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THE OPEN UNIVERSITY BUSINESS SCHOOL
ESC RENNES

INVESTIGATING THE INFLUENCES AND EFFECTS ON CUSTOMERS'
PERCEPTIONS OF INDIVIDUAL AND MULTIPLE BRANDS IN A
MARKETING ALLIANCE

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“Neither skill nor wisdom can be achieved without knowledge.”

Democritus

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TABLE OF CONTENTS

1. INTRODUCTION	1
1.1. Background of the Research.....	1
1.1.1. Strategic Alliances	1
1.1.2. Brand Alliances.....	2
1.1.2.1. Brand Alliances in the Services Sector	4
1.2. Justification for the Research.....	4
1.3. Statement of the Research Problem.....	7
1.4. Intended Contribution to Academic and Business Knowledge.....	9
1.5. Significance of the Industry Used as a Context	12
1.6. Delimitations of the Scope of the Study.....	15
1.7. Conclusion	16
2. LITERATURE REVIEW	18
2.1. Introduction	18
2.2. Branding.....	20
2.2.1. Introduction	20
2.2.2. Definition of Branding and Historical Background	21
2.2.3. Brand Equity.....	24
2.2.3.1. Introduction	24
2.2.3.2. Definition of Brand Equity	24
2.2.3.3. Brand Equity Measurement	25
2.2.4. Brand Alliances.....	27
2.2.4.1. Introduction	27
2.2.4.2. Definition of Brand Alliances	28
2.2.4.3. Background	29
2.2.4.4. Reasons to Undertake Alliances	30
2.2.4.5. Transaction Cost and Social Network Theories	31
2.2.4.6. The Supply Chain Perspective	31
2.2.4.7. Brand Alliances in Academia	31
2.2.5. Airline Alliances.....	31
2.2.5.1. Background.....	31
2.2.5.2. Airline Alliances Management	31
2.2.5.3. Tensions in Managing Alliances.....	31
2.3. Consumer Evaluations of Single Brands and Brand Alliances.....	4
2.3.1. Introduction	4
2.3.2. Transfer of Affect between Single and Multiple Brands	4
2.3.3. Service Quality.....	4
2.3.3.1. Emergence and Definition of Service Quality in the Marketing Literature	4

2.3.3.2.	Major Schools of Thought in the Service Quality Literature.....	47
2.3.3.3.	Five Prevailing Themes in the Service Quality Literature	49
2.3.3.4.	Service Quality and Customer Experience	53
2.3.3.5.	Service Quality and Satisfaction	54
2.3.3.6.	Characteristics of Services and Their Impact on Service Quality	56
2.3.3.7.	Capacity Crowding and Control in Service Encounters.....	58
2.3.3.8.	Airline Service Quality in Academia	59
2.3.3.9.	Service Quality Measurement	61
2.3.3.9.1.	Prevailing Service Quality Measurement Models	61
2.3.3.9.2.	The GAP Model	61
2.3.3.9.3.	Need for Novel Measurement Instruments	64
2.3.3.10.	Service Quality and Culture	66
2.3.3.10.1.	Culture.....	67
2.3.3.10.2.	National Cultures.....	68
2.3.3.10.3.	Cultural Influences in Aviation	70
2.3.3.10.4.	Service Quality Measurement and Cultural Influences.....	72
2.3.3.11.	Summary and Key Trends.....	73
2.3.4.	Trust.....	73
2.3.4.1.	Importance of Trust	74
2.3.4.2.	Definition of Trust	75
2.3.4.3.	Trust in Different Disciplines	77
2.3.4.4.	Different Approaches to the Construct of Trust	79
2.3.4.5.	Trust and Perceived Risk.....	80
2.3.5.	Loyalty	81
2.3.5.1.	Introduction	81
2.3.5.2.	Advantages of Brand Loyalty	82
2.3.5.3.	Types of Loyalty	84
2.3.5.4.	Loyalty and Word-of-Mouth (WOM)	85
2.3.5.5.	Satisfaction and Loyalty.....	87
2.3.5.6.	Loyalty Measurement	88
2.4.	Conclusion	89
3.	QUALITATIVE STUDY METHODOLOGY	92
3.1.	Introduction	92
3.2.	Research Philosophy	92
3.3.	Purpose of the Interviews	95
3.4.	Methodology.....	96
3.4.1.	Methodology Justification.....	96
3.4.2.	Semi-Structured Interviews vs. Focus Groups	99
3.4.3.	Sampling of Target Organizations and Interviewees.....	100
3.5.	Data Analysis	101
3.5.1.	Triangulation	104
3.5.2.	Respondent Bias.....	104
3.5.3.	Validity	104
3.5.4.	Discussion of the Results	104

3.6.	Conclusion	112
4.	QUANTITATIVE STUDY METHODOLOGY	115
4.1.	Introduction	115
4.2.	Structural Equation Modelling	115
4.2.1.	Advantages of SEM	116
4.2.2.	SEM Software Selection.....	117
4.3.	Theory: Conceptual Framework and Hypotheses.....	120
4.3.1.	Hypothesis 1	120
4.3.2.	Hypothesis 2	121
4.3.3.	Hypothesis 3	121
4.3.4.	Hypothesis 4	122
4.3.5.	Hypothesis 5	122
4.3.6.	Hypothesis 6	123
4.4.	Model Construction.....	123
4.5.	Measurement Instrument Construction.....	126
4.5.1.	Piloting the Questionnaires.....	131
4.5.2.	Tailoring the Questionnaires	133
4.6.	Data Collection.....	134
4.6.1.	Sample Bias	136
4.7.	Conclusion.....	137
5.	DATA ANALYSIS.....	139
5.1.	Introduction	139
5.2.	Model Testing, Model Fit, and Estimation Methods.....	139
5.3.	Measurement Model.....	140
5.3.1.	Estimation Method	141
5.3.2.	Model Fit	143
5.3.2.1.	Traditional Model Fit Statistics	143
5.3.2.2.	Contemporary Model Fit Statistics.....	144
5.4.	Analysis of Results and Hypothesis Testing.....	145
5.4.1.	Squared Multiple Correlations (R^2) and Significance of the Relationships	145
5.4.2.	Analysis of the Results in Relation to the Hypotheses.....	147
5.4.2.1.	Outcome of Hypothesis 1	149
5.4.2.2.	Outcome of Hypothesis 2	150
5.4.2.3.	Outcome of Hypothesis 3	152
5.4.2.4.	Outcome of Hypothesis 4	154
5.4.2.5.	Outcome of Hypothesis 5	156
5.4.2.6.	Outcome of Hypothesis 6	157

5.5.	Alternative Theoretical Models.....	159
5.5.1.	Alternative Model No. 1.....	159
5.5.2.	Alternative Model No 2.....	162
5.6.	Summary of the Study.....	165
6.	CONCLUSION.....	167
6.1.	Introduction.....	167
6.2.	Conclusions from Hypotheses 1 through 6.....	168
6.3.	Contribution to Knowledge.....	177
6.3.1.	Academic Contributions.....	178
6.3.1.1.	Interdisciplinary Approach.....	178
6.3.1.2.	Pragmatic Framework.....	179
6.3.1.3.	Multi-brand Approach.....	179
6.3.2.	Empirical Contributions.....	180
6.3.3.	Practical Contributions.....	181
6.4.	Limitations.....	182
6.5.	Recommendations for Future Research.....	184
6.6.	Summary of the Chapter.....	185
	BIBLIOGRAPHY.....	187

LIST OF FIGURES

Figure 1 Literature Review Structure	19
Figure 2 Theoretical model	125
Figure 3 Theoretical Model Representation in AMOS	146
Figure 4 Theoretical model Abstract Illustrating H1	149
Figure 5 Theoretical model Abstract Illustrating H2	151
Figure 6 Theoretical model Abstract Illustrating H3	152
Figure 7 Theoretical Model-Simplified Form	153
Figure 8 Theoretical model Abstract Illustrating H4	155
Figure 9 Theoretical model Abstract Illustrating H5	156
Figure 10 Theoretical model Abstract Illustrating H6	158
Figure 11 Alternative Theoretical Model 1	160
Figure 12 Alternative Theoretical Model 2	163
Figure 13 Theoretical Model including Hypotheses	168

LIST OF TABLES

Table 1 Chapter 1 Outline	xiv
Table 2 Chapter 2 Outline	17
Table 3 Multidimensionality of SERVQUAL-Selection of International Contexts ...	63
Table 4 Chapter 3 Outline	91
Table 5 Organizations Interviewed	101
Table 6 Expert views on the transfer of affect between a single brand and the brand alliance.....	103
Table 7 Chapter 4 Outline	114
Table 8 Chapter 5 Outline	138
Table 9 SPSS Output - Rotated Component Matrix.....	140
Table 10 Descriptive Statistics, Skewness and Kurtosis	142
Table 11 Summary of Fit Indexes-Theoretical Background	144
Table 12 Summary of Fit Indexes-Actual Values vs. Acceptable Levels	145
Table 13 Regression coefficients and P-Values	148
Table 14 Alternative Model No. 1 Fit Statistics.....	160
Table 15 Alternative Model No. 2 Fit Statistics.....	163
Table 16 Chapter 6 Outline	166

LIST OF APPENDICES

Appendix 1 Sample of Service Quality Measurement Instruments Reviewed for the Purposes of this Study	209
Appendix 2 Service Quality Paper Published in MSQ.....	212
Appendix 3 Sample of Loyalty Measurement Instruments Reviewed for the Purposes of this Study	254
Appendix 4 Sample of Trust Measurement Instruments Reviewed for the Purposes of this Study	258
Appendix 5 Sample Demographics	260
Appendix 6 Questionnaire.....	264

LIST OF ABBREVIATIONS

ADF :	Asymptotic Distribution Free
AGFI:	Adjusted Goodness of Fit Index
BAL:	Brand Alliance Loyalty
BASQ:	Brand Alliance Service Quality
BAT:	Brand Alliance Trust
CFI:	Comparative Fit Index
FFP:	Frequent Flyer Program
Fmcg:	Fast moving consumer goods
GFI:	Goodness of Fit Index
GLS:	Generalized Least Squares
KMO:	Kaiser-Meyer-Olkin test
ML:	Maximum Likelihood
MNCs:	Multinational Corporations
RMSEA:	Root Mean Square Error of Approximation
SAS:	Scandinavian Airlines
SBL:	Single Brand Loyalty
SBSQ:	Single Brand Service Quality
SBT:	Single Brand Trust
SEM:	Structural Equation Modelling
TLI:	Tucker-Lewis Index
TSLs:	Two-stage Least-Squares
WOM:	Word-of-Mouth
WTO:	World Trade Organization

ABSTRACT

This thesis investigates the effects and influences of individual brands in a marketing alliance on consumers' perceptions. Specifically, it defines how consumer perceptions of service quality, trust, and loyalty toward one brand influence corresponding perceptions for the alliance of which this brand is a member. Although the relationships between perceived service quality, trust and loyalty are well established at a single brand level in the marketing literature, they have never been researched at a multi-brand alliance level. The purpose of this dissertation is to fill this gap in knowledge by researching the relationship among the three constructs in a multi-brand airline alliance context.

This thesis follows a two phase research design. It consists of a preliminary qualitative study and a main quantitative study. The main purpose of the qualitative study, actualized through a number of semi-structured expert interviews, was to shed light on the effects and influences one brand can convey to the brand alliance of which it is a member.

The purpose of the main quantitative study was to examine the validity of the model and hypotheses formed during the earlier phases (i.e. literature review and qualitative study) of the research. Self-administered questionnaires handed to respondents at the gate area of a major European airport aimed to capture the influences and effects of one or multiple brands within a brand alliance on customer perceptions.

In general, the research findings indicate that customer perceptions of individual brands, members of a brand alliance, have a significant effect on their perceptions of the brand alliance as a whole. In particular, consumer perceptions

of single brand service quality, trust and loyalty all had an effect on perceptions of brand alliance service quality, trust and loyalty respectively. Moreover, the analysis confirmed that the relationship between loyalty and positive word-of-mouth works similarly in a single brand and in a multi-brand alliance context.

Table 1 Chapter 1 Outline

Introduction	Chapter 1	<ol style="list-style-type: none">1. Background of the Research2. Justification for the Research3. Statement of the Research Problem4. Contribution to Academic and Business Knowledge5. Significance of the Industry used as a Framework6. Delimitations of the Scope of the Study
Literature Review	Chapter 2	<ol style="list-style-type: none">1. Branding2. Affect Transfer3. Service Quality4. Trust5. Loyalty
Qualitative Study	Chapter 3	<ol style="list-style-type: none">1. Purpose of the Expert Interviews2. Methodology3. Data Analysis
Quantitative Study	Chapter 4	<ol style="list-style-type: none">1. Structural Equation Modelling2. Theory: Conceptual Framework and Hypothesis3. Model Construction4. Measurement Instrument5. Data Collection
Results Analysis	Chapter 5	<ol style="list-style-type: none">1. Model Testing, Model Fit and Estimation Methods2. Measurement Model3. Analysis of Results and Hypothesis Testing
Conclusion	Chapter 6	<ol style="list-style-type: none">1. Conclusions of Hypotheses 1-62. Contribution to Knowledge3. Limitations4. Recommendations for Future Research

1. INTRODUCTION

This chapter presents an overview of the thesis and discusses the organization of the following chapters. It begins by introducing the theoretical background of this research and continues with the analysis of the research problem and rationale for this study. Subsequently, it outlines the approach taken in investigating the research problem by focusing on the methodology. In conclusion, it discusses the delimitations of this research.

1.1. Background of the Research

This subsection presents a synopsis of strategic and brand alliances in academia and practice. In addition, it reviews the rationale behind alliances and the main themes in the alliances literature.

1.1.1. Strategic Alliances

Greater competition between providers in the marketplace initially led to increased specialization but then ultimately more cooperation between providers in order to offer a more “complete” product or service offering. Often described as networking, strategic alliances can have long-term viability if they learn in conjunction and are coordinated with other channel and network partners (Vargo & Lusch, 2004).

Today, examples of strategic alliances may be found in most industries and these alliances take different forms including (i) joint ventures to undertake a program of research and development, (ii) an agreement to exchange technical information, (iii) joint marketing arrangements, (iv) the coordination of complimentary activities, and (v) the sharing of physical facilities such as plants and equipment.

In general, the alliances or business networks literature is dominated by either studies focusing on the cooperation between competitors (e.g. Bucklin & Sengupta, 1993; Gomes-Casseres, 1994; Kanter, 1994), or on research that has indirectly dealt with how a relationship between a buying actor and a selling actor can be influenced by a third party, usually another seller or buyer (e.g. Gadde & Mattsson, 1987; Holmlund & Kock, 1996). Although the former group (i.e. studies focusing on cooperation between competitors) consists of an extensive range of studies it hasn't been until recently that a network perspective has been used.

Moreover, even though there is relative agreement between researchers on the categorization of alliances according to their members' commitment in the alliance, the bulk of strategic alliances research has been limited to joint ventures with shared equity rather than to strategic alliances in general (Hertz, 1996). Hence, the scope of the strategic alliances or business networks literature is limited by the number of types of alliances investigated. The following section introduces brand alliances; the type of alliance this study uses as a framework.

1.1.2. Brand Alliances

A brand alliance has been defined as a form of cooperation between two or more brands often with significant customer recognition, in which all of the participants' brand names are retained (McCarthy & Norris, 1999). The alliance is usually of medium to long-term duration and its net value creation potential is too small to justify setting up a new brand. Legally the parties involved are independent entities who intend to create something new, the scope of which often falls outside their individual areas of capacity (Hultman, 2002).

In academia, the brand alliance literature addresses mainly two areas: first, how customers' perceptions of a co-brand are influenced by their perception of the two parent brands and vice-versa; second, the relative merits of co-branding versus other new product development strategies, such as line and brand extensions (Bucklin & Sengupta, 1993; Anderson et al., 1994; Kohli et al., 2003). Although there is a plethora of academic studies investigating the latter, there is a relative absence of systematic empirical examination of the former in academia (Kohli et al., 2003; Levin, 2002; Rao et al., 1999) with only a very few exceptions found in the work of Boulding and Kirmani (1993), Rao and Bergen (1992) and Urbany (1986). The absence of studies on the effects of brand alliances on consumer perceptions are also evident in the work of Venkatesh and Mahajan (1997) who note, that analytical or empirical research on goods and services that include multiple (more than two) brand names does not exist.

Although the number of themes in the brand alliances literature is relatively limited, the theoretical perspectives that have informed it are exceptionally diverse. Some of the most frequently adopted theoretical perspectives include market power theory (Hymer, 1972), transaction cost theory (Buckley & Casson, 1988), agency theory (Buckley & Chapman, 1997), game theory (Parkhe, 1993), real options theory (Copeland & Keenan, 1998), resource dependence theory (Faulkner, 1995), organizational learning theory (Hamel, 1991), social network theory (Gulati, 1995; Gulati & Nohria, 1992), and the ecosystems view (Rugman & D'Cruz, 1997). While each contributes a distinct perspective to the alliances literature, none appears to be directly applicable to the purposes of this research, that is, to unveil the way in which consumer perceived service quality, trust and loyalty can possibly transfer from one brand, member of an alliance to that particular alliance as a whole.

1.1.2.1. Brand Alliances in the Services Sector

The principles of branding goods and services although similar at a conceptual level differ because of the special unique characteristics of services. Unlike goods, services are intangible and variable because of the dissimilar performance of service providers. Services are also perishable since they cannot be stored and their production and consumption happens simultaneously (inseparability). This has resulted in many researchers maintaining that the execution of branding strategies may require different implementation approaches for goods than for services (DeChernatony et al., 1998). Although a number of researchers have underscored the need for different approaches when it comes to services branding, the central theme in the relevant literature continues to be the dichotomy between goods and services with limited attention paid to other services related areas such as the different branding approaches services require. The limited attention paid to these particular areas of the services branding literature has created a number of theoretical gaps.

1.2. Justification for the Research

As previously stated the purpose of this research is to combine knowledge from diverse literatures in order to create a framework that explores the influences and effects of brands on customer perceptions of brand alliances. In particular, although in the past the distinct literatures of brand alliances, service quality, trust, and loyalty have been researched individually, research combining all four in order to investigate the mechanisms behind the effects and influences on consumer perceptions is not available. Such a contribution to this field should be of great interest to both practitioners and academics, especially when one considers that brand alliances began appearing at an increasing rate,

which although not at its peak is projected to continue to grow at a stable rate. Moreover, the view shared by both academics and practitioners that the most efficient protection against the ravaging effects of globalization is forming alliances (Simonin & Ruth, 1998) should also fuel the interest of both academics and practitioners in novel endeavours in brand alliances research.

Firstly, on theoretical grounds, although the distinct literatures of brand alliances, service quality, trust and loyalty have separately triggered interest amongst academics for decades, research on a combination of the above in a multi-brand context does not exist (Venkatesh & Mahajan 1997). The interdisciplinary approach followed here proposes to cover a gap in knowledge not only by shedding light on the manner consumers progress from perceptions of service quality to trust and eventually to loyalty but also by exposing the fashion this occurs in a framework where multiple brands (instead of just two) form alliances.

In addition, the studies presented in the branding and co-branding literatures that focus on diverse types of branding methods including line extensions, brand extensions, sub-brands and flanker brands (Aaker & Keller, 1990; Broniarczyk & Alba, 1994; Kapferer, 1995; Bottomley & Holden, 2001), co-brands, composite brands and brand alliances (Rao & Ruekert, 1994; Simonin and Ruth, 1998) all employ bi-organization alliances. In other words, all existing brand alliances research employs two member brand alliances to investigate the different effects one brand has on the other. Furthermore, in the vast majority of brand alliances studies one of the two brands employed is superior in one attribute (e.g. customer familiarity, geographical coverage, luxury, exposure, status) to the other. The prime objective of these studies is to measure the effects that the superior brand endows on the inferior and vice-versa. However, this

study, unlike previous research, employs multi-brand alliances instead of two-brand alliances and focuses on the transfer of perceptions of service quality, trust and loyalty between members and the alliance irrelevant of their status within the alliance.

Secondly, on managerial grounds, consumer perceptions of a brand alliance influenced by the perceptions of its members can immensely influence the entrepreneurial future of both. Hence, significant attention needs to be given to constantly monitoring and positively influencing these perceptions. Moreover, since the success of almost any organization in today's economy is decidedly based on the alliances it forms (i.e. Baker, 2000; Bronder & Pritzl, 1992; Gulati & Garino, 2000) it is important for practitioners to understand how affect can transfer from individual members of the alliance to the alliance as a whole. Acknowledging Vargo and Lusch's (2004) argument, that every firm should be customer-oriented as its success is customer driven, it is safe to assume that an alliance as a whole should also be customer driven in order to be successful. Hence, understanding consumers' perceptions of an alliance and the individual brands within it, as well as the factors that govern them, should be central to the marketing strategy of any alliance.

Thirdly, on empirical grounds, predictive models which measure the effects of individual alliance members on alliance service quality, trust and loyalty do not exist. Therefore, a novel measurement instrument has been constructed in order to measure any possible transfer of affect (i.e. service quality, trust or loyalty) from an individual brand to the alliance as a whole. The existent literature offers an abundance of scales measuring individually each of the above constructs but there is no single instrument which combines all either in a single brand or in a multi-brand alliance context.

Finally, it is significant to underscore that this study differs from any other in the relevant literature in its selection of the industry employed as a context. One of the main reasons for the selection of the airline industry for the purposes of this thesis is that it provides a combination of multi-brand international alliances as service providers with easily accessible airline services to most consumers. The relatively wide and effortless accessibility to the services of the airline industry will prove a significant factor in the main/quantitative study where consumer attitudes towards alliances and its individual members will be documented through the use of questionnaires. In addition, the importance of the industry for the world economy as well as its trend-setter status in terms of managerial practices are some additional factors that led to its selection for the purposes of this research.

1.3. Statement of the Research Problem

The primary purpose of this research is to contribute to the understanding of the influences consumer perceptions of service quality, trust and loyalty shown to a single brand can have on perceptions of the brand alliance of which this brand is a member. Although the need for alliances between goods and/or service providers has increased, knowledge on the forces influencing these alliances has remained limited. The fact that, to date, the bulk of branding research has focused on goods and ignored the services sector (DeChernatony et al., 1998) in conjunction with the overlooked relationship which exists between the customer and the brand (Fournier, 1998) has significantly limited our understanding of the forces acting in a services sector brand alliance context.

In order to investigate the mechanisms of a model which combines perceived service quality, trust and loyalty, it is necessary to understand how

each one correlates to the rest. A plethora of studies has identified service quality as a principal antecedent of trust and an integral part in the trust formation process. Similarly, in the marketing literature trust is believed to lead to customer loyalty. Although the relationship between these constructs has been investigated in pairs (i.e. service quality with trust; trust with loyalty; service quality with loyalty) research combining all three in one model is not currently available. Furthermore, as mentioned previously, although there is an abundance of studies in each of the three constructs in a single brand context studies investigating any of these constructs in an alliance context are rare. Furthermore, research combining all three constructs in a multi-brand environment does not exist.

The preceding sections suggest that there is a gap in knowledge when it comes to empirically analyzing how customer perceptions of a brand alliance are influenced by their perceptions of the individual members within the alliance and vice-versa. Furthermore, there is also an absence of studies combining knowledge from diverse literatures to investigate the effects and influences of individual and multiple brands in a brand alliance on customers' perceptions. The proposed research, unlike any previous study, will draw knowledge from the service quality, trust, and loyalty and alliances literatures in order to investigate how the above interrelate in a multi-brand environment. The airline industry will be employed as a context for the purposes of this study as it is one of the best examples of multi-brand alliances.

Based on the above, the research problem can be summarized in the following question:

How do consumer perceptions of one brand influence perceptions of the alliance of which this brand is a member.

1.4. Intended Contribution to Academic and Business Knowledge

This study contributes to knowledge in different ways. Although the contribution to knowledge will be revisited after the results analysis section, where each particular contribution is going to be analyzed in conjunction with the findings, a preliminary review of the main contributions of this research to academia and practice is presented here.

The principal academic contribution of this research is to the construct of brand alliances which, although popular in practice since the late 1970's, was initially overlooked in academia. Brand alliances are nothing new, as highlighted by Ohmae (1989). The use of alliances has always been part of the social and political scene, and in the last two decades there has been an increase in the formation of alliances in the market. Over 20,000 new alliances were formed between 1987 and 1992 (Harbison & Pekar, 1999) and by 1995, IBM alone had engaged in more than 400 alliances at home and abroad (Day, 1995). This re-fuelled interest in brand alliances in practice was not matched in academia until recently (Harbison & Pekar, 1999).

This newly found interest of academics in brand alliances has generated a number of studies investigating mainly two broad areas: how consumers'

perceptions of individual brands affect the whole brand alliance and vice-versa; and the advantages of alliance branding versus other widely used expansion methods (Anderson et al., 1994; Kohli et al., 2003). Over the past few years the number of studies on consumers' perceptions of brand alliances has increased exponentially, however researchers admit that there is still a gap in knowledge when it comes to understanding how customers' perceptions of a brand alliance are influenced by their perception of the individual members (brands) of the alliance (Bucklin & Sengupta, 1993; Kohli et al., 2003).

Based on the above, it is safe to argue that this research will contribute to academic knowledge by combining the distinct literatures of service quality, trust and loyalty in a model that investigates how these perceptions transfer from a single brand, member of an alliance, to that brand alliance. In previous research the literatures of service quality, trust and loyalty have always been combined in pairs (e.g. service quality with trust; trust with loyalty) to investigate a plethora of subjects. Never before have all three been combined in a fashion that demonstrates the progression from service quality to trust and eventually to loyalty. Hence, this study contributes to knowledge by combining, for the first time, three distinct literatures in a multi-brand alliance context.

Furthermore, unlike previous research, this study employs actual brands and brand alliances to investigate the transfer of affect between the two. Previous research has employed either imaginary scenarios with invented brands or existing brands involved in imaginary alliances (Kohli et al., 2003; Rao et al., 1999). This research uses a significantly more realistic framework than previous research because it employs multi-brand alliances instead of the two-brand alliances found in previous research. Alliances consisting of two members although common at the dawn of brand alliances are nowadays most frequently

substituted by multi-member brand alliances. Hence, unlike existing research, the proposed framework will not only be built on existing brands and alliances, but will also employ a more complex and contemporary form of alliances to measure affect transfer in the form of customer loyalty, trust and service quality from a single brand member to the alliance as a whole.

Apart from expanding academic knowledge, the proposed study should constitute an important tool for practitioners as it will further expose the way in which individual brands can affect alliance trust and loyalty. This study will demonstrate the mechanics behind transfer of perceived service quality, trust and loyalty from a single brand member of an alliance to that alliance. Hence, practitioners will have a better understanding of some of the most essential factors that have a substantial effect on successful brand building and eventually on long-term financial prosperity.

One of the most essential tasks for every brand manager is to actively contribute to the operational optimization of the alliance their brand is a member of in order to enjoy maximum alliance added value. Operational optimization can only occur if brand managers have a deep understanding of how their actions affect customers' attitudes towards their brand and the alliance as a whole.

In summary, this study will contribute to both academic and business knowledge in different ways. The contribution to academia will primarily be in the form of expanding our knowledge of the factors that influence customer perceptions of service quality, trust and loyalty of single brands and brand alliances. Contribution to practice will happen through furnishing brand managers with the knowledge required to take prudent decisions that positively

affect customer perceptions of service quality, trust and loyalty on both the single brand and brand alliance levels.

1.5. Significance of the Industry Used as a Context

Strategic alliances are widely adopted by firms especially those operating in multiple markets due to the increasing costs of R&D, the diversity of customers' requirements around the world and the increasing pressures of globalization, (Pan, 2004). Effective learning from partners in various functions such as global appearance (Gupta & Govindarajan, 2001), foreign market access (Kauser & Shaw, 2004), and international market expansion are only some of the advantages enjoyed by partners of strategic alliances. The importance of these advantages for almost any type of organization is best demonstrated in the fact that over 20,000 new alliances were formed between 1987 and 1992 (Harbison & Pekar, 1999).

One of the first adopters of strategic alliances was the airline industry. It is in many ways a unique industry in which most of the times a number of brands (unlike most other industries where usually only two brands) form a strategic brand alliance. This industry captures the interest of a wide audience because of its glamour, reach and impact on the large and growing numbers of travellers worldwide. The industry figures speak for themselves. According to the WTO in 2007 the industry was worth just over US\$1,6 trillion (directly, indirectly and induced) and employed 28 million people (WTO-Int'l Trade Statistics, 2008). A quarter of the world's manufactured exports by value reach their markets by air. The industry is also at the heart of travel and tourism, the world's largest industry employing one in nine workers (Chan, 2000).

The selection of the airline industry as a framework for this study was based on numerous factors. First, the familiarity of international travellers with airline alliances which are perhaps the most widely known example of multi-brand alliances, led the researcher to favour the airline industry over other industries. One of the novelties of this study when compared to any other brand alliance study is the multi-brand alliance context used. Considering the limited number of multi-brand alliances (the vast majority of alliances are between two companies), airline alliances is possibly the most recognized type of alliances amongst the general public. Another example of a multi-brand alliance can be found in the shipping industry where a number of shipping companies form an alliance mainly to enjoy enhanced insurance coverage with reduced fees. In this case the annual fees paid by each shipping company are put into an insurance pool and are used to settle any insurance claims of the members. This example of multi-brand alliance, as most others in the services sector, enjoys extremely limited awareness in the general public, which means that only pool participating companies could be used in this research.

Second, unlike in most “experience services” industries, in the airline industry the service is easily accessible and can be quite frequently encountered. As with all “experience services”, customer experience of the actual service is a prerequisite for customer opinion formation, something that can happen relatively easier in the airline industry than in almost any other services industry with multi-brand alliances. Again, using the shipping industry example, a company in this industry is likely to face an insurance claim a limited number of times, if any, during its lifespan while the chances for an individual to travel on an airline, member of an alliance, are considerably higher. Therefore, airline alliances are not only one of the most obvious for the general public, but they

also offer some of the most easily and thus frequently experienced services when compared to other multi-brand alliances.

Third, structure commonality can be found among all the major airline alliances. That is, all airline alliances share the same basic composition, with three or four alliance leaders in terms of size and regulatory power, a number of medium size and power airlines and few followers who serve mostly as feeder airlines to the rest. Unlike in most other industries, this structure is common to all major alliances in aviation, a fact that provides the opportunity for cross-research among different alliances within the same industry. In other words, results reported from researching one alliance within the industry should apply for any other alliance within the same industry. This rough rule of thumb, can serve both as a model checking mechanism and as an identifier of possibly hidden forces or even flaws within a research model or hypothesis.

Fourth, airline alliances are international entities, adding to the applicability as well as to the generalizability of the study. Often in co-branding the two parties involved operate only in their domestic markets. Airline alliances on the other hand consist as a rule of internationally operating partners forming international multi-brand alliances. In alliances found in other industries, even if the two parties in the co-brand alliance conduct business internationally, it is highly unlikely that they will enjoy the operational internationality of an airline alliance. This translates to greater public exposure on an international level which naturally leads to the last advantage of airline alliances compared to other multi-brand alliances, higher customer recognition.

Fifth, airline alliances enjoy extremely high public recognition. Today almost all alliance customers are aware because of heavy airline advertising that

alliances co-ordinate new services and routes, promise smoother and trouble-free travel to a wider range of destinations, reduce the need for connecting flights, and consolidate ground services. Moreover, because of the appeal of airlines and their importance for the travel industry they enjoy high media attention, publicity and word-of-mouth. In turn, this high exposure leads to increased customer familiarity with the practices followed and services provided by airlines. This is another factor that renders airline alliances superior to any other type of multi-brand alliances for the purposes of this study.

1.6. Delimitations of the Scope of the Study

The main objective of this study is to investigate the transfer of perceptions of service quality, trust and loyalty from a single brand to the alliance this brand is a member of. The approach and procedures followed in this study delimitate it in a number of ways.

First, the airline industry is diverse in a number of ways from the majority of other services industries, and thus limits the applicability of the research findings to other industries and contexts. Further validation of the research findings will be required before they can be applied to different contexts and generalizations can be made.

Second, one of the main differentiators of this study from existing marketing research, multi-brand alliances, also poses restrictions on its generalizability. That is, existing research employs two brand alliances, while this research differs by employing multi-brand alliances. This is an integral part of the study's contribution to knowledge but at the same time it limits the generalizability of the findings. Again, further research will be required to determine to what extent the transfer of perceptions of service quality, trust, and

loyalty between a single brand and a brand alliance occur in the same way in a two brand alliance and in a multi-brand alliance.

Third, the outcome of this study is mainly generalizable to services. The significant differences between goods and services (as discussed in detail later) in conjunction with the focus of this research on the services sector delimit its applicability in the goods sector. Furthermore, since this research focuses on services, a number of its characteristics such as the industry employed as a context and the scales used in the main study measurement instrument have been adopted to match the needs of this study thus delimiting its applicability to goods.

1.7. Conclusion

This chapter presented the topic of the thesis and provided the justification for it. Moreover, it highlighted its intended contributions to knowledge and the delimitations that accompany it. The next chapter reviews the diverse literatures of service quality, trust and loyalty and links them in a fashion that serves the purposes of this research.

Table 2 Chapter 2 Outline

Introduction	Chapter 1	<ol style="list-style-type: none"> 1. Background of the Research 2. Justification for the Research 3. Statement of the Research Problem 4. Contribution to Academic and Business Knowledge 5. Significance of the Industry used as a Framework 6. Delimitations of the Scope of the Study
Literature Review	Chapter 2	<ol style="list-style-type: none"> 1. Branding 2. Affect Transfer 3. Service Quality 4. Trust 5. Loyalty
Qualitative Study	Chapter 3	<ol style="list-style-type: none"> 1. Purpose of the Expert Interviews 2. Methodology 3. Data Analysis
Quantitative Study	Chapter 4	<ol style="list-style-type: none"> 1. Structural Equation Modelling 2. Theory: Conceptual Framework and Hypothesis 3. Model Construction 4. Measurement Instrument 5. Data Collection
Results Analysis	Chapter 5	<ol style="list-style-type: none"> 1. Model Testing, Model Fit and Estimation Methods 2. Measurement Model 3. Analysis of Results and Hypothesis Testing
Conclusion	Chapter 6	<ol style="list-style-type: none"> 1. Conclusions of Hypotheses 1-6 2. Contribution to Knowledge 3. Limitations 4. Recommendations for Future Research

2. LITERATURE REVIEW

2.1. Introduction

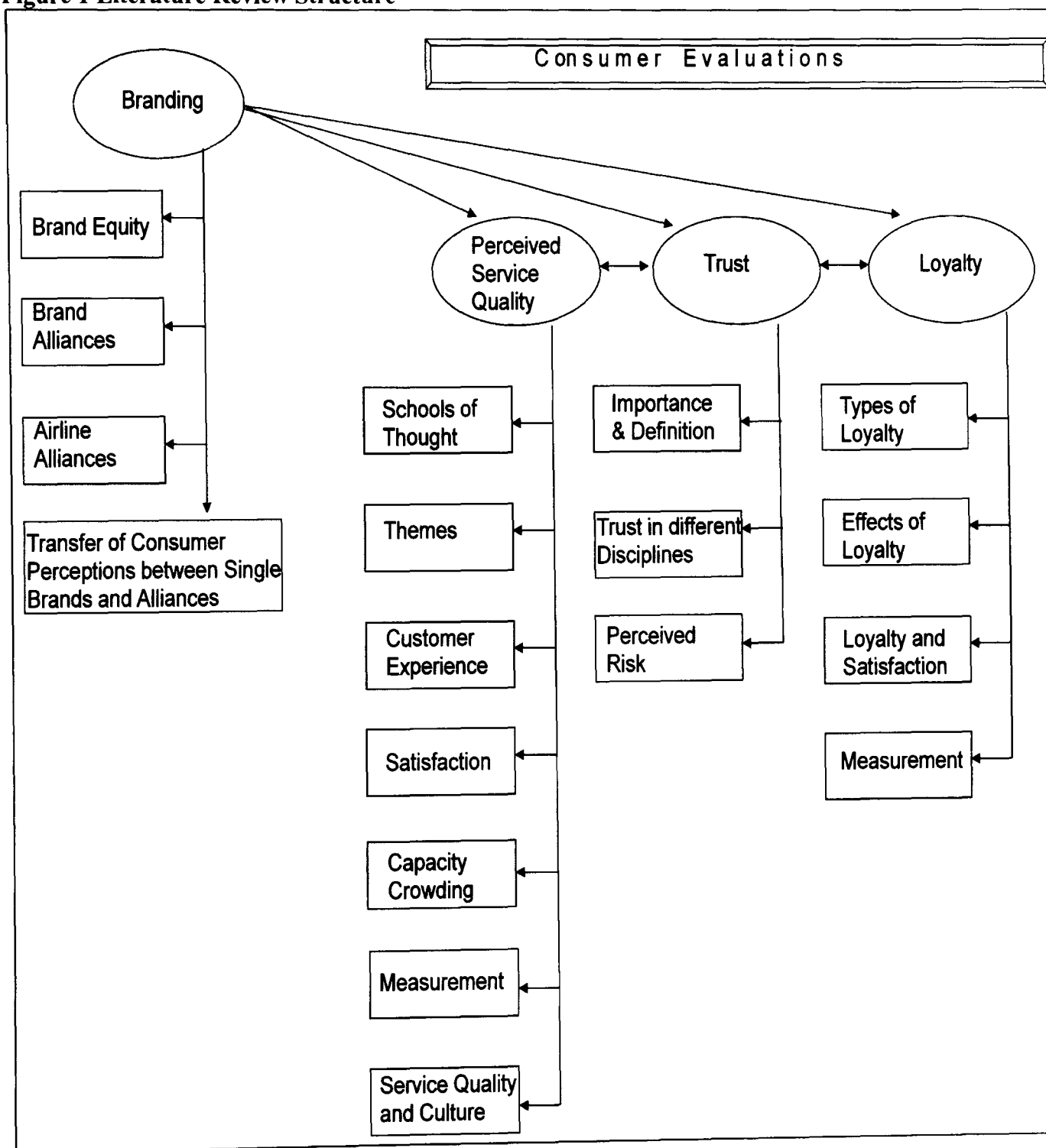
Considering that the generic purpose of this dissertation is to investigate the way in which consumer perceptions of service quality, trust, and loyalty of a single brand affect similar perceptions of the brand alliance this brand is a member of, the literatures of branding, brand alliances, service quality, trust and loyalty are the focus of this section.

The review of the branding literature commences with a short review of the general branding literature, continues with stressing the importance of brand equity management for firms and concludes by linking branding and brand equity to the focus of this study, brand alliances.

