not confusing"
Easiness	4	1.67%	"Easy", "Simple processes"
Efficiency	14	5.83%	"Efficiency"
Good	5	2.08%	"Great", "Nice", "Top-of-the-line"
Organisation	6	2.5%	"Organised", "Well-organised"
Price	6	2.5%	"Cheap", "Not expensive"
Other	8	2.92%	"Not too commercialised"

Experience

There was a total of 156 associations (95 of which were unique) that comprised the *experience* theme. This represents 6.17% of all associations, with 19.63% of airport visits involving the participants making at least one association within the theme. The *experience* theme represented 38 important associations (19 of which were unique), comprising 3.91% of important associations. 13.75% of participants had at least one important association within this theme. The *experience* theme could be broken up into several smaller subthemes, which are shown in Table 38 and Table 39.

Table 38

Subthemes of experience associations

Subthemes	No. Associations	% Participants	Example Quote(s)
Activity	23	7.92%	"Bought breakfast", "Slept on chairs"
Arrival	4	1.67%	"Arrived at peak hour"
Bad	10	3.75%	"Bad experience", "Poor experience"
Emotion	19	5%	"Happiness", "Stress", "Joy"
Flow	12	5%	"Good flow", "Seamless"
Good	4	1.67%	"Good experience"
Landing	4	1.67%	"Landing experience", "Hairy landing"
Leaving	3	1.25%	"I was glad to get out of there"
No problems	9	2.92%	"No problems", "No issues"
Personal	12	5%	"Long day", "Fell sick", "Tired"
Time spent	39	13.33%	"Waiting", "Time consuming"
Other	20	7.08%	"Feels like it has personality"

Table 39

Subthemes of important experience associations

Subthemes	No. Important Associations	% Participants	Example Quote(s)
Emotion	3	1.25%	"Relaxing experience"
Flow	6	2.5%	"Smooth travel", "People flow"
Good	10	4.17%	"Nice experience"
Landing	1	0.42%	"Landing experience"
No problems	4	1.25%	"Least hassle"
Time spent	9	3.75%	"Short time spent in it"
Other	5	2.08%	"Good people watching"

Facilities & Infrastructure

There was a total of 593 associations (168 of which were unique) that comprised the *facilities & infrastructure* theme. This represents 23.45% of all association, with 50.16% of airport visits involving the participants making at least one association within the theme. The *facilities & infrastructure* theme represented 403 important associations (120 of which were unique), comprising 41.5% of important associations. 64.17% of participants had at least one important association within this theme. The *facilities & infrastructure* theme could be broken up into several smaller subthemes, which are shown in Table 40 and Table 41.

Table 40

Subthemes of facilities & infrastructure associations

Subthemes	No. Associations	% Participants	Example Quote(s)
Activities	20	7.08%	“Things to do”, “Entertainment”
Aesthetics	31	8.33%	“Colourful”, “Shiny”, “Decorations”
Amenities	52	14.17%	“Toilets”, “Smoking Rooms”, “Seating”
Availability	9	2.5%	“Open”, “Closed”, “24 hour”
Cleanliness	36	13.33%	“Clean”, “Dirty”, “Grubby”
Design	48	14.58%	“Spacious”, “Open air corridors”
Development	8	2.5%	“Undergoing development”
Evaluation	68	19.17%	“Modern”, “Run-down”, “Basic”
Food/Beverage	84	23.33%	“Food”, “Café”, “Coffee”, “Bar”
Shops	73	21.67%	“Shops”, “Duty free”, “Outlets”
Size	150	44.17%	“Small”, “Huge”, “Average size”
Technology	13	4.17%	“Wi-Fi”, “Charging ports”