This section reviews a wide array of theoretical models employed in the marketing literature to explain transfer of consumer perceptions among related entities. These theorems originally conceived and applied in a variety of distinct disciplines have been adopted in the marketing literature to explain the mechanisms of transfer of consumer perceptions between single brands and the alliances these brands belong to. Since this thesis focuses on transfer of perceptions of service quality, trust and loyalty from one brand alliance member to the alliance this brand is a member of, the review of all available theorems explaining transfer of consumer perceptions among different entities was deemed vital. The next section of the literature review concentrates on consumer evaluations of single brands and brand alliances. The distinct literatures on service quality, trust and loyalty are thoroughly reviewed and a connection to the specific purposes of this study is made. Moreover, the relationships between perceived service quality and trust as well as trust and loyalty are analyzed. In addition, the relationship between loyalty and word-of-mouth is visited and its

application in a multi-brand alliance context is examined. The links between the different literatures employed for the purposes of this study as well as the generic structure adopted in the literature review chapter are shown in Figure 1.

Figure 1 Literature Review Structure



2.2. Branding

This section reviews the branding, brand equity and brand alliances literatures and attempts to relate them to the literature on transfer of affect between brands. It commences with a presentation of the prevailing areas of interest in the branding literature, such as brand equity, and continues by outlining a few controversial issues which are later linked to dual branding and brand alliances.

2.2.1. Introduction

This section begins with a brief review of the most prevalent themes in the branding literature during the past three decades. Subsequently, contemporary branding issues taken from the relevant literature and which are related to the focus of this study are presented. Perhaps the most popular of these issues, brand equity, is the cornerstone to understanding the process by which changes in customer brand perceptions affect an alliance as a whole. After the significance of brand equity for this study is established, the literatures of co-branding and strategic alliances are thoroughly examined. The background and history, essential differences between the different “schools of thought”, and the different theorems used to analyze the most predominant aspects of brand alliances are presented in an attempt to connect current knowledge on brand alliances to service quality, trust and loyalty.

In this study, the airline industry is employed as the context in which to investigate the factors that effect and influence flyers’ perceptions of service quality, trust, and loyalty shown towards one airline-brand member of an airline (multi-brand) alliance. In order to study the transfer of customer perceptions from one airline to the alliance as a whole, one needs to have a basic

understanding of the airline industry. Thus, the literature review continues with a brief background on the airline industry from its early days until today, focusing on the milestones that led to today's environment of airline alliances. Moreover, the unique management techniques required to successfully manage airline alliances as well as the different tensions that might rise within such an entity are presented.

2.2.2. Definition of Branding and Historical Background

Although there is some disagreement among researchers on the definition of branding, one commonly accepted and often cited in the marketing literature is one that perceives branding as the creation of added value by implementing strategies that identify a product and differentiate it from that of its competitors' (e.g. Aaker, 1996; Farquhar 1989; Rao & Ruekert, 1994; Kapferer, 1995). When attempting to define a brand, researchers approach it from either the traditional product view or the holistic view. The former, views a brand as an addition to the product and therefore as an identifier, while the latter, as the promise of the bundles of attributes that someone buys and which provide satisfaction, thus the product itself including the sum of its marketing mix elements (Ambler, 1992).

The holistic approach is also adopted by the American Marketing Association, which defines a brand as a name, term, sign, symbol or design or a combination of them intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of the competitors. Although brands and branding are not new ideas, firms are applying them with increasing regularity to more diverse settings where the role of branding is becoming increasingly important (Wentz & Suchard, 1993). This is also evident

in the work of Keller (2001) who suggests that branding and brand alliances are one of the most important research agendas for the future.

Organizations develop brands in order to offer the consumer the self-satisfactory image he/she will enjoy by acquiring a particular good or service and to reduce the purchase related risks that are present especially when buying a product that consumers know little about (Montgomery & Wenefelt, 1992). Moreover, since the tangible characteristics of any product can be easily copied, organizations can build a competitive advantage by focusing on the intangible characteristics of their offerings. Since humans tend to assign meanings and feelings to inanimate objects and to a random collection of symbols (De Chernatony & Dall'olmo Riley, 1997) the accustomization of customers to these intangible characteristics translates into an initial rejection of substitutes (Ginden, 1993).

Takeovers, the main focus of the branding literature in the 1980's, made large organizations feel that the brand is more important than the product itself (Magrath, 1993). Considering the extremely low success rate of new brand establishment, many believed that the only way to have a successful brand was to buy one (Dagnoli & Liesse, 1990). At this time when mergers and acquisitions were happening on a daily basis, many brands faded in the eyes of the consumers and lost their strength for a time.

In the 1990's firms realized the errors of the past and started focusing on the importance of the product itself. Moreover, firms realized the difficulties and costs in creating a new brand and focused on strengthening current ones to generate adequate sales as consumers became more price sensitive (Allen, 1993). Strengthening current brands instead of repeatedly buying or building new ones

gave rise to an old issue in the branding literature, brand equity. In order to be able to understand how different business strategies affected the brand, practitioners had to constantly monitor the equity of their brands.

The last decade the focus of the branding literature changed. Researchers shifted their focus from strengthening existing brands (popular theme during the 1990's) to creating novel ways of branding goods and services (Tixier, 2005). The last years the leap in the popularity of the internet on a global scale, led academics to identify new, internet based, ways of doing business (Chiagouris & Wansley, 2000). Researchers have identified that often these novel ways of branding goods and services have a significant impact not only on financial performance, but also on the brand itself and consequently on brand equity (Stoecklin-Serino & Paradice, 2009). The growth of the internet as a means for doing business has brought interest in previously researched areas, such as B2B and B2C, as well as fresh research subjects, such as e-branding and e-sales. Moreover, traditional branding concepts and theories have been recently reapplied to a number of novel for the branding literature contexts. Maybe two of the most popular of these novel in terms of branding research contexts, luxury brands (Okonkwo, 2009) and tourism (Uzama, 2009), have recently captured the interest of researchers and are expected to do so even more in the future. The novel research subjects that appeared in the branding literature in the 1990's led researchers to gain renewed interest in relatively well researched areas. One of these, brand equity (Stoecklin-Serino & Paradice, 2009), has recently been linked to different new for the branding literature topics including luxury brands and tourist services.

2.2.3. Brand Equity

Brand equity although not the focal point of this study is of significant importance for every brand. Since improper brand and brand equity management can prove detrimental for any organization, accustomization with the fundamentals of brand equity is a requirement. Hence, this subsection introduces the construct of brand equity and brand equity measurement.

2.2.3.1. Introduction

Firms are constantly searching for growth opportunities to exploit and leverage their existing brand equity (James, 2006). In the past firms have attempted to increase their equity leverage through brand extensions and line extensions. However, continual leveraging of a brand stretches and dilutes its equity. To counter this evidence suggests that firms are now turning to other forms of growth strategy such as brand alliances. (Rao & Ruekert, 1994; Simonin & Ruth, 1998; Aaker, 2004). This section commences with a presentation of the most common topics found today in the brand equity literature and then focuses on the creation of brand alliances as a means to enhance brand equity.

2.2.3.2. Definition of Brand Equity

Several researchers have attempted to define brand equity, but one of the most frequently cited definitions in the branding literature can be found in the work of Farquhar (1989), who perceives brand equity as the added value endowed by the brand to the product. Although a number of researchers have presented definitions that are consistent with Farquhar's (e.g. Aaker, 1991; Kamakura & Russell, 1993; Keller, 1991, 1993; Simon & Sullivan, 1993; Srinivasan, 1979; Yoo & Donthu, 2001) there is still some disagreement among

academics on the exact definition of brand equity. This stems from the fact that a number of researchers approach the construct of brand equity from a financial value point of view (e.g. Simon & Sullivan, 1993; Mahajan et al., 1990), while others approach it from a consumer behaviour perspective (Aaker, 1991; Kamakura & Russell, 1993; Keller, 1993; Rangaswamy et al., 1993). When approaching brand equity from a consumer behaviour perspective, one of the most frequently adopted definitions is that of Keller (1991), who maintains that customer-based brand equity is the presence of strong, unique, and favourable brand associations causing differential effects on customer responses to the marketing of the brand.

Furthermore, apart from the different conceptual definitions of brand equity a number of operational definitions can be found in the relevant literature. The vast majority of these definitions adopt specific constructs such as brand liking and perceived quality to operationalize brand equity (Winters, 1991). In line with previous research here, for the purposes of this research, brand equity is approached as the multiplicative sum of airline and alliance brand awareness, brand liking and perceived service quality.

2.2.3.3. Brand Equity Measurement

The construct of brand equity, although researched by marketers for a long time, has gained a renewed interest the last decade, mainly because the advantages that branding brings to the firm deteriorate constantly. Repeated copying of successful brands and their advertising, in addition to price promotions targeted to short-term advantages, have deteriorated the gains strong brands possessed and thus refuelled the interest of both academics and practitioners in brand equity. Because the source of brand equity is customer

perception (Keller, 1993), it is important for managers to be able to measure and track it at the customer level. Brand equity measurement, one of the three (equity formation and equity management being the other two) prevailing areas in the brand equity literature, has been approached from both a consumer behaviour and a financial value viewpoint (Lassar et al., 1995).

One often cited study that approaches brand equity from a financial value point of view is that of Simon and Sullivan (1993) who conceptualize brand equity as the incremental cash flow that accrues to the firm due to its investment in brands. Although this method is well accepted by a relatively large number of academics, it has been highly criticized by others because it relies on data aggregated at the firm level, making the brand equity estimate relatively useless for brand managers.

Another well established method that also approaches brand equity from a financial value point of view but avoids this drawback is the research of Green and Srinivasan (1979) who include the brand name as a factor in the full-profile method of conjoint analysis performed at the individual level.

Furthermore, brand equity has also been measured by estimating the segment-level brand preferences less the short-term advertising and price promotions effects. In this fashion, the researchers obtain the segment-level brand equity estimates as residuals from a regression equation relating segment-level price-adjusted brand preferences to objectively measured product attributes (Kamakura & Russell 1989).

Another, similar approach to brand equity measurement is that of Swait et al. (1993), who approach brand equity as the monetary equivalent of the total utility a consumer attaches to a brand. The two main novelties of this study are

that it obtains actual consumer choices on hypothetical choice sets instead of survey measures, and that the model offers an allowance for price sensitivity across brands.

Irrelevant of the approach employed to measure brand equity, there is common agreement among researchers that brand equity is positively related to each of the focal points of this study, namely perceived service quality (Bamert & Wehrli, 2005), brand trust (Delgado & Munuera, 2005) and brand loyalty (Lassar et al., 1995).

2.2.4. Brand Alliances

This subsection initially reviews the general brand alliances literature and subsequently focuses on the branding topics that are central to this study. After introducing, defining and reviewing the background of brand alliances, it outlines possible reasons for brands to ally. In addition, different theorems that explain the need for and application of brand alliances from a theoretical standpoint are analyzed. In closing, the major brand alliances in the airline industry are presented and the tensions relating to their management are investigated.

2.2.4.1. Introduction

Although many regard brand alliances as recent phenomena, interorganizational linkages have existed since the origins of the firm as a production unit (Todeva & Knoke, 2005). Contemporary firms' networks typically include diverse organizations, such as suppliers, buyers, competitors, regulatory authorities, financial and credit institutions, that together comprise the "economic organization of production" (Ghoshal & Bartlett, 1990). Lorange and Roos (1993) likewise referred to multinational corporations (MNCs) as

“networks of alliances” that cross national borders and industrial sectors. Dicken (1994) described these production networks as a mix of intra- and inter-firm structures of relationships which are shaped by different degrees and forms of power and which have influence over inputs, throughputs, and outputs. Strategic alliances are not only trading partnerships that enhance the effectiveness of the participating firms’ competitive strategies by providing for mutual resource exchanges (technologies, skills, or products), but also new business forms that enable the partners to enhance and control their business relationships in various ways.

2.2.4.2. Definition of Brand Alliances

Although there is relative agreement among academics on the advantages brand alliances convey to an organization, there is difference of opinion when it comes to their definition. In the marketing literature different terminologies have been employed interchangeably for the pairing of two or more brands in an alliance setting including “strategic alliance”, “co-branding”, “dual branding”, “brand alliance”, and “composite branding”. Regardless of the terminology adopted, all include a form of cooperation between two or more brands often with significant customer recognition, in which all of the participants’ brand names are retained. Brand alliances are usually of medium to long-term duration and the net value creation potential for setting up a new brand is too small. Legally the parties involved are independent entities which intend to create something new, the scope of which often falls outside their individual areas of capacity (Hultman, 2002; McCarthy & Norris, 1999). Despite the lack of universal agreement on the proper terminology and definition, it appears to be commonly accepted that a brand alliance involves the creation of a single good

or service using two or more brands (Grossman, 1997; Levin et al., 1996; Park et al., 1996; Washburn et al., 2000). Although there is disagreement among academics on the proper terminology and definition of brand alliances both academics and practitioners agree that the number of alliances has grown exponentially in the last decades (Ohmae, 1989).

2.2.4.3. Background

One of the first attempts to approach the concept of brand alliances in academia can be found in the work of Anderson et al. (1994) where the progress from dyadic business relationships to business networks is investigated. The researchers formulate business network constructs from the perspective of a focal firm and its partner in a relation that is connected with other relationships, in order to investigate the connections between the members of the network. Substantive validity assessments are conducted to furnish some empirical support that the constructs they propose are sufficiently well delineated and to generate some suggested measures for them.

Similar to Anderson et al. (1994), Rao and Ruekert (1994) pioneered the study of brand alliances by presenting a managerial decision template that analyses the costs and benefits of alliances and their implications for different types of allies. Based on the research of Anderson et al. (1994) and Rao and Ruekert (1994), Park et al. (1996) conducted two studies which investigated the effectiveness of a composite brand in a brand extension context. The researchers highlight the importance of complementarity attributes and proper name positioning of the brands in the composite brand.

Moreover, in line with the research objectives of this study is the research of Simonin and Ruth (1998) whose research is based on the findings of

Park et al. (1996). They examined the effects of brand alliances on consumer perceptions of the individual brands. The researchers concluded on the basis of one main and two replication studies that consumer attitudes toward the brand alliance influence subsequent impressions of each partner's brand and also that each partner brand is not necessarily affected by its participation in a particular alliance.

Similarly, parallel to one of the generic purposes of this research is the study of Levin (2002) who measured the role brand alliances play in the assimilation vs. contrast of brand evaluations. The study assessed the contextual effects that one brand may have on another when they are evaluated separately vs. combined as part of a deliberate marketing strategy. Levin (2002) discovered an overall contrast effect, with subjects who were primed with a positive brand rated fictitious brands significantly lower than subjects who were primed with a negative brand when the two brands were described by the same attributes. It is worth mentioning that the contrast effects varied significantly depending on whether subjects rated the two brands completely independent of each another or whether the two brands were strategically connected in a dual brand arrangement. Contrast effects were significantly weaker in the dual brand condition.

2.2.4.4. Reasons to Undertake Alliances

Firms undertake strategic alliances for many reasons: to enhance their productive capacities, to reduce uncertainties in their internal structures and external environments, to acquire competitive advantages that enable them to increase profits, or to gain future business opportunities that will allow them to command higher market values for their outputs (Webster, 1999). Partners

choose a specific alliance form not only to achieve greater control, but also for more operational flexibility and realization of market potential. Their expectation is that flexibility will result from reaching out for new skills, knowledge, and markets through shared investment risks. In addition to these advantages a number of researchers (e.g. Agarwal & Ramaswami, 1992; Auster, 1994; Doz & Hamel, 1999; Doz et al., 2000; Harrigan, 1988a; Hennart, 1991; Lorange & Roos, 1993; Zajac, 1990) have all argued favourably for a wide range of possible advantages such as:

- market seeking;
- acquiring means of distribution;
- gaining access to new technology, and converging technology;
- learning and internalization of tacit, collective and embedded skills;
- obtaining economies of scale;
- achieving vertical integration, recreating and extending supply links in order to adjust to environmental changes;
- diversifying into new businesses;
- restructuring, improving performance;
- cost sharing, pooling of resources;
- developing products, technologies, resources;
- risk reduction and risk diversification;
- developing technical standards;
- achieving competitive advantage;
- cooperation among potential rivals, or pre-empting competitors;
- complementarity of goods and services to markets;
- co-specialization;
- overcoming legal/regulatory barriers; and
- legitimating, bandwagon effect, following industry trends.

Apart from the numerous advantages brand alliances can convey to their members, researchers have developed a number of theories that explain the formation and operation of alliances.

2.2.4.5. Transaction Cost and Social Network Theories

Numerous theories (e.g. network externalities, transaction cost, industrial organization, agency, relational perspectives, social network and game theory) have been employed by researchers in order to explain the increased growth of brand alliances. Based on the transaction cost theory, organizations would adopt an organization mode that minimizes total transaction costs. Strategic alliances become a viable option when the cost of owning certain resources or capabilities is higher than that of renting from other organizations (Williamson, 1999). From a resource-based perspective, organizations derive their capabilities from the set of resources they possess (Barney, 1991). In an alliance, a pool of resources and capabilities is available to the alliance members which otherwise would be prohibitive for any individual member because of the acquisition cost of each resource.

Similar to the transaction cost theory, the social network theory has also been employed in the relevant literature to explain the increasing growth of brand alliances. This theory stresses the importance of social interactions among alliance members in strategic decision making. The ability of executives to socialize and interact with executives from other companies may explain why strategic alliances are formed. Barnir and Smith (2002) examined the impact of executives' propensity to network and their ties to the network on their firms' strategic alliance activities. They found that both the propensity to network and

the strength of ties to networks by a firm's executives are positively correlated to the number of strategic alliances engaged in by a firm.

2.2.4.6. The Supply Chain Perspective

Apart from the various theories employed in the relevant literature to explore different aspects of brand alliances, the potential diversity of brand alliances can be understood from the supply chain perspective. Since a firm operates in a marketplace where there are not only customers and suppliers, but also competitors and complementors, it can develop various forms of alliances with different entities (Parise & Henderson, 2001). That is, a firm can form alliances with a complementor, a supplier, a customer, a competitor, or even with a firm outside its immediate industry. Alliances with complementors are readily conceivable since both partners can increase their market shares without the risk of undercutting each other's customer bases. Forming an alliance with a supplier can help the firm reduce costs, increase efficiency, and improve quality by way of vertical integration. Furthermore, it can benefit the supplier with a better understanding of the market demand so that the supplier can enhance its product development process. Customer alliance, otherwise known as "relationship marketing" (Magrath & Hardy, 1994), benefits both parties in the same ways as in supplier alliances, only the roles are reversed. An alliance with competitors is perhaps the form of strategic alliances most frequently dealt with, and can take the form of a licensing agreement, a joint venture, or a consortium. The airline industry, the focus of this study, is perhaps the best example of multi-brand alliances where competitors, complementors, suppliers and customers often ally.

2.2.4.7. Brand Alliances in Academia

Although in practice alliances can concurrently include competitors, complementors, suppliers and customers in academia the bulk of extension strategies studies employ two complementing brands. A comprehensive literature ranging from line extensions, brand extensions, sub-brands and flanker brands (Aaker & Keller, 1990; Broniarczyk and Alba, 1994; Kapferer, 1995; Bottomley and Holden, 2001), to co-brands, composite brands and brand alliances (Rao & Ruekert, 1994; Simonin and Ruth, 1998) employs bi-organization alliances to investigate the transfer of effects and customer attitudes between brands. Unlike previous research, this study employs multi brand alliances instead of two-brand alliances.

The vast majority of the previously cited studies which investigate different aspects of brand alliances employ as a context, goods from the fast moving consumer goods (fmcg) sector. A thorough review of the literature on brand alliances, dual branding and co-branding revealed that the bulk of brand alliances research uses as a context the fmcg sector. For example, simple consumer electronics, toiletries, fast food, power bars and soft drinks are some of the most popular co-branded consumer products found in the relevant literature. Unlike previous research, the present study researches brand alliances in a services context by employing the relatively novel framework of airline alliances. Airline alliances, one of today's fastest growing co-branding sectors, are employed in this study to expand current knowledge on brand alliances and investigate the factors which affect consumer perceptions of service quality, trust and loyalty.

2.2.5. Airline Alliances

This subsection presents the major multi-member airline alliances which exist today. It also reviews a number of management related issues common to all airline alliances and scrutinizes the different tensions that arise among members within the alliance.

2.2.5.1. Background

Cooperation among airlines can be traced as far back as the 1940's when Air France started cooperating with many African airlines, such as Air Afrique, Royal Air Maroc and Tunisair, in some of which it still has equity stakes. Today although Air France pioneered cooperation among airlines, Scandinavian Airlines (SAS) was the first to develop a solid strategy around alliances. The SAS strategy focused on attracting small airlines in one alliance in order to face the tougher competition from larger carriers. In the early 1990's Delta Air Lines, Singapore Airlines and Swissair set up what is still considered today in the airline industry the first successful multi-member alliance. Although that alliance initially flourished, it collapsed few years later demonstrating that cooperation between competing airlines was more difficult than alliance visionaries originally thought. In the 1990's, the number of alliances in the airline industry grew exponentially resulting in a turbulent environment in which many alliance members, as they moved from one alliance to another, acquired equity from other members. This made it difficult even for the carriers themselves to discern whether an airline was a competitor or a partner.

In 2001, there were well over five hundred airline alliance agreements among some two hundred airlines (Airline Business, 2001). The bulk of these

agreements included small or medium-sized members leaving the large major international carriers to decide between:

1. Star Alliance, led by Lufthansa and United Airlines the largest alliance with more than 20 members,
2. OneWorld, led by American Airlines and British Airways with 10 members or,
3. SkyTeam led by the alliances built around Air France and KLM, and KLM and Northwest Airlines with 11 members.

One of the most significant changes for alliances and the global airline industry in general was the deregulation of the U.S. airline market in 1978 and the gradual liberalization of the European market that commenced around the same time. This even further opened the way to airline co-branding. Prior to the 1980's, because of the highly regulated environment that airline carriers operated in, geographical area coverage was never a concern for any carrier. During the 1980's when the airlines were freer to decide on the destinations they would serve as well as the frequency on any particular route, the competition especially on high demand routes skyrocketed. By the late 1980's, it was obvious that while major carriers could not profitably offer service to low density markets, established regional carriers with smaller aircraft could. The result of this inability of one carrier to cover all possible markets was the formation of the first code-share agreements which provided a way for both types of carriers to expand their customer base by feeding into each other's flight networks.

At the same time, the major U.S. carriers, followed by their European counterparts, started realizing that in order to survive in the new economy, which was free of government protectionism and solely dictated by market forces, they had to swap their point-to-point service for a better structured “hub-and-spoke” system. This transformation in the route network structure of the major carriers furnished them with a competitive advantage but at the same time created a niche market for smaller regional carriers. Regionals restructured their own network in a way that complemented the majors’ service, automatically appointing them “feeder” carriers. Obviously, this further solidified the relationship among code-share partners. The same principles lie behind the advent of the more recent global alliances, though the focus is more upon developing global networks and on building hub-to-hub traffic.

2.2.5.2. Airline Alliances Management

Although the structure of airline alliances has significantly changed since their introduction in the 1980’s, their core focus still remains one of long-term profitability. In order to achieve long-term profitability, alliance members concentrate on strategic rather than operational goals such as access to a larger number and size of markets and global brand loyalty.

One of the major tools used by airlines to achieve long-term profitability is yield management which allows them to properly control inventories and constantly readjust their pricing based on real-time demand for bookings. Yield or as often called revenue management software continuously monitors and compares real-time demand to frequently updated historical averages. Based on this continuous comparison of historical data and current demand, the price of each seat or block of seats for every single leg of an airline’s network is

continuously readjusted. Moreover, every time a flight takes off, data including prices for each seat sold, time before flight for each reservation and empty seats left are fed to the database. In this way airlines can not only roughly predict general demand patterns, but also forecast demand for any particular leg from the date it is made available for booking to take-off on an hourly basis. The forecasting power of the yield management system is one of the prime drivers of airline profitability these days and thus the most respected application of operations research in the airline industry today (Garvett, 1998). Revenue improvements accruing from the implementation of a revenue management system usually range from 2-8 percent (in some cases even more) depending on the type of operation of the carrier. For example, the yield management system at American Airlines generates almost \$1 billion in annual incremental revenue while overall operating earnings at American only approached this level for the first time in the history of the company in 1997 (Cook, 1998).

While many would agree that the incorporation of the different yield management systems employed by individual alliance members into one alliance-wide system can prove detrimental for smaller, less powerful alliance members, others continue to advocate this practice as it can prove beneficial for the alliance as a whole. Cooperation among member carriers at this level would require seat inventory control on the combined network rather than on the network of each individual alliance member separately. The combination of airline members' yield management systems into one alliance wide system would turn considerably higher total revenues than the sum of the revenues of the individual airline systems.

Furthermore, harmonization of alliance members' yield management systems enhances revenue maximization by stimulating alliance loyalty. It is

noteworthy that one inherent advantage of alliance membership is that it enables the individual airline members to access distant markets. In the aviation industry, where regulatory controls and high cost barriers are especially strong, the ability to access markets world-wide merely by joining an alliance can prove of vital importance for any carrier irrelevant of its size. Yield management software is programmed to prioritize passengers connecting on different alliance members over all other passengers not only by allowing them booking priority but also by offering them better pricing for the individual sections (legs) of a particular trip. For example, if a traveller, who is a member of a frequent flier program (FFP) of a particular airline, wants to fly from A to C, but has to connect in B on another airline member of the same alliance, will enjoy priority booking and significantly lower ticket price on each of the individual legs when compared to a passenger who is not a FOP member of that particular airline alliance. Hence, yield management systems increase profitability not only by allowing more efficient seat allocation and “smarter” seat pricing, but also by increasing alliance customer loyalty. In addition, the effects of offering better geographical coverage by linking multiple markets on customer alliance loyalty have been recognized by all three major alliances today which attempt to capture the strongest players in each market in order to offer the best possible service in all regions of the world.

2.2.5.3. Tensions in Managing Alliances

As with most types of alliances, one of the major issues when it comes to alliance management is the proper operational control of the members’ resources. In the airline sector code-sharing between members raises the question of who gets access to which seats on a flight. Today, two techniques are

used by the major airline alliance members to respond to the issue of seat allocation between members, “Seat Block Appointment” and “First-come, first-serve”(Chan, 2000). In cases where members employ the former technique, a block of seats is assigned by the airline operating a particular route to its alliance members while in the latter the operator reserves seats on a first-come, first-serve basis, irrelevant of whether the customer attempts to book directly with the operator or through an alliance partner. While both techniques possess a number of advantages they also hide several disadvantages which can constantly create friction between alliance members (Kleymann & Seristo, 2004, p. 118).

Maybe the most significant issue today, from an alliance member viewpoint is revenue sharing. A potentially alliance-breaking issue, revenue sharing is directed by meticulous contractual arrangements of which sole purpose is a rational distribution of alliance profits among the members (Noronha & Singal, 2004). Revenue management aims at maximizing not only the revenues of the alliance as a whole but also those of the individual members. Combined revenue maximization can only prove valuable to the extent that improves revenues for each alliance partner. This is something that can only be guaranteed if there is an appropriate mechanism in place for properly distributing additional revenues generated by the alliance to its members.

Although yield management systems are relatively new, in recent years they have evolved into such complex entities that it is exceptionally challenging to connect one system to another in an alliance setting (Garvett, 1998). Specifically, yield management systems employ vast volumes of data which they update during a fixed nightly time window. The coordination of the flow of information from different alliance members to and from a centralized source has proven to be a logistical nightmare, especially when confronted with

changing alliances and evolving IT structures. Perhaps this logistical burden is the reason behind the pressure often applied by power players to the rest of the alliance members to adopt their own procedures, IT tools and eventually yield revenue systems. Such pressure eventually results in even more tensions between alliance members (Tsikriktsis & Heineke, 2004). The labyrinth created by the incorporation of all members' yield management systems is responsible for a domino effect of burdens affecting different functions including intra-alliance schedule harmonization, ticketing and baggage handling (Kleymann & Seristo, 2004, p. 183).

2.3. Consumer Evaluations of Single Brands and Brand Alliances

In this second section of the literature review, the relevant literatures of perceived service quality, trust and loyalty are reviewed. Prior to the review of these three related literatures, a thorough inter-construct literature review on transfer of affect is presented since this study focuses on the transfer of each of these three constructs from a single brand to a brand alliance.

2.3.1. Introduction

The first section of the literature review focused on the constructs of branding and brand equity. This second section concerns itself with consumer evaluations of a service encounter. Since a generic purpose of this study is to research the factors affecting the transfer of customers' perceptions of individual and multiple brands within a marketing alliance, this section of the literature review concentrates on consumer perceptions of service quality, trust and loyalty in a single brand and in a brand alliance context. The most prevalent theorems on transfer of affect are presented and a thorough review of the service quality,

trust and loyalty literatures from a branding and brand alliances perspective follows.

2.3.2. Transfer of Affect between Single and Multiple Brands

A number of theoretical models from distinct disciplines have been employed in the marketing literature to explain the mechanisms of affect transfer between single brands and the alliances these brands belong to. Perhaps concept combination theory (as proposed by Park et al., 1996) is the best to explain transfer of affect in a multi-brand alliance context. This theory consists of two models, the selective modification model and the concept specialization model. The concept specialization model (Cohen & Murphy, 1984; Murphy, 1988) can be applied to airline co-brand alliances. Under this model, the combination of a component brand with a composite alliance brand can be linked to the process of a nested or “idiomatic” concept formation. This process explains the formation of a composite concept by combining a “nesting” concept and a “nested” concept. A nesting concept has less variability on the attribute under examination than the nested concept. In the example of a co-brand alliance with an established airline component, the individual airline is a nesting concept because it has lower variability in quality and the co-brand alliance is a nested concept because of its greater expected variance in quality (Schmitt and Dube, 1992).

As with the concept combination theory, the attitude accessibility theory (Fazio, 1986) can also be used to understand how perceptions of one brand can influence attitude towards a brand alliance and vice-versa. According to this theory, individuals are more likely to access attitudes related to a brand that are more salient or accessible. In addition, they will bias subsequent information

processing in the direction of the valence of such attitudes. Thus, in the context of airline alliances, attitudes towards a particular airline that an individual is familiar with, possess greater accessibility and thus weight than attitudes toward the airline alliance.

Information integration theory as presented by Anderson (1982) holds that consumers integrate new information with current beliefs and attitudes. According to this theory attitudes and beliefs are formed and modified as people receive, interpret, evaluate and then integrate stimulus information with existing beliefs or attitudes. In the context of brand alliances, two or more brands are presented together but consumer judgments are based on the pre-existing attitudes to the brands as independent entities (Rao & Ruekert, 1994; Simonin & Ruth, 1998).

In line with information integration is the cognitive consistency theory first presented by Schewe (1973) which suggests that consumers will seek to maintain consistency and internal harmony among their attitudes. Therefore, when evaluating a co-brand alliance consisting of two or more brands, consumers tend to assimilate their attitudes towards the parent brands so that their attitudes towards the brand alliance will be an averaging of the parent brand attitudes.

Additionally, a plethora of other theories in the branding literature (e.g. the sub-typing, the favourable evaluation and attribution theories) have been employed to shed light on the transfer of affect in related to brand alliances contexts such as brand extensions, ingredient branding or even co-branding between two brands of different status and size. These theories have been employed in two-brand scenarios where the respondents are familiar with both

brands and there is always a significant difference between the two brands (e.g. small-large, private-national, successful-unsuccessful) so that some kind of effect transfer from one to the other can be measured. This research differentiates from these studies in terms of approach. That is, in this study not only do we deal with multi brand alliances (instead of two-brand alliances), but we also deliberately ignore the particular characteristics of each brand (such as status, size, etc.). Moreover, unlike the studies described above where respondents have relatively good knowledge of the two brands, here since we are using a multi-brand context it is nearly impossible to have respondents that are aware of all brands within a multi-member airline alliance. Hence, some of the theories employed to investigate affect transfer in two-brand scenarios where respondents are familiar with both brands should not be employed here where respondents are unfamiliar with at least one but not necessarily all of the parties involved. In short, although at first glance one could assume that all such theories can be employed here, the differences in focus and in number of alliance members render the sub-typing, favourable evaluation and attribution theories inappropriate for the purposes of this study.

2.3.3. Service Quality

This section is dedicated to the review of the service quality literature and the analysis of the particular areas within it that relate to the research focus of this study. First, a summary of the most prevalent definitions of service quality and an analysis of the major schools of thought that dominate it are presented. Subsequently, the major themes and debates found today in the service quality literature are explored and all models presented in previous research that are aligned with the purposes of this study are analyzed. In

addition, the most frequently found service quality measurement instruments are reviewed, and the adaptation of one of these for the purposes of this study is justified. Finally, a glimpse at the latest developments in the service quality literature is taken.

2.3.3.1. Emergence and Definition of Service Quality in the Marketing Literature

The effects of consumer perceptions of service quality on a number of vital attributes of any organization in the services sector can best be displayed by the variety of constructs with which it has been linked in the marketing literature. For example, the effects of service quality on marketing and financial performance (Buttle, 1996), costs (Crosby, 1979), profitability (Buzzell & Gale, 1987; Rust & Zahorik, 1993), customer satisfaction (Bolton & Drew, 1991; Boulding et al., 1993), customer retention (Reichheld & Sasser, 1990), service guarantee (Kandampully & Butler, 2001) and competitive capabilities (Oliveira et al., 2002) have been presented in the relevant literature. Moreover, Cronin (2003) and Zeithaml (2000) have highlighted that service quality can lead to strategic benefits as it enhances operational efficiency and profitability.

Early research on quality focused on defining and measuring the quality of goods while it ignored services (Grönroos, 1990a). In these early stages quality was linked to the physical characteristics of the goods (e.g. Garvin, 1983; Crosby 1979, p.151), especially goods in the manufacturing sector where quality control had received significant attention and research. During the 1980's, although goods quality was relatively well researched, a number of researchers noted that product based quality is insufficient to understand service quality (Parasuraman et al., 1985).

In general, researchers have identified the following areas of differentiation between goods and services quality (Herbig & Genestre, 1996):

- Service quality is more difficult for the consumer to evaluate than goods quality.
- Service quality perceptions result from a comparison of consumer expectations with actual service performance.
- Quality evaluations are not made solely on the outcome of a service; they also involve evaluations of the process of service delivery.
- Service quality is a measure of how well the service level delivered matches the customer expectations. Delivering quality service means conforming to customer expectations on a consistent basis.

These unique attributes of services that emerged in the marketing literature by the early 1980s drew attention on services quality and its dissimilarity from goods quality. Based on the differences between goods and services Grönroos (1984) defined quality as a perceived judgment resulting from the comparison between the expected service and the perceived service the customer received. The comparison of the two is highly dependent on both the expectation for the service (which can be significantly affected by previous experience) and the perception of the received service. Parallel to the above definition is that of Parasuraman et al. (1988) who defined service quality as the degree of discrepancy between customers' normative expectations for the service and their perceptions of the service performance. This idiosyncratic and highly subjective view of quality is significantly affected by the different needs consumers have and the extent the service is tailored to these needs. The requirement for service specifications to match consumer needs challenges service providers to deliver a service that aggregates widely different individual preferences and prevents them from distinguishing between service attributes

that connote quality and those that simply maximize consumer satisfaction (Herbig & Genestre, 1996).

Based on the research of Parasuraman et al. (1988) in this study service quality is conceptualized as the degree of consistency in customer satisfaction with a service provided. Moreover, service quality is operationalized by measuring the degree a customer believes that a service provider (e.g. airline) knows that certain aspects of the service are important to consumers and customers are pleased with them.

A similar view on service quality than this adopted here and frequently cited in the relevant literature is that of Crosby (1979; 1986) who defines quality as conformance to specifications. That is, the quality of an item depends on how well it measures up against a set of specifications. This definition has received some criticism because it fails to identify the difference in perception between two similar products.

Furthermore, an additional view presented in the relevant literature is that quality is innate excellence (Tamimi & Sebastianelli, 1996). The advocates of this definition claim that excellence is absolute and universally recognizable and although tastes and styles might change there is something enduring about works of high quality. This definition has also received criticism (e.g. Garvin, 1984) because it lacks specifics.

2.3.3.2. Major Schools of Thought in the Service Quality Literature

Apart from the different definitions of service quality, a number of different conceptualizations of service quality have been presented in the

relevant literature. In general, these conceptualizations can be categorized in two “schools of thought”.

The first, is the Nordic or European which maintains that consumers judge the quality of services on two broad aspects: the service delivery process and the service outcome (Parasuraman, 1987). Both impact consumers’ evaluations of service quality and choice behaviour (Richard & Allaway, 1993). These two aspects suggest two service quality components: output quality (technical quality) which refers to how well the core service meets customer expectations and process quality (functional quality) which refers to the impact of the interaction process or how the service production and delivery process itself is perceived (Grönroos, 1984).

The second, the American school of thought on service quality identifies five service quality dimensions namely, reliability, responsiveness, empathy, assurance and tangibles (Parasuraman et al., 1985, 1988, 1991a; Zeithaml et al., 1988, 1993). Of these five dimensions, reliability (the ability to perform the promised service dependably and accurately) corresponds closely to the outcome aspect within the European school of thought. A product of the US conceptualization of service quality is the SERVQUAL (service quality measurement) instrument. No other single instrument in the services marketing literature has been applied and replicated as many times as service quality measurement by SERVQUAL (Foster & Newman, 1998; Chenet et al., 1999).

Although the American school of thought dominates the service quality literature, there is no consensus as to which approach is more appropriate and there has been little attempt to integrate them. It is apparent that service quality

perceptions are based on multiple dimensions, but there is little agreement as to their nature or content.

2.3.3.3. Five Prevailing Themes in the Service Quality Literature

The European and American schools of thought presented in the previous section have focused on five thematic venues. First, a number of researchers (e.g. Grönroos, 1982; Parasuraman et al., 1985; Zeithaml et al., 1985) have investigated the concept and nature of service quality. Although the nature and content of the dimensions of service quality have been studied meticulously, there is still a lack of consensus. This is because a number of researchers identify specific characteristics such as emotions and behaviour as dimensions of service quality (Brady et al., 2002; Chui, 2002; Liljander & Strandvik, 1997) while others hold that it is a multi-dimensional construct (Cronin & Taylor, 1992; Grönroos, 1990a; Parasuraman et al., 1985, 1988).

Second, a number of studies have focused on the strategic consequences of service quality (e.g. Heizer & Render, 2001; Deming, 1982; Juran, 1998). Researchers focusing on the strategic consequences of service quality maintain that an increase in service quality has a measurable effect on a number of related areas including customer retention, customer trust, market share and profitability as a result of increased sales, lower prices and decreased costs (Garvin, 1984, 1988; Heizer & Render, 2001).

Several researchers focusing on this second theme in the service quality literature have investigated the relationship between service quality and trust exhibited by a customer to a provider. The relationship between service quality and brand trust is well established in the literature at both the “transaction-

specific” level and the “overall” level (Oliver, 1999; Bitner & Hubbert, 1994). Research findings have offered strong evidence in this respect demonstrating that under the right circumstances service quality can result in customer satisfaction and subsequently in behavioural intentions such as trust. In line with the above is the research of Anderson and Sullivan (1993) who found that trust and eventually stated repurchase intentions are strongly related to perceived high quality. Moreover, Caceres and Paparoidamis (2007) maintain that perceptions of quality can be viewed as antecedents to relationship satisfaction which, in turn, affects trust, commitment, and eventually business loyalty. The researchers found that both “functional quality” (or “how” construct), including communication, delivery, and administrative activities, and “technical quality” (or “what” construct), including the actual service provided, had a direct effect on trust.