Table 41

Subthemes of important facilities & infrastructure associations

Subthemes	No. Important Associations	% Participants	Example Quote(s)
Activities	25	10%	“Lots of things to do”, “Entertainment”
Aesthetics	12	3.33%	“Aesthetically pleasing”, “Flowers”
Amenities	116	30.83%	“Areas to rest”, “Lounges”, “Toilets”
Cleanliness	26	10.42%	“Cleanliness”, “Tidy”
Design	29	10.42%	“Open areas”, “Gardens”, “Compact”
Evaluation	19	6.25%	“User friendly”, “Modern”, “Practical”
Food/Beverage	84	35%	“Food”, “Coffee”, “Restaurants”
Shops	46	19.17%	“Shops”, “Duty free”, “Souvenir shop”
Size	18	7.5%	“Large”, “Small”
Technology	28	11.67%	“Power points”, “Free Wi-Fi”

Getting Around

There was a total of 192 associations (88 of which were unique) that comprised the *getting around* theme. This represents 7.59% of all associations, with 21.5% of airport visits involving the participants making at least one association within the theme. The *getting around* theme represented 162 important associations (51 of which were unique), comprising 16.68% of important associations. 42.92% of participants had at least one important association within this theme. The *getting around* theme could be broken up into several smaller subthemes, which are shown in Table 42 and Table 43.

Table 42

Subthemes of getting around associations

Subthemes	No. Associations	% Participants	Example Quote(s)
Accessibility	17	6.25%	"Easy to get to"
Airport	100	22.92%	"Walkalators", "Buses between terminals", "Easy to get through"
Convenience	15	5%	"Convenient", "Inconvenient"
Parking	24	8.33%	"Expensive parking", "Good parking"
Pick-up/drop-off	5	1.67%	"Easy to pick people up"
Public transport	16	5.83%	"Bus to town", "Train to town"
Taxi	6	2.5%	"Expensive taxis", "Shuttle service"
Other	9	3.33%	"Limousine service"

Table 43

Subthemes of important getting around associations

Subthemes	No. Important Associations	% Participants	Example Quote(s)
Accessibility	23	9.17%	"Easy commuting", "Close to you"
Airport	102	31.67%	"Easy to navigate", "Escalator", "Transportation between terminals
Convenience	8	3.33%	"Convenience"
Parking	13	5.42%	"Parking", "Cheap parking"
Pick-up/drop-off	3	1.25%	"Drop off and pick up area"
Public transport	12	5%	"Public transport"
Taxi	1	0.42%	"Taxi service"

Literal

There was a total of 87 associations (34 of which were unique) that comprised the *literal* theme. This represents 3.44% of all associations, with 12.15% of airport visits involving the participants making at least one association within the theme. The *literal* theme represented 8 important associations (2 of which were unique), comprising 0.82% of important associations. 3.33% of participants had at least one important association within this theme. The *literal* theme could be broken up into several smaller subthemes, which are shown in Table 44 and Table 45.

Table 44

Subthemes of literal associations

Subthemes	No. Associations	% Participants	Example Quote(s)
Airport	11	4.17%	"Planes come and go from it"
Airport Type	40	12.92%	"International", "Domestic"
Aviation	9	3.75%	"Aeroplanes", "Aviation"
Growth	3	0.83%	"The airport is growing"
Location	12	4.58%	"It's in Wellington"
Other	12	4.58%	"The building itself"

Table 45

Subthemes of important literal associations

Subthemes	No. Important Associations	% Participants	Example Quote(s)
Airport Type	3	1.25%	"International airport"
Location	5	2.08%	"Physical location of the airport"

Scenery & Surrounds

There was a total of 69 associations (43 of which were unique) that comprised the *scenery & surrounds* theme. This represents 2.73% of all associations, with 7.32% of airport visits involving the participants making at least one association within the theme. The scenery & surrounds theme represented 6 important associations (4 of which were unique), comprising 1.18% of important associations. 2.5% of participants had at least one important association within this theme. The *scenery & surrounds* theme could be broken up into several smaller subthemes, which are shown in Table 46 and Table 47.

Table 46

Subthemes of scenery & surrounds associations

Subthemes	No. Associations	% Participants	Example Quote(s)
Airside	8	3.33%	"Can watch planes", "Control tower"
Scenery/View	16	5%	"Beautiful scenery", "Seaside view"
Surrounds	23	6.67%	"Rural surrounds", "Next to water"
Weather	19	5.83%	"Windy", "Fog", "Sunshine"
Other	3	1.25%	"Earthquakes", "Sparrows"

Table 47

Subthemes of important scenery & surrounds associations

Subthemes	No. Important Associations	% Participants	Example Quote(s)
Airside	3	1.25%	"Somewhere to view landing aircraft"
Scenery	3	1.25%	"Good view", "Nice view"

Security

There was a total of 99 associations (77 of which were unique) that comprised the *security* theme. This represents 3.91% of all associations, with 9.5% of airport visits involving the participants making at least one association within the theme. The *security* theme represented 54 important associations (34 of which were unique), comprising 5.56% of important associations. 19.58% of participants had at least one important association within this theme. The *security* theme could be broken up into several smaller subthemes, which are shown in Table 48 and Table 49.

Table 48

Subthemes of security associations

Subthemes	No. Associations	% Participants	Example Quote(s)
Bad Experience	11	2.92%	"Gruelling", "I was detained"
Expediency	12	4.17%	"Efficient", "Long time to get through"
General	17	6.67%	"Customs", "Biosecurity"
Good	7	2.5%	"Friendly customs people"
Insecure	5	2.08%	"No feeling of security", "Insecure"
Procedure	18	4.58%	"Have to be screened twice"
Strictness	15	5.83%	"Strict", "Over the top"
Other	14	4.17%	"Stupid", "Normal", "Guard dog"

Table 49

Subthemes of important security associations

Subthemes	No. Important Associations	% Participants	Example Quote(s)
Easiness	8	3.33%	"Easy to get through security"
Expediency	15	5.83%	"Quick processing"
General	14	5.42%	"Security", "They are secure"
Good	6	2.08%	"Good security"
Guns	3	1.25%	"No machine guns"
Less	3	1.25%	"Less security", "Little or no security"
More	3	1.25%	"More security", "Lots of security"
Procedure	1	0.42%	"Should use searches as a deterrent"
Strictness	1	0.42%	"Thorough security"

Travel

There was a total of 251 associations (107 of which were unique) that comprised the *travel* theme. This represents 9.92% of all associations, with 28.04% of airport visits involving the participants making at least one association within the theme. The *travel* theme represented 4 important associations (all of which were unique), comprising 0.41% of important associations. 1.67% of participants had at least one important association within this theme. The *travel* theme could be broken up into several smaller subthemes, which are shown in Table 50 and Table 51.

Table 50

Subthemes of travel associations

Subthemes	No. Associations	% Participants	Example Quote(s)
Arrival	7	2.92%	"Arriving", "Finally arriving"
Departure	13	5%	"The departure for my journeys"
Desirability	6	2.5%	"Want to return"
Destination	24	7.92%	"It is my destination"
Emotion	19	5%	"Excited to travel"
Facilitation	6	1.67%	"Acts as a gateway for travels"
Family	20	6.67%	"Seeing family"
General	8	3.33%	"Travelling", "Going away"
Holidays	14	3.33%	"Holidays"
Home	47	15%	"Home", "Arriving home"
Not Optional	8	2.5%	"Forced to travel through the airport"
Past Travel	16	5.83%	"Past travels"
Place	3	0.83%	"I love travelling to Zurich"
Purpose	18	5.42%	"Work", "Study"
Routine	11	3.33%	"A place to eat before travel"
Transit	22	7.92%	"Transit", "A place to transfer aircraft"
Other	12	4.58%	"First time going there"

Table 51

Subthemes of important travel associations

Subthemes	No. Important Associations	% Participants	Example Quote(s)
Arrival	1	0.42%	"Experience of arriving"
Destination	1	0.42%	"Ease of getting to destination"
Other	2	0.83%	"Easy as travel", "Can work and travel"

Uncategorised

There were 17 associations and 10 important associations that could not be categorised into one of the aforementioned themes.