A cross validation of the relationship between perceived service quality and trust comes from research that has approached the relationship from the opposite end. That is, the antecedents of customer trust have been widely studied in the case of service companies. The results of most of the published studies identify positive influences of the perception of service quality on customer trust (Caceres & Paparoidamis, 2007).

Accordingly for Single Brands we hypothesize that:

H1: Customer perceptions of Single Brand Service Quality (SBSQ) will lead to Single Brand Trust (SBT).

Extending the same notion to the brand alliance level we hypothesize that:

H2: Brand Alliance Service Quality (BASQ) will lead to Brand Alliance Trust (BAT).

Third, research has focused on the measurement of service quality. A number of measurement instruments including SERVQUAL (Parasuraman et al., 1988), weighted and non-weighted SERVPERF (Cronin & Taylor, 1992), the revised and weighted SERVQUAL (Parasuraman et al., 1991b; Vandamme & Leunis, 1993), the Q, IPE and IP scales (Koelemeijer, 1991), the alternative perceived quality model (Teas, 1993a) and E-S-Qual (Parasuraman et al., 2005) have been introduced by service quality researchers in the relevant literature. In terms of popularity SERVQUAL has dominated the literature since its appearance.

Fourth, a number of normative formulations (Berry et al., 1990, 1994; Hensel, 1990; Harvey, 1998; Johnston & Heineke, 1998; Reicheld & Sasser, 1990) and empirical studies (Rust et al., 1995) have attempted to shed light on how an organization can improve its service quality. All these studies have approached the same objective, namely the organizational improvement of service quality from a variety of viewpoints.

Fifth, research in the service quality literature has focused on the effects of service quality on consumer behaviour. In particular, this theme of research has focused on the link between service quality and the improvement in profitability (Zahorik & Rust, 1992).

From the five dominating themes of the service quality literature a number of frequently cited debates have arisen throughout the years. First, the relationship between service quality and satisfaction, although frequently explored (e.g. Anderson & Sullivan, 1993; Bolton & Drew, 1991; Cronin & Taylor, 1992, 1994; Parasuraman et al., 1988; Taylor, 1993; Zeithaml et al., 1993), appears to be somewhat controversial. That is, the similarities and

differences as well as the relationship between the constructs of service quality and satisfaction are frequently debated in the two literatures. The latest research on the subject shows that researchers nowadays tend to agree that satisfaction refers to the outcome of individual service transactions and the overall service encounter while service quality refers to the customer's overall impression of the relative inferiority/superiority of the organization and its services (Bitner & Hubbert, 1994). The relationship between service quality and satisfaction is analyzed in detail in a following section.

Second, the value of the expectation-perception gap view of service quality is questioned. A small number of researchers now suggest that there is strong empirical evidence to suggest that service quality is better measured using performance based measures (e.g. Cronin & Taylor, 1994; Babakus & Boller, 1992).

Third, the development of models that facilitate the understanding of the occurrence of the perception gap and the fashion practitioners can minimize its negative impact has led to disagreement among academics (e.g. Brogowicz et al., 1990; Grönroos, 1990a; Gummesson & Grönroos, 1987; Parasuraman et al., 1985).

Fourth, the definition and effects of the "zone of tolerance" are debated. Most researchers agree that the zone of tolerance is a range of service performance that a customer considers satisfactory. Disagreement is present in the relevant literature on the mechanics for moving out of the zone of tolerance because of a service failure or underperformance and the possible effects it can have on customer perception of service quality (Berry & Parasuraman, 1991; Johnston, 1995; Liljander & Stranvik, 1993).

Fifth, a difference of opinion exists among researchers as to the determinants of service quality (Johnston, 1995). As the identification of the determinants is vital in the attempt to specify, measure, control and improve customer perceived service quality, debate exists among researchers on the determinants of service quality.

2.3.3.4. Service Quality and Customer Experience

Although one can find references to customer experience more than two decades old it was not until recently that it received attention in the marketing literature (e.g. Pine & Gilmore, 1998). Customer experience is defined as a totally positive, engaging, enduring, and socially fulfilling physical and emotional experience across all major levels of one's consumption chain and one that is brought about by a distinct market offering that calls for active interaction between consumers and providers (Mascarenhas et al., 2006).

This definition highlights the need for both a distinct market offering that invites increased involvement between the consumer and the producer of a particular service and also a right blend of physical and emotional elements along all stages of the customer experience. What differentiates the construct of customer experience from similar constructs such as satisfaction and service quality is the weight it assigns to the interactive participation between the provider and the customer. According to customer experience theory, the higher the quality of the interaction, the better the chance for customer experience to result in loyalty. A highly positive customer experience has an internal or subjective component (i.e. emotional, intellectual and social), and an external or objective component (i.e. distinct and real product offering, real experience potential, producer-customer interaction potential along all points of the

production-consumption chain). While economic offerings such as commodities, goods and services are external and impersonal to the customer, involvement and experiences are inherently internal and personal. They exist only in the minds of customers who are engaged at an emotional, physical, intellectual or even spiritual level (Carbon, 1998).

The newly found attention the construct of customer experience has received in the marketing literature has led a few researchers to support its superiority over constructs measuring similar phenomena such as satisfaction and service quality. For example, Prahalad and Ramaswamy (2004, p. 137) argue that customer experience is a more comprehensive and thus suitable construct than satisfaction since it focuses on customer interaction and input during the service encounter. Researchers of the same school of thought claim that “value is now centred in the experiences of customers” and it is not just a result of the products and services. Although customer experience has recently received attention, it seems to be far from dethroning long established constructs such as satisfaction and service quality especially since customer experience supporters admit that none of these constructs is inherently flawed per se.

2.3.3.5. Service Quality and Satisfaction

Traditionally, there has been a lot of disagreement in academia regarding the relation between service quality and satisfaction. However, a thorough review of the emerging literature on the subject suggests that most recently there appears to be a relative consensus among academics that service quality and satisfaction are separate constructs which share a close relationship (e.g. Bitner & Hubbert, 1994; Cronin & Taylor, 1992; Patterson & Johnson, 1993).

Today, satisfaction is viewed in the relevant literature as a consumer fulfilment response that involves states that are not limited to mere satiation. Moreover, reaching customer satisfaction is a process that is influenced both by positive and negative affective responses and cognitive disconfirmation (Oliver, 1993).

Alternatively, service quality is presented in the marketing literature as a separate construct from customer satisfaction. A number of researchers have supported the notion originally presented by Parasuraman et al. (1988) that service quality is a customer generated comparison to excellence in service encounters (Taylor & Cronin, 1994; Rust & Oliver, 1994; Bitner & Hubbert, 1994).

In general the major differences found in the marketing literature that distinguish service quality from satisfaction are:

1. The dimensions underlying quality judgments are rather specific, whereas satisfaction can result from any dimension (both quality related and non-related).
2. Expectations for quality are based on ideals or perceptions of excellence, whereas a large number of non-quality issues can help form satisfaction judgments.
3. Quality perceptions do not require experience with the service or provider whereas satisfaction judgments do.
4. Quality is believed to have fewer conceptual antecedents than does satisfaction (Taylor & Baker, 1994).

Hence, in the services literature, consumer satisfaction and service quality are conceptualized as separate constructs that should not be treated as

equivalents in models of consumer decision making. After illustrating the differences between service quality and satisfaction, the next section presents the major differences between goods and services and the way in which these differences impact quality.

2.3.3.6. Characteristics of Services and Their Impact on Service Quality

In the relevant literature, services are frequently described by specific characteristics that differentiate them from goods. In particular, intangibility, heterogeneity, inseparability of production from consumption, and the impossibility of keeping services in stock are services specific characteristics that make marketing services more challenging when compared to that of physical goods. In services, customers participate in the production process and therefore influence the flow and the outcome of the process. For this reason customers have difficulty evaluating a service before buying it.

The first of the service specific characteristics, intangibility refers to a lack of physical features in services. A service itself cannot be felt. In contrast, goods can be examined and often tested before purchase. As a result, one of the challenges for services marketing is to add tangibility via some form of marketing symbolism such as colour, uniforms, slogans, or associations. In the airline industry, the focus of this study, extensive marketing programs aim at adding tangibility to service with the use of logos, uniforms, etc.

The second specific characteristic of services, inseparability, refers to the timing of production and consumption. That is, unlike goods where a product can stay with a consumer over a longer period after it is purchased, a service is produced and consumed concurrently. In the airline industry, service from point

A to point B offered by a particular air carrier is concurrently produced by the air carrier and consumed by air travellers. Although in the airline industry the time length of the service might stretch up to several hours, other services such as banking can take only few minutes. In general, inseparability is addressed through advertising to stimulate demand in slack periods.

The third specific characteristic of services, inconsistency, refers to the fact that services are not always identical in delivery. Although modern technology and automation of processes tend to standardize services more than ever before, services remain labour intensive and still require significant customer involvement. Since performance across employees and across customers can not be continuously identical, the service itself cannot be constantly identical. The element of variability is not evident, at least not to the same degree, in the typically automated production of goods. Inconsistency is addressed through training programs, monitoring of standards, control systems and system-wide promotion to influence customer expectations.

The fourth specific characteristic of services, inability to inventory, is maybe the most problematic of the four characteristics for service providers. Inventory will exist to the extent that goods are required to produce a service; thus, the amount of inventory found in service businesses spans a continuum. Some service providers such as airlines have a fair amount of equipment and supplies on hand to do business. In contrast, other service providers such as tutoring services might require virtually no equipment or supplies. In the airline industry, for example, seats on a particular route cannot be created in advance, stored and then offered in the market based on the demand for that particular route. In services, the inability to inventory production is addressed through

demand forecasting. In the airline industry in particular, air carriers spend heavily on demand forecasting systems in order to align their seat offering to the demand for each particular route.

2.3.3.7. Capacity Crowding and Control in Service Encounters

The last of the service specific characteristics described above, inability to inventory services, poses a great barrier for service providers since it prohibits buffering the production process as is performed in the production of goods which has a significant effect on productivity. Goods providers reach operational efficiency by coping with peaks of demand without having to increase staff and resources for those levels. On the contrary, services firms are usually designed to have resources available for the peaks, and as a result, most will lose money frequently. For example, in services where the consumer is in the physical environment created by the firm, capacity is often defined by crowding.

As defined by Stokols et al. (1978), density refers to the physical condition, “in terms of spatial parameters” while perceived crowding is the subjective, unpleasant feeling that is experienced by an individual. For a service firm, the choice is simple: either increase the physical capacity of the service operation or find ways to have higher levels of “density” without triggering the negative crowding response from customers. One method used by service firms today which has proved to contribute in different ways to creating a more pleasant service experience is perceived control. Perceived control refers to allowing more choice to the consumer in a service encounter which itself has an effect on customers’ reactions to customer density in the service environment. Hence, negative outcomes of high density can be minimized by returning some control to the customer (Swartz & Iacobucci, 2000).

2.3.3.8. Airline Service Quality in Academia

A number of papers have studied airline service quality, using a combination of performance only, disconfirmation, and importance-performance approaches. The following is a summary of findings of previous research.

The leading theme in the airline service quality literature is the evaluation of service performance, based on technical and operational measures. One of the main reasons for the wealth of service performance measurement models is thought to be the relatively uncomplicated quantification of technical measures of airline service quality. However, it has been noted that the evaluation of performance of a service industry is quite different from that of a manufacturing industry where technical outcome performance measures tend to dominate over measures of process performance (Li & Chen, 1998). This has led to the creation of a large number of quality measurement models for the services sector that incorporate more subjective aspects of consumer perceived performance, based on outcomes and processes.

A related area of interest is the study of the impact of process performance on customer dissatisfaction (e.g. Tsiriktsis & Heineke, 2004; Frei et al., 1999). It has been noted that the principal dimension customers use to judge a company's service is the ability to perform the promised service dependably and accurately, (Parasuraman et al., 1990). Therefore, when process variation is minimized and thus the process related quality stabilized, customer dissatisfaction falls. Reversing the service-profit chain (Heskett et al., 1994) it can be argued that a drop in customer dissatisfaction will lead to higher customer retention rates and more referrals, which translates to higher profitability and stronger brand values.

Another theme followed in the airline service quality literature is the link between quality and financial performance. Although the theoretical justification of the link between the two has been criticized by many (Tsikriktsis & Heineke, 2004) a number of studies have attempted to connect them (Lapre & Scudder, 2004). The bulk of the studies connecting the two make use of a diverse set of measures to determine an organization's financial performance and ultimately link it to its service quality (Noronha & Singal, 2004). While some studies have approached airline service performance from a service quality perspective, others have viewed it from an operations research or (e.g., Vignaux & Jain, 1988; Starr, 1996) performance improvement point of view (e.g. Li et al., 1997, Braglia & Gabbrielli, 2000).

Moreover, another set of studies in the airline service quality literature has investigated employment practices (for example trade union representation, wage levels and shared governance) that affect service quality. This set of studies is not related to the theme of this study and therefore no further attention will be given here.

It is noteworthy that the criteria for assessing the service quality of airlines involved in a co-brand alliance may not be identical to those used to assess airlines in general, for two principal reasons. Firstly, co-brand alliances tend to target business travellers, whose criteria with regard to flexibility, availability of service, punctuality etc. are most of the time different from those of leisure travellers. Secondly, co-brand alliances are of greater relevance to long-haul travel, where issues such as seat quality, in-flight entertainment and in-flight meals are more likely to be of significance than for short-haul flights, where speed of check-in, reliability and speedy handling of baggage may be considered more important components of quality. Hence, service quality

measurement of airline co-brand alliances, although thematically related to that of single airlines, may be considered as a novel extension of the existing single airline service quality measurement instruments.

2.3.3.9. Service Quality Measurement

2.3.3.9.1. Prevailing Service Quality Measurement Models

One of the most popular themes in the service quality literature is the measurement of quality. For the purposes of this research, all available relevant service quality measurement instruments have been reviewed and compared (for a list of the reviewed measurement instruments see Appendix 1).

It is noteworthy that service quality measurement has developed sequentially, through the continuous updating and expansion of existing models. From the review of these models, it is clear that there is not a commonly accepted conceptual definition or model of service quality, nor is there any generally accepted operational definition of how to measure service quality. Overall, it can be argued that in the relevant literature there exist two types of quality measurement models. First, the two models that dominate the literature (Technical & Functional Quality by Grönroos and GAP by Parasuraman et al. 1990) and their derivative models and second, models measuring service quality that are not based on either the Technical & Functional Quality or the GAP models.

2.3.3.9.2. The GAP Model

The most frequently employed and replicated of all service quality measurement instruments, SERVQUAL (e.g. Parasuraman et al., 1985,1988; Carman, 1990; Finn & Lamb, 1991; Babakus & Mangold; 1992; Babakus & Boller, 1992; Headey & Miller, 1993; Bowers et al., 1994; Lytle & Mokwa,

1992; Cronin & Taylor, 1992; Brensinger & Lambert, 1990; O'Connor et al., 1994; McAlexander et al., 1994), is based on the premise that service quality is conceptualized as the difference between the customer's perceptions and expectations. Parasuraman et al. (1985) developed the SERVQUAL questionnaire following completion of in-depth interviews and focus groups in four different service categories (retail banking, credit card, brokerage and product repairs and maintenance). Based on these interviews and focus groups the researchers identified five service quality dimensions which influenced consumers in their assessment of service quality. The researchers proposed that these five dimensions were applicable to all services and developed the SERVQUAL tool for measuring service quality based on these five dimensions.

Since its first appearance in the mid 1980's and its initial validation in four different contexts, a plethora of researchers have employed SERVQUAL in a number of settings including health care (Babakus & Mangold, 1992; Bebko & Garg, 1995; Bowers et al., 1994; Clow et al., 1995; Headey & Miller, 1993; Licata et al., 1995; Lytle & Mokwa, 1992; O'Connor et al., 1994; Reidenbach & Sandifer-Smallwood, 1990; Woodside et al., 1989), a dental school patient clinic, a business school placement centre, a tire store, an acute care hospital (Carman, 1990), independent dental offices (McAlexander et al., 1994), at AIDS service agencies (Fusilier & Simpson, 1995), with physicians (Brown & Swartz, 1989; Walbridge & Delene, 1993), in large retail chains (Teas, 1993b); in banking, pest control, dry cleaning, and fast-food restaurants (Cronin & Taylor, 1992). Apart from the wide range of contexts in which SERVQUAL has been employed, the internationality of the range of studies using it, is noteworthy. Table 3 below displays the different international settings in which SERVQUAL has been used to measure service quality.

Table 3 Multidimensionality of SERVQUAL-Selection of International Contexts

Author	Country	Service	Sample size
Furrer et al. (2000)	USA	Banking	(n = 118)
	Asia	Banking	(n = 129)
	Switzerland	Banking	(n = 39)
Bloemer et al. (1999)	Belgium	Entertainment	(n = 203)
		Fast Food	(n = 200)
		Supermarkets	(n = 118)
		Health Care	(n = 187)
Donnelly and Shiu (1999)	UK	Housing Repair	(n = 354)
Gould-Williams (1999)	UK	Hotel	(n = 384)
Yavas (1998)	Turkey	Banking	(n = 156)
		Physician	(n = 156)
		Barber	(n = 156)
		Post Office	(n = 156)
Lam et al. (1997)	Hong Kong	Private Clubs	(n = 96)
		Estate Clubs	(n = 176)
Mels et al. (1997)	South Africa	Banking	(n = 180)
		Insurance	(n = 138)
		Motor Vehicle Repair	(n = 133)
	UK	Electrical Appliance Repair	(n = 1,860)
		Life Insurance	(n = 180)
Kettinger and Lee (1995)	USA	Information Services	(n = ?)
	The Netherlands	Information Services	(n = 48)
		Information Services	(n = 148)
	Korea	Information Services	(n = 87)
	Hong Kong		

Although SERVQUAL has been successfully applied to different constructs it has received fierce criticism in recent times with regard to both its conceptual foundation and methodological limitations (Gilmore & McMullan, 2009; Cronin & Taylor, 1992; Philip & Hazlett, 1997; Cuganesan et al., 1997). One of these criticisms centres on the five dimensions identified to measure service quality which according to Carman (1990) may not be generic but industry specific. Hence, the instrument would have to be customized each time to the specific industry. Furthermore, Clow and Vorhies (1993) note that the

value of measuring ex-post expectations is limited. That is, SERVQUAL's value as a measurement instrument is frequently hindered because customers who have a negative experience with the service tend to overstate their expectations creating a large gap, while customers who have positive experience tend to understate their expectations creating a smaller gap. In addition, other researchers using the instrument also report that the service categories that Parasuraman et al. (1985) used in their study are not representative of services (Dotchin & Oakland, 1994) because they are low in consumer intervention, contact and adaptation.

2.3.3.9.3. Need for Novel Measurement Instruments

It is evident that there are many areas of disagreement when it comes to service quality and its measurement. Indeed, the only areas of agreement appear to be that service quality is an attitude and is distinct from customer satisfaction, that perceptions of performance need to be measured and that the number and definition of dimensions depend on the service context. Thus developing new versions of previously validated instruments taking into account the purpose and context of a particular study may be the most fruitful way forward (Robinson, 1999).

In line with the above view, and with the notion of Carman (1990) who maintains that the service quality measurement instrument needs to be customized each time to the specific industry, is the adaptation of a previously validated service quality measurement instrument for the purposes of this research. Specifically, the measurement scale presented by Brandy and Cronin (2001) which follows the American school of thought paradigm on service quality by identifying five service quality dimensions: reliability,

responsiveness, empathy, assurance and tangibles (Parasuraman et al., 1985, 1988, 1991; Zeithaml et al., 1988, 1993); was slightly altered to better measure single and multiple brand service quality in the context of the airline industry. The original scale by Brandy and Cronin (2001) had three primary dimensions, outcome, interaction and environmental quality. Each of these dimensions had five sub-dimensions related to the five service quality dimensions originally conceptualized by Parasuraman et al. (1988) which also constitute the backbone of SERVQUAL.

One of the primary reasons for the selection of this instrument as the foundation for the development of a scale that serves the purposes of this research was the focus of the original scale on provider comprehension of customer needs. That is, the Brandy and Cronin (2001) scale, an offspring of the SERVQUAL scale, measured an aspect of service quality that focused on the degree to which a customer believes the provider knows that certain aspects of the provided service are important to customers and indeed the respondent is pleased with them. Most service quality scales available fail to capture the need for the service provider to understand which aspects of the service are the most important to the customer.

In addition, out of the service quality measurement models following the American school of thought paradigm, the Brandy and Cronin model was confirmed as being most associated with the tangible dimension. This fact underscores that the problem of most service quality measurement scales, the oversight of the tangible side of a service encounter, was at least partially overcome in this case. Unlike the Brandy and Cronin scale, many of the early measurement instruments presented in the relevant literature, although based on

the five dimensions model, load poorly on the “tangibles” dimension of service quality.

Another example that demonstrates the need for novel measurement instruments and is thematically related to this study is a paper co-authored by Professor Adrian Palmer and the author of this thesis and published in the *Journal of Managing Service Quality*. The paper assesses service quality convergence among airlines, members of an alliance, and evaluates whether airline alliance membership has an effect on service quality. For the purposes of this paper a novel service quality measurement instrument was created based on research performed for this thesis. A copy of the paper by Tsantoulis and Palmer (2008) is available in Appendix 2.

2.3.3.10. Service Quality and Culture

A plethora of studies in the relevant literature support the notion that culture exerts significant influence on marketing efforts, consumer responses, and inescapably customer perceived service quality. The study of the unique cognitive styles societies possess which affect perceptions including those evoked when evaluating service quality, has emerged long ago in the social sciences literature (e.g. D’Andrade, 1981). Based on the notion that people interpret their daily life and everyday experiences using a preconceived culture influenced reference framework (Usunier, 1996), it is safe to assume that different cultures may attach different meanings to the same event. As Vakratsas and Ambler (1999) maintain, culture includes values, beliefs, and attitudes which are part of affect and eventually influence consumer behaviour including perceived service quality (Szymanski & Henard, 2001).

At present, although most companies recognize that satisfying customers' needs is critical to their success, developing the understanding to achieve that goal is becoming increasingly difficult in today's multi-cultural global arena (Darling & Taylor, 1996). As Verhage et al. (1990, p. 302) warn, "Global marketers need to be very cautious in accepting theories or techniques that are proven to be successful in their home markets." As firms reach over national borders, they are challenged to establish a marketing orientation effectively across a complex of national cultures (Nakata & Sivakumar 2001). In order to be able to provide a high quality service offering across its national borders, every company needs to have a thorough understanding of the culture of the country it is entering. This is also evident in research that explores service quality perceptions between different countries, which indicates that service is evaluated differently across cultures and that culture has a direct effect on perceived service quality (Laroche et al., 2001).

2.3.3.10.1. Culture

One of the most commonly accepted influences in any aspect of marketing is culture. It is shown to subconsciously affect perceptions of individuals in various ways some of which relate to the purposes of this research. For this reason, although culture and cultural influences are not the focus of this study, this subsection is dedicated to the analysis of the possible effects culture can have on the outcomes of this study. In order to appreciate any possible effects, first we need to understand what is meant by the term culture in a marketing context.

A number of definitions of culture have emerged in distinct literatures most of them sharing comparable characteristics. One commonly accepted

definition is that of Yau (1994, p.2) who approaches culture as the sum of learned beliefs, values, and customs that create behavioural norms and reference frameworks for a given society. Cultural values have a profound influence on all aspects of consumer behaviour (Craig et al., 2005, p. 80).. Moreover, according to Ferraro (2002), cultural values correlate creating reference frameworks that guide consumer perceptions and decision making. The influence of culture based reference frameworks has been revealed in a variety of marketing related functions including advertising (Laroche et al., 2001), market entry mode (Brouthers & Brouthers 2001), retailer practices (Bello & Dahringer, 1985), Internet usage (Quelch & Klein, 1996), shopping practices (Ackerman & Tellis, 2001), multinational marketing teams (Salk & Brannen, 2000), and the marketing environments themselves (Doran, 2002).

Although the focus of this study is not founded on the construct of culture, it could not be ignored, as culture is the lens through which consumers filter service quality, one of the focal points of this research. Therefore, the dissimilar sets of values consumers from diverse cultural backgrounds embrace, causing them to evaluate services differently and hold different expectations about optimal service encounters, should be considered here.

2.3.3.10.2. National Cultures

The set of common cultural influences including patterns of thinking, feeling, and acting that are common among citizens of the same nation has been defined as national culture (Nakata & Sivakumar, 2001).

Contextual variation among cultures occurs along a continuum and the position on this continuum a country possesses indicates the attributes that dominate its culture (Laroche et al., 2001). In particular, in high-context cultures

(e.g. Japan) the building of relationships and trust comes before business; unlike in low-context cultures (e.g. Germany) where trust is not a prerequisite to business and personal relationships among business partners are not sought. Moreover, in high-context cultures, people extract increased meaning from the context in which something is said and there is a certain importance attributed to the setting and the status of the people involved, while nonverbal communication and visual cues take on additional meaning and importance as well. On the contrary, in low-context cultures, meaning is taken from the explicit meaning of words. In low-context cultures, individual achievement and welfare are of prime importance, while in high-context cultures, the welfare of the group and the maintenance of group harmony are top priorities.

In marketing terms, this suggests that collectivist, high-context cultures are more tolerant to service delays and failures (Furrer et al., 2000). This tolerance eventually results in higher customer loyalty because customers do not want to disturb the harmony of the relationship that they have established with the seller. In line with the above, is the research of Bolton and Myers (2003, p. 114) which confirms that in collectivist, high-context cultures, relationships between service providers and their customers are “stronger, more intimate, and therefore, more loyal” than similar relationships in individualist low-context cultures. In addition, cultures with long-term orientation, such as collectivist high-context cultures, expect long-term and close relationships with service providers. Aspects of service quality that are likely to be important in such cultures include reliability, responsiveness, and empathy (Furrer et al., 2000; Donthu & Yoo, 1998).

2.3.3.10.3. Cultural Influences in Aviation

Although today's international air carriers support the notion of the emergence of a global consumer culture; that is, a horizontal segment of consumer groups with similar values, norms, and behaviours across cultures and national boundaries; the vast majority of consumers worldwide are not (yet) members of that segment (Alden et al., 1999). Hence, when it comes to service quality and service quality measurement each country's position on the contextual variation continuum should be taken into serious consideration.

Moreover, the particular characteristics of services that distinguish them from goods pose formidable obstacles in the delivery of a truly international service. That is, extremely high or low-context cultures tend to interact with one or more of the four characteristics of services hindering the service provider's ability to deliver a universally acceptable high quality service. This is also evident in the fact that the quest for universally applicable dimensions of service quality (applicable to all cultures and markets) has eluded researchers and thus remains ongoing (Bolton & Myers, 2003).

The reason behind the inability of airlines to deliver universally recognized superior service is based on the wide array of variables related to the service itself. In addition, the importance airline customers put on each aspect of service while assessing service quality depends on their position on the contextual variation continuum. Furthermore, except for price and schedule that seem to play a significant role for the majority of customers regardless of their position on the contextual variation continuum, a number of other important aspects of service quality that play a role in a consumer's ultimate choice of an airline tend to be differently evaluated in high and low-context cultures. For example, collectivist high-context cultures and individualist low-context

societies usually assign different weights to safety, seat comfort, in-flight amenities, attitude of the ground and cabin crews, financial stability of the airline, on-time performance, assurance that bags arrive with the passengers, the perceived likelihood of being “bumped” from a flight, and frequent flyer program loyalty.

The method traditionally used by airlines to tackle culture related variability in customer perceived service quality is benchmarking. As with the vast majority of heavily researched constructs in the marketing literature, benchmarking has been defined from a number of different perspectives. One commonly accepted (by both academics and practitioners) definition views benchmarking as the continuous process of measuring products, services and practices against the toughest competitors or those companies recognized as industry leaders. In general terms, benchmarking essentially involves learning, sharing information, and adopting best practices to improve performance.

In the airline industry, benchmarking is performed in different settings including, internally, against competitors, against industry leaders, and occasionally across industries. Today, benchmarking has become a tool that is used by most if not all departments within airlines in order to constantly improve profitability and enhance service quality. For example, it is employed in airline finance to compare yield management effectiveness, unit costs and break-even load factors while in airline operations it is used to investigate and contrast load factors, fuel consumption and crew productivity. In order to enhance service quality, airlines employ benchmarking to evaluate on-time performance, denied boardings, lost luggage and customer complaints.

2.3.3.10.4. Service Quality Measurement and Cultural Influences

A number of studies have showed that measures of both customer satisfaction and service quality can be non-equivalent across cultures (Laroche et al., 2001). Moreover, measures performing satisfactorily in the market which they were created for, often perform poorly when replicated in other markets. Most of the time this happens because the interpretation, translation and connotation of particular terms can vary across cultures, introducing response bias. In addition, the fact that contextual variation influences response bias on measures of service quality is shown in a number of studies including that of Witkowski and Wolfinbarger (2002) who compared U.S. and German respondents' perceptions of quality in five service settings and found a negative/pessimistic response bias among Germans who are at the extreme of the low-context countries.

Contextual variation has been taken into significant consideration during the questionnaire design phase of this thesis especially since the sample employed was to be comprised of individuals from a variety of cultural backgrounds. That is, as detailed at a later point in this study, the respondents who filled out the main study questionnaires were in their majority international airline travellers departing from or arriving at the Munich International Airport. This suggests that the sample represents a vast mix of nationalities and cultures. In order to minimize any possible contextual variation effect, the questionnaire was piloted repeatedly with a large array of international air travellers. Further analysis on the design and piloting of the questionnaire can be found in the methodology section.

2.3.3.11. Summary and Key Trends

Although the service quality literature has been systematically researched for almost three decades, a number of conceptual differences have been suggested recently. In particular, Cronin (2003) suggested that the effects of perceived service quality might be masked by non-linear relationships and inadequate explanatory models and identified new dimensions that have been neglected in the measurement of service quality.

Moreover, Grove et al. (2003) undertook a content analysis of collected responses from ten service experts dealing with the future of services marketing. They emphasized the need for future research to focus on contexts researched to a limited extent in the services literature such as services in manufacturing and information technology.

Unlike these contexts that have received relatively limited attention in the service quality literature, the relationship between service quality and a number of closely related topics such as trust and loyalty has been thoroughly researched. The next section reviews the trust literature and focuses on the relationship between service quality and trust.

2.3.4. Trust

This section begins with an introduction to the general trust literature. Then, a review of the trust literature investigates the different approaches taken towards the construct of trust in different disciplines and the relation between trust and perceived risk. Subsequently the role of risk for brand alliances is highlighted through a synopsis of a number of studies connecting perceived risk, trust, and brand alliances. The chapter concludes by tying trust and trust transfer to brand alliances.

2.3.4.1. Importance of Trust

The importance of trust and the pivotal role that it is thought to play in the development and maintenance of business relationships is reflected in the ongoing interest shown by academics in the marketing literature (Cravens, 1995; Grönroos, 1990b; Hunt & Morgan, 1994). Trust is an essential element of any relational exchange because relationships characterized by it are so highly valued by both parties that everyone struggles to engage in such relationships. Trust generally is viewed by many as an essential ingredient for successful relationships (e.g. Berry, 1995; Dwyer et al., 1987; Moorman et al., 1993; Morgan & Hunt 1994) and by others as a cornerstone for strategic partnerships (e.g. Spekman et al., 1998). Marketing strategies such as those utilized by book and record clubs and frequent flyer programs illustrate the benefits of procuring long-term relationships based on trust (Gundlach & Murphy, 1993; Gundlach & Cadotte, 1994). The literature on trust suggests that confidence on the part of the trusting party results from the firm belief that the trusted party is reliable and has a high degree of integrity. Both these attributes are associated with such qualities as consistency, competency, honesty, fairness, responsibility, helpfulness, and benevolence (Altman & Taylor, 1973; Dwyer & LaGace, 1986; Larzelere & Huston, 1980; Rotter, 1971). Furthermore, the principle of generalized reciprocity, found in the social exchange literature, holds that “mistrust breeds mistrust and as such would also serve to decrease commitment in the relationship and shift the transaction to one of more direct short-term exchanges” (McDonald, 1981).

2.3.4.2. Definition of Trust

Definitions of trust abound and have been presented by academics in many different disciplines. One frequently cited is that of Griffin (1967) who maintains that trusting behaviour occurs when a person relies on another, risks something of value and attempts to achieve a desired goal. Another popular definition, often cited in the marketing literature, is that of Moorman et al., (1993) who define trust as a willingness to rely on an exchange partner in whom one has confidence. Similar to Moorman et al., (1993) this research approaches trust as the degree a consumer perceives that a brand can be relied upon to provide a certain service. Hence, trust is here operationalized as the extent a consumer believes that a particular airline (airline alliance) will offer its promised level of service. The intention of willingness is central to the definition presented by Moorman et al., (1993) because if one believes that a partner is trustworthy without being willing to rely on that partner, trust is limited. Furthermore, the researchers highlight that expertise, reliability, and intentionality are key ingredients for trust to form. Although most researchers agree with the view that expertise, reliability, and intentionality are key ingredients for trust to form, some diverge from the view that willingness to rely on an exchange partner should be part of the definition of trust. That is, it is often argued that a behavioural intention such as “willingness to rely” on a partner should be viewed as an outcome of trust and not as part of how one defines it (Ajzen & Fishbein, 1980).

In the marketing literature, confidence, the major ingredient for trust creation and thus trust itself has been approached from two different angles (Dwyer & La Gace, 1986). On one hand, a partner’s expertise, reliability or intentionality, result in an expectation about a partner’s trustworthiness, in

confidence and finally trust (Anderson & Weitz, 1992; Dwyer et al., 1987; Rotter, 1967). This first approach of trust as a belief reflects two distinct components: (1) credibility, which is based on the extent to which the retailer believes that the vendor has the required expertise to perform the job effectively and reliably and (2) benevolence, which is based on the extent to which the retailer believes that the vendor has intentions and motives beneficial to the retailer when new conditions arise, but conditions under which a commitment was not made.

On the other hand, trust has been viewed as a behavioural intention or behaviour that reflects a reliance on a partner and involves vulnerability and uncertainty on the part of the trustor (Coleman, 1990; Griffin, 1967). This second view suggests that there has to be risk involved in the decision making and at the same time vulnerability on the part of the trusting party in order for trust to be able to form.

Apart from the different approaches presented above, trust has been also researched in mainly three different settings. In business-to-business settings (e.g. Anderson & Narus, 1991; Ganesan, 1994; Hunt & Morgan, 1994; Morgan & Hunt, 1994;), relational retail settings (e.g. Crosby et al., 1990; Dwyer et al., 1987; Schurr & Ozanne, 1985) and transactional retail settings (e.g. Cowles, 1997).

One of the shortcomings, when reviewing the trust literature, is that neither academics nor practitioners agree on a definition of trust especially when it is approached from the different points of view mentioned above. However, there is relative agreement on the importance of trust in industrial marketing settings and relational retail relationships (Anderson & Narus, 1991; Crosby et

al., 1990; Dwyer et al., 1987). While the earlier studies on trust focused on the meaning of trust, today the relevant literature focuses on the effects of trust on branding and the way trust influences future customer behaviour.

2.3.4.3. Trust in Different Disciplines

Trust, a central construct in the marketing and economics literatures, has also been studied extensively in the social exchange literature. In organizational behaviour, the study of trust is considered a characteristic distinguishing management theory from organizational economics (Barney, 1990; Donaldson, 1990). In communications, a key construct has been source credibility, originally defined by Hovland and Janis (1953) as trust of the speaker by the listener. In services marketing, Berry & Parasuraman (1997) find that "customer-company relationships require trust." They underscore the importance of trust in the buyer-seller relationship, especially in the services sector since one of the hardest characteristics of services for the seller to overcome is intangibility. That is, since the customer buys before experiencing a service, trust has to be present; therefore trust management is central to any services organization.

Parallel to the research of Berry and Parasuraman (1997) is that of Gundlach and Murphy (1993) in which the researchers highlight the importance of trust in buyer-seller relationships and approach the operational forms of exchange as a continuum anchored by the polar archetypes of discrete and relational exchange. The researchers propose that transitions to long-term relationships evolve through five phases: (1) awareness, (2) exploration, (3) expansion, (4) commitment, (5) dissolution.

Regardless of the discipline or context in which trust is studied, it is commonly accepted that trust is consistently related to the vulnerability of the

trustor (Bigley & Pearce, 1998; Singh & Sirdeshmukh, 2000), because without vulnerability of the trustor upon the trustee, trust becomes irrelevant. This is also evident in the fact that it is widely accepted in the relevant literature that the development of trust in a service provider implies the willingness of customers to maintain a long term relationship with this supplier (Coyles & Gokey, 2002; McCullagh, 2003; Wijnholds, 2000). Furthermore, the impact of trust on customer loyalty becomes especially relevant when confronted with switching decisions that include a high level of perceived risk and uncertainty (Lewis, 2002). Trust is found by some authors to be the most influential antecedent of loyalty towards a service provider (Hart & Johnson, 1999). In line with this concept is the research of Reichheld *et al.* (2000) who propose trust as another important antecedent of loyalty. Similarly, in retailing, Berry (1995) stresses that "trust is the basis for loyalty". In buyer-seller bargaining situations, Schurr & Ozanne (1985) find trust to be central to the process of achieving cooperative problem solving and constructive dialogue. As in the organizational context mentioned previously, they also find trust to lead to higher levels of loyalty to the bargaining partner. Based on the above, it can be argued that trust is not only a central construct in the social exchange literature, but also viewed in a number of disciplines as a central construct of any long-term relationship (Larzelere & Huston, 1980; Morgan & Hunt, 1994; Gundlach & Murphy, 1993). Trust is a central construct also in the brand alliances literature, where Sherman and Sookdeo (1992) conclude that "the biggest stumbling block to the success of alliances is the lack of trust", while Hess (1995) supports that in the customer-brand context trust is an important contributor to the kind of emotional commitment that leads to long-term loyalty. Hence, the strong link between single brand trust and single brand loyalty in convergence with affect transfer

between single and multiple brands as presented earlier (i.e. concept combination theory), leads us to assume that the trust-loyalty relationship stands in a single brand and in a brand alliance context. Therefore, we hypothesize that:

H3: Single Brand Trust (SBT) can lead to Brand Alliance Trust (BAT)

and

H4: Brand Alliance Trust (BAT) can lead to Single Brand Loyalty(SBL)

2.3.4.4. Different Approaches to the Construct of Trust

An example of the differences that emerge between marketing and other disciplines in the approach to trust can be found in the communication literature where Bigley and Pearce (1998) distinguish between "trustworthy" and "trust" to develop a model of the construct in person-to-person relationships. Moreover, the researchers underscore the fact that many theorists do not distinguish between trusting behaviour and trust itself. This approach differentiates between cognitive trust (i.e. the term used to describe the extent to which an individual assesses the subjective probability of trustworthiness) and trusting behaviour. This distinction is based on the notion that an individual can engage in trusting behaviour without having reached a cognitive state of trust. Interestingly, similar approaches can be found in the economics literature where Craswell (2003) distinguishes between trust as an explanandum (i.e. what is being explained) and trust as explanans (i.e. the explanation itself).

2.3.4.5. Trust and Perceived Risk

It is expected that different levels of risk will result in different levels of trusting behaviour. For example, it may be reasonable to assume that at a very low level of risk or potential harm it may not be practical or "worth it" for a customer to be concerned about whether a particular service will meet his/her needs. In a similar way, assuming that the customer perceives all available alternatives in the market, it may be reasonable to presume that if a customer perceives a very low level of reliance on a marketer (as to if a service will meet his/her needs) trust simply may not be part of the decision either to begin or to remain in a relationship. Therefore, a threshold can be set below which behaviours would not be considered as acts of trust, whereas behaviours occurring above the threshold level would be considered trusting in nature. Such a threshold should vary between individuals and product categories.

Sheth and Parvatiyar (1995a, 1995b) have defined a relationship marketing model in similar terms: customers "reduce the choice set to be in a relationship" by evaluating the "risk of switching" and the "value of the relationship". Thus, relationships - defined in terms of choice, value and risk - by definition present situations in which it may be meaningful to speak of trust. Similarly, Gundlach Murphy (1993) note that the perceived value of the buyer-seller relationship is an important aspect in the trust creation process because without assurance of future conduct, one party's provision of value for the promise of future delivered value by the other is not likely to occur.

Irrelevant of whether trust is present, individuals who are more involved with the decision, engage in more elaborate information processing and produce more product related thoughts and inferences (Steenkamp, 1990). Therefore, as a source of information, these customers infer from the results of their

consumption experience more qualities and traits about the brand with a higher effect upon trustworthy image. Although this trustworthy image will touch the perception of highly involved in the decision individuals faster, it should have the same effect but at a slower pace on every buyer as long as the service is frequently encountered.

The importance of trust as an antecedent of loyalty and its visualization as an unavoidable step in loyalty formation has been highlighted earlier in this study. After reviewing the trust literature, a thorough review of the loyalty literature from a branding and brand alliances point of view follows.

2.3.5. Loyalty

This section presents the construct of loyalty with a view to relate it to the purposes of this study. It commences with a presentation of the prevailing themes found in the loyalty literature and subsequently focuses on the advantages loyal customers convey to a brand and a brand alliance. The different types and the specific effects of loyalty are then presented while the link between satisfaction and loyalty is briefly visited. Next, this section concentrates on the close link between trust and loyalty and describes the way in which customers' feelings for a brand progress from the former to the latter. Finally, the effects of loyalty on alliances as well as the way it can transfer from a single brand to a brand alliance are presented in the last part of this section.

2.3.5.1. Introduction

Today the development and maintenance of consumer brand loyalty, rather than satisfaction is central to companies' marketing plans (Oliver, 1999), especially in the face of increasingly competitive markets where unpredictability and reduced product differentiation are common (Fournier & Yao, 1997). This

occurs mainly because loyalty provides fewer reasons for consumers to engage in extended information search among alternatives which eventually can make the purchase decision habitual (Ndubisi et al., 2009). Hence, as markets become more competitive, companies are more likely to recognize the value of customer retention through habitual purchasing (McMullan & Gilmore, 2003).

2.3.5.2. Advantages of Brand Loyalty

The numerous advantages that loyal customers convey to a firm make it vital for many service firms to invest in customer loyalty as it reduces the marketing cost of doing business (Rundle-Thiele & Bennett, 2001). In detail, brand loyalty has been shown to be associated with higher sales and revenues as well as rates of return on investment through increases in market share (Virvilaite et al., 2009) and reduced marketing expenses (Reichheld, 1996; Uncles & Laurent, 1997). Moreover, brand loyalty constitutes a substantial market entry barrier as a customer base less sensitive to the marketing efforts of competitors has fewer reasons to engage in an extended information search among alternatives, reducing the probability of switching brands (Uncles & Laurent, 1997). Finally, brand loyalty increases a firm's ability to respond to competitive threats, safeguards brand extensions and increases brand equity. At the same time brand extensions and market penetration through alliancing are two of the most prominent ways to capitalize on customer loyalty.

Moreover, in recent years researchers have focused on the advantages loyalty can pass on to the brand and the way in which it relates to other constructs including satisfaction, trust, brand equity and service quality. It is well recorded in the relevant literature that matching or exceeding customers' expectations of service quality and time to develop are usually two imperative

ingredients for loyalty to be formed. One of the most comprehensive reports on the advantages of loyalty for a firm can be found in the research of Narayandas (1998) who contends that the six prime benefits enjoyed by a firm when its customers are loyal are: resistance to counter persuasion, refusal to accept competitors' offers, adverse expert opinion, willingness to wait for products to become available, pay a premium and recommend.

In addition, a number of academics and practitioners approached from a more practical standpoint the advantages loyalty can convey to an organization reporting exact monetary advantages for a firm increasing its loyal customers. The firm Bain&Co found that a 5 per cent increase in customer retention raised the value of each customer by 25-95 per cent (Reicheld, 1996). Hence, it is evident that in the relevant literature loyalty is operationalized as the proportion of purchases of one brand within a particular product or service category and is often linked to the financial advantages an increase in this proportion can convey to a firm (Day, 1995). For the purposes of this research loyalty is conceptualized as the extent a consumer is buying a particular service and his/her willingness to make an effort (despite lower prices or better service offered by the competition) to buy this particular service. Applying the above operational definition in the context of the airline industry, loyalty is conceptualized as the extent a consumer is flying with a particular air carrier and his/her willingness to make an effort (despite lower prices or better service offered by the competition) to fly with this carrier. Considering the strong advantages loyalty can convey to a firm, one of the main purposes of this research is to investigate whether it can be transferred from one brand to the brand alliance this brand is a member. Similar to the previous section (where transfer of trust from one brand to the brand alliance was investigated) here the possibility of transfer of loyalty from one brand to a

brand alliance is investigated by combining concept combination theory, as presented in detail earlier in this chapter, with the loyalty literature. That is, from the variety of theoretical models explaining affect transfer, concept combination theory (as proposed by Park et al., 1996) is the best to explain loyalty transfer from one brand to the brand alliance this brand is a member. One of the two models under this theory, the concept specialization model (Cohen & Murphy, 1984; Murphy, 1988), can be applied to airline co-brand alliances. According to the concept specialization model the combination of a component brand with a composite alliance brand can be linked to the process of a nested or “idiomatic” concept formation. Under this process the formation of a composite concept is explained by combining a “nesting” concept and a “nested” concept. A nesting concept has less variability on the attribute under examination than the nested concept (Schmitt & Dube, 1992). In the example of a co-brand alliance with an established airline component, the airline is the nesting concept because it has lower variability in quality and the co-brand alliance is the nested concept because of its greater expected variance in quality.

Applying concept combination theory to brand alliance loyalty one can assume that loyalty can transfer from one firm to the brand alliance of which this brand is a member. Therefore, we hypothesize that:

H5: Single Brand Loyalty (SBL) can lead to Brand Alliance Loyalty (BAL)

2.3.5.3. Types of Loyalty

Another area that has triggered the interest of loyalty researchers is the different forms brand loyalty can take. The research of Dick and Basu (1994), a

foundation for many researchers attempting to develop typologies of loyalty, categorized loyalty into true, latent, spurious and no loyalty. The four types translate as patronizing a company often and thinking highly of it, patronizing it seldom but still thinking highly of it and patronizing it often but thinking poorly or even antagonistically of it, and not patronizing the company at all. Although most people associate the term loyalty with the first type, other researchers have validated completely or in part the aforementioned categorization. Panther and Farquhar (2004) for example, conceive “spurious loyalty” as “loyalty in the exit”, that is remaining with a company despite dissatisfaction.

Related to the aforementioned four types of loyalty, are the four types of customer identified by Knox (1998). Loyals, habituals (routine buyers, indifferent to their choice, more likely to defect), variety seekers (purchase depending on personal circumstance) and switchers (no attachment to service provider, pursue deals and discounts) constitute the four types identified by Knox (1998). Out of the four types, two are high share, generally high profit (the first two categories) and two lower share/profit customers. Furthermore, according to Rundle-Thiele and Bennett, (2001) highly loyal customers will have a tendency toward repeat purchasing, cross-product/service purchasing, immunity to competition and positive referral by word-of-mouth (WOM).

2.3.5.4. Loyalty and Word-of-Mouth (WOM)

There is general agreement among managers, marketing researchers, and sociologists that customer interactions through word of mouth (WOM) can have a major impact on consumer response to a brand (Danaher & Rust, 1996). For example, over 40 percent of American consumers actively seek the advice of family and friends when shopping for services such as doctors, lawyers, and auto

mechanics (Walker, 1995). WOM has been found to be especially effective in decision making when the product or service in question is more risky or uncertain and when consumer's involvement with it is higher (Morgan & Rego, 2008). Like repeat purchases, the spread of WOM is largely driven by the customer's satisfaction with the product (Anderson, 1998). Hence, WOM (whether positive or negative) should be seen as an integral part of the value of the firm. Specifically, as marketing and advertising managers have known for many years, WOM often complements and extends the effects of a brand's external advertising (Keller & Brad, 2009). Frequently, it is the initial marketing communication that triggers a customer's initial purchase. That purchase experience subsequently triggers the spread of word of mouth, as customers share their experience with others.

Moreover, in academia WOM has been presented for almost two decades as a repurchase intention control variable. For example, Zeithaml et al., (1993) maintain that intentions to recommend and repurchase are highly correlated. Additionally, the importance of WOM is frequently stressed by academics, as it is believed to be one of the most important factors in acquiring new customers. Based on the importance of the loyalty-WOM relationship in a single brand framework it was deemed important to test whether the relationship also stands in a brand alliance framework.

In other words, here we aim at investigating whether customer loyalty to a multi-brand alliance will result in positive word-of-mouth for that alliance. In order to explore this relationship we hypothesize that:

H6: Brand Alliance Loyalty (BAL) will lead to Positive Word-of-Mouth (WOM) for the Alliance.

2.3.5.5. Satisfaction and Loyalty

The relationship between satisfaction and loyalty is another area that has triggered the interest of academics in the last decade. A number of studies have investigated the relationship between satisfaction and loyalty where the latter has been approached as a repurchase intention (Da Silva & Sharifah, 2008; Eskildsen & Kristensen, 2008; Pleshko & Baqer, 2008) or as an emotional and psychological bond or commitment (Howat et al., 2008; Trail et al., 2005; Yang & Peterson, 2004). In particular, Fornell (1992) examined 27 different businesses and found strong correlations between satisfaction and loyalty with television broadcasting enjoying the highest and department stores the lowest. Moreover, Cronin and Taylor (1992) examined four businesses and again found strong correlations between satisfaction and loyalty with dry cleaning at the top and fast food at the bottom of the list. However, the relationship between satisfaction and loyalty is expected to be dependent on the characteristics of the focal products or services.

Based on the above, it is evident that one of the ways consumers expresses their satisfaction with the service encountered is loyalty (Bloemer & Kasper, 1995). Moreover, satisfaction is not only going to have an effect on loyalty but is an inevitable step in the loyalty creation process (Oliver, 1999). Customers who assign superior value to a service and are satisfied with it will eventually display loyalty as long as the value they receive is relatively greater than that of the competitors' offerings (Zeithaml & Bitner, 1996).

2.3.5.6. Loyalty Measurement

Nowadays, although the growth of interest in relationship marketing has renewed the interest in measuring customer loyalty (McMullan & Gilmore, 2003) it seems that there still is no consensus in the marketing literature on how loyalty should be measured (Bennett & Rundle-Thiele, 2002). For this reason a number of researchers have identified the need for greater knowledge and understanding on the subject (e.g. Knox & Walker, 2003). Although many studies have exposed the mechanics of loyalty creation or the way in which customers display their loyalty, no accurate measure of customer loyalty, useful and plausible for both academics and practitioners, has been found (Bakanauskas & Zikiene, 2007).

Despite the disagreement on the proper approach on loyalty measurement, it is evident that the method elected by each individual researcher depends primarily on the loyalty definition he/she embraces. The majority of definitions found in the relevant literature are focused either on behavioural loyalty, thus assessing the actual purchases observed over a period, or on attitudinal loyalty, capturing stated preferences, commitment or purchase intentions usually measured with surveys (Dekimpe et al., 1997).

The majority of researchers today base their research on the customer loyalty model proposed by Dick and Basu (1994) which is a conceptualization of the combined effects of behavioural and attitudinal loyalty. Since loyalty measures that rely either on behaviour or on attitude have proven to be ineffective at defining, measuring, and predicting loyalty, measures that combine the two have overcome these issues (Oliver, 1999; Rundle-Thiele & Mackay, 2001). A review of all available studies measuring loyalty reveals that nowadays the vast majority of marketing researchers adopt the approach of Dick and Basu

(1994) described above. Similar to the majority of contemporary studies measuring loyalty, this study adopted a scale (by Sen et al., 2001) based on the work of Dick and Basu (1994) in order to measure transfer of loyalty between a brand alliance and its individual members. Further information on the selection and adaptation of this scale can be found in chapter 4. For a sample of the loyalty measurement scales considered for the purposes of this research please see Appendix 3.

2.4. Conclusion

The first section of the literature review began with a brief review of the most prevalent themes in the branding literature and focused on brand equity and co-brand alliances. Moreover, the essential differences between the “schools of thought” in branding and the various theorems used to analyze the most predominant aspects of brand alliances were presented in an attempt to connect current knowledge on brand alliances to the main focus areas of this study, namely perceived service quality, trust and loyalty.

The next section presented the interrelated literatures of service quality, trust, and loyalty and linked them to the way consumers construct their attitudes toward brand alliances. First, the different schools of thought that rule the service quality literature were presented. In addition, service quality measurement was thoroughly reviewed and the theories that contribute to the investigation of the transfer of consumer perceived service quality among alliance members were analyzed.

Second, the review of the literature on trust commenced with a brief summary of the approaches taken toward investigating trust in distinct disciplines. Moreover, the relationship between perceived risk and trust and how

this relates to an alliances setting was investigated. Then, the literature review concentrated on the mechanisms for trust transfer from one brand member of an alliance to the rest, by reviewing the existing literature on trust formation and transfer.

Third, the review of the construct of brand loyalty began with a summary of the effects and different types of loyalty as well as the relationship between satisfaction and loyalty. Finally, this section concluded by concentrating on loyalty measurement and loyalty transfer among alliance members.

The next section presents the qualitative study performed that aimed to enrich the information collected during the literature review with the opinions of experts. That is, semi-structured, in-depth expert interviews were performed to shed further light on the subject areas described in the literature review section. The rationale behind this qualitative study as well as the methodology and findings are presented in the next section.

Table 4 Chapter 3 Outline

Introduction	Chapter 1	<ol style="list-style-type: none"> 1. Background of the Research 2. Justification for the Research 3. Statement of the Research Problem 4. Contribution to Academic and Business Knowledge 5. Significance of the Industry used as a Framework 6. Delimitations of the Scope of the Study
Literature Review	Chapter 2	<ol style="list-style-type: none"> 1. Branding 2. Affect Transfer 3. Service Quality 4. Trust 5. Loyalty
Qualitative Study	Chapter 3	<ol style="list-style-type: none"> 1. Purpose of the Expert Interviews 2. Methodology 3. Data Analysis
Quantitative Study	Chapter 4	<ol style="list-style-type: none"> 1. Structural Equation Modelling 2. Theory: Conceptual Framework and Hypothesis 3. Model Construction 4. Measurement Instrument 5. Data Collection
Results Analysis	Chapter 5	<ol style="list-style-type: none"> 1. Model Testing, Model Fit and Estimation Methods 2. Measurement Model 3. Analysis of Results and Hypothesis Testing
Conclusion	Chapter 6	<ol style="list-style-type: none"> 1. Conclusions of Hypotheses 1-6 2. Contribution to Knowledge 3. Limitations 4. Recommendations for Future Research

3. QUALITATIVE STUDY METHODOLOGY

3.1. Introduction

This chapter presents the rationale, methodology and findings of the semi-structured expert interviews performed as preliminary research to the main quantitative study. Specifically, knowledge of affect transfer between alliance members and the alliance as a whole, gained during the literature review, was enriched with the opinions of industry experts. In particular, twelve interviews with industry experts employed either by airlines or by agencies active in the commercial airline alliances arena were conducted to shed light on the fashion experts believe that consumers transfer perceptions of service quality, trust and loyalty from individual brand alliance members to the alliance. Furthermore, the methodology followed is justified and compared to other methods popular in the qualitative research literature. The chapter concludes with a presentation of the results of the analysis and their value for the main quantitative study is discussed. Before focusing on the methodology and analysis of the expert interviews it is important to expose the research philosophy followed in this research.

3.2. Research Philosophy

This research uses a post-positivist approach to shed light on the influences consumer perceptions of individual brands that are members of a multi-brand alliance can have on perceptions of that particular alliance. Specifically, from a methodological point of view, critical multiplism is employed to expose the relationship between perceptions of service quality, trust and loyalty of single brands and analogous perceptions of the brand alliance these brands are members of. In order to understand better the approach taken in this research it is necessary to examine how researchers' approach on

epistemology has evolved throughout the years by focusing on the differences of positivism and post-positivism.

It is commonly accepted among academics that the choice of epistemological approach may be dependent on the context of the study and the nature of the questions being asked (Denzin & Lincoln, 1994). Moreover, according to Shih (1998) the philosophical paradigm and goal of the research, the nature of the phenomenon of interest, the level and nature of the research questions, and practical considerations related to the research environment and the efficient use of resources need to be considered when deciding on the research approach. Similarly, Proctor (1998) considers that consistency between the aim of a research study, the research questions, the chosen methods, and the personal philosophy of the researcher is the essential underpinning and rationale for any research project. She indicates that before any decision on research method can be made an understanding of the two extremes of research philosophy (i.e. positivism and post-positivism) need to be explored and understood. It is important to note that while quantitative research methods (or primarily positivist philosophies) and qualitative methods (or primarily post-positivist philosophies) are often seen as opposing and polarized views they are frequently used in conjunction (Crossan, 2005). Many researchers support that the distinction between the philosophies is overstated (Clarke, 1998; Webb, 1989). Nevertheless, in many cases a mixed methods approach might be the safest way forward (Polit, *et al.* 2001). Although a mixed methods approach might often moderate the weaknesses of each individual method, a researcher should decide on his/her approach having a good understanding of positivism and post-positivism.

What could be described as the traditional scientific approach to research has its underpinnings in positivist philosophy. From the literature, it is clear that positivism can be defined in various ways. Smith (1998) provides a useful insight into positivist thinking within social sciences with this description: 'Positivist approaches to the social sciences assume things can be studied as hard facts and the relationship between these facts can be established as scientific laws. One of the forefathers of positivism, Auguste Comte (1853), suggests that all real knowledge should be derived from human observation of objective reality. In summary, the positivist philosophy embraces a conception of truth in which verifiable statements concur with the ascertainable facts of reality. Truth is therefore not dependent on belief alone but on belief that can be verified through examination and observation of external reality. The exploration and examination of human behaviors such as feelings are beyond the scope of positivism.

Following the recognition by scholars such as Jacob Bronowski (1956) and Karl Popper (1959) that within the world of modern science the elementary justifications of positivism were no longer entirely defensible, a new philosophy emerged, that of post-positivism. For the post-positivist researcher reality is not a rigid thing, instead it is a creation of those individuals involved in the research. Reality does not exist within a vacuum, its composition is influenced by its context, and many constructions of reality are therefore possible (Hughes, 1994). Proctor (1998) suggests that among the various factors that influence reality construction, culture, and cultural beliefs are the most significant. In this thesis, the researcher following a post-positivism approach and recognizing the influence of culture and cultural beliefs on reality construction devoted a section

sorely on the effects culture and national culture can have to the focus of this study, namely customer perceptions.

In summary, post-positivist approaches assume that reality is multiple, subjective, and mentally constructed by individuals. The use of flexible and multiple methods is desirable as a way of studying a small sample in depth over time that can establish warranted assertibility as opposed to absolute truth. According to Letourneau and Allen (1999) post-positivist approaches ‘give way’ to both qualitative and quantitative methods. This is described as critical multiplism (Guba & Lincoln 1998). As it will be detailed later, in this thesis both a qualitative and quantitative method are used. The qualitative study in the form of expert interviews aimed to expose experts’ views on the fashion customers transfer perceptions of service quality, trust and loyalty across brand members of the same alliance and between individual members and the alliance as a whole. A secondary objective of the interviews was to uncover experts’ beliefs on the relationship between loyalty and positive word-of-mouth (WOM) on a multi-brand alliance level. Conversely, the quantitative study, in the form of questionnaires, aimed at capturing the influences and effects on customer perceptions of one or multiple brands within a brand alliance and vice-versa. The following section focuses on the purpose of and methodology followed in the qualitative section.

3.3. Purpose of the Interviews

The purpose of the semi-structured expert interviews was to refine the hypotheses formed during the literature review and inform the quantitative section of the study. The principal purpose of the interviews was to expose experts’ views of the fashion customers transfer perceptions of service quality,

trust and loyalty across brand members of the same alliance and between individual members and the alliance as a whole. A secondary objective of the interviews was to uncover experts' beliefs on the relationship between loyalty and positive word-of-mouth (WOM) at a multi-brand alliance level.

3.4. Methodology

Semi-structured expert interviews were performed and analyzed using content analysis as presented by Bernard (1996). In particular, a set of codes was developed based on the answers of the experts in conjunction with the specific areas of interest. The newly developed codes were then applied to the transcripts of all interviews and a matrix was created. As with any use of content analysis the same methodological issues of sampling and coding apply here (Berkowitz, 1996). That is, although content analysis is widely used as a method across social sciences for hypothesis testing, it can be questioned whether the sample of twelve expert interviewees is representative of the population of all airline alliance experts. Moreover, decisions made regarding the codes assigned to the different variables can be questioned. In other words, it can be argued that the coder did not make the best decisions in deciding which variables to assign codes to (Reviere et al., 1996). A justification of the methodology employed here as well as support for the representativeness of the sample follows.

3.4.1. Methodology Justification

In the qualitative section of this study, in-depth interviews with airline alliance experts were performed to enrich the knowledge of the subject gained during the literature review with the views of practitioners. That is, the objective of the face-to-face, semi-structured interviews was to expose experts' views on the factors which effect and influence consumers' perceptions of a brand within

a marketing alliance. In particular, experts' perspectives were used in order to supplement the current theoretical knowledge on the subject matter and also ground the refinement of the measurement scales employed in the quantitative part of the study.

Semi-structured expert interviews, although intrusive and reactive for the respondent, and costly in time and money for the researcher (Miles & Huberman, 1994 p.17), were favoured over other data collection methods because it is one of the leading methods in gaining insights and understanding of the perceptions of the experts on the subject under consideration (Gilmore & McMullan, 2009). In addition, in this particular case the limited number of industry-wide experts on the subject (Krueger & Casey, 2000, p.24-25) and the exploratory aspect of this research stage constituted semi-structured expert interviews as the leading data collection method. Specifically, the group of interviewees predominately consisted of airline managers who deal with intra-alliance as well as alliance-to-customer matters. Additionally, airline industry experts with deep knowledge of the issues shaping airline relations within an alliance as well as superior understanding of the forces influencing the relationships between airline alliances and its customers were also acceptable interview subjects. Considering that at the time of the study each of the thirty-six airlines members of an alliance had internally assigned only one individual to deal with all alliance issues it is obvious that the worldwide number of aviation industry experts with required skills was extremely limited. Hence, it is obvious that globally the total number of possible interviewees was restrictive for the type of methodology implemented in this phase.

In view of the above limitation and in conjunction with the specific characteristics and requirements of all available qualitative research methods,

expert semi-structured interviews were selected as the superior method for a number of reasons. First, face-to-face interviews were employed to ensure a high response rate that other qualitative data collection methods could not ensure (Patton, 1990, p. 21). Specifically, since the number of airline and alliance employees as well as of industry experts possessing the required knowledge and familiarity with the subject was extremely limited a low response rate could prove detrimental for the study.

Second, face-to-face interviews enabled the researcher to fully utilize the exploratory characteristics of the method (Berkowitz, 1996; Patton, 1990, p. 16). Since the purpose of the interviews was exploratory in nature, the advantage of posing impromptu questions in order to shed light on novel ideas that appeared during the process proved invaluable.

Third, during a face-to-face interview in case a respondent did not understand a question or if he/she was not answering fully, the interviewer could clarify or probe for more complete data. While with other data collection methods (e.g. self-administered instruments) the researcher does not have control over the way in which individuals interpret questions, while during face-to-face interviews he/she can not only make clarifications if needed, but also seek further details on any fresh information that arises in the process (Howe & Eisenhart, 1990). During the course of the interviews, both further insight on information provided by the respondents as well as clarifications on particular questions were requested a number of times.

Fourth, face-to-face interviews compelled the respondent to answer the questions in the order presented. In other words, respondents got one question at the time and did not have the option of flipping through the questionnaire to see

what was next as they often do with self administered questionnaires. This can prove particularly valuable in cases like this one where the interviewer attempts to lead the interviewee from the general questions to the more specific ones without allowing him/her to prepare for the next question (Patton, 1990, p. 26).

Moreover, semi-structured face-to-face interviews were favoured over other qualitative data collection methods for a number of secondary reasons. For example, semi-structured interviewing offers the freewheeling quality of unstructured interviewing but concurrently follows the predetermined set of subjects under scrutiny (Miles & Huberman, 1994 p. 23). Thus, the interviewer demonstrates that is fully in control of the direction the interview is following but leaves slack for the respondent to follow new leads, an increasingly important factor when interviewing managers who are accustomed to efficient use of their time thus allowing to be interviewed only a single time.

Hence, it is evident that the need for complete answers to all questions, high response rate, and further exploration of some of the items under scrutiny rendered face-to-face interviews superior to any other qualitative research method available.

3.4.2. Semi-Structured Interviews vs. Focus Groups

This subsection outlines the reasons focus groups, one of the most popular qualitative data collection methods today, was not the chosen research method for the purposes of this qualitative study. By definition focus groups consist of a number of group members (typically 6-12 per group) who discuss amongst themselves and allow a moderator to record their positions on one or more issues (Krueger & Casey, 2000, p.10). The small number of specialists on a global level and the increased competition between the institutions they

represent could have led to limited information sharing during focus group sessions rendering this method ineffective. Furthermore, with a total number of approximately forty world-wide experts it is obvious that focus groups could not be arranged for a number of practical reasons ranging from geographical distance between experts to busy schedules prohibiting the meeting of a number of experts at the same time and place.

3.4.3. Sampling of Target Organizations and Interviewees

Twelve face-to-face and phone interviews with brand alliance managers and industry experts were performed by the researcher between October 2006 and February 2007. In order to gain access to the contact information of all individuals dealing with alliances issues within the organizations of interest the researcher used his contacts in the aviation industry. When requesting a face-to-face (for experts located in EU countries) or a telephone interview (for experts located in non-EU countries) the researcher sent by e-mail the same standardized communication which began with a short introduction of the purpose of the interview, continued with a list of topics to be raised during the interview and concluded with a request to meet at the expert's convenience. A second round of e-mails was sent out to the experts that did not reply to the first e-mail. Out of forty experts identified and contacted only twelve showed interest. All twelve experts were interviewed within a six month period in sessions that varied from almost thirty minutes to more than one hour depending on the volume of data the expert was willing to share and on the amount of deviation in his answers from the question posed. Table 5 below indicates the organizations that have contributed to this study by allowing the researcher to interview the person

responsible for their alliance. For a more detailed list including the name of each individual interviewed see Table 6.

Table 5 Organizations Interviewed

	Nb.	Name of the Alliance			
		Star Alliance	Sky Team	One World	Additional Entities
Airline Alliance Membrs	1	Air Canada	Aeroflot	Aer Lingus	Eur. Regions Airline Ass. (1)
	2	Air New Zealand	Aero Mexico	American Airlines	Star Alliance
	3	ANA	Air France	British Airways	One World
	4	Asiana Airlines	KLM	Cathay Pacific	Eur. Regions Airline Ass. (2)
	5	Austrian	Alitalia	Finnair	
	6	BM	Continental Airlines	Iberia	
	7	Lot Polish Airlines	CSA	LAN Chile	
	8	Lufthansa	Delta	Qantas	
	9	Scandinavian Airlines	Korean Air		
	10	Singapore Airlines	NWA		
	11	South African Airways			
	12	Spanair			
	13	Swiss			
	14	Tap Portugal			
	15	Thai			
	16	United			
	17	US Airways			
	18	Varig			
* Highlight indicates members interviewed					

3.5. Data Analysis

The analysis of the collected information started before the completion of the interview process and focused on four major areas. First, on the patterns and common themes that emerged in the responses dealing with each individual item. Particular attention was paid to the fashion these patterns (or their lack) explicate the questions under consideration. Second, deviations from these patterns were pinpointed and any possible factors resulting in these deviations were identified. Third, the stories that emerged from the experts' responses and the way these answered the questions posed were highlighted. Fourth, the emerging patterns were reviewed in light of a need for additional data to be

collected. Furthermore, the experts' answers were reviewed to indicate whether any of the study's questions needed to be revised.

Apart from the four areas mentioned above that directed the data analysis, a number of procedures were employed to efficiently explore the information gathered during the interviews. Initially the mass of data was organized and then reduced. In other words, the data from the transcripts were condensed for the sake of manageability and the information relevant to the research questions highlighted. Subsequently, the information was displayed in matrixes in order to organize and compress information in a way that permits patterns and interrelationships to emerge and thus conclusions to be drawn. For a more descriptive version of the matrix created for the analysis of the collected data see Table 6 on the next page.

Table 6 Expert views on the transfer of affect between a single brand and the brand alliance

Organizational/Expert	Transfer of Affect from Airline to Alliance					Transfer of Affect from Airline to Airline			
	Transfer of Perceptions of Service Quality	Transfer of Trust	Transfer of Loyalty	Positive WOM	Large Number of Members	Transfer of Perceptions of Service Quality	Transfer of Trust	Transfer of Loyalty	Positive WOM
<i>Aegean Airlines/Mr. Simigdalas</i>	When loyal	Positive	Positive	-	More choices equals increased loyalty to the alliance	When priority is seamless travel: Yes,-when priority is low travel cost:no	Positive	Yes, but different degrees of transfer depend on traveller priorities	-
<i>Air Canada/Mr. Tremblay</i>	Positive but alliance awareness, cultural & geographical factors play a role	Positive	Positive	Yes, but limited	Equals better service but creates low alliance entry standards perception to the customers	Positive but alliance awareness, cultural & geographical factors play a role	Positive but occasionally limited awareness of other members can limit transfer	Positive but limited	Yes, as long as customers are aware of the connection between carriers
<i>Air France/Mr. Chouraqui</i>	Yes, because of harmonization of service offering	Positive	Yes, but affected by type of traveller and by who pays for the ticket	Yes	Although larger alliances offer more options, smaller offer seamless and better travel	Differences among passengers make it impossible to say	Positive but customer priorities change affecting the extent of transfer	Yes, but sometimes passengers decide case by case depending on price	Yes
<i>Austrian Airlines/Mr. Szauerzopf</i>	Positive	Positive	Positive, enhanced through service standardization	Yes	Better	Positive	Yes	Positive	Hard to say
<i>Czech Airlines/Mr. Bednar</i>	Positive but degree of transfer depends on customer type	Yes, but alliance awareness plays a significant role	Extensive through frequent flyer programs; inversely related to ticket price	Definitely	Maybe positive but definitely not negative	Positive	Yes, but one service failure can prove detrimental for trust transfer	Yes, but influenced by purchasing power of customer and type of carrier	Definitely
<i>European Regions Airl. Assot./Mr. Clarke</i>	Yes, but only for frequent travelers	Yes, but culture plays a crucial role	Positive only for connecting passengers	Positive only for passengers that have experienced different members	Advantageous only for connecting passengers	Yes, but only for frequent travelers	Yes, but cultural factor plays a crucial role	Positive only when passengers have experienced other members' service	Possible only if service of another member has been experienced
<i>Iberia/Mr. Lopez-Varela</i>	Definitely	Most of the times	Frequently	Yes	Advantageous only for connecting passengers	Positive	Positive	Positive	Yes
<i>Lufthansa/Mr. Erfert</i>	Transfer of expectations from airline to alliance	Somewhat positive	Positive, enhanced when multiple members cover one geographical region	Yes	Yes, but nowadays focus has shifted from no whitespots coverage to seamless travel	Two-way transfer between airlines	Somewhat positive	Positive	No
<i>One World/Mr. Mayol</i>	Positive	Yes, but the home carrier has more influence than the other members	Driven by frequent traveler programs	Positive	Advantageous only for connecting passengers	Positive but extent depends on experience with the other members	Positive but depends on service expectations between members	Driven by frequent traveler programs	Yes, but depends on satisfaction with the service provided
<i>Spanair/Mr. Style</i>	Positive, fuelled by service commonality among members	Yes, but based on common standards	Positive	Yes	Better	Positive	Yes, based on minimum standards for all brands	Positive	Yes
<i>Star Alliance/Mr. Fuchs</i>	Good but affected by strength of connection between brands and alliance	Usually positive, heavily influenced by alliance awareness	Frequency of exposure strongly influences extent of loyalty	Yes	More members equals better geographical area coverage resulting in better service	Yes, but smaller than that the one between brands and alliance	Positive	Yes, affected by transfer point convenience	Yes
<i>United Airlines/Mr. Poppe</i>	Hevily influenced by culture	Positive	Positive	Only if traveller has experienced the alliance network	Equals better service (ensured through service standardization)	Culture plays a critical role	Positive	Positive but affected by the extent of experience on the first carrier	Possibly

3.5.1. Triangulation

One of the objectives of the qualitative study was to provide a means for comparison of the views expressed by the different interviewees. Hence, at the end of each interview and after each expert had finished commenting on the subject matter the views expressed by other experts during previous interviews were laid out in order to invite further comments from the interviewee. In this way, it was possible every time a novel view emerged to check whether other experts shared the same opinion on a particular subject.

3.5.2. Respondent Bias

The vast majority of the experts interviewed appeared to remember that they were expected to express the way they believe consumers feel about the issues under consideration and not their own personal views. In the rare cases that it was not clear whether or not the experts were expressing their personal views, (e.g. "...Yes I would display loyalty to the rest of the members within an alliance just because I trust British..." -interview with Mr. Lopez-Varela, February 14, 2007), they were reminded that they were expected to convey their beliefs about consumers' viewpoints on the subjects under investigation.

Although some of the experts were quick to deviate towards other topics related but not relevant to the topics under investigation, it was always possible to revert the interview back to the original areas of interest. This tendency of a few of the interviewees to get easily sidetracked can be explained to some extent by the design of the questions which by definition were intended to draw the attention of the experts towards one area and pose for them few limitations on the direction they might want to take in answering.

Moreover, in a few cases, respondent bias was also evident in the form of over-inflating the advantages individual airlines or alliances can convey to their customers. This exaggeration in some of the experts' comments was verified by simply comparing their statements on particular issues with those of their counterparts within the same alliance. For example, all experts supported the notion that the primary advantages alliance members enjoy when joining an alliance are very specific while there is also a number of secondary positive externalities that alliance members usually do not get benefit from because of the rules and regulations governing the relationships among alliance members. In one of the early interviews and prior to establishing the described set of primary and secondary advantages, one of the experts repeatedly claimed that one of the most significant advantages of alliance membership was one that appeared of secondary importance to the interviewer. It was later verified through analysis of further interviews that it was actually more of a secondary positive externality instead of a significant primary advantage. This happened only because the expert was exaggerating the advantages the alliance conveys to its members.

Another example of respondent bias can be found in the tendency of the interviewed experts to claim that their alliance can offer the most complete network to business travellers, the focal point of all alliances. Out of the three major airline alliances today two have almost the same number of members while the third consists of slightly more than double the members of each of the other two. Expectedly, the experts associated with the largest alliance supported the notion that a larger number of members translates to more options for the business traveller, thus better geographical coverage. Interestingly, airline and alliance managers that were linked to any of the other two smaller in size alliances also claimed that their alliances offer the best geographical area

coverage to business travellers because their array of destinations is strategically selected to better fit the needs of this particular segment. Thus, although the total number of destinations offered was significantly smaller than that of the competition when it came to destinations sought by business travellers they were offering a more complete service. It is obvious that not all three alliances can have the best network serving the demands of this particular type of customer.

3.5.3. Validity

For the purposes of this study, a number of external variables which could possibly have an impact on the validity of the experts' answers were kept constant. One aspect that significantly affects the magnitude of the advantages alliances convey to their customers is the number of connections a traveller has to make within a particular journey. As was emphasized frequently by the interviewees, unless a journey consists of at least two "legs" on different alliance members the advantages of flying on the same alliance are of limited scope for the customers. That translates to, seamless travel established on flight connections with the minimum possible agitation, identical preferential treatment across all members and cooperative Frequent Flyer Programs (FFP) which can be enjoyed by travellers connecting across alliance members. Hence, the effects of alliances on consumers presented earlier apply only when multi-connection travel is in question.

Another validity limiting variable that shaped the approach followed by experts in addressing the issues under investigation was culture. One of the reappearing themes during these interviews, cultural influences, seems to play a significant role in transfer of affect. As one interviewee supported, "Ok, I would say that it (transfer of affect) varies and the research that we have done shows

that different nationalities and cultures and people with different backgrounds and travel needs, extend the views of their comparisons and thus transfer feelings in different ways to Star Alliance (phone interview with Mr. Poppe, November 3, 2006). For example, in Asia where the expected level of service quality is maybe the highest when compared to other regions of the world, affect transfer between alliance and airline can prove problematic considering that similar high levels of service quality provided by all alliance members is virtually unattainable. Furthermore, while all experts agreed that not all attributes of a particular brand can transfer to the alliance, the deciding factor was unclear to them. Although the reason some attributes of a brand transfer from one airline to the alliance while others don't was unclear to the interviewees, service commonality based on a set of minimum service requirements respected by all alliance members was expected to promote affect transfer. Contradictory to the position of most interviewees, that service commonality can contribute to transfer of affect, was that of Mr. Chouraqui (interview, January 24, 2007) who mentioned that the numerous differences among airline passengers and the absence of an "average customer" renders it impossible to argue whether transfer of affect exists at any level. In other words, the variability between customers that stems from their differences in terms of cultural background renders the engineering of a standard service aimed towards an "average" customer especially problematic.