Appendix J – Statements of Contribution

DRC 16

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STATEMENT OF CONTRIBUTION
DOCTORATE WITH PUBLICATIONS/MANUSCRIPTS

We, the candidate and the candidate's Primary Supervisor, certify that all co-authors have consented to their work being included in the thesis and they have accepted the candidate's contribution as indicated below in the *Statement of Originality*.

Name of candidate:	Isaac Levi Henderson
Name/title of Primary Supervisor:	Associate Professor Kan Tsui
Name of Research Output and full reference:	
Avis, M., & Henderson, I.L. (Under Review). A solution to the problem of brand definition. Under Review in European Journal of Marketing.	
In which Chapter is the Manuscript /Published work:	Chapter 1
Please indicate:	
• The percentage of the manuscript/Published Work that was contributed by the candidate:	30%
and	
• Describe the contribution that the candidate has made to the Manuscript/Published Work:	
The research method and approach was designed by the doctoral candidate, and all of the research and analysis was undertaken by the doctoral candidate. Minor contributions were also provided towards the conceptual critique and definition.	
For manuscripts intended for publication please indicate target journal:	
Candidate's Signature:	Isaac Henderson Digitally signed by Isaac Henderson Date: 2020.11.11 11:18:11 +13'00'
Date:	11/11/2020
Primary Supervisor's Signature:	Kan Tsui Digitally signed by Kan Tsui Date: 2020.11.11 11:05:21 +13'00'
Date:	11/11/2020

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Name/title of Primary Supervisor:	Associate Professor Kan Tsui
Name of Research Output and full reference:	
Henderson, I.L., Tsui, K.W.H., Ngo, T., Gilbey, A., & Avis, M. (2019). Airline brand choice in a duopolistic market: The case of New Zealand. Transportation Research Part A: Policy and Practice, 121, 147-163.	
In which Chapter is the Manuscript /Published work:	Chapter 2
Please indicate:	
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and	
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The work is primarily that of the candidate, with minor contributions being provided by supervisors to help guide the methods, analysis and review of the study.	
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Candidate's Signature:	Isaac Henderson Digitally signed by Isaac Henderson Date: 2020.11.11 11:18:39 +13'00'
Date:	11/11/2020
Primary Supervisor's Signature:	Kan Tsui Digitally signed by Kan Tsui Date: 2020.11.11 11:06:43 +13'00'
Date:	11/11/2020

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Name of candidate:	Isaac Levi Henderson
Name/title of Primary Supervisor:	Associate Professor Kan Tsui
Name of Research Output and full reference:	
Henderson, I.L., Avis, M., Tsui, W.H.K, Gilbey, A., & Ngo, T. (Under Review). Compound brands: Multi-creation of brand associations. Under Revision for Journal of Product and Brand Management.	
In which Chapter is the Manuscript /Published work:	Chapter 3
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and	
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For manuscripts intended for publication please indicate target journal:	
Candidate's Signature:	Isaac Henderson Digitally signed by Isaac Henderson Date: 2021.05.24 11:03:54 +12'00'
Date:	24 May 2021
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Date:	24 May 2021

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Name of candidate:	Isaac Levi Henderson
Name/title of Primary Supervisor:	Associate Professor Kan Tsui
Name of Research Output and full reference:	
Henderson, I.L., Tsui, W.H.K., Ngo, T., Gilbey, A., Avis, M. (n.d.). The nature of airport brand associations and their influence on brand choice. Manuscript ready for submission.	
In which Chapter is the Manuscript /Published work:	Chapter 4
Please indicate:	
• The percentage of the manuscript/Published Work that was contributed by the candidate:	80%
and	
• Describe the contribution that the candidate has made to the Manuscript/Published Work:	
The work is primarily that of the candidate, with minor contributions being provided by supervisors to help guide the methods, analysis and review of the study.	
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Journal of Air Transport Management	
Candidate's Signature:	Isaac Henderson Digitally signed by Isaac Henderson Date: 2020.11.11 11:30:23 +13'00'
Date:	11/11/2020
Primary Supervisor's Signature:	Kan Tsui Digitally signed by Kan Tsui Date: 2020.11.11 11:07:16 +13'00'
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