Furthermore, a few experts pointed out that in addition to cultural background, the purchasing power of customers also appeared to drastically affect the air carrier decision making process customers. If, for example, the local flag carrier, member of an alliance, is perceived as relatively expensive similar perceptions can transfer to the rest of the alliance members. In other

words, the socioeconomic status of a customer can affect alliance related perceptions when experience on the individual members is limited.

3.5.4. Discussion of the Results

As previously elucidated, the primary purpose of the interviews was to obtain experts' opinions on affect transfer among alliance members and between single brands and the alliance these brands are members of. The interviews focused on the following areas of interest:

- Transfer of service quality perceptions from one brand (airline) to other members of the alliance (airline alliance) and also to the alliance as a whole.
- Transfer of trust from one brand (airline) to other members of the alliance (airline alliance) and also to the alliance as a whole.
- Transfer of loyalty from one brand (airline) to other members of the alliance (airline alliance) and also to the alliance as a whole.
- The relationship between single brand loyalty and positive WOM.
- The relationship between brand alliance loyalty and positive WOM.
- The relationship between the number of members within an airline alliance and consumers' perception of service quality.

The findings based on the expert interviews that relate to the above themes are presented in this section. Almost all experts agreed that transfer of perceptions of service quality is evident not only among individual brands within an alliance, but also between individual members and the brand alliance as a whole. Moreover, many experts highlighted that while transfer of perceptions of service quality among individual members and between individual members and the alliance are both two-directional relationships, the former appears to happen in a much lesser degree than the latter. As one interviewee suggested (face-to-face interview: Erfert, October 5, 2006) “Although there is transfer of

perceptions of service quality across the airlines within Star (Alliance), the transfer is much stronger between our individual members and the alliance brand as an entity.” Moreover, a number of experts agreed that, the “strength” of the alliance brand and the individual brands within it significantly influence the extent to which perceptions of service quality transfer between individual members and the alliance. At the same time the degree of transfer is unaffected by the nature of the influence (positive or negative) it conveys.

Similar to perceptions of service quality, trust was found by interviewees to transfer well, especially between single brands and the alliance as a whole. All experts agreed that trust transfer is strong, particularly when service commonality is evident to the consumer. Service commonality in airline alliances is established by a thorough set of standards and procedures followed by all alliance members that allow for unproblematic transfer of perceived service quality and trust across the alliance.

Moreover, frequency of travel and thus alliance awareness significantly influences trust transfer from a single brand to the alliance and vice-versa. As one expert revealed, “...transfer of trust can only occur for passengers that are aware of the alliance. Most North American passengers only travel domestically and therefore are not fully aware of the alliance.” (interview with Mr. Tremblay, February 8, 2007).

In addition to frequency of travel and alliance awareness, service failures and particularly their timing play a significant role on trust transfer. A service failure during initial exposure to the alliance can prove detrimental for transfer of trust between alliance members.

Furthermore, the analysis showed that as with trust, loyalty transfers effectively among members and between a single member and the alliance as a whole. Again, similar to trust, both frequency of travel and thus alliance awareness as well as service standardization significantly influence the transfer of loyalty from one brand (airline) to the alliance and vice-versa. Interestingly, loyalty transfer among alliance members even if they operate in the same markets was also evident. While loyalty transfer can occur between alliance members serving adjacent markets it is rapidly diluted when prices escalate. Apart from price escalations, schedules, specific needs of travellers for particular trips and the attractiveness of alternatives can all prove detrimental for loyalty and thus loyalty transfer. That is, in cases where a competitor offers a combination of flights that either better suit customer needs or are for some reason more attractive, loyalty which is mainly driven by the advantages that FFP offer will not transfer among alliance members. Hence, it is safe to assume that although alliance loyalty can exert pressure on a potential customer during the purchase process, the constantly changing needs of frequent fliers can easily dilute the extend of loyalty transfer. The above was also underscored by one of the interviewees who stated that, “When considering the positive effects of loyalty for the airline or the alliance one has to remember that the degree of loyalty and alliance member awareness play perhaps the biggest role in transfer of loyalty between alliance members.” (interview with Mr. Bednar, October 10, 2006)

The analysis further shed light on the relationship between loyalty and positive word-of-mouth (WOM) or chance of recommendation. While many experts agreed that positive WOM for the alliance will occur as a result of loyalty shown to one alliance member, some explained further that this

relationship will not stand among alliance members especially if the service of the different members has not been experienced by the customer. Contradictory to that is the view shared by a few of the experts suggesting that if a customer has experienced the service of only one alliance member, positive WOM both for the rest of the members and for the alliance as a whole can prove especially problematic. Other alliance managers were confident that traveller awareness of the common service standards imposed on all the alliance members could counteract the negative effects limited experience with alliance members can have on positive WOM. In other words, passengers aware of the common service standards imposed on all members will recommend the alliance and its individual airlines even if their experience on the individual members is limited. Finally, all experts agreed that the extent to which the service standards within a particular alliance match a traveller's requirements dictates the amount of positive WOM provided by a particular traveller.

A secondary objective of the in-depth interviews was to explore the way the number of members in alliance influences the customers' perceptions of service quality of that particular alliance. Two diverging opinions emerged. First, the notion adopted by managers of the larger alliances that a substantial number of members translates to greater geographic area coverage, thus superior customer service. Contradictory is the view of airline alliance critics who claim that as the focus of alliances shifted the last years from improved geographic area coverage to seamless travel, service commonality throughout large alliances is impossible to maintain. Alliance managers oppose the above by claiming that as airline alliances grow, the larger number of members translates to an increased number of choices for particular routes resulting in amplified alliance loyalty. Moreover, they maintain that service standardization followed by all

members ensures unproblematic coexistence of a large number of members while offering the minimum promised level of service.

Second, the view expressed by managers of airlines members of smaller alliances, that a smaller but optimal number of members offers satisfactory geographical coverage and at the same time standardization of service quality throughout the alliance which is impossible to achieve in a larger alliance. Moreover, geographical coverage better suited to the needs of the business traveller, the focus of every airline alliance, can come through proper coordination amongst members of smaller alliances. A few of the smaller alliance airline managers even claimed that although their alliance serves a considerably lower number of destinations, they are strategically selected in a way to cover most business travellers' needs. This strategic selection of destinations in addition to the advanced standardization of service quality results according to the same experts to far superior service than that offered by larger alliances.

3.6. Conclusion

The purpose of this research stage was to expand knowledge on the subject matter gained during earlier phases of the research (i.e. literature review) with that from expert interviews thus providing a well founded framework for the main-quantitative study. Based on the analysis of a number of expert interviews, the importance of the strength of the relationship between the alliance brand and the individual brands within that alliance was explored. Moreover, the view shared by the majority of experts that trust transfer is strong, especially when service commonality is evident to the consumer and that loyalty transfer is generally also evident is elucidated. Finally, the chapter concludes

with a presentation of themes of secondary importance including the relationship between positive word-of-mouth and alliance loyalty as well as this between loyalty towards an alliance and the number of members of that particular alliance.

Table 7 Chapter 4 Outline

Introduction	Chapter 1	<ol style="list-style-type: none"> 1. Background of the Research 2. Justification for the Research 3. Statement of the Research Problem 4. Contribution to Academic and Business Knowledge 5. Significance of the Industry used as a Framework 6. Delimitations of the Scope of the Study
Literature Review	Chapter 2	<ol style="list-style-type: none"> 1. Branding 2. Affect Transfer 3. Service Quality 4. Trust 5. Loyalty
Qualitative Study	Chapter 3	<ol style="list-style-type: none"> 1. Purpose of the Expert Interviews 2. Methodology 3. Data Analysis
Quantitative Study	Chapter 4	<ol style="list-style-type: none"> 1. Structural Equation Modelling 2. Theory: Conceptual Framework and Hypothesis 3. Model Construction 4. Measurement Instrument 5. Data Collection
Results Analysis	Chapter 5	<ol style="list-style-type: none"> 1. Model Testing, Model Fit and Estimation Methods 2. Measurement Model 3. Analysis of Results and Hypothesis Testing
Conclusion	Chapter 6	<ol style="list-style-type: none"> 1. Conclusions of Hypotheses 1-6 2. Contribution to Knowledge 3. Limitations 4. Recommendations for Future Research

4. QUANTITATIVE STUDY METHODOLOGY

4.1. Introduction

The purpose of this section is to present the objectives and methodology of the main (quantitative) study. This study is founded on the insight gained during the earlier qualitative study materialized in the form of expert interviews. As explained earlier, during the preliminary qualitative phase, a number of interviews with airline alliance managers and industry experts was performed to shed light on the way they believe airline customers approach the areas of interest of this study. Based on the information gained during the expert interview and literature review phases, a pilot survey was compiled which aimed at capturing the influences and effects on customer perceptions of one or multiple brands within a brand alliance and vice-versa. Feedback on the pilot survey came from a number of sources but mainly from air travellers at the gate areas of one major European airport. After two test and revision rounds, the main study questionnaire was handed out to air travellers at both terminals of the same international airport. That is, questionnaires, one of the three primary data collection instruments widely used in marketing research today (Donnelly *et. al*, 2000; Kotler, 2003), were completed by air travellers as a means of assessing the validity of the hypotheses developed during the earlier stages of the research. The data collected, were analyzed using Structural Equation Modelling. A thorough analysis of the selected methodology and the way it was implemented to serve the objectives of this study follows.

4.2. Structural Equation Modelling

In order to test the hypotheses formed in the early stages of this research Structural Equation Modelling (SEM) was employed. The overall objective of structural equation modelling is to establish that a model derived from theory has

a close fit to the sample data in terms of the difference between the sample and model-predicted covariance matrices. Compared to regression and factor analysis, SEM is a relatively young concept, having its roots in papers that appeared in the late 1960's where it has been used extensively by social sciences researchers over the last two decades. Structural equation models are a mainstay of multivariate statistical analysis in marketing (Fornell, 1985). This is best displayed by the fact that scarcely any research issue of those presented in the major marketing journals does not involve SEM (Bagozzi et al, 1991). Moreover, numerous researchers claim that one can create more realistic models with SEM packages (than with standard multivariate statistics or multiple regression models alone) by presenting a model in an intuitive path diagram to show hypothesized relationships among variables. Such a presentation enables the researcher to test and confirm the validity of claims in a limited amount of time. Consequently, SEM, a principally confirmatory technique, although occasionally researchers apply it in experimental designs (e.g. Bagozzi & Yi, 1989), will be employed here to determine the validity of the model and hypotheses presented earlier. As in most cases, the model focuses on latent variables, in particular here on different attitudes toward a brand, to determine how different scenarios can affect these attitudes. A justification for the use of SEM for the purposes of this study follows.

4.2.1. Advantages of SEM

A number of advantages justify the use of SEM in this study. Here a summary of the main advantages of using SEM is presented. First, SEM estimates all coefficients in the model simultaneously. Therefore, the significance and strength of a particular relationship can be assessed in the

context of the complete model. Second, an independent variable in one relationship can be a dependent variable in other relationships. Unlike SEM, regression cannot handle this very well and requires the use of hierarchical regression. Third, in SEM multi co-linearity can be modelled and assessed, therefore it does not constitute an issue as it does in multiple regression. When using SEM the relationships among predictor variables can be modelled. In other words, the coefficients between the predictors and the dependent variables are partial derivatives. Thus the influence of one predictor on another is held constant when estimating the predictor–dependent relationship. This yields a more valid predictor–dependent coefficient. The accounted for variance in the dependent may improve because indirect predictor–dependent relationships are now captured. Fourth, when using latent variables in SEM measurement error is eliminated and thus more valid coefficients are obtained.

Having justified the use of SEM for the purposes of this study, the choice of the particular SEM software employed here needs to be substantiated. The following section compares the leading SEM software packages available today and provides justification for the selection of one of these packages.

4.2.2. SEM Software Selection

Today a number of SEM software packages are available to researchers. In the social sciences the most popular packages are AMOS (by SPSS developed by Norman Nie and C. Hadlai Hull), LISREL (developed by Karl Jöreskog and Dag Sörbom) and EQS (developed by Dr. Peter M. Bentler) which appears occasionally in journal articles but not as often as the former two. Although many researchers decide on one over the other based on price, support and

personal preference here a more methodological analysis of the most popular available packages was followed.

The numerous advantages in design, applicability and user-friendliness led the researcher to use Amos for the purposes of this research. In AMOS fully-interactive path diagram input and display options make it easier to evaluate models. Moreover, the interface is object oriented and follows the MS Windows standard guidelines for graphical user interfaces. This makes it possible for Windows programs, such as MathCAD or MS Word, to work directly with Amos Graphics. In addition, Amos Graphics has an extensive online help system. In Amos, unlike in Lisrel, the path diagram is the model and the user does not have to manipulate sets of equations or matrices with Greek names. Furthermore, Amos reads its model specifications only in the form of equations or path diagrams. Even complex models are drawn out as path diagrams, estimates are calculated instantly and graphics are always in publication quality. Lisrel, unlike Amos, does support model specifications in matrix notation while mean models, and multi-group models, can be specified with either program but more easily in Amos. Similarly, bootstrapping and Monte Carlo simulations are very easily set up in Amos, and there are sophisticated output options. Additionally, the full-information method used by Amos to handle missing data is more efficient than those used by the other two packages when data are missing-at-random. If data missing is not at random, Amos' estimates are generally less biased than those produced by ad-hoc methods such as "pairwise" or "listwise" deletion.

However, Lisrel in its latest version "LISREL 8" excels in ordinal data modelling via polychoric/serial correlations. Methods for ordinal-categorical data are still the subject of ongoing research. While it was clear from early on

that the polychoric approach can remove, or largely reduce, bias due to discrete measurement, the asymptotically distribution-free estimation employed by Lisrel and EQS is limited to a maximum of 25 observed variables and appears to require formidable sample sizes of at least 2,000-5,000 observations per group. Lisrel also features instrumental variables (IV) and two-stage least-squares (TSLS) as estimation methods, although in non-standard implementations. Amos does not provide any IV or TSLS estimation methods. Lisrel 8 also allows for general polynomial parameter constraints.

Another comparison that is often drawn by researchers in the process of selecting one SEM package over another is one between Amos and the EQS program. Several aspects of the Amos-vs.-Lisrel discussion apply to EQS as well, so the comparison with EQS will focus only on those issues that are not common. Most structural equation models can be set up and estimated with either Amos or EQS. The difference between Amos and EQS is significantly smaller than that between Amos and Lisrel. EQS has somewhat of an advantage in methods for elliptical distribution methods, robustified chi-square tests, and integrated exploratory data analysis modules. On the other hand, Amos features full-information ML model estimation with incomplete (or missing) data, and has a variety of sophisticated bootstrap simulation tools for analyzing non-normal data. Moreover, Amos has the most natural user interface and excels in handling missing values. Amos has no polychoric correlations, which EQS has, but with polychorics EQS limits the number of categorical variables to 20.

Considering the above comparison of today's leading SEM software packages in conjunction with the needs of this research Amos has been selected for the purposes of this research. It is evident that each of the packages when compared to the rest has an edge in a particular area. It is important for every

researcher to compare the edge each package possesses to the needs of his/her particular research. In this motive, when considering the advantages of each of the previously mentioned packages in conjunction to the needs of this study, Amos outperforms the other two.

4.3. Theory: Conceptual Framework and Hypotheses

This section links the hypotheses presented in detail earlier to the conceptual framework created for the purposes of this study. Its primary purpose is to provide a summary of the hypotheses introduced in the literature review section and link them to the conceptual model presented in the next section.

4.3.1. Hypothesis 1

Customer perceptions of Single Brand Service Quality (SBSQ) will lead to Single Brand Trust (SBT).

The relationship between service quality and brand trust is well established in the literature at both the “transaction-specific” and the “overall” level (Oliver, 1999; Bitner & Hubbert, 1994). Research findings have offered strong evidence in this respect, demonstrating a definite and positive relationship between service quality and behavioural intentions including trust. In line with the above is the research of Caceres and Pappas (2007) who maintain that perceptions of service/product quality can be viewed as antecedents of relationship satisfaction which, in turn, affects trust. In their research the “functional quality” (or “how” construct), including communication, delivery, and administrative activities, and the “technical quality” (or “what” construct), including the actual service provided, were found to have a direct effect on trust.

4.3.2. Hypothesis 2

Brand Alliance Service Quality (BASQ) will lead to Brand Alliance Trust (BAT).

The antecedents of customer trust have been widely studied in the case of service companies. In most of the studies in the relevant literature positive influences of perceptions of service quality on customer satisfaction and subsequently on customer trust can be identified. In business studies, perceived service quality has been found to be important for building and maintaining trust (e.g. Geyskens et al., 1996; Rousseau, 1998; Singh & Sirdeshmukh, 2000). Based on the above it is hypothesized that the relationship between perceived service quality and trust stands in a brand alliance environment as it does in a single brand environment.

4.3.3. Hypothesis 3

Trust in a Single Brand (SBT) will lead to Trust in the Brand Alliance (BAT).

From the variety of theoretical models found in distinct disciplines which aim to explain transfer of affect between single brands and the alliances these brands belong to, concept combination theory (as proposed by Park et al., 1996) can be applied to airline co-brand alliances. One of the two branches of this model, the concept specialization model (Cohen & Murphy, 1984; Murphy, 1988) suggests the combination of a component brand with a composite alliance brand and can be linked to the process of a nested or “idiomatic” concept formation. This process explains the formation of a composite concept by combining a “nesting” concept and a “nested” concept. A nesting concept has less variability on the attribute under examination than the nested concept (Schmitt & Dube, 1992). In the example of an airline co-brand alliance with an

established airline component, the airline is a nesting concept because it has lower variability in quality and the co-brand alliance will be a nested concept because of its greater expected variance in quality.

Other models that can be used to explain the transfer of affect between a single brand and an alliance brand include the attitude accessibility theory (Fazio, 1986), information integration theory (Anderson, 1982) and the cognitive consistency theory (first presented by Schewe, 1973) all of which have been thoroughly reviewed in chapter 2.

4.3.4. Hypothesis 4

Brand Alliance Trust (BAT) will lead to Single Brand Loyalty (SBL).

It is widely accepted in the marketing literature that the development of trust in the service provider implies the willingness of customers to maintain a long term relationship with this supplier (Coyles & Gokey, 2005; Wijnholds, 2000). Furthermore, the impact of trust on customer loyalty becomes relevant especially when confronted with switching decisions which involve a high level of perceived risk and uncertainty (Lewis, 2003). According to some authors, trust is found to be the most influential antecedent of loyalty in a service provider (Hart & Johnson, 1999). In line with the above is the research of Reichheld et al., (2000) which proposes trust as another important antecedent of loyalty.

4.3.5. Hypothesis 5

Single Brand Loyalty (SBL) will lead to Brand Alliance Loyalty (BAL).

Similar to section 4.3.3 here the concept combination theory (Park et al., 1996), the concept specialization model (Cohen & Murphy, 1984; Murphy, 1988), the attitude accessibility theory (Fazio, 1986), the information integration

theory (Anderson, 1982) and the cognitive consistency theory first presented by Schewe (1973), are employed to investigate whether loyalty transfer between a brand and a brand alliance is possible. Until recently, these theorems have been employed in diverse contexts to explain affect transfer in single brand frameworks but here for the first time they are employed to investigate transfer of loyalty in a multi-brand alliance framework.

4.3.6. Hypothesis 6

Brand Alliance Loyalty (BAL) will lead to Positive Word-of-Mouth (WOM) for the Alliance.

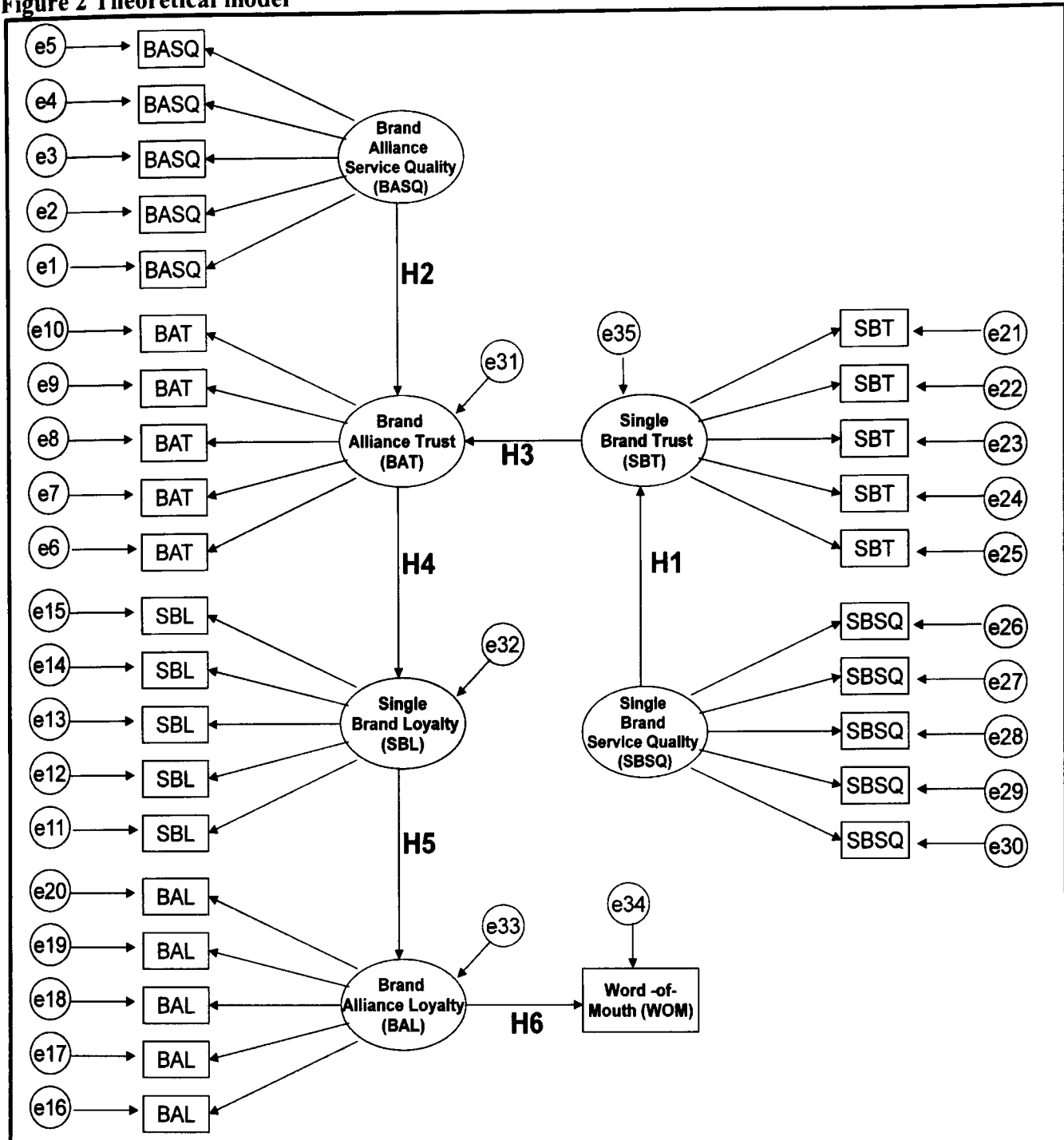
WOM has been widely used in the last decade as a repurchase intention control variable. For example, Zeithaml, Berry, and Parasuraman (1993) tested a 13-item battery of behavioural intentions in the context of five industries. Across all industries, they found that intentions to recommend and repurchase were highly correlated. Moreover, WOM is an important dependent variable because in most product and service categories it is one of the most important factors in acquiring new customers. Hence, although the relationship between loyalty and WOM has been thoroughly researched in a single brand context it has been neglected at the brand alliance level.

4.4. Model Construction

This section presents the theoretical model built for the purposes of this study, and concentrates on model identification and relationship specification for the variables in the model. As can be seen in Figure 2, the theoretical model is composed of six latent variables and thirty indicators. Three previously validated models had to be adapted and subsequently combined to create the theoretical model for this particular research. The model for Single Brand Service Quality

(SBSQ) was adapted from Brady and Cronin (2001), Single Brand Trust (SBT) from Chaudhuri and Holbrook (2001), and Single Brand Loyalty (SBL) from Sen et al. (2001). For the remaining three latent variables, Brand Alliance Service Quality (BASQ), Brand Alliance Trust (BAT) and Brand Alliance Loyalty (BAL) the same models (as for SBSQ, SBT and SBL) were adopted in order to allow for a comparison between the same constructs in single brand and brand alliance scenarios. For example, the indicators of Single Brand Trust (SBT) and Brand Alliance Trust (BAT) were kept identical (only the wording of the measurement instrument was changed to accommodate for either single brand or brand alliance) so that the relationship between SBT and BAT could be investigated. This decision was based on the assumption that non-identical scales attempting to measure the same construct in single brand and alliance brand contexts (e.g. SBT and BAT) would not allow for a fair investigation of the relationship between the two. Furthermore, each of the six latent variables is unidimensional and is measured by five indicators.

Figure 2 Theoretical model



The paths going from SBSQ to SBT, BASQ to BAT, SBT to BAT, BAT to SBL and SBL to BAL represent hypotheses 1,2,3,4 and 5, respectively. In addition to the above latent variables, BAL is shown to be correlated with Word-of-Mouth (WOM). Hypothesis 6 represents the correlation between BAL and WOM. WOM does not show any indicators because traditionally it has been approached as a single item construct in the marketing literature. The small circles with an arrow pointing at both the indicators and some of the dependent variables indicate measurement errors.

One of the primary issues after creating the model and collecting the data is model identification. It is a requirement in Structural Equation Modelling (SEM) that a model be just-identified or over identified, in other words it has more than one solution for each parameter estimate and thus positive degrees of freedom (Garson, 2006). This model is relatively well identified.

4.5. Measurement Instrument Construction

The questionnaire was established on a number of measurement scales each aimed at capturing different aspects of the theoretical model presented earlier. That is, a number of previously validated scales were merged in order to compose the first version of the questionnaire which aimed at capturing respondents' views on the constructs of service quality (single brand), brand trust (single brand), brand loyalty (single brand), positive word-of-mouth, quality of alliance product (multiple brands), alliance trust (multiple brands) and alliance loyalty (multiple brands). In particular, the scale adopted for the measurement of brand trust, that was created and previously validated by Chaudhuri and Holbrook (2001), was aimed at measuring the degree of confidence a consumer has in a brand and belief that it can be counted on to perform the promised service (For a sample of the trust scales reviewed for the purposes of this research see Appendix 4). The original scale was composed of four seven-point likert statements all measuring the degree of trust, honesty, safety and belief respondents could possibly show to a particular brand. Although these four elements of the Chaudhuri and Holbrook measurement instrument matched the aspects of trust revealed during the earlier qualitative part of this research (expert interviews), there was a fifth element that was highlighted by most industry experts and was not accounted for in the

measurement instrument. Brand reliance, the fifth element of trust measurement according to industry experts was accounted for in the measurement instrument by asking respondents whether the brand could be relied upon to keep its promised level of service. Following the inclusion of brand reliance in the instrument, further minor adjustments were made in the wording of the statements of the original instrument from one focusing on a generic brand to one focusing on an airline brand.

Similarly, the brand loyalty measurement scale was an adjusted version of a scale created by Sen et al., (2001) which was originally employed to assess a person's tendency to purchase a specified brand within a specified product category. The original scale showed superior reliability and consisted of four statements that assess a person's tendency to purchase a specific service within a specific product category. This particularity of the scale that allows researchers not only to investigate whether brand loyalty is existent, but also the fashion in which it functions within the same product category made this scale perfectly suitable for the purposes of this study. That is, considering that the main purpose of this study is to shed light on loyalty transfer between multiple brands within the same product category the Sen et al., (2001) scale elucidates the mechanisms of loyalty transfer within the same service category and between alliance members. Similar to the previous scale (measuring brand trust), this one was also slightly adjusted based on insight gained during the qualitative part of this research. Two items that are highly related and were highlighted by experts were added to the Sen et al. scale. First, the ease of brand switching behaviour displayed by respondents and second, the extent of willingness to make an effort to stick to the brand to which a customer is loyal. These two items were added to the original scale based on consensus of their importance shared by the majority

of experts. Moreover, as with the brand trust scale this scale's wording was slightly adjusted to capture perceptions of loyalty shown toward an airline brand instead of a generic brand.

The last measurement scale (service quality) has been adopted from the research of Brady and Cronin (2001) and focuses on the degree a customer believes that the provider knows that certain aspects of the service are important to consumers and, indeed, the respondent is pleased with them. The Brady and Cronin (2001) scale consists of three seven-point likert statements. These statements which measure an aspect of service quality focused on the degree to which a customer says the provider knows that certain aspects of the service are important to the end user. Although the scale draws some inspiration from previous studies of tangible aspects of service quality the authors developed their own measures in order to ensure they included certain characteristics such as outcome and interaction. In addition to these characteristics, reliability, responsiveness and empathy were also deemed important based on the qualitative analysis. For this reason, statements measuring these three extra characteristics were included in the service quality measurement instrument. As with the previous scales this one was adjusted to capture perceptions of service quality regarding an airline brand and not a generic brand.

Since the literature review did not reveal any scales measuring service quality, trust and loyalty in co-branded environments (brand alliance service quality, trust and loyalty) the previously presented single-brand scales were employed to measure the same effects in co-brand environments. The choice to employ the same scales to measure any possible effects on each of the three constructs in single brand and brand alliance contexts (e.g. single brand trust and brand alliance trust; single brand loyalty and brand alliance loyalty) bestowed a

number of advantages. First, discrepancies resulting from using non-identical scales to measure effects on the same construct but in a different context (single brand vs. brand alliance) were avoided. Second, a comparison between the magnitude of possible effects on a construct in a single brand and in a brand alliance context was directly feasible. Third, a more thorough examination of unexplored relationships between the same construct in single brand and brand alliance contexts was possible.

Apart from the need to measure effects on the three constructs mentioned above in both single brand and brand alliance contexts the relationship between positive word-of-mouth (WOM) and alliance loyalty needed to be explored. In accordance with the bulk of marketing research exploring the relationship between loyalty and WOM a single item scale was adopted here. Considering that the examination of this particular relationship is one of the secondary goals of this study and that its measurement does not endow any effects on the model, a single scale item that directly asked respondents whether they would offer positive word-of-mouth to (talk positively about) a particular brand alliance or not was deemed acceptable.

Moreover, it is worth noting that apart from the adaptation each individual measurement scale required (as described above), other minor adaptations were made that were common to all measurement scales. In other words, during the construction of the measurement instrument both changes specific to particular scales and alterations common to all scales were made. On one hand, scale specific adaptation, as described earlier, included changes to particular scales such as the addition of a fifth item (based on the literature review and especially expert interviews) to the original four item trust measuring scale by Chaudhuri and Holbrook (2001). On the other hand, adaptation

common to all scales included minor wording changes that made the new scales more relevant to the subject matter. That is, alterations that were common to all scales consisted of substitutions of particular brand names used in the original scales with brand names relevant to this study. In addition, a few changes in wording which were related to the type of service provided by the brands employed for the purposes of this study were required. For example, in a question that in its original form started, “When you buy a product from...” the wording was altered to “When you buy an airline ticket from...” to make it more context specific. Similarly, in a different question starting with “If a competing brand...” the wording was changed to “If a competing air carrier...” again to accommodate the needs of this research. It is also important to mention that although the questionnaire was handed out in Germany, at the Munich International Airport, the scales were not translated from their original language (i.e. English) to German. The reason behind this is that the respondents were international air travellers from a variety of national backgrounds. In general, when compared to the majority of other studies in the relevant literature that adapt existing scales to make them better fit the purposes of their research, the alterations made here to the original scales were minor both in number and importance.

In conclusion, it is important to highlight that the survey comprises of two sections, the main part which consists of questions targeted at examining the validity of the hypotheses presented earlier and the second section which records the demographic information of the respondents. Furthermore, the main part of the questionnaire employs seven-point likert scales in order to capture respondents’ views on service quality, trust and loyalty transfer between

individual airlines and the alliances they belong to. A copy of the questionnaire used in this study can be found in Appendix 6.

4.5.1. Piloting the Questionnaires

Feedback on the questionnaire came from a variety of sources. The majority of the responses (158 questionnaires) were provided by airline customers while waiting in line to check-in for their flights in the two terminals of the Munich International Airport. Based on their comments the questionnaire was revised and submitted for review to marketing practitioners employed in the marketing departments of two airlines. All 26 practitioners were business contacts of the researcher in the airline industry. Subsequently, the newly adjusted questionnaire was piloted again in the Munich Airport where 186 respondents confirmed that it did not contain any major flaws. In all the above cases interviewee self-completion was the method of choice but the individual handing out the questionnaire was always close to the respondent in order to discuss any possible flaws the respondent might have identified either during the process or upon completion.

The travellers waiting to check-in, varied significantly in terms of age, occupation, frequency of air travel and familiarity with airline alliances. The rest of the respondents (airline marketing employees) did not differ in terms of age, occupation, frequency of travel and familiarity with airline alliances as immensely as the airport respondents did.

Additionally, an initial review of the respondents' feedback aimed at assessing the level of acceptably completed questionnaires verified the researcher's concerns about relatively low rates of traveller familiarity with airline alliances. That is, a significant number of travellers, mostly the non-

frequent ones, were unaware of either the existence of airline alliances or of at least some of the members that comprise each alliance. Respondents unfamiliar with airline alliances and their members were easy to unearth as they failed to either complete correctly or complete at all the initial fields of the questionnaire. The questionnaire began with three boxes each enclosing the logos of all airlines members of an airline alliance. The respondents were asked to fill-out the name of the alliance that corresponded to each box. Subsequently, the respondents that were able to fill-out at least one of the three were asked to answer the following questions before they began with the main body of the questionnaire:

- a. Fill-out the name of one airline on which the traveller has frequently flown and is a member of an airline alliance.
- b. Fill-out the name of alliance this airline belongs to.
- c. Fill-out a journey that the traveller frequents where other airlines except for the one specified in a. offer their services.

Questionnaires in which the above three items were either incomplete or missing were treated as invalid (and thus excluded) since there was enough evidence that the respondent lacked knowledge necessary to complete the particular questionnaire.

Alternatively, the respondents that were unable to fill-out at least one of the names of the airline alliances in the initial part of the survey were asked to just fill-out a. The name(s) of the airline(s) which they were flying on the day they responded to the questionnaire and b. the name(s) of the airline(s) which they flew during the previous year and then return the questionnaire.

4.5.2. Tailoring the Questionnaires

The initial version of the questionnaire was based on knowledge gained during the literature review and expert interview phases and served as an enhancement instrument for the main survey. The pilot studies uncovered a variety of flaws in the survey such as unclear wording and other survey design errors. Moreover, based on the statistical analysis of the results of the pilot study the measurement scales were further refined by eliminating variables that did not load satisfactorily on their respective constructs.

In general, the flaws uncovered by piloting the questionnaire can be divided in two categories. First, a number of alterations in wording were required to make the questionnaire understandable to the majority of respondents. The main problem here was that although the questionnaire was understandable in its original format to native and fluent English speakers parts of it were often unclear to the large number of non-fluent English speaking respondents. This issue was tackled by substituting certain words with synonyms that were more popular with non-fluent English speakers. Especially, in one case where airline industry jargon was used changes were made so that more commonly understood wording was used.

Second, a number of aesthetic changes were required in order to ensure and enhance respondent understanding. Changes in the layout of questions so that they followed a more structured format and numerous graphics were added to either separate sections or highlight changes in question category in order to make the questionnaire more comprehensible for all respondents.

In addition, a few alterations were made to the measurement scales in order to exclude items that showed poor correlation and thus increase goodness

of fit. In particular, from the perceived service quality measurement scales (both single brand and brand alliance) a single item measuring a service provider's awareness of customer needs was excluded because of its significantly poor fit. Similarly, from the brand loyalty scales one item measuring customer perseverance that also loaded poorly was excluded. Although customer perseverance was an integral part of the loyalty measurement scale, a second item on the original scale measuring similar effects and performing significantly better was kept, hence the exclusion of the former was not deemed problematic. Finally, two items had to be excluded from the trust scales (single brand and brand alliance). That is, two items measuring brand reliance and honesty were excluded because of displaying poor correlations. Similar to the case above other items measuring the same effects were part of the original scale and therefore their exclusion was unproblematic.

4.6. Data Collection

Following the piloting and tailoring of the early versions of the questionnaire the main study questionnaire was ready to be submitted to air travellers. It was handed out to airline customers at the gate areas of both terminals of the Munich International Airport between January 19 and March 2, 2008. Traditionally airport gate areas have been the preferred place for airline related research since unlike all other airport sites it is the sole place that passengers enjoy the tranquillity and time needed to fill out a questionnaire. Respondents needed an average 8-9 minutes to complete it. Access to the gate areas of the airport was gained through the researcher's business contacts in the airline industry who were able to provide the researcher and the other questionnaire administrators with passes for the gate terminal areas. The

questionnaire administrators used in the two different collection processes (piloting and main data collection) were the same. Shortly prior to the pilot stage data collection the researcher familiarized the administrators with topic. In particular, he explained to the administrators the purpose of the data collection, discussed the different sections of the questionnaire and analysed each of the questions found in the questionnaire. At the same time he asked questions to ensure that the administrators understood each individual item of the questionnaire and answered the administrators' questions. Subsequently, the researcher explained to the administrators how they should approach potential respondents, the wording that they should use when asking travellers to fill out a questionnaire and all the related information they need to emphasize on (e.g. average completion time, confidentiality, etc.). The same exact preparatory process was followed prior to the main data collection in order to "refresh" the administrators' memories.

The sample of 700 respondents (excluding partially or incorrectly filled out questionnaires) satisfied the minimum SEM analysis requirements found in the relevant literature. The sample size in this study is larger than the minimum required sample of 200 cases (Kline, 2004; Loehlin, 1992) and with 23 cases per indicator significantly exceeds the minimum 15 cases per indicator limit (Benter & Chou, 1987) found in the relevant literature. It is important to note that sample size can be problematic since it influences model fit statistics as well as results and therefore impacts produced by sample size must be handled carefully by the researcher (Byrne, 2001). This issue is discussed further in the results analysis section.

4.6.1. Sample Bias

In order to unveil any inconsistencies in the sample and check if particular groups are over-represented, simple statistical analyses were performed using the data retrieved from the demographic section of the questionnaire. As can be seen from the graphs in Appendix 5 there is a relatively uniform representation among age groups in the sample while occupationally independent workers and students are underrepresented. In addition, business travellers lead the purpose of travel category with leisure travellers closely trailing them and respondents mixing business and leisure following the two main categories. The 6 to 11 times annually air travel category is undoubtedly the leader in the frequency of travel category while a surprisingly large number of respondents does not hold membership in one of the three major airline alliances. Finally, the internet and travel agents are the preferred methods of booking for the vast majority of travellers most of which often do not have the choice of airline they are going to end up flying. The sample characteristics were shown to management at Munich Airport and it was felt that the sample fairly represented non-charter flight passengers going through the airport. Of course, this indicates only that the sample is relatively representative of the general air traveller population going through the Munich International Airport and not of the general population of air travellers globally. It is possible that if the data collection took place in a different location it would lead to different sample characteristics.

Moreover, it is noteworthy that although particular respondent groups are not significantly overrepresented in the sample, the sample itself has been deliberately biased to exclude air travellers who do not have any knowledge of airline alliances and their members. As detailed earlier the questionnaire began

by presenting three boxes, each enclosing the logos of all airlines members of one of the three major airline alliances. Respondents were asked to fill-in the name of the alliance that corresponded to each box. The ones unable to fill-in the name of at least one of the three major airlines alliances were asked to note the name of the airline(s) they were flying on that particular day and that of the airline(s) which they had flown during the previous year and subsequently return the questionnaire. Questionnaires falling into this category were excluded from the analysis. Hence, it can be argued that the sample was intentionally biased to exclude travellers that do not possess a basic knowledge of the major airline alliances. This was deemed necessary as it is impossible for individuals that are unaware of the existence of airline alliances and (at least some) of their individual members to respond whether they can transfer perceptions of service quality, trust and loyalty from the airline they frequent to the alliance this airline belongs to. Hence, biasing the sample in a fashion that excludes respondents completely unfamiliar with airline alliances and their members was vital for the purposes of this study.

4.7. Conclusion

This chapter provided a thorough analysis of the methodological approach followed in this study. It began with a presentation of SEM and justified its use for the purposes this research. Moreover, it analyzed the hypotheses formed during the literature review and presented the theoretical model on which this research is based. Subsequently, it explained the method used in constructing the measurement instrument and described the data collection process. The next chapter presents the way in which the collected data has been analyzed and the conclusions drawn from this analysis.

Table 8 Chapter 5 Outline

Introduction	Chapter 1	<ol style="list-style-type: none"> 1. Background of the Research 2. Justification for the Research 3. Statement of the Research Problem 4. Contribution to Academic and Business Knowledge 5. Significance of the Industry used as a Framework 6. Delimitations of the Scope of the Study
Literature Review	Chapter 2	<ol style="list-style-type: none"> 1. Branding 2. Affect Transfer 3. Service Quality 4. Trust 5. Loyalty
Qualitative Study	Chapter 3	<ol style="list-style-type: none"> 1. Purpose of the Expert Interviews 2. Methodology 3. Data Analysis
Quantitative Study	Chapter 4	<ol style="list-style-type: none"> 1. Structural Equation Modelling 2. Theory: Conceptual Framework and Hypothesis 3. Model Construction 4. Measurement Instrument Data Collection
Results Analysis	Chapter 5	<ol style="list-style-type: none"> 1. Model Testing, Model Fit and Estimation Methods 2. Measurement Model 3. Analysis of Results and Hypothesis Testing
Conclusion	Chapter 6	<ol style="list-style-type: none"> 1. Conclusions of Hypotheses 1-6 2. Contribution to Knowledge 3. Limitations 4. Recommendations for Future Research

5. DATA ANALYSIS

5.1. Introduction

While the previous chapter introduced the methodology followed in the quantitative study, this chapter presents the analysis of the collected data. The chapter begins with a number of statistical checks that test the “appropriateness” of the data and continues with a review of the selected estimation method. Subsequently, the results are analyzed in a fashion that facilitates assessment of the hypotheses presented earlier. Finally, two possible alternative models are considered and compared to the theoretical model of this study.

5.2. Model Testing, Model Fit, and Estimation Methods

In this critical stage the model-data fit is tested in order to reveal whether the model fits the data acceptably. Model fit testing should be performed prior to data analysis as any results are meaningful only if the model fit is acceptable (Lewis, 2003). That is, regardless of the outcome of the data analysis if the model-data fit is unacceptable the study can be invalidated. Occasionally, when the model fit is not acceptable on the first run, researchers are forced to spend more time achieving an acceptable model fit than actually interpreting the analyzed data (Hairong, et al., 2002).

For the purposes of this study model testing begins with a measurement model test using SPSS and confirmatory factor analysis and continues with a structural model test using Amos 6. The following section evaluates the measurement model and justifies the method of estimation and fit indexes selection.

5.3. Measurement Model

The measurement model was assessed by using confirmatory factor analysis and varimax rotation. The measurement model loaded well on all six latent variables (seven including word-of-mouth) and performed very satisfactorily on KMO and Barlett's tests with 0.96 and $P < 0,00$ respectively. The loadings of all seven factors are shown on Table 9 below.

Table 9 SPSS Output - Rotated Component Matrix

	Component						
	1	2	3	4	5	6	7
SBSQ			,829				
SBSQ			,825				
SBSQ			,822				
SBSQ			,825				
SBSQ			,816				
SBT				,781			
SBT				,783			
SBT				,784			
SBT				,779			
SBT				,809			
SBL		,720					
SBL		,793					
SBL		,788					
SBL		,812					
SBL		,798					
Positive Word-of-Mouth							,968
BASQ					,748		
BASQ					,812		
BASQ					,700		
BASQ					,808		
BASQ					,790		
BAT						,772	
BAT						,748	
BAT						,789	
BAT						,765	
BAT						,751	
BAL	,870						
BAL	,873						
BAL	,853						
BAL	,875						
BAL	,850						

SPSS Output

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

5.3.1. Estimation Method

The estimation method should be carefully selected for a number of reasons. First, fit statistics of the same dataset can greatly vary depending on the chosen estimation method. That is, while one fit index might be acceptable another or even often more indexes are not. Unfortunately, there is a tendency among researchers not to report the optimum (based on the characteristics of their particular data set) estimation method in their studies because it leads them to unsatisfactory results and instead present a less optimum method that might result in more favourable fit indexes.

Second, all estimation methods are sensitive to data distribution and most of them strongly assume multivariate normality although most data collected in research violate this assumption (Schermelleh-Engel et al., 2003). The two main measures of normality are skewness and kurtosis. Skewness is a measure of the asymmetry of a distribution. When the normal distribution is symmetric it has a skewness value of 0. A distribution with significant positive skewness has a long right tail while one with significant negative skewness has a long left tail. While skewness is a measure of asymmetry, kurtosis is a measure of how flat or peaked the data are. In other words, it measures the extent to which observations cluster around a central point. For a normal distribution, the value of the kurtosis statistic is zero. Positive kurtosis indicates that the observations cluster more and have longer tails than those in the normal distribution, and negative kurtosis indicates that the observations cluster less and have shorter tails.

As it can be seen in Table 10, the vast majority of the means vary between 2.5 and 4.5, therefore skewness is slightly positive for most variables. Furthermore, kurtosis is moderately high leading to the conclusion that the data is moderately non-normal.

Table 10 Descriptive Statistics, Skewness and Kurtosis

	Min	Max	Mean	Standard Deviation	Skewness		Kurtosis	
					statistic	std. error	statistics	std. error
SBSQ1	1	7	2,50	1,511	1,416	0,092	1,736	0,185
SBSQ2	1	7	2,57	1,518	1,300	0,092	1,472	0,185
SBSQ3	1	7	2,54	1,490	1,334	0,092	1,471	0,185
SBSQ4	1	7	2,61	1,495	1,234	0,092	1,366	0,185
SBSQ5	1	7	2,51	1,596	1,368	0,092	1,462	0,185
SBT1	1	7	3,02	1,913	0,794	0,092	-0,556	0,185
SBT2	1	7	2,97	1,916	0,755	0,092	-0,640	0,185
SBT3	1	7	3,01	1,940	0,759	0,092	-0,662	0,185
SBT4	1	7	3,03	1,927	0,837	0,092	-0,544	0,185
SBT5	1	7	2,97	1,910	0,798	0,092	-0,553	0,185
SBL1	1	7	4,05	2,202	-0,088	0,092	-1,491	0,185
SBL2	1	7	4,17	2,030	-0,068	0,092	-1,342	0,185
SBL3	1	7	4,23	2,038	-0,208	0,092	-1,272	0,185
SBL4	1	7	4,27	2,032	-0,175	0,092	-1,281	0,185
SBL5	1	7	4,17	2,052	-0,079	0,092	-1,369	0,185
POW	2	6	3,83	1,439	0,121	0,092	-1,317	0,185
BASQ1	1	7	3,59	2,044	0,369	0,092	-1,285	0,185
BASQ2	1	7	3,68	2,016	0,199	0,092	-1,231	0,185
BASQ3	1	7	3,46	2,103	0,345	0,092	-1,301	0,185
BASQ4	1	7	3,70	2,016	0,212	0,092	-1,235	0,185
BASQ5	1	7	3,71	2,000	0,235	0,092	-1,199	0,185
BAT1	1	7	4,63	2,076	-0,474	0,092	-1,211	0,185
BAT2	1	7	4,54	2,087	-0,520	0,092	-1,097	0,185
BAT3	1	7	4,56	2,171	-0,515	0,092	-1,157	0,185
BAT4	1	7	4,66	1,970	-0,458	0,092	-1,162	0,185
BAT5	1	7	4,56	2,136	-0,528	0,092	-1,150	0,185
BAL1	1	7	5,07	1,942	-0,995	0,092	-0,151	0,185
BAL2	1	7	5,05	1,899	-1,046	0,092	-0,014	0,185
BAL3	1	7	5,17	1,737	-0,920	0,092	-0,187	0,185
BAL4	1	7	5,07	1,917	-1,067	0,092	0,026	0,185
BAL5	1	7	5,06	1,914	-1,034	0,092	-0,019	0,185

In consideration of the above, the chosen estimation method here is Maximum Likelihood (ML); the most widely used method in SEM (Schermelleh-Engel et al., 2003). Although there are few estimation methods less sensitive to highly non normal data, such as Generalized Least Squares (GLS) and Asymptotic Distribution Free (ADF) or even non-parametric tests, all these methods either produce less accurate parameter estimates or require sample sizes of 1000 or more. Even though this study's variables are moderately non-

normal, ML was the method of choice because of its superiority to the other available methods. In particular, it has shown in the past that it is robust enough to handle non-normality (Chou & Bentler, 1995; Muthen & Muthen, 2002), less sensitive to sampling error, more accurate in its parameter estimates and provides overall fit tests that are statistically well founded (Fan et al., 1999). Furthermore, ML, the most frequently used estimation method for Confirmatory Factor Analysis models, assumes a large sample size and multivariate normal data. However, parameter estimates are robust against the non-normality requirement. (Kline, 2004).

5.3.2. Model Fit

5.3.2.1. Traditional Model Fit Statistics

Until recently, the majority of researchers employing SEM in their studies reported the same three fit statistics. Acceptable Chi-square (X^2), Goodness of Fit Index (GFI) and Adjusted Goodness of Fit Index (AGFI) values were a necessity for researchers that wanted to display a good model fit. Although for a number of years researchers have been aware of the problems each of these indexes possess, they continued employing these statistics.

The problems recognized by many researchers with X^2 are its sensitivity to sample size and model complexity. In detail, X^2 is dependent, in part, on the sample size, which means that small discrepancies between the model and the observed data are ‘magnified’ in the context of large samples. Therefore, plausible models with a large sample size are almost always rejected while poor models with a small sample size can very often be acceptable. Moreover, the fit index value decreases with highly complex models (Pratschke & Haase, 2007).

The GFI and AGFI are both based on X^2 and are therefore problematic in many cases. The sensitivity these indexes display towards sample size as well as poorly specified models, has resulted in an increasing consensus over the last several years to substitute these indexes with more reliable ones (Kenny, 2003). Other fit statistics that are not so sensitive to sample size and model complexity and which seem to have become the norm the last couple of years are the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI) and the Root Mean Square Error of Approximation (RMSEA)(Garson, 2006; Kenny, 2003).

5.3.2.2. Contemporary Model Fit Statistics

Although X^2 , GFI and AGFI have been used for a number of years by researchers using SEM in the last decade, there now seems to be mutual agreement among researchers on the superiority of CFI, TLI and RMSEA (e.g.

Table 11 Summary of Fit Indexes-Theoretical Background		Schermelleh-
CFI	compares the existing model with a null model with the hypothesis that the latent variables are uncorrelated	Engel et al.,
TLI	gives the proportion by which the existing model improves fit compared with the null model and penalizes for model complexity	2003; Garson,
RMSEA	is based on the difference between predicted and observed covariances and penalizes for model complexity	2006; Kenny,

2003). In particular CFI and TLI are less sensitive to sample size than GFI and AGFI (Fan et al., 1999; Marsh et al., 1988). The RMSEA takes into account the error of approximation in the population. This index tells how well a studied model fits the population covariance matrix-if it is available . The way these indexes function can be seen in Table 11.

Tests on the theoretical model provided a CFI of .923 and a TLI of .917 which are both above the commonly acceptable threshold of 0.9 (Garson, 2006; Schermelleh-Engel et al., 2003). Moreover, as can be seen in Table 12 the RMSEA was .077, also at an acceptable level by the strictest of commonly

acceptable standards (e.g. Pratschke & Haase, 2007; Hu & Bentler, 1999; Schlermelleh-Engel et al., 2003).

Although the fit indexes are not excellent, all of them are acceptable under the strictest of commonly acceptable standards and therefore

Index	Value	Comments
CFI	.923	acceptable above .9
TLI	.917	acceptable above .9
RMSEA	.077	acceptable below .08
NFI	.907	acceptable above .9

respecification of the model or improvement in model-to-data fit was not performed. Occasionally, when fit indexes do not meet these

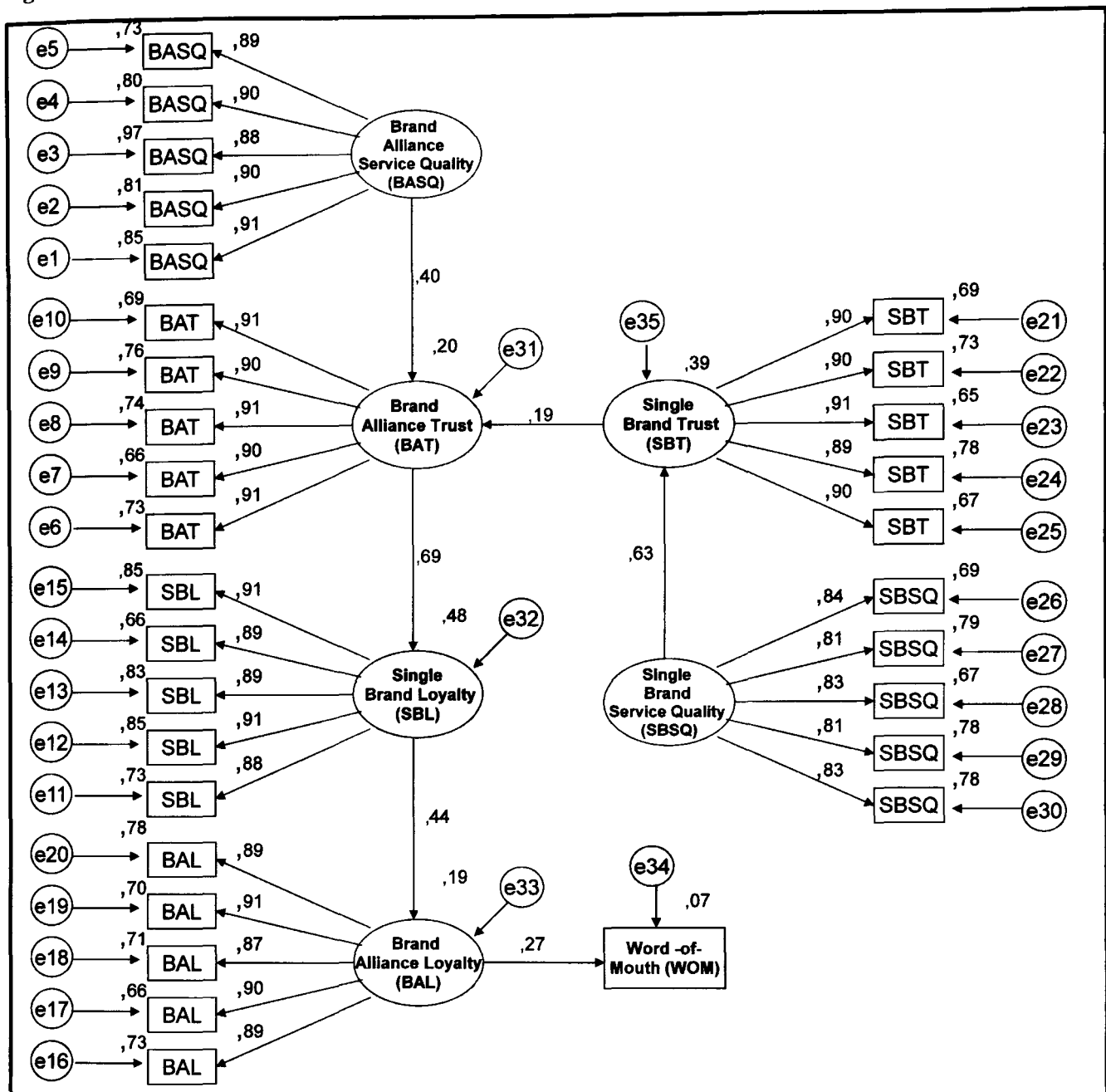
commonly acceptable standards, researchers, instead of considering resolving the fit problem by respecifying the model or by improving the measurement model's model-to-data fit, start arguing that even lower threshold values should be acceptable. For the reasons explained above, model respecification or model-to-data fit improvement was not considered here.

5.4. Analysis of Results and Hypothesis Testing

5.4.1. Squared Multiple Correlations (R^2) and Significance of the Relationships

This section presents the results of the SEM analysis in conjunction with the hypotheses presented earlier. That is, after the model fit was deemed acceptable the next step was the interpretation of the results in a fashion that either rejected or accepted (does not reject to be correct) the hypotheses. The theoretical model as displayed in Amos can be seen in Figure 3.

Figure 3 Theoretical Model Representation in AMOS



As can be seen on the model, the squared multiple correlations (R^2), which provide information about the variance explained by the model, are located in the upper-right corners of the (oval) latent variables. R^2 scores were ranging from ,07 for Word-of-Mouth to ,48 for Single Brand Loyalty . In general it is safe to assume that the measurement instrument performed similarly well for all variables.

In addition to the variance explained by the model, the strength of the relationships between the variables needs to be considered. Along with the

correlations the strengths between each pair of variables are displayed in Figure 3.

Before the strength of the relationships is taken into consideration, their significance level needs to be assessed. Although two variables might share a relatively strong relationship, if their significance level is not acceptable, the strength of the relationship is meaningless. If a model consists of a mixture of significant and insignificant relationships, only the significant ones can be used to accept or reject corresponding hypotheses. As it can be seen in Table 13 all relationships of this particular model were found significant at $P=0.00$. Now that the acceptability of the model fit and the significance of the relationships have been verified it is meaningful to analyze the results in conjunction with the hypotheses. In the following section the results of the analysis are presented in conjunction with the hypotheses detailed earlier.

5.4.2. Analysis of the Results in Relation to the Hypotheses

As can be seen in Table 13, the three measurement scales that were combined to compose the measurement instrument of this study loaded acceptably on their respective items. Furthermore, all indicators for all six variables loaded very well. This occurred partly because the original measurement scales employed (prior to adjustment) had been previously validated in numerous occasions and partly because the scales were piloted enough times to ensure that were properly adapted for the purposes of this research.

Table 13 Regression coefficients and P-Values

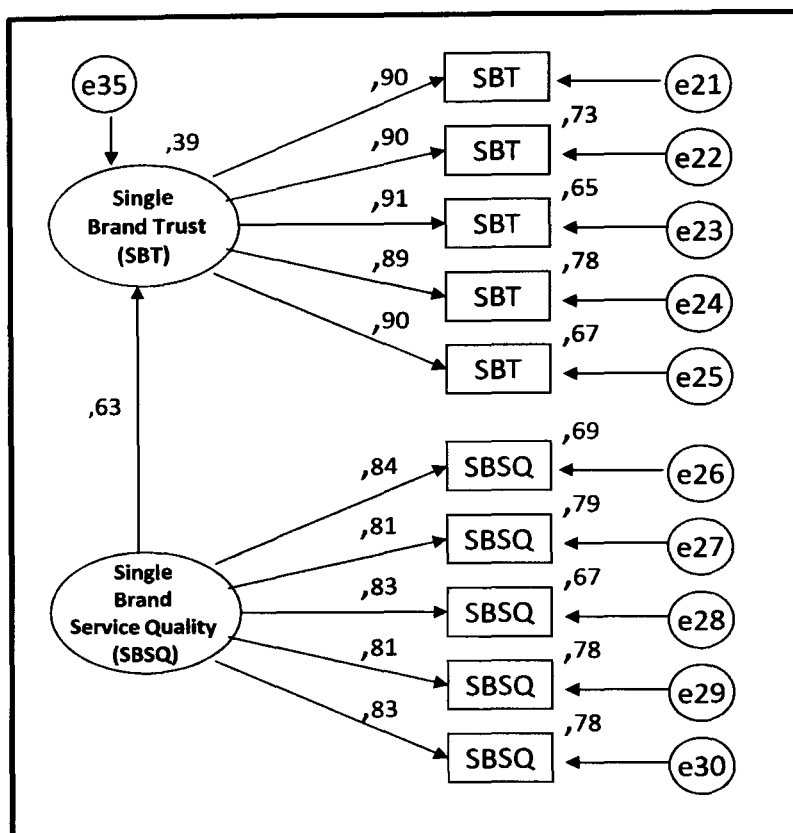
			Estimate	S.E.	C.R.	P	Label
SBT	<---	SBSQ	.855	.052	16.569	***	
BAT	<---	SBT	.201	.039	5.162	***	
BAT	<---	BASQ	.426	.039	10.887	***	
SBL	<---	BAT	.678	.033	20.663	***	
BAL	<---	SBL	.411	.035	11.705	***	
BASQ5	<---	BASQ	1.000				
BASQ4	<---	BASQ	1.017	.029	35.308	***	
BASQ3	<---	BASQ	1.048	.031	34.315	***	
BASQ2	<---	BASQ	1.019	.029	35.413	***	
BASQ1	<---	BASQ	1.046	.029	36.499	***	
BAT5	<---	BAT	1.000				
BAT4	<---	BAT	.918	.024	38.863	***	
BAT3	<---	BAT	1.019	.026	39.715	***	
BAT2	<---	BAT	.969	.025	38.543	***	
BAT1	<---	BAT	.973	.025	39.536	***	
SBL5	<---	SBL	1.000				
SBL4	<---	SBL	.970	.027	36.357	***	
SBL3	<---	SBL	.977	.027	36.817	***	
SBL2	<---	SBL	.997	.025	39.294	***	
SBL1	<---	SBL	1.048	.029	36.128	***	
BAL5	<---	BAL	1.000				
BAL4	<---	BAL	1.014	.027	36.916	***	
BAL3	<---	BAL	.886	.026	33.892	***	
BAL2	<---	BAL	.995	.028	36.099	***	
BAL1	<---	BAL	1.009	.029	35.345	***	
SBT1	<---	SBT	1.000				
SBT2	<---	SBT	.995	.027	36.820	***	
SBT3	<---	SBT	1.024	.027	38.328	***	
SBT4	<---	SBT	.993	.028	36.076	***	
SBT5	<---	SBT	1.001	.027	37.622	***	
SBSQ1	<---	SBSQ	1.000				
SBSQ2	<---	SBSQ	.975	.039	25.246	***	
SBSQ3	<---	SBSQ	.986	.037	26.391	***	
SBSQ4	<---	SBSQ	.957	.038	25.106	***	
SBSQ5	<---	SBSQ	1.054	.040	26.316	***	
WOM	<---	BAL	.223	.032	7.011	***	

5.4.2.1. Outcome of Hypothesis 1

Customer perception of Single Brand Service Quality (SBSQ) will lead to Single Brand Trust (SBT).

As it can be seen in figure 4 below SBSQ loaded high on SBT with a value of ,63. Moreover, the indicators of the measurement instruments for SBSQ and SBT loaded high namely between ,81 and ,84 for the former and between ,89 and ,91 for the later. Statistically, SBSQ is the most skewed variable with an average Skewness of 1.330 and is also the most peaked one with an average

Figure 4 Theoretical model Abstract Illustrating H1



Kurtosis of 1.501. These values show that respondents scored consistently high on SBSQ supporting the importance of perceived service quality on trust creation. The above finding is in line with previous research on the

subject which has shown that consumer perceptions of superior service quality provided by a brand will eventually lead to trust towards that brand (e.g. Rousseau, 1998; Singh & Sirdeshmukh, 2000).

Although the perceived service quality-trust relationship has been researched in a number of different settings academics continue to test its validity in novel contexts. One of the latest examples of this trend can be found in the research of Caceres and Papparoidamis (2007) who investigated the service quality-trust relationship in an advertising agency context and concluded that

perceptions of quality can be viewed as antecedents to relationship satisfaction which, in turn, affects trust, commitment, and eventually business loyalty. Similar to the approach followed in the study of Caceres and Paparoidamis (2007) here the relationship between perceived service quality and trust has been investigated in a novel context. Although the verification of the relationship in a novel context was not one of the primary objectives of this study it was an essential step in the investigation of the service quality-trust-loyalty relationship in a multi brand alliance context. Hence, considering the results of this study in conjunction with previous research it is safe to maintain that SBSQ will lead to SBT, thus H1 is not rejected.

5.4.2.2. Outcome of Hypothesis 2

Brand Alliance Service Quality (BASQ) will lead to Brand Alliance Trust (BAT).

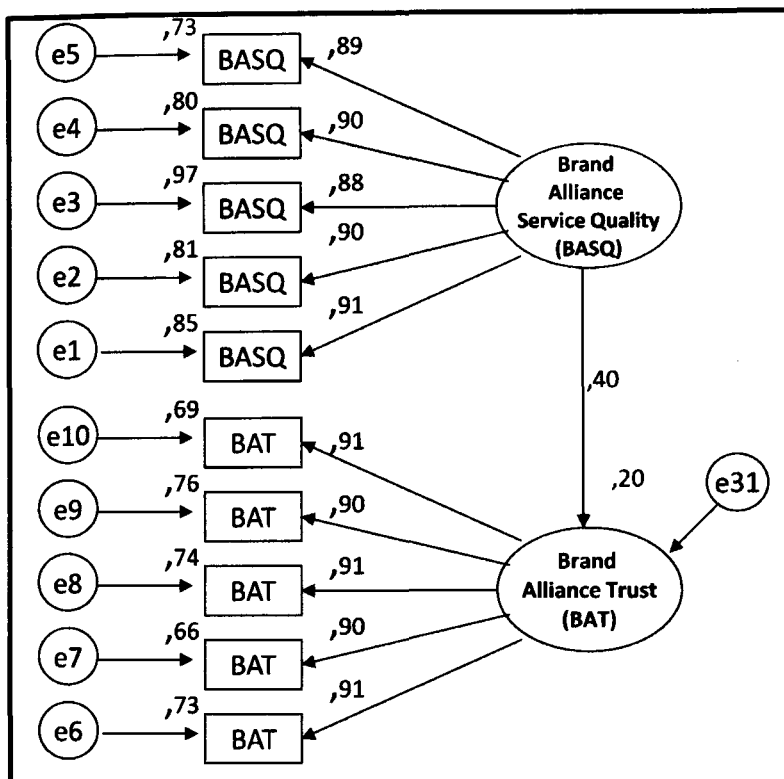
This hypothesis escalates the relationship between (single brand) service quality and (single brand) trust (see H1) to the co-branding or brand alliance level. In other words, the previously validated relationship between SBSQ and SBT is explored on the brand alliance level by investigating the relationship between Brand Alliance Service Quality (BASQ) and Brand Alliance Trust (BAT).

As it can be seen in Figure 5, this relationship was found strong with a regression coefficient of ,4. Moreover, the measurement scales for both variables loaded very well varying between ,88 and ,91 for BASQ and between ,90 and ,91 for BAT. The high loadings were expected based on the insight gained during the qualitative phase. That is, as most experts predicted, the relationship

between perceived service quality and trust works in a brand alliance context as it does in a single brand context.

Moreover, it is noteworthy that the measurement instruments for BASQ and BAT performed similarly well to those for SBSQ and SBT. This lies mainly

Figure 5 Theoretical model Abstract Illustrating H2



in the fact that both BASQ

and BAT use the previously validated and,

for the purposes of this research, adjusted

measurement scales also employed for SBSQ and

SBT. As verified during the pilot stage, the

measurement scales of

perceived service quality and trust for single brands perfectly suit the

measurement of the same constructs for brand alliances. Based on the above it

was expected that since the SBSQ and SBT measurement instruments performed significantly well the instruments for BASQ and BAT would perform similarly

well.

The validation of the BASQ-BAT relationship escalated the extensively researched relationship between perceived service quality and trust on a brand alliance level. The validation of this relationship in a multi-brand alliance context allowed researchers a brand new spectrum of research that was previously unavailable. For example, based on this study the relationship between SBSQ and SBT can now be researched in a variety of multi-brand

alliance contexts (e.g. fmcg sector, services) instead of the single brand contexts that has been researched to date.

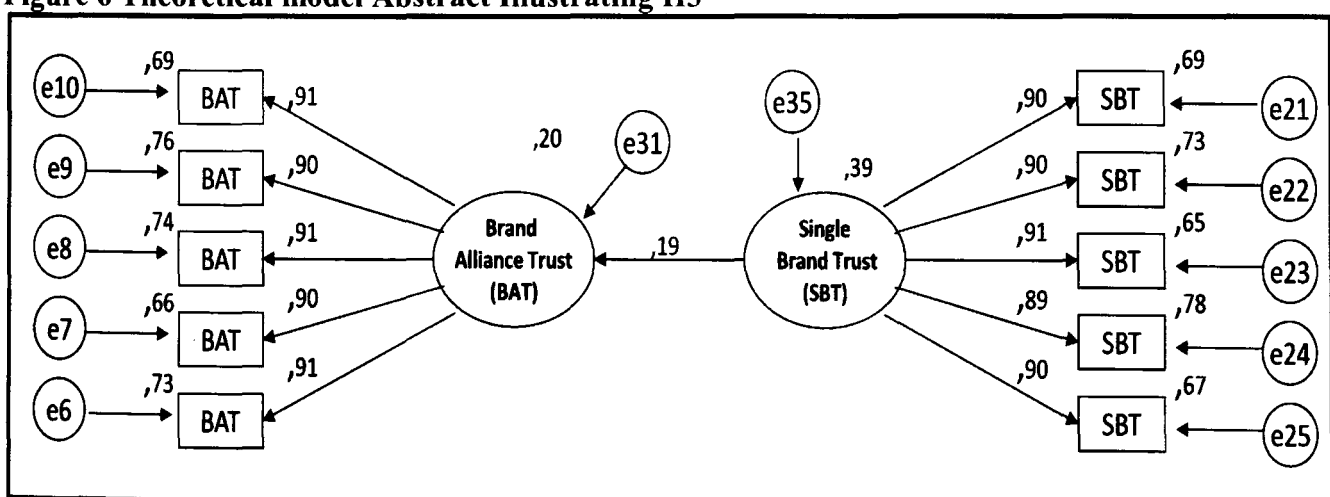
In addition, the verification of Hypothesis 2 constituted a critical step in the investigation of the service quality-trust-loyalty correlation in a multi-brand alliance context. Based on the verification of this relationship the link between service quality and trust can now be extended to include loyalty. However, before loyalty is added to the equation the relationship between single brand trust and brand alliance trust needs to be verified.

5.4.2.3. Outcome of Hypothesis 3

Trust in a Single Brand (SBT) will lead to Trust in the Brand Alliance (BAT).

This hypothesis assessed the relationship between SBT and BAT. As it can be seen in Figure 6 the regression coefficient between the two was found to be acceptable (.19), while R^2 for SBT and BAT was .39 and .20 respectively. The analysis showed sufficient evidence not to reject H3, thus endorsing trust transfer between a single brand and the brand alliance this particular brand is a member of.

Figure 6 Theoretical model Abstract Illustrating H3



The earlier literature review did not uncover any published studies examining transfer of trust from a single brand to a brand alliance. Hence, it is

impossible to compare the results of this hypothesis to those of previous research as it was performed for earlier hypotheses (e.g. H1). The indicator loadings were particularly high for both latent variables ranging from ,89 to ,91 for SBT and from ,90 to ,91 for BAT.

As with the two previous hypotheses the verification of this hypothesis

was a prerequisite for the

investigation of brand

alliance trust on brand

alliance loyalty. As it can be

seen in Figure 7, where a

simplified form of the

theoretical model is

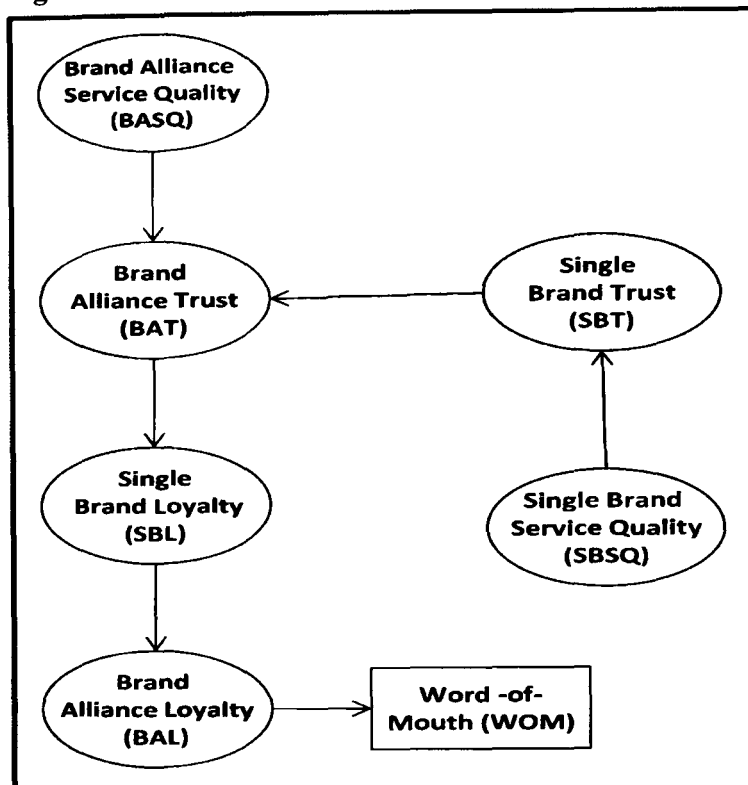
displayed, in order to be able

to shed light on the

relationship between single

brand loyalty and brand

Figure 7 Theoretical Model-Simplified Form



alliance loyalty as well as brand alliance loyalty and Word-of-Mouth the relationship between single brand trust and brand alliance trust need to be first verified.

Moreover, the validation of the relationship between single brand trust and brand alliance trust offers researchers a fresh insight into the construct of trust. In particular, based on this hypothesis that contributes to our understanding of transfer of trust from a single brand, member of an alliance, to the alliance as a whole, researchers can test this relationship in other contexts where brand alliances are common.

Furthermore, the validation of this hypothesis allows researchers to investigate the link between trust and other related constructs such as risk and satisfaction in a brand alliance context. Considering the popularity of trust as a research topic not only in the marketing and economics literatures, but also in the social exchange literature there is an abundance of research areas that this newly validated relationship can be applied to.

5.4.2.4. Outcome of Hypothesis 4

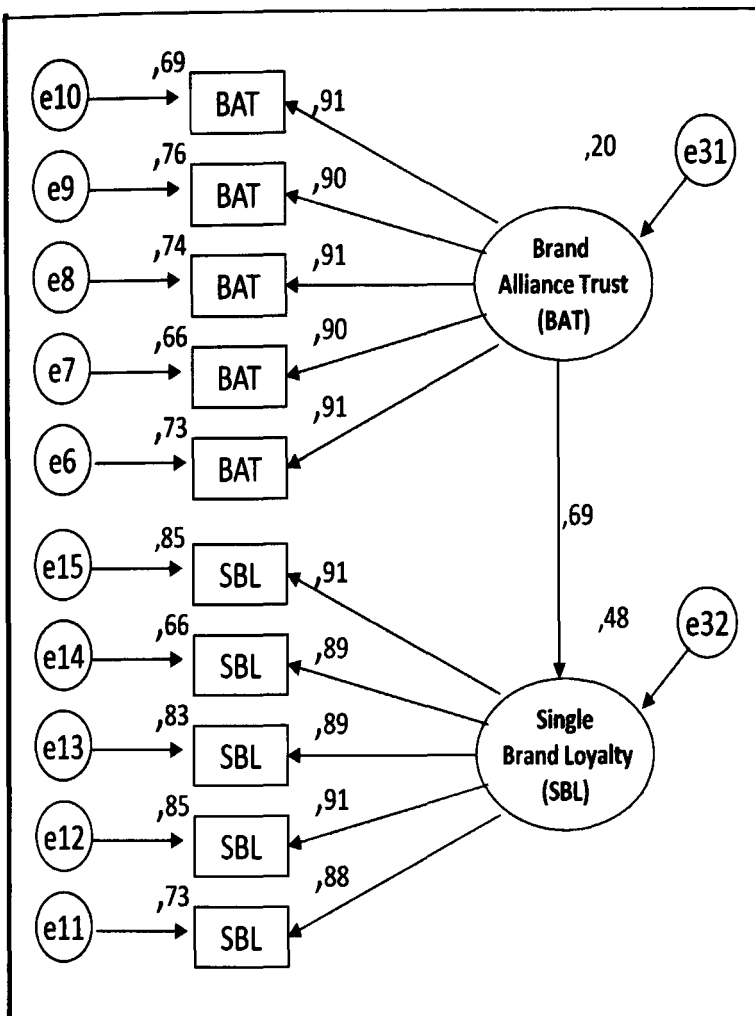
Brand Alliance Trust (BAT) will lead to Single Brand Loyalty (SBL).

Although the relationship between trust and loyalty in a single brand context has been researched systematically in the relevant literature, little is known about the relationship of the two in an alliance context. Moreover, although a number of researchers have corroborated that trust in a service provider can eventually lead to customer loyalty (e.g. Coyles & Gokey, 2002; McCullagh, 2003; Wijnholds, 2000) there is no published research investigating this relationship in a brand alliance setting.

The analysis showed a strong relationship between BAT and SBL with a regression coefficient of ,69. In other words, there is a strong indication that trust in a brand alliance can eventually lead to loyalty toward individual brands of that alliance. Moreover, as it can be seen in Figure 8, both BAT and SBL enjoyed relatively high R^2 values (,20 and ,48 respectively) and high indicator loadings ranging from ,90 to ,91 for the former and from ,88 to ,91 for the latter. Based on the above, it is safe not to reject H4.

Furthermore, as with H2 where high indicator loadings were occasionally encountered, high loadings for SBL are the result of employing well suited,

Figure 8 Theoretical model Abstract Illustrating H4



previously validated measurement scales and subsequently adjusting them repeatedly to suit the purposes of this study.

The results of the SEM analysis clearly show that the previously validated relationship between trust and loyalty works in the same way in a brand alliance context and in a single brand

context. The statistically robust findings should be interesting to both practitioners and academics involved in branding research.

As indicated in the qualitative part of this research, airline practitioners based on their experience with airline alliances expected the relationship between trust and loyalty to work in a multi-brand alliance level. Although they did not have robust evidence of the validity of the relationship, their experience in the field led them to believe that customer trust in a particular airline alliance can eventually lead to loyalty for particular members of that alliance.

Moreover, the validation of the trust-loyalty relationship in an alliance context offers branding researchers a better understanding of the forces shaping multi-brand alliances. Understanding the way multi-brand alliances function

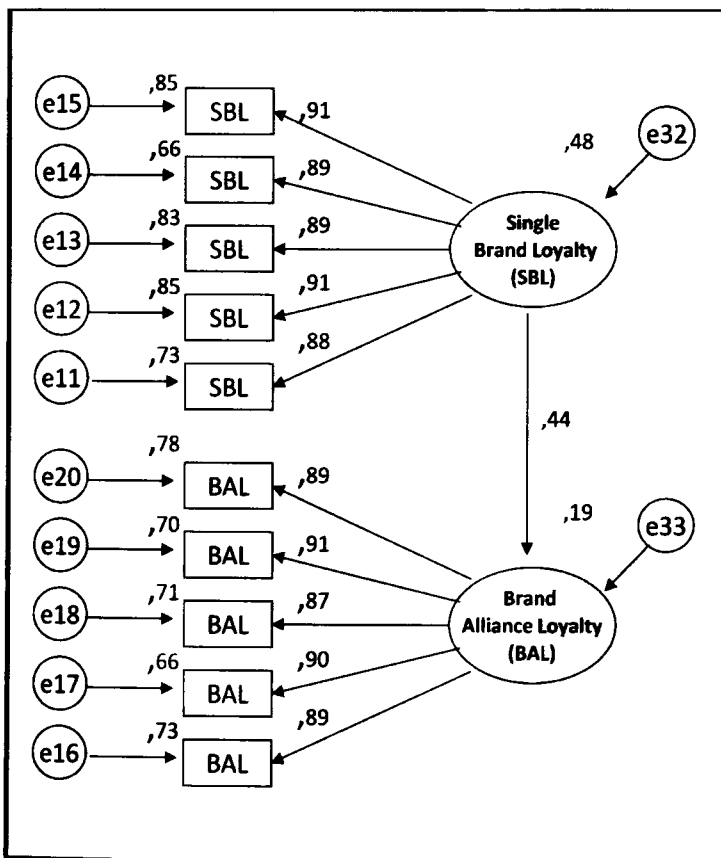
allows researchers to approach related constructs from a novel standpoint. For example, based on the understanding of the relationship between BAT and SBL, in Hypothesis 6 the relationship between loyalty and word-of-mouth (one of the constructs frequently linked to loyalty in the marketing literature) is investigated in an alliance context. Before the relationship between brand alliance loyalty and word-of-mouth for the alliance is explained, loyalty transfer from a single brand to the brand alliance this brand is a member of needs to be justified.

5.4.2.5. Outcome of Hypothesis 5

Single Brand Loyalty (SBL) will lead to Brand Alliance Loyalty (BAL).

Here the analysis demonstrated that the measurement instruments for both variables were robust and that brand loyalty shown to a single brand can

Figure 9 Theoretical model Abstract Illustrating H5



lead to loyalty for the alliance of which this brand is a member. The correlation between SBL and BAL stood even in cases where respondents were familiar with only a fraction of the members of a particular alliance. In other words, awareness of all brands, members of an alliance, is not

required for this correlation to come in effect. Furthermore, as it can be seen in Figure 9 the regression coefficient of .44 in addition to the indicator loadings that range between .88 and .91 for SBL and between .87 and .91 for BAL along

with the R^2 values (.48 for SBL and .19 for BAL) lead the researcher to accept, or to be more precise not to reject H5.

Similar to the earlier verification of the correlation between single brand trust and brand alliance trust (Hypothesis 3), here the correlation between single brand loyalty and brand alliance loyalty was substantiated. The robust results of the analysis further elucidated what was evident from the expert interviews performed in the qualitative part of the study. The statistical evidence of the correlation of the two variables offers further evidence to practitioners that loyalty programs can be of value when correctly implemented and creates new prospects in the study of loyalty and loyalty transfer. Marketing researchers can not only replicate the relationship in other contexts in order to test the findings of this research in different settings, but also approach previously researched topics from a different angle. As explained further in the next section one example of approaching previously researched topics from a new perspective is the investigation of the relationship between loyalty and word-of-mouth but this time in a multi-brand alliance setting.

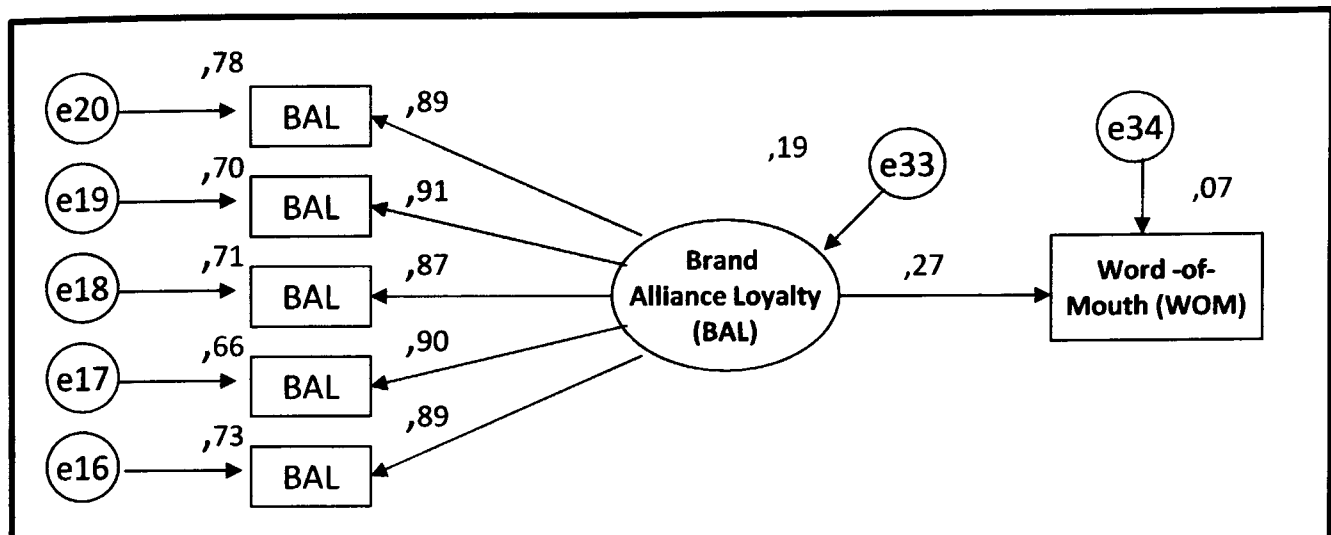
5.4.2.6. Outcome of Hypothesis 6

Brand Alliance Loyalty (BAL) will lead to Positive Word-of-Mouth (WOM) for the Alliance.

The relationship between loyalty and WOM is thoroughly researched in the relevant literature. The contribution of this hypothesis to knowledge is the investigation of the validity of this relationship in a brand alliance context. In other words although there is a plethora of studies indicating a close relationship between loyalty and WOM in a single brand context the relationship has not been validated in an alliance context. As it can be seen in Figure 10 the

regression coefficient of ,27 shows enough evidence to accept that loyalty to brand alliance can lead to positive WOM for that alliance.

Figure 10 Theoretical model Abstract Illustrating H6



Furthermore, the mediocre R^2 value of ,07 is not surprising considering that WOM for a multi-brand alliance is a novel construct. It is evident from the literature that constructs researched for the first time (in this case WOM for a brand alliance) have average (or even in cases low) R^2 values. This is both normal and expected as novel constructs have not enjoyed the evolution and repeated refinement of mature constructs. In line with previous research in this study the more mature constructs enjoy higher R^2 values (e.g. SBT→,39; SBL→,48) while the novel constructs introduced in this study slightly lower (e.g. BAT→,20; BAL→,19).

The validation of the loyalty WOM relationship in an alliance setting highlights further the importance of effective loyalty programs for firms. That is, since loyalty can result to positive word-of-mouth both in a single brand and in a brand alliance framework companies that are members of an alliance should place additional emphasis on their loyalty programs and the manner these relate to the loyalty programs of the other members and the alliance as a whole. Moreover, the fact that loyalty can result to positive word-of-mouth for an

alliance as a whole defends the practice adopted by most brand alliances today, namely to replace individual member loyalty programs with one alliance wide loyalty program.

This section revisited the hypotheses formed earlier in this research and examined the validity of each based on a thorough analysis of the data collected. All six hypotheses were accepted (or to be exact were not rejected) and justification for the acceptance of each was provided. The next section reviews two alternative models considered by the researcher and summarizes the results of their statistical analysis.

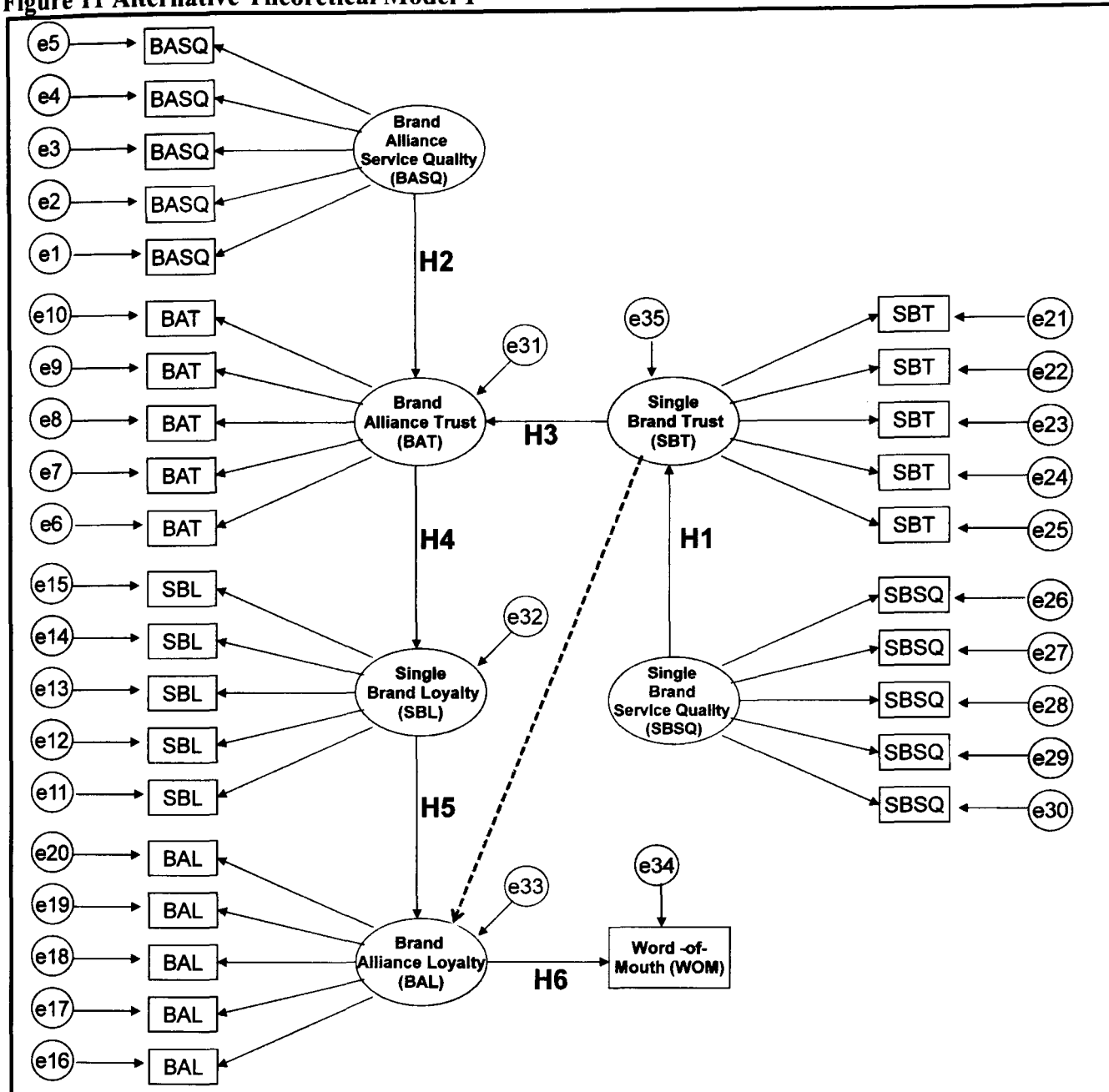
5.5. Alternative Theoretical Models

In addition to the theoretical model presented earlier, two further models were considered. This section presents these two alternative models and compares them to the main model of this thesis. The purpose of this comparison is to uncover whether other more optimal models with solutions superior to the ones presented earlier exist.

5.5.1. Alternative Model No. 1

The first alternative model maintains all the correlations of the main model and adds a new one between Single Brand Trust and Brand Alliance Loyalty. In other words, in addition to the six correlations presented earlier here we hypothesize also that there is a seventh between Single Brand Trust (SBT) and Brand Alliance Loyalty (BAL). This first alternative model is displayed in Figure 4. The dotted line connecting SBT to BAL indicates the new correlation, the only difference between this first alternative model and the main theoretical model of this thesis.

Figure 11 Alternative Theoretical Model 1



The analysis of the first Alternative Model resulted to fit statistics slightly inferior to those of the main theoretical model. Specifically, as can be seen in Table 14 the CFI, TLI and NFI that should be above the .9 threshold are .921, .915 and .901 respectively. The RMSEA with a value of .077 was slightly

below the .08 acceptance level. For the reasons detailed in the analysis of the main model, here only the above mentioned “contemporary” fit statistics are presented.

Index	Value	Comments
CFI	.921	acceptable above .9
TLI	.915	acceptable above .9
RMSEA	.077	acceptable below .08
NFI	.905	acceptable above .9

Moreover, the comparison between fit statistics of different models renders the presentation of the same statistics for all models (i.e. main and alternatives) imperative.

Additionally, as expected the squared multiple correlations of Alternative 1 and of the main model of this study were identical. Hence, it is safe to assume that the measurement instrument performed in both cases similarly well for all variables.

Furthermore, apart from the variance explained by the model, the strength of the relationship between two variables needs to be considered. Since all correlations except for the additional one introduced in Alternative Model No 1 have been explained earlier, the strength of only this new correlation (i.e. SBT-BAL) will be examined in this section. The loading of .13 shows a weak correlation between the two variables. Hence, the level of correlation between SBT and BAL is inadequate to claim that the former can have an effect on the latter. Since the additional correlation is not supported by the analysis it can be argued that this model is inferior to the main model.

Although the low factor loading between SBT and BAL deems the main model more robust and valid than the alternative theoretical model, the significance level of the additional relationship still needs to be assessed. As in the main model, here all relationships were found to be significant at $P=0.00$. Hence, it is reasonable to consider the loading between SBT and BAL.

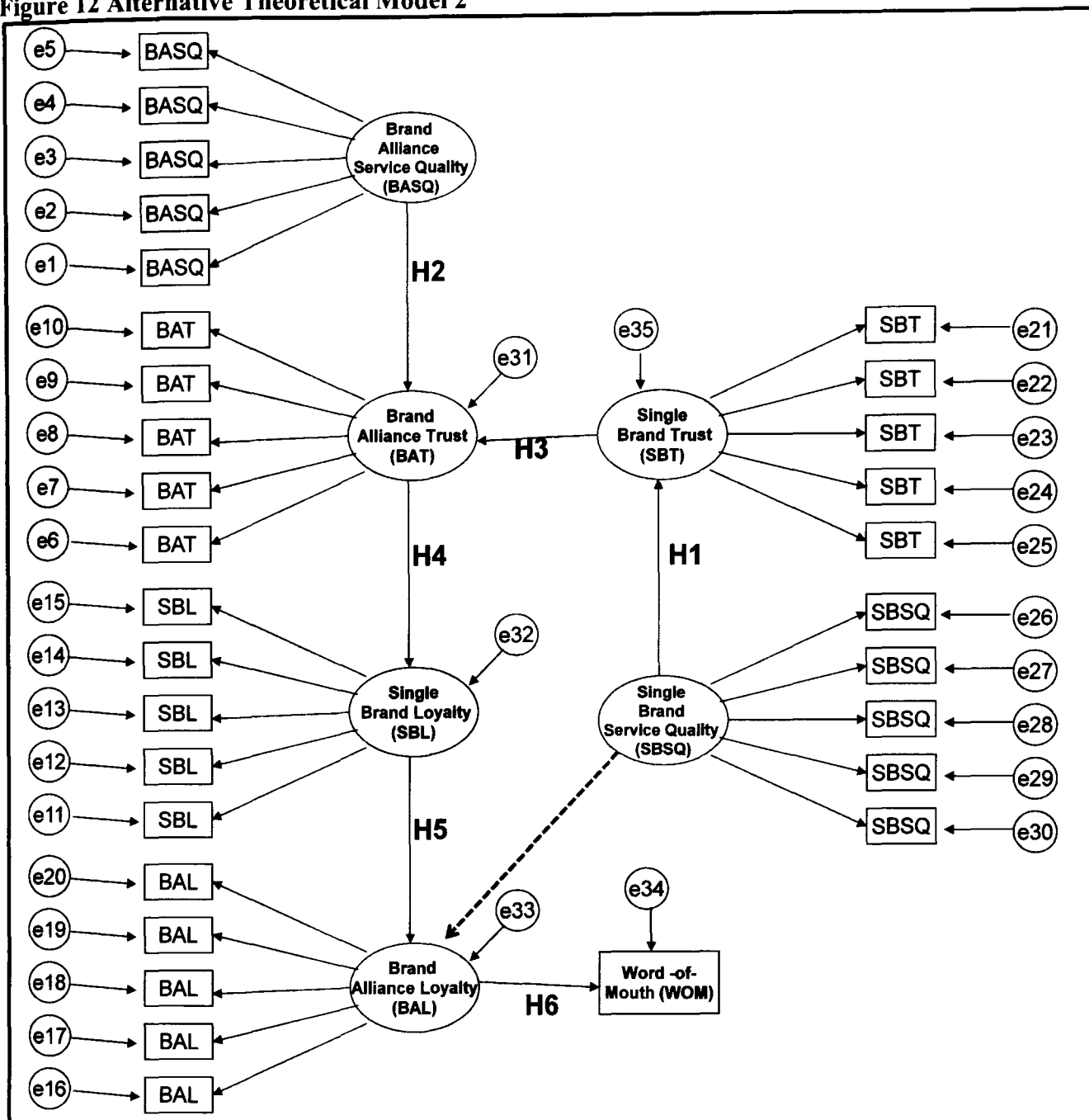
This section presented the first alternative model considered by the researcher. A variety of statistical tests revealed the reasons why the main theoretical model of this thesis is superior to Alternative Model No. 1. The next

section presents the second alternative model considered for the purposes of this research.

5.5.2. Alternative Model No 2

Similar to Alternative Model 1, the second alternative model also maintains all relationships between the different variables presented in the main model and adds one more correlation. In particular, it links Single Brand Service Quality to Brand Alliance Loyalty. In other words, here we hypothesize that in addition to the correlations presented in the main model customer perceptions of Single Brand Service Quality (SBSQ) and Brand Alliance Loyalty (BAL) are also correlated. This second alternative model is displayed in Figure 5 where the dotted line connecting SBSQ and BAL marks the only difference between this second alternative model and the (main) theoretical model.

Figure 12 Alternative Theoretical Model 2



This model, displayed fit statistics weaker than both the main and the first alternative models. In particular, as can be seen in Table 15 the CFI, TLI and NFI that should all be above the commonly accepted .9 threshold are .919, .913 and .905 respectively. Similarly, the RMSEA with a value of .078 was better than the .08 maximum acceptance level.

Index	Value	Comments
CFI	.919	acceptable above .9
TLI	.913	acceptable above .9
RMSEA	.078	acceptable below .08
NFI	.905	acceptable above .9

Moreover, the squared multiple correlations (R^2), of this alternative model, which provide information about the variance explained by the model,

are the same as those of the main model of this study. For the reasons explained earlier, it is safe to assume that the measurement instrument performed similarly well for all variables.

Furthermore, in addition to the variance explained by the model, the strength of the relationships between the variables needs to be considered. Considering that all correlations apart from the additional one introduced in Alternative Model No 2 have been reviewed earlier, the strength of only the new correlation (i.e. SBSQ-BAL) will be examined here. In particular, the loading of $-.06$ shows not only a very weak, but also an inverse relationship between SBSQ and BAL. Based on that it can be argued that SBQL has a very slight negative effect on BAL.

Although this alone is enough to deem the main model significantly more robust than the alternative proposed model, the significance level of the additional relationship still needs to be assessed. As mentioned earlier, if a model consists of a mixture of significant and insignificant relationships, only the significant ones can be used to accept or reject hypotheses. As it has been shown in the main model, all relationships were found significant at $P=0.00$. Here, the analysis showed that the regression weight for SBSQ in the prediction of BAL is not significantly different from zero at the 0.05 level. Hence, the relationship is insignificant and the analysis of the weights between SBSQ and BAL incongruous.

Both alternative models showed inferior results to the main theoretical model proposed in this study. They both exhibited inferior fit statistics to the main model and contained major weaknesses. In particular, the first alternative model showed acceptable significance levels but low weights on the new

correlation while the second showed low significance levels and low weight on the new correlation. Hence, both alternatives are considered to be inferior to the theoretical model of this study.

5.6. Summary of the Study

The quantitative study presented earlier employed SEM to test the hypotheses formed based on the literature review and later refined using information from the qualitative study (expert interviews) phase. This study followed the common practice adopted by the vast majority of marketing researchers employing SEM today by creating a model, building a measurement instrument, assessing the model fit and significance of the regression coefficients and finally evaluating the hypotheses. In this case all six hypotheses were accepted or to be precise not rejected.

In general, the study met all SEM requirements by presenting a stable, reliable and valid model. Moreover, the theoretical model performed acceptably in all fit indexes and produced excellent significance levels for the majority of regression coefficients. In conclusion, the results were statistically safe for interpretation and discussion.

Table 16 Chapter 6 Outline

Introduction	Chapter 1	<ol style="list-style-type: none"> 1. Background of the Research 2. Justification for the Research 3. Statement of the Research Problem 4. Contribution to Academic and Business Knowledge 5. Significance of the Industry used as a Framework 6. Delimitations of the Scope of the Study
Literature Review	Chapter 2	<ol style="list-style-type: none"> 1. Branding 2. Affect Transfer 3. Service Quality 4. Trust 5. Loyalty
Qualitative Study	Chapter 3	<ol style="list-style-type: none"> 1. Purpose of the Expert Interviews 2. Methodology 3. Data Analysis
Quantitative Study	Chapter 4	<ol style="list-style-type: none"> 1. Structural Equation Modelling 2. Theory: Conceptual Framework and Hypothesis 3. Model Construction 4. Measurement Instrument 5. Data Collection
Results Analysis	Chapter 5	<ol style="list-style-type: none"> 1. Model Testing, Model Fit and Estimation Methods 2. Measurement Model 3. Analysis of Results and Hypothesis Testing
Conclusion	Chapter 6	<ol style="list-style-type: none"> 1. Conclusions of Hypotheses 1-6 2. Contribution to Knowledge 3. Limitations 4. Recommendations for Future Research

6. CONCLUSION

6.1. Introduction

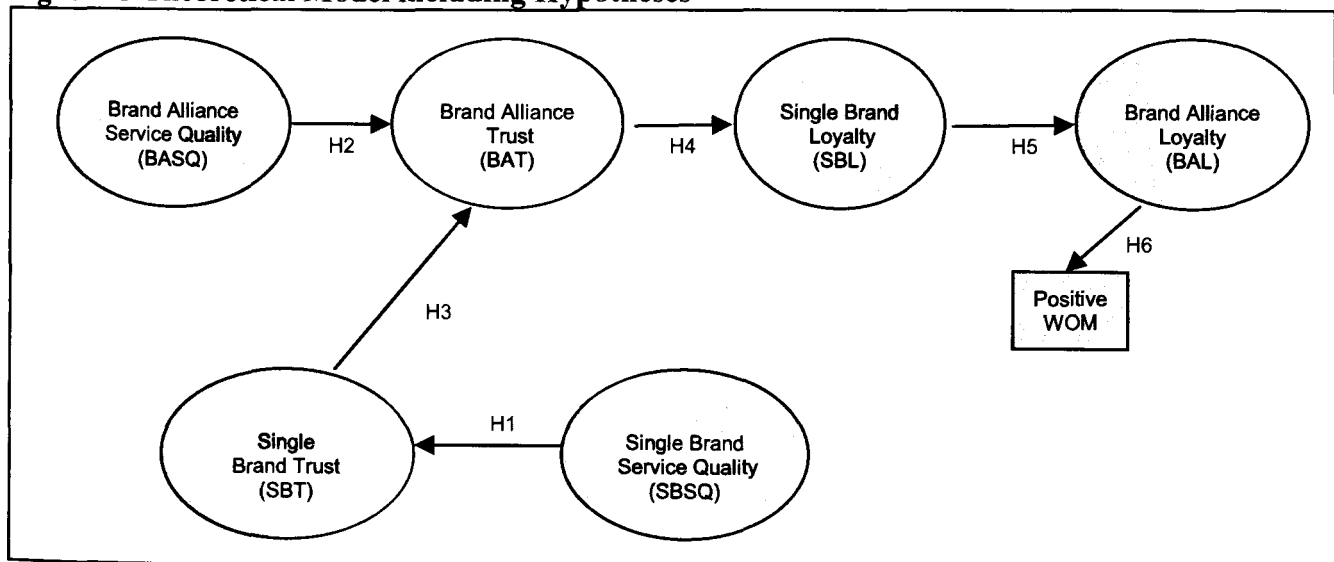
The previous chapters presented all different phases of this thesis from the formulation of the research problem to the conclusions drawn based on the analysis of the collected data. In particular, the early chapters dealt with the identification of the research question and the presentation of current knowledge on the subject, while the later presented the methodology employed and the results of the data analysis. Moreover, for the purposes of this research the distinct literatures of service quality, trust, loyalty and brand alliances were linked and six hypotheses (H1 through H6) aimed at investigating the relationships among them were formed and subsequently tested. In particular, H1 verified the previously validated relationship between single brand service quality and single brand trust in a novel context. H2 tackled the same issue as H1 but in a brand alliance context instead of a single brand context. That is, H2 tested whether customer perceived service quality of a brand alliance can lead to trust for this particular alliance. H3 and H5 introduced a novel concept for the branding literature namely, the transfer of trust (H3) and loyalty (H5) from a single brand to the brand alliance of which this brand is a member. H4 tested the previously validated relationship between trust and loyalty in a fresh context. That is, it tested whether trust shown to an alliance can lead to loyalty for a single member of that particular alliance. Furthermore, H6 tested the previously validated relationship between loyalty and word-of-mouth (WOM) but at a brand alliance level. Specifically, it tested whether the same relationship that applies between single brand loyalty and WOM also applies between brand alliance loyalty and WOM.

This chapter is devoted to discussing the findings of each hypothesis in conjunction to existing knowledge on the subject as presented in chapter 2. Furthermore, it presents the implications of the findings for both academics and practitioners and highlights the limitations of this study. Finally, possible directions for further research are suggested.

6.2. Conclusions from Hypotheses 1 through 6

The theoretical model in this study that investigates the relationships between brands and the alliances these brands belong to was based on a review of the relevant literatures and a number of expert interviews. In particular, the model aimed at unveiling whether perceptions of service quality, trust and loyalty can transfer from a single brand to the brand alliance of which this brand is a member. In order to investigate transfer of perceptions of service quality, trust and loyalty from a single brand to the brand alliance a number of hypotheses were formed. Hypothesis one (H1) escalated the previously researched relation between single brand service quality and trust to a multi-brand alliance framework as can be seen in Figure 6 below. H1 was formed as follows:

Figure 13 Theoretical Model including Hypotheses



H1: Customer perceptions of Single Brand Service Quality (SBSQ) will lead to Single Brand Trust (SBT).

This hypothesis serves as the foundation of the framework that researches how perceptions of service quality, trust and loyalty transfer between a single brand and the brand alliance this brand is a member of. In other words, although previous research has demonstrated a positive relationship between service quality and trust, this relationship has never been tested in a wider multi-brand services context.

The high factor loadings showed a close correlation between service quality and trust. In line with previous research (e.g. Rousseau, 1998; Singh & Sirdeshmukh, 2000) this hypothesis reconfirmed in a novel context that consumer perceptions of superior service quality provided by a brand will eventually lead to trust in that brand. In the context of the airline industry this denotes that passengers which perceive the service provided by a particular airline as satisfactory will eventually trust this particular airline. The revalidation of this correlation in a novel context, although not one of the primary objectives of this study, was vital for the purposes of this research because this relationship (service quality-trust) serves as the basis on which the whole theoretical model rests. Although the revalidation of the service quality-trust correlation in a novel context was not one of the principal aims of this research it constitutes a noteworthy finding as this is the first time service quality and trust are proven to be correlated in a multi-brand alliance framework. By combining these two constructs in a new context this study paved the way for further research on the subject in other multi member alliance contexts. For example, the study of the service quality-trust relationship in a multi-brand alliance can be extended in a number of industries where brand alliances are dominating the business today

and which have captured the interest of both academics and practitioners for a number of years (e.g. banking, retail, financial services, consulting).

Although the relationship between service quality and trust in a single brand context and in a brand alliance context is closely linked this section is concerned only with the former and therefore further analysis of the two follows in the next section.

H2: Brand Alliance Service Quality (BASQ) will lead to Brand Alliance Trust (BAT).

The analysis of the expert interviews indicated that brand alliance service quality can lead to customer trust in a brand alliance context. Moreover, a number of studies have found that perceived service quality is important for building and maintaining trust (e.g. Geyskens et al., 1996; Rousseau, 1998; Singh & Sirdeshmukh, 2000). When combining the above previously validated relationship with concept combination theory it can be hypothesized that the relationship between perceived service quality and trust stands in a brand alliance environment as it does in a single brand environment. In other words, this hypothesis escalates the previously validated relationship between (single brand) service quality and (single brand) trust (see H1) to a brand alliance level.

The relationship between brand alliance service quality and brand alliance trust was found strong with a relatively high regression coefficient and with both variables loading well. The high loadings were not surprising because the measurement scale used here was the same (only adjusted to accommodate brand alliances) with the scale used to measure single brand service quality and single brand trust.

The validation of the perceived service quality-trust correlation in a multi-brand alliance context not only expanded our understanding of effects of the one on the other, but also allowed researchers to approach these two constructs from a new perspective. Constructs that until now have been linked with either service quality or trust (e.g. satisfaction, loyalty, risk perception) on a single brand context can now be researched on a brand alliance context. In other words, this research allowed us to investigate whether related constructs (such as service quality and satisfaction or trust and perceived risk) in a single brand context, interact in the same way in an alliance context. Such research can be of interest to both academics and practitioners as it allows a better understanding of the effects of increased perceived service quality and trust a variety of possible contexts.

In addition, the validation of the service quality-trust correlation in the context of airline alliances allows researchers to test the correlation in other contexts that might be of interest both to academia and practice. As mentioned earlier there exist a number of multi-brand alliances in a number of different industries for which our understanding of the forces influencing consumer purchase decisions is limited. Hence, the current model can be used as a framework to expand our knowledge in a number of related areas.

Following the validation of the service quality-trust correlation in both a single brand and brand alliance context, and considering the main objectives of this research the natural step forward was to check whether trust shown to a single brand could be transferred to the alliance this brand is a member of. Hence, H3 investigates whether trust toward a single brand can lead to trust toward the brand alliance of which this brand is a member.

H3: Trust toward a Single Brand (SBT) will lead to Trust toward the Brand Alliance (BAT).

This hypothesis, based on concept combination theory (as proposed by Park et al., 1996), attempts to shed light on affect transfer between a single brand and the alliance this brand is a member of. According to one of the two derivatives of the concept combination theory, the concept specialization model (Cohen & Murphy, 1984; Murphy, 1988) the combination of a component brand with a composite alliance brand can be linked to the process of a nested or “idiomatic” concept formation. Based on concept combination theory H3 attempted to test whether trust toward a single brand can result in trust toward the whole alliance.

The data analysis presented in section 5.4.2.3 provided sufficient evidence to endorse trust transfer between a single brand and the brand alliance this particular brand is a member of. Since this is the first study in the marketing literature to examine transfer of trust from a single brand to a brand alliance, it is impossible to compare the results of this hypothesis with that of any previous research as performed earlier (i.e. for H1).

Furthermore, since the investigation of trust transfer from a single brand to an alliance brand is a novel theme in the marketing literature it can be replicated in other multi-brand alliance contexts. That is, as with the previous hypotheses the study of transfer of perceptions of trust from a single brand to an alliance brand can be extended in a number of industries where firms engage in multi-brand alliances.

The validation of this correlation in different contexts will enhance our understanding of the way consumer trust transfers from a single brand to an alliance brand. A better understanding of transfer of trust can eventually impact the way firms approach their ally strategies and the fashion in which they strive to turn trusting customers into loyal customers. Hence, in the long-run better understanding of transfer of trust will allow researchers improved understand of the relationship between trust and loyalty on an alliance level. Moreover, it will allow alliance practitioners to enhance and harmonize their loyalty programs.

Moreover, since one of the primary goals of this study is to shed light on the trust-loyalty relationship the next hypothesis tests whether brand alliance trust can lead to single brand loyalty.

H4: Brand Alliance Trust (BAT) will lead to Single Brand Loyalty (SBL).

The relationship between trust and loyalty is widely researched in the marketing literature. A number of researchers have supported the notion that the development of trust in a service provider implies the willingness of customers to maintain a long term relationship with this supplier (e.g. Coyles & Gokey, 2005; Wijnholds, 2000). Not only are trust and loyalty shown to be closely related in the marketing literature, but also trust is found to be the most influential antecedent of loyalty towards a service provider (Hart & Johnson, 1999).

Although the relationship between trust and loyalty for single brands has been researched systematically in the relevant literature, little is known about the relation of the two in an alliance context. In addition, a number of researchers

have corroborated that trust in a service provider can eventually lead to customer loyalty (e.g. Coyles & Gokey, 2002; McCullagh, 2003; Wijnholds, 2000) but none has researched the relationship of the two in a brand alliance setting. As it was presented in detail earlier, the analysis of the collected data showed that trust towards an alliance can eventually lead to loyalty towards a single brand member of that alliance.

The analysis provided robust evidence indicating the validity of the trust-loyalty correlation in an alliance setting. Furthermore, it exposed the way trust in an alliance can result to loyalty for particular members of this alliance. That is, the study exposed the mechanisms of loyalty formation in a multi-brand alliance setting. Based on the findings of this study researchers can extend our understanding of the trust-loyalty relation further and practitioners can have a better appreciation of some of the most essential factors that are shown to have a direct effect on successful brand alliance building. Moreover, practitioners can use the proposed model to better understand and tackle competitive pressures that constantly attempt to deteriorate brand equity.

Considering that one of the main purposes of this study is to shed light on alliance loyalty transfer, a natural step forward is to investigate whether loyalty can transfer from individual members to the alliance as a whole. Hence, similar to H3 that researched a possible transfer of trust between a single brand and a brand alliance the next hypothesis investigates loyalty transfer between a single brand and a brand alliance.

H5: Single Brand Loyalty (SBL) can lead to Brand Alliance Loyalty (BAL).

Theory on affect transfer found in concept combination theory (Park et al., 1996), concept specialization model (Cohen & Murphy, 1984; Murphy, 1988), attitude accessibility theory (Fazio, 1986), information integration theory (Anderson, 1982) and cognitive consistency theory first presented by Schewe (1973) is employed here to investigate whether loyalty shown toward a single brand can lead to loyalty towards the alliance of which this brand is a member. Previous research has employed all these diverse theories to explain affect transfer in single brand contexts. Extending previous research this thesis tests the validity of the above mentioned theories in an alliance context.

The data analysis demonstrated that the measurement instruments for both variables were robust and that there was considerable evidence that brand loyalty shown towards a single brand can lead to loyalty towards the brand alliance. The regression coefficient of ,44 in addition to the indicator loadings that range between ,88 and ,91 for single brand loyalty and between ,87 and ,91 for brand alliance loyalty along with the R^2 values (,48 for SBL and ,19 for BAL) lead the researcher to accept Hypothesis 5.

Similar to Hypothesis 3 where the correlation between single brand trust and brand alliance trust was validated, here the correlation between single brand loyalty and brand alliance loyalty was substantiated. The validation of the single brand loyalty-brand alliance loyalty relationship verified the experts' views on the subject collected during the qualitative part of the study.

The above provides firm evidence to practitioners that loyalty programs can be of value when correctly implemented and creates new prospects for

practitioners in the study of loyalty and loyalty transfer. Marketing researchers can not only replicate the same study in other contexts in order to check if loyalty transfers between single brands and brand alliances in the same way in different contexts, but also based on the findings approach previously researched topics from a different angle. One example that falls into this category is the investigation of the previously validated relationship between loyalty and word-of-mouth in a multi-brand alliance setting as explained in the next section.

H6: Brand Alliance Loyalty (BAL) will lead to Positive Word-of-Mouth (WOM).

WOM has been presented for almost two decades by academics as a repurchase intention control variable. For example, Zeithaml, Berry, and Parasuraman (1993) used five industries to test a 13-item battery of behavioural intentions and found that intentions to recommend and repurchase were highly correlated. Additionally, the importance of WOM is frequently stressed by academics as it is believed to be one of the most important factors in acquiring new customers. Based on the importance of the loyalty-WOM relationship in a single brand level it was deemed essential to test the relationship at an alliance level. Hence, this particular hypothesis contributes to knowledge by investigating the validity of this relationship in a brand alliance context.

The data analysis showed that the relationship between the two variables works in the same fashion in a single brand and in a brand alliance context. In other words, as with single brand loyalty that can lead to positive WOM for a single brand, brand alliance loyalty can lead to positive word-of-mouth for the alliance as a whole. In particular, with a regression coefficient of ,27 there is

enough evidence to accept that loyalty shown to a brand alliance can lead to positive WOM for that particular alliance.

The importance of effective loyalty programs is strengthened by the validation of the loyalty WOM relationship in an alliance setting. The findings support that companies that are members of alliances should place additional emphasis on their loyalty programs. They need to coordinate their loyalty programs and if possible to combine them in one alliance-wide program. This is a common practice today in different industries where alliance members have replaced their individual member loyalty programs with one alliance wide loyalty program.

6.3. Contribution to Knowledge

The previous section provided a summary of the findings of this empirical study in brand alliances. It presented each individual hypothesis and the findings for each in an attempt to highlight the contribution of each hypothesis to knowledge. This section analyses the contributions of this research on theoretic, empirical and managerial grounds.

The contribution of this research is centred on brand alliances, which although popular in practice since the late 1970's were initially overlooked in academia. Although brand alliances are nothing new, as highlighted by Ohmae (1989) and the use of alliances has always been part of the social and political scene, in the last two decades there has been a recorded increase in the formation of alliances. It is predicted that this phenomenon will continue and accelerate as it becomes increasingly difficult to build a competitive advantage in a global economy (Lei et al., 1997). Considering the increased interest in brand alliances in recent years this research contributes to knowledge in different ways.

6.3.1. Academic Contributions

This section is divided in three subsections, each dealing with a different aspect of the academic contribution of this research. The first subsection exposes the intra-disciplinary approach taken by elucidating the fashion in which the distinct literatures of brand alliances, service quality, trust and loyalty have been linked for the purposes of this study. The second subsection describes the pragmatic approach taken in the research of brand alliances. This research, unlike any previous, employs existing brands and brand alliances instead of imaginary ones to study the transfer of affect between a single brand and the alliance this brand belongs to. The third subsection highlights the multi-brand approach taken for the purposes of this research in contrast to the dual-brand frameworks used in previous research.

6.3.1.1. Interdisciplinary Approach

One of the ways this research contributes to academic knowledge is by combining the distinct literatures of service quality, trust and loyalty in one framework that investigates the effects of brand alliances on consumer perceptions of single brands. Although previous research in marketing has approached these constructs always in pairs (e.g. service quality with trust; trust with loyalty) this research for the first time combines all three in one theoretical model. This model not only demonstrates the links among these three constructs, but also creates a rigid foundation for the study of the effects one brand can have on customer perceptions of a brand alliance as a whole. In brief, this research combines for the first time in marketing research the distinct literatures of service quality, trust, and loyalty in a fashion that reveals the link among them and facilitates their study in a multi-brand alliance context.

6.3.1.2. Pragmatic Framework

Furthermore, this research contributes to academic knowledge by presenting a pragmatic and real-life framework in which the effects of brand alliances on customer perceived service quality, trust and loyalty are studied. The small number of available models in the relevant literature investigating the influences of brands on customers' perceptions are based either on imaginary scenarios with invented brands, and/or on imaginary alliances (Kohli et al., 2003; Rao et al., 1999). Thus, to date, this area of branding has only been investigated only in a two brand alliance setting employing either imaginary brands or imaginary alliances or often both. Unlike previous research, this study employs existing brands and (multi-member) alliances to study the transfer of affect from one to the other. By employing real life brands and alliances to research the transfer of affect between them, the results of this study are possibly more realistic than any of previous research which has used imaginary brands and alliances that often failed to replicate reality.

6.3.1.3. Multi-brand Approach

This research has also expanded knowledge on the way in which customer perceptions of one brand intermingle with those of the multi brand alliance this brand is a member of. That is, in existing research transfer of affect is studied always in two brand scenarios where the two brands differ in a number of ways (e.g. status, product offering, ownership etc.). Unlike existing research this study employs a more realistic and contemporary framework that employs multi-brand alliances in order to study the transfer of affect between individual members and the alliance as a whole. This novel approach has expanded the understanding of the mechanisms operating in multi-member brand alliances.

It is evident that at the dawn of co-branding, brand alliance formations were limited to two-brand alliances. Nowadays, brand alliances have evolved in a number of ways including their complexity and most frequently the number of members they include. Therefore, it was deemed necessary to use multi-brand alliances, instead of the traditional dual-brand alliances, in the study of the influences of customer perceptions of single brands on perceptions of brand alliances.

6.3.2. Empirical Contributions

This section is concerned with the empirical contributions of the thesis. The primary empirical contribution of this thesis is the structural model developed in the main study. The model was built to test the hypotheses formed on grounds of the literature review and the preliminary qualitative study (semi-structured expert interviews).

The literature review did not reveal any models researching the transfer of affect between a single brand and the multi-brand alliance of which this brand is a member of. Moreover, brand alliance research combining the interrelated constructs of service quality, trust and loyalty was not available in the relevant literatures. For this reason, knowledge from distinct literatures had to be linked in order to build the theoretical model presented earlier. As with the model, the measurement instrument in the main study also required combination and adjustment of scales from different disciplines. Hence, this novel instrument can be used by researchers in various ways to shed light in cases where affect transfer is under scrutiny.

6.3.3. Practical Contributions

In addition to the theoretical and empirical contributions mentioned above this study encompasses a number of contributions for practice. This section presents the managerial contributions of this research which are focused on branding and brand alliances. Two major contributions for brand alliance managers and marketing practitioners in general are discussed below.

Apart from expanding academic knowledge, the proposed study should constitute an important tool for practitioners as it has further exposed the way individual brands affect alliance perceptions of service quality, trust and loyalty. That is, the study shed light on the mechanisms behind the transfer of perceived service quality, trust and loyalty from a single brand, member of an alliance, to that alliance. Hence, practitioners can have a better understanding of some of the most essential factors that are shown to have a direct effect on successful brand building for and financial prosperity of every organization. Moreover, they can use the proposed model to better understand and tackle competitive pressures that constantly attempt to deteriorate brand equity.

In addition, one of the most essential tasks for every brand manager is to actively contribute to the operational optimization of the alliance their brand is a member of. In this way individual alliance members enjoy maximum alliance added value. Operational optimization can only materialize when managers have a deep understanding of the effects their actions have on customer perceptions of service quality, trust and loyalty for the brand and the alliance as a whole.

In summary, this study will contribute to both academic and business knowledge. Contribution in academia will take place in the form of expanding existing knowledge on the effects and influences different actions have on

customers' perceptions of an alliance. Similarly, contribution in practice will occur by furnishing marketers with the knowledge required to take prudent decisions that relate to customer perceptions of service quality, trust and loyalty on both the single brand and brand alliance level.

6.4. Limitations

As in most empirical research, this study has a number of limitations. These limitations hinder the generalizability of the study but at the same time they pose a great opportunity for further research on the subject. The limitations of this study impose a barrier on its generalizability but without undermining the credibility or implications of the findings. The limitations can be categorized as follows.

First, the findings of this study are applicable only to regular brand alliance customers and not to infrequent or one-time customers. The purpose of this study was to research the transfer of affect from an individual brand to the alliance this brand is a member of. Hence, only customers that had experienced the services of multiple members of a particular alliance could be eligible research candidates for this study. In other words, customers that had encountered the services of multiple brands which do not belong to the same alliance or one-time alliance customers could not be employed as suitable samples to research affect transfer from one brand to the alliance this brand belongs to. Although this fact restricted the number of suitable respondents it can be argued that it did not really constitute a significant limitation as in order to study the transfer of affect from one brand to the alliance only subjects that have experienced the services of multiple members of a particular alliance can show signs of the transfer of any type of affect.

Second, the sample of this study is skewed towards one of the three major alliances in the airline industry. This happened because the data collection for the main study took place in the two terminals of the Munich International Airport resulting in an over representation of Lufthansa and Star Alliance respondents. Munich, the second in terms of traffic hub of Lufthansa Airlines after Frankfurt, is a European mid-point for many Star Alliance intercontinental flights. Hence, as it was expected, other airline alliances (e.g. OneWorld, Sky Team) were underrepresented in the sample. In addition, the fact that Star Alliance counts almost double members than each of the other airline alliances further fuelled the overrepresentation of Star Alliance customers in the sample. In order to have a more evenly distributed sample, additional data could have been collected in other European hubs such as London (One World) and Paris (Sky Team). The cost associated with such a practice rendered this option prohibitive for the researcher.

Third, the product category chosen as a context for this study possibly poses a limitation on the generalizability of the results. Airline alliances, the most widely recognizable form of multi-brand alliances today, encompass a number of special characteristics not shared by other industries. Hence, validation of the results using a different context is required. Furthermore, considering the absence of transfer of affect research in other multi-brand alliance contexts, the need for further research to establish whether the results of this study are context driven becomes even more evident.

The above limitations minimize the generalizability of the findings but concurrently represent an opportunity for future research.

6.5. Recommendations for Future Research

Given the lack of multi-brand alliances research, the possibilities for future research are considerable. This section presents the different directions future research in the transfer of affect in multi-brand alliances could follow.

Considering the absence of multi-brand alliance research, a common extension of this study would be to test the proposed theoretical model in a different context. Employing the multi-brand alliance framework proposed in this study in a different context would challenge the results of this study and provide evidence on their generalizability. Furthermore, the application of the theoretical model in a different context will allow researchers to understand better whether the service quality-trust-loyalty relationship works in other contexts in the same way it does in the context of multi-member airline alliances. In case that such a new study endows support to the current findings, its results can provide the required background to further refine the current model in order to ensure its generalizability across different industries.

Moreover, a number of extensions or alterations on the current theoretical model could be performed to extend understanding on the subject matter. For example, as mentioned in the literature review section, the relationship between perceived service quality and satisfaction or customer experience has been widely established in the relevant literature. A framework that substitutes service quality with either one to check for possible effects on the service quality-trust-loyalty continuum (always in a multi-brand alliance context) could constitute an extension that would contribute to understanding of the subject.

Similarly, a number of related constructs could be implemented into the model. That is, instead of substituting one of the latent variables employed in the theoretical model with a related construct, a number of related constructs that have been shown in the relevant literature to have an effect on the three main constructs of this study could be included. For example, perceived risk whose relationship with trust has been explained in the literature review section could be implemented into the model as a mediating factor. The implementation of related constructs into the proposed theoretical model will allow researchers to understand how changes in the mediating factors can affect the service quality-trust-loyalty relationship. In this example, variations in the degree of perceived risk will act as a mediator of the trust-loyalty relationship. Moreover, it could be of interest to both academics and practitioners to investigate the relationship in different contexts, as these would have different effects in perceived risk consequently moderating the trust-loyalty relationship in various ways. Similar to perceived risk other constructs that are closely related to one or more of the three main constructs employed in this study (i.e. service quality, trust, loyalty) could be implemented into the theoretical model.

6.6. Summary of the Chapter

This final chapter of the thesis commenced with a summary of the research findings in view of the hypotheses and continued with a presentation of the contribution of this research to knowledge. It concluded with recommendations for future research. In particular, the hypotheses presented earlier in the study were revisited and the results of the data analysis were evaluated in conjunction with these hypotheses. Furthermore, the contribution of this research to academic, empirical and practical knowledge was underscored

and the limitations of the study were analyzed. Finally, the chapter concluded with recommendations for future research in the field of affect transfer in multi-brand alliances.

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APPENDICES

Appendix 1 Sample of Service Quality Measurement Instruments Reviewed for the Purposes of this Study

Author (year)	Model	Respondents/ test audience	Method of collection of data	Scale use	Methods of analysis	Measurement of service quality addressed through
Parasuraman et. al. (1985)	Gap model	Ranged from 298 to 487 across companies/ telephone co., securities brokerage, insurance co., banks and repair and maintenance	Survey questionnaire approach	Seven-point Likert	Principal-axis factor followed by oblique rotation	** Ten dimensions (reliability, security, responsiveness, access, communication, tangibles, courtesy, credibility, competence, understanding/ knowing)
Brogowicz et.al. (1990)	Synthesized model of service quality	...	*	*	Analysis not reported	Through technical and functional quality defining planning, implementation and control tasks
Cronin and Taylor (1992)	Performance only model	660/banking, pest control, dry-cleaning and fast food	Survey questionnaire approach	Seven-point semantic differential	Principal-axis factor followed by oblique rotation and LISREL confirmatory Qualitative assessment, correlation and <i>t</i> -test	22 items same as SERVQUAL but with performance only statements
Teas (1993)	Normed quality and evaluated performance model	120/randomly selected from discount stores	Personal interview	...	Qualitative assessment, correlation and <i>t</i> -test	Limited subset of SERVQUAL items (two items each of five dimensions)
Sweeney et.al. (1997):	Retail service quality and perceived value model	1,016 respondents/ electrical appliances stores	Survey questionnaire method	Seven-point semantic differential scale	Confirmatory factor analysis using LISREL VIII	Functional quality through five SERVQUAL items and technical quality through one SERVQUAL item
Dabholkar et.al. (2000)	Antecedent mediator model	397 undergraduate and postgraduate students	Telephonic interviews (conducted twice)		Regressive structural equation modelling using LISREL	Through measurement of reliability, personal attention, comforts and features
Author (year)	Model	Respondents/ test audience	Method of collection of data	Scale use	Methods of analysis	Measurement of service quality addressed through
Frost and Kumar (2000)	Internal service quality model	724 at different levels/Singapore airline staff	Personal interview and questionnaire	Seven-point Likert	Principal component factoring, reliability coefficient and split half coefficient	SERVQUAL dimensions
Soteriou and Stavrinides (2000)	Internal service quality DEA	194 responses/26 bank branches	Survey questionnaire approach		Data envelope analysis	Measurement of perceptions of customers

	model					using SERVQUAL-based instrument
Zhu et.al. (2002)	IT-based model	185/bank customers (with past experience of using IT-based service options like ATM, 24hr call line, etc.	Survey questionnaire approach	Seven-point Likert	Factor analysis and structured equation modelling using LISREL VII	SERVQUAL items with perceptions only statements
Grönroos (1984)	Technical and functional quality model	219/bank, insurance, restaurants, shipping, airline companies, cleaning and maintenance, car rental companies, travel agencies and a range of institutes from public sector	Survey questionnaire approach	Five-point Likert	Basic statistical analysis (information compilation and presentation)	Functional and technical quality
Haywood-Farmer (1988)	Attribute service quality model		*	*	Analysis not reported	Physical facilities and processes, people's behaviour and conviviality, professional judgement
Mattsson (1992)	Ideal value model	40 guests while checking in and checking out/two large luxury hotels	Survey questionnaire approach	Seven-point Likert	Pearson moment correlation pairwise intra- and inter-sample median test and Chi square test	Through 18 items of value and nine items of customer satisfaction
Author (year)	Model	Respondents/ test audience	Method of collection of data	Scale use	Methods of analysis	Measurement of service quality addressed through
Berkley and Gupta (1994)	IT alignment model		*	*	Analysis not reported	The model does not cover the measurement of service quality
Dabholkar (1996)	Attribute and overall affect model	505 undergraduate students/fast food setting	Scenario and questionnaire approach	Seven-point Likert	Confirmatory factor analysis and structured equation modelling using LISREL VII	Through three items measuring expected service quality specifically of ordering situation
Spreng and Mackoy (1996)	Perceived quality and satisfaction model	273 undergraduate students	Survey questionnaire approach	Seven-point Likert	Confirmatory factor analysis and structured equation modelling using LISREL	Through desires, perceived performance, expectations and desired congruency (each comprising ten attributes)
Philip and Hazlett (1997)	PCP attribute model		*	*	Analysis not reported	Pivotal attributes, core attributes and peripheral attributes
Oh (1999)	Service quality, customer value and customer satisfaction model	545/two luxury hotels	Survey questionnaire approach	Six-point	Path analysis using Lisrel VIII	Through single item for perceived price and eight items for perceptions for hotel settings

Broderick and Vachirapompuk (2002)	Internet banking model	160 incidents on 55 topic episodes posted/UK internet web site community	Participant observation and narrative analysis		Qualitative approach	Through service setting, service encounter, customer expectation and image
Santos (2003)	E-service quality model	30 focus groups comprising six to ten members	Focus group interviews/discussions		Qualitative analysis	Through incubative and active dimensions

Notes: *Mainly conceptual models, not tested/validated; Category A: Gap model/SERVQUAL-based; Category B: other models; **later in 1988 and 1991 the authors proposed and revised 22-item, five-dimension service quality measurement tool SERVQUAL

QUALITY CONVERGENCE IN AIRLINE CO-BRAND ALLIANCES

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QUALITY CONVERGENCE IN AIRLINE CO-BRAND ALLIANCES

Structured Abstract

Purpose;

This paper investigates effects on service quality where an individual airline chooses to jointly market its services with other airlines under the umbrella of a co-brand alliance. Concept combination theory would lead to an expectation that quality performance of individual airlines would converge when their individual brands are combined to form a co brand alliance. This paper reviews the conceptual basis for quality convergence, and tests this with a study of actual convergence levels among airlines that have joined alliances, and those that have not.

Methodology/Approach;

The research employs a longitudinal, quantitative methodology. An index of airline service quality is constructed from a number of published sources, and this index combines technical and functional aspects of quality. The choice of components to include in the index, and their relative weighting, was informed by a panel of experts. Time series data was collected for the period 1998-2004, and analysed using ANOVA.

Findings; limitations/implications

The study indicates that the effects of recent alliance membership on service quality for an airline are insignificant. Other factors such as industry-wide trends had a greater effect on airlines' level of quality than alliance membership.

Originality/value of paper.

Previous research into co-brand alliances has tended to emphasise technical and financial performance metrics. This study has taken a broader perspective based on operational and customer perceived aspects of service quality. The principal finding of the paper is that variations in quality levels are accounted for more by broader industry wide phenomena, rather than the presence or otherwise of a co brand alliance. Differentiation between co-brands may be more subtle, and based

on distinctive styles of service delivery which are not typically picked up through quantitative research.

Type of paper: Research paper,

Keywords: Airlines; service quality; brands; brand alliance

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QUALITY CONVERGENCE IN AIRLINE CO-BRAND ALLIANCES

INTRODUCTION

A long literature has identified a brand name as a basic element of a firm's product offer that facilitates consumers' understanding of the product's distinctive positioning characteristics. A brand serves as a simple shorthand encoding device and retrieval cue for a wide variety of brand-related information (DeChernatony and McDonald 2003), and in doing so, reduces buyers' perceptions of risk where unfamiliar products are involved (Erdem et al., 1999). It follows that a key element of branding is the consistency of standards, both functionally and emotionally (Dimitratos & Plakoyiannaki, 2003; Erdem & Swait, 1998; Montgomery & Wernefelt, 1992).

Airlines have been strong adopters of consistent and coherent brand strategies, often having to use the brand to appeal to audiences in multiple countries. Expansion of airlines' brands has occurred in a number of ways: The first, growth through acquisition is familiar to fmcg companies, and typically involves acquisition of a brand and gradual replacement of the acquired company's brands with those of the acquiring company. A tendency in recent years has been for global companies to develop global brands, and the acquiring company effectively buys access for its brands, to which established customers and intermediaries are migrated. In the airline sector, opportunities for pursuing this strategy are limited by restrictions on foreign ownership of airlines, and appeals to national pride which are frequently attached to a national flag carrier airline brand.

Another popular brand strategy, the development of families of related brands, has generally only applied to different quality offerings provided by a

single airline (for example the Virgin brand has been applied to a family of regionally based operations). There are very few examples of family brands being developed by a single airline, which span multiple national bases.

Given the difficulties of developing brands in these established ways, airlines' global brand development has most commonly been achieved through the development of co-branding alliances. In a co-branding alliance two or more brands are combined in a single product or service. Because of their relatively recent status, these strategies have not been extensively explored in the academic literature (Levin, 2002). Early discussion of this approach to the concept of co-branding alliances can be found in the work of Anderson et al. (1994) where the progress from dyadic business relationships to business networks is investigated.

In the marketing literature different terminologies have been employed, sometimes interchangeably for the pairing of two or more brands in an alliance setting including "brand alliance", "co-branding" and "composite branding". Despite the lack of universal agreement on terminology, there appears to be general agreement that a brand alliance involves the creation of a single product or service using two or more brands (Grossman 1997; Levin et al., 1996; Park et al., 1996; Washburn et al., 2000).

In the airline industry co-branding first appeared in the early 1980s as a limited marketing cooperation between two air carriers and throughout the next two decades progressed to multi-brand alliances that share not only flights but also a number of other supporting operations. Today more than 35 of the world's largest air carriers have joined one of the three existing major airline brand alliances in order to enjoy the numerous advantages membership can offer them (Shaw 2004; Kleymann and Seristo 2004). There are a number of advantages

available to any individual airline member of an alliance (e.g. greater customer base, wider geographic coverage, etc) but a number of concerns have been expressed that new entrants to an alliance may dilute the value of the co-brand. Although alliance members have welcomed the added value every new member brings to the alliance, at the same time they have necessarily questioned the compatibility of every potential new member with the existing members. An important area for concern over compatibility has been the level of service quality provided by new alliance members. While airline co-brand alliances have been extensively discussed and conceptualised, most reported research into their effects has focused on their financial performance (e.g. Park and Cho 1997). With a few exceptions (e.g. Ekdahl, Gustafsson and Edvardsson 1999), there has been little published evidence of their effects on levels of service provided to customers.

The purpose of this paper is to assess whether joining a co-brand alliance has an effect on an airline's level of service quality, before and after joining the alliance. To explore the possible effects of alliance membership on service quality, the study uses secondary data from published sources to construct a weighted score of service quality, which is then used to compare pre- and post alliance performance of individual airlines.

ANALYSIS OF CO-BRAND ALLIANCES

An extensive number of theoretical models and concepts from a variety of disciplines have been developed to explore various aspects of co-brand alliances. Contribution to discussion has been made by concept combination theory, attitude accessibility, attribution, categorization, balance, congruity, cognitive dissonance and information integration theories.

Concept combination theory has emerged as one of the most widely accepted theories for understanding brand alliances (Park et al., 1996). Two models proposed under this theory are the selective modification model (Smith et al., 1988) and the concept specialization model (Murphy, 1988). The latter, often applied to ingredient branding and frequently extended to co-branding alliances, uses noun-to-noun conjunction to explain the effects of the combination of an ingredient brand with a generic one. Under this model the combination of the two types of brands is similar to the process of a nested or idiomatic concept formation where the formation of a composite concept by combining a nesting and a nested concept is explained (Vaidyanathan & Aggarwal, 2000). A nesting concept has less variability on the attribute under examination than the nested concept. In the example of a co-brand alliance with an established airline component, the airline is a nesting concept because it has lower variability in quality and the co-brand alliance will be a nested concept because of its greater expected variance in quality (Schmitt & Dube, 1992). Based on findings reported in the literature (Keller & Aaker, 1992) a composite concept primarily permits a one-way transfer of affect, from nesting concept to the nested concept and not the other way around. Hence, in the context of airline alliances a positive transfer of affect from the airline to alliance would be expected, but the reverse effect, from alliance to airline would be less significant.

Since the positive transfer of affect from the airline to the alliance is much greater, members of alliances are always concerned with the value that each potential member will bring to the alliance. If the perceived quality of the component brands is highly variable, the value of the composite code brand may lack the consistency to be useful in reassuring and simplifying consumers' choice

process. It may be expected that co brands should, over time, develop greater internal consistency in quality standards between component members.

COMPONENTS OF AIRLINE SERVICE QUALITY

Two important bases on which buyers evaluate competing airline offers are schedule and price. However, there are other secondary, but important, quality of service aspects that a consumer may consider in their ultimate choice of an airline. Such aspects as safety, comfort of the seats, in-flight amenities (e.g. food and beverages), attitude of the ground and flight crew, financial stability of the airline, on-time performance of the flights, assurance that bags arrive with the passengers, the perceived likelihood of being “bumped” from a flight, and frequent flyer programs may also be important evaluation criteria (Chan, 2000).

A number of papers have studied airline service quality, using a combination of performance only, disconfirmation, and importance-performance approaches. The following is a summary of findings of previous research. The leading theme in the airline service quality literature is the evaluation of service performance, based on technical and operational measures. One of the main reasons for the wealth of service performance measurement models is thought to be the relatively uncomplicated quantification of technical measures of airline service quality. However, it has been noted that the evaluation of performance of a service industry is quite different from that of a manufacturing industry where technical outcome performance measures tend to dominate over measures of process performance (Li & Chen, 1998). This has led to the creation of a large number of quality measurement models for the services sector that incorporate

more subjective aspects of consumer perceived performance, based on outcomes and processes.

A related area of interest is the study of the impact of process performance on customer dissatisfaction (e.g. Tsikriktsis & Heineke, 2004; Frei et al., 1999). It has been noted that the principal dimension customers use to judge a company's service is the ability to perform the promised service dependably and accurately, (Parasuraman et al, 1990), therefore when process variation is minimized and thus the process related quality stabilized, customer dissatisfaction falls. Reversing the service-profit chain (Heskett et al., 1994) it can be argued that a drop in customer dissatisfaction will lead to higher customer retention rates and more referrals, which translates to higher profitability and stronger brand values.

Another thematological approach followed in the airline service quality literature is the link between quality and financial performance. Although the theoretical justification of the link between the two has been criticized by many (Tsikriktsis & Heineke, 2004) a number of studies have attempted to connect them (Lapre & Scudder, 2004). The bulk of the studies connecting the two make use of a diverse set of measures to determine an organization's financial performance and ultimately link it to its service quality (Noronha & Singal, 2004). While some studies have approached airline service performance from a service quality perspective, others have viewed it through an operations research lens (e.g., Vignaux & Jain, 1988; Starr, 1996) and performance improvement paths (e.g. Li et al., 1997, Braglia & Gabbrielli, 2000).

A further theme in the airline service quality literature has investigated employment practices (for example trades union representation, wage levels and shared governance) that affect service quality.

The relatively narrow thematological view of the airline service quality literature may be a cause of the limited number of measuring techniques employed in this area. In concluding the review of the literature relevant to airline service quality, it is worth mentioning that the criteria for assessing the quality of airlines involved in a co-brand alliance may not be typical of airlines in general, for two principal reasons. Firstly, co-brand alliances tend to target business travelers, whose criteria with regard to flexibility, availability of service, punctuality etc. may be expected to differ from leisure travelers who may have less need to use the service benefits provided by a global co-brand alliance. Secondly, co-brand alliances are of greater relevance to long-haul travel, where issues such as seat quality, in-flight entertainment and in-flight meals are more likely to be important than for short-haul flights, where speed of check-in, reliability and speedy handling of baggage may be considered more important components of quality. Hence, service quality measurement of airline co-brand alliances, although thematically related to that of a single airline may be different in terms of approach and service quality measurement for this study of co-brand alliances may be considered as a novel extension of the existing single airline service quality measurement literature.

RESEARCH OBJECTIVES

The primary objective of this study is to extend existing single airline service quality performance measures to airlines that have joined an airline co-brand alliance – and specifically, to research whether joining a co-brand alliance has an effect on individual brands' level of service quality. Although extensive research on a number of related issues is available, the literature review showed that there is an absence of studies that investigate the effects joining a co-brand

alliance can have on individual brands' service quality. In this study the aim is to compare the level of service quality prior and post alliance membership for a number of major air carriers.

A further objective of this study is to determine the extent to which the quality of co-brand alliance components converges when individual airlines join a co-brand alliance. Over the last three decades, the deregulation of the US airline industry and the liberalization of the European air travel market have opened the way to the creation of a number of alliances within the global airline industry. Throughout time and for different reasons all of these alliances except the three still standing today (Star, Oneworld and Skyteam) have ceased their operations. This study will explore the individual as well as combined quality performance of the airlines within the three existing alliances.

A final objective of this study is to try and establish whether any difference in convergence levels between airline co- brand alliances can be explained by management issues relating to the alliance, such as the size, composition and age of the alliance. Not only the alliances, but also the airlines within each alliance differ in a plethora of ways. Therefore, this study will explore the primary causes that generate the differences between the alliances.

A specific research hypothesis can be formally stated as:

Service quality levels for airlines that are members of a co brand alliance are more likely to converge, compared with the service quality levels of airlines that are not members of that alliance

METHODOLOGY

The civil aviation sector has abundant sources of secondary data available for analysis. While a lot of this data relates to operational and safety issues, there is also a considerable amount of data collected by national and international trade and governmental bodies which relates to indicators of service quality.

The use of published secondary sources of data presents a number of opportunities, compared with undertaking fresh research. One of the most significant is the large sample size and large number of variables included. In this study data from the U.S. Department of Transportation, award agencies and rating organizations have been used. Each of these sources alone includes a volume large enough to be prohibitive for the researchers to collect themselves. Moreover, since this study attempts to investigate the service quality of airlines throughout time (prior and post alliance membership) longitudinal data were imperative. Since the researchers cannot collect primary data for the last two decades, secondary data are essential for the purposes of this study.

The available sources of data capture numerous dimensions of brand quality. While there is no such thing as a perfect measure of brand quality, it is possible to construct an index from available sources of data. The index constructed for this study employs both statistical data related to the service quality of the airlines under investigation and air travellers' attitudes towards the service received from particular carriers. The Air Traveller Consumer Report of the US DOT enriches the index with a comprehensive source of raw service quality data (e.g. number of denied boardings per 10,000 passengers) while the analysis of consumer ratings and comments (both positive and negative) enriches

the index with the feelings and emotions of air travellers in relation to service quality.

Most of the published sources of data in civil aviation refer to functional dimensions of quality (for example, reliability). The emotional dimensions of a brand are much less reported. However, previous studies have suggested that the more subjective, emotional dimensions of an airline brand are of at least equal importance in influencing consumers' choice, compared with functional dimensions. Therefore an index of service quality should reflect this balance. A further problem for tracking service quality over time is the discontinuity of some time series quality indicators. Among published airline travel awards, Conde Nast, for example tends to change its evaluation criteria from year to year. Furthermore, many such published awards fail to provide overall ranking in favour of 'Best in Category', making movement of an airline up and down quality rankings very difficult (See Rhoades and Waguespack 2001).

Two main criteria informed the data collection. First, a variable had to have relevance to consumers' concerns regarding the service quality of airlines and second, data for a variable had to be readily available from published sources. This led to the compilation of an index based on data from multiple published sources. An index of airline quality implies some elements of subjectivity in the choice of which elements to include in the index and how they are weighted. The approach adopted here was to begin with a literature review of the recurrent themes of quality in the context of the type of airline passenger that is likely to use an airline that is part of a co-brand alliance. This was followed by a series of short interviews with industry experts who informed the choice of items to include in the index and the importance of each item.

The next stage was to identify published longitudinal data sources that corresponded to the items revealed in the literature review and expert interviews. It was initially proposed to collect data from a number of different countries in order to improve generalisability of the study. Unfortunately, attempts to collect data that the literature review and expert interviews described as vital for this study proved difficult to obtain for a number of countries. In many cases where data was available, inconsistency between the measurement instruments used in different countries made them incomparable. In other cases the data was not available or it was available for a limited number of years. For example, in Germany the data required for this study was available from a number of different governmental agencies up to 2000 or in some cases 2001. From 2003 onwards the Association of European Airlines (AEA) had intended to collect service quality data for all European carriers according to an EU directive targeting airline service performance data commonality across Europe. Unfortunately the AEA had so far only collected a limited range of service quality data. For all the above reasons it was decided by the researchers that this study would use data published by the United States Department of Transportation for the major U.S. air carriers. Numerous previous studies of airline performance have used this source, and recognized its consistency, reliability and long time series availability. This may be regarded as limiting the insights provided into the delivery of high quality airline services, as numerous commentators have noted, either anecdotally, or using the limited comparative data available, that the quality of service delivered by US airlines is inferior to that delivered by many non-US carriers. For example, Asian carriers, including Cathay Pacific, Singapore Airlines and Japan Airlines have featured prominently

in Conde Naste's awards for best airline (Rhoades, Waguespack & Treudt, 1998; Rhoades and Waguespack 2000; Rhoades & Waguespack 2005)

The resulting service quality index was compiled for a period of 18 years (1988 to 2005) from the following sources:

1. *Service Quality data recorded by the US Department of Transportation (DOT) and published monthly in the Air Travel Consumer Report.* Raw data included in this index from the US DOT's report fall in the following four areas.

- Flight Delays
- Mishandled Baggage
- Denied Boardings
- Consumer Complaints (for other reasons)

All the data were normalised to give a figure of the number of complaints per passenger carried by the airline per year. (Appendix A)

2. *Time-series data from the SKYTRAX airline quality awards database:* These were included in order to enrich the index with an established indication of airline quality deriving from consumer opinion. The SKYTRAX award is a widely recognized worldwide survey based collection of consumer views on airline service quality. SKYTRAX evaluates the reality of the "delivered" service being supplied to the customers by being concerned with consumers' perceptions of airline service quality. The delivered service is compared against the promised service, giving a realistic view of the service quality provided by the subject airline. Hence, a low cost airline with a much reduced product offering than its traditional "full service" competitors can still be eligible for a high ranking and thus a SKYTRAX superior quality award.

3. A review was undertaken of all available internet forums, and consumer complaint and rating web-sites concerned with airline service quality. This resulted in the final selection of three web-sites (<http://www.airlinereviews.com>; <http://www.airguideonline.com>; <http://www.my3cents.com>) that either rated airlines according to their provided service level or recorded consumer concerns regarding the quality of airline service (Appendix B). The websites were selected on the basis that they provided an acceptable number of comments for all airlines under consideration. Moreover, for the airlines that are members of an alliance, data should be available both prior and post the airline joined an alliance.

4. Airline rankings available at www.ratings.net were used. This final category of data is similar to the previous one, and ranks airlines according to their service quality performance, but involves time-series data. In this category of secondary data, travellers rate comfort, food, value, timeliness and service separately and the resulting index is presented for a number of years. The data are available on-line on www.ratings.net and details are summarized in Appendix C.

A weighted average was developed by attempting to combine comparable data. Weighted indices are a recognized method for comparing data across industry competitors based on the observation that consumers implicitly assign weights to each factor comprising his/her judgment of quality (Bowen & Headley, 1997). In this study, each attribute was given an initial weighting which was thought to represent the importance of each attribute gained from the literature review and from expert opinions. In the subsequent analysis, the

sensitivity of these assumptions was tested by varying the weighting and observing the effects on the performance of co-brand alliances.

Data was collected for the period 1988-2004 in respect of all US major airlines six of which enjoy airline alliance status (see Table 1).

TABLE 1

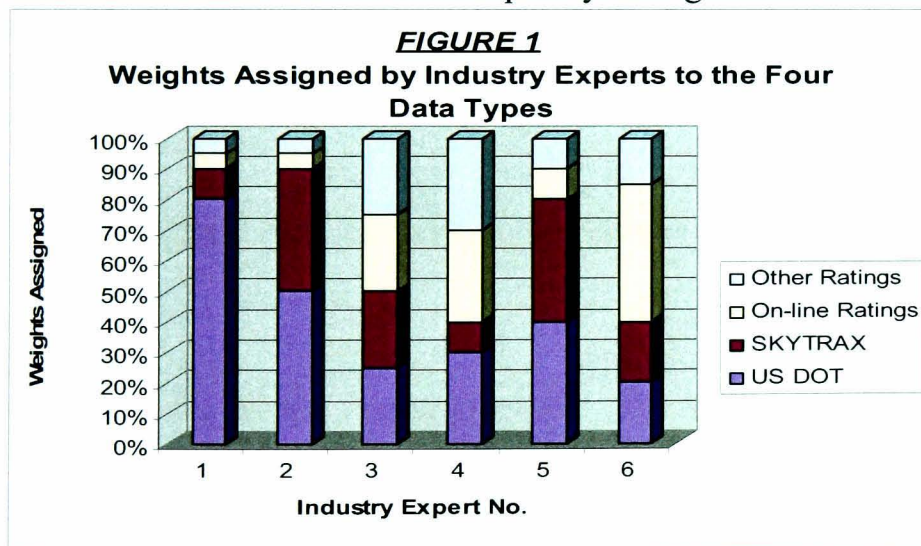
MAJOR AIRLINE ALLIANCE MEMBERS LISTING

AIRLINE ALLIANCES LISTING			
	STAR	ONE WORLD	SKYTEAM
Alliance Members	Air Canada	Air Lingus	Aeroflot
	Air New Zealand	American Airlines	Aeromexico
	ANA	British Airways	Air France
	Asiana Airlines	Cathey Pacific	KLM
	Austrian	Finnair	Alitalia
	BMI	Iberia	Continental Airlines
	LOT Polish Airlines	LAN Chile	CSA Czech Airlines
	Lufthansa	Qantas	Delta
	SAS Scandinavian Airlines		Korean Air
	Singapore Airlines		NWA Northwest Airlines
	South African Airways		
	Spanair		
	Swiss		
	TAP Portugal		
	Thai		
	United		
	US Airways		
Varig			

ANALYSIS

A weighted average formula was generated in order to combine the diverse types of data described above, and which would allow pre- and post alliance comparison of service quality. The panel of experts were invited to assign a total of 100 points to four aspects of service quality (on-time performance; missing baggage: received consumer complaints; and overbooking/ ticket over sales.) that the literature had identified as important indicators of airline service quality. The experts weighted these in accordance with their perception of their importance to airline passengers.

The experts then assigned values (again totaling 100 points) between the four different categories of data sources noted above (U.S. Department of Transportation, SKYTRAX, internet forums and the ratings site) (see Figure 1). In addition the three service quality rating websites that were short-listed in the



third category of data were reviewed by the expert panel and all received the same weights.

Although sufficient

information on each of the three web-site ratings was made available to the experts, unexpectedly they all assigned the same weights to each of the three web-ratings and therefore it was decided the raw data of these ratings should be combined.

The resulting weighted index was based on the following formula:

$$AQ_{ij} = W1 * [(W1,1 * On. Perf._{ij}) - (W1,2 * Mis. Bag._{ij}) - (W1,3 * Con. Com._{ij}) - (W1,4 * Ovr. s._{ij})] + W2 * (SkyAVG_{ij}) + W3[(Tot. Pos. Succ._{ij} - Tot. Pos. Prec._{ij}) + (Tot. Neg. Prec._{ij} - Tot. Neg. Succ._{ij}) + O.R.] + W4 * (Ratings_{ij})$$

where:

AQ_{ij} = Quality rating for Airline i in year j

W1 through W4 = the weights assigned by the experts to each of the four data categories

W1,1 = the weight assigned by experts to on-time performance.

W1,2 = the weight assigned by experts to missing baggage.

W1,3 = the weight assigned by experts to consumer complaints.

W1,4 = the weight assigned by experts to ticket over sales.

On. Perf. $_{i,j}$ = percentage of flights of airline i arriving on destination without a delay in year j

Mis. Bag. $_{i,j}$ = number of missing baggage for airline i per 1,000 passengers in year j (source United States Department of Transportation).

Con. Com. $_{ij}$ = number of consumer complaints for airline $_i$ per 100,000 passengers. in year $_j$ (source United States Department of Transportation)

Ovrs. $_{ij}$ = number of denied boarding for airline $_i$ per 10,000 passengers in year $_j$ (source United States Department of Transportation)

SkyAVG $_{ij}$ = the average of first, business and economy class of service assigned by the SKYTRAX award committee for airline $_i$ in year $_j$

Tot. Pos. Succ. $_{ij}$ = The total number of positive comments in year $_j$ for airline $_i$ made available by the three on-line ratings succeeding the company's alliance membership divided by the total number of comments.

Tot. Pos. Prec. $_{ij}$ = The total number of positive comments in year $_j$ for airline $_i$ made available by the three on-line ratings preceding the company's alliance membership divided by the total number of comments.

Tot. Neg. Prec. $_{ij}$ = The total number of negative comments in year $_j$ for particular airline $_i$ made available by the three on-line ratings preceding the company's alliance membership divided by the total number of comments.

Tot. Neg. Succ. $_{ij}$ = The total number of negative comments in year $_j$ for airline $_i$ made available by the three on-line ratings succeeding the company's alliance membership divided by the total number of comments.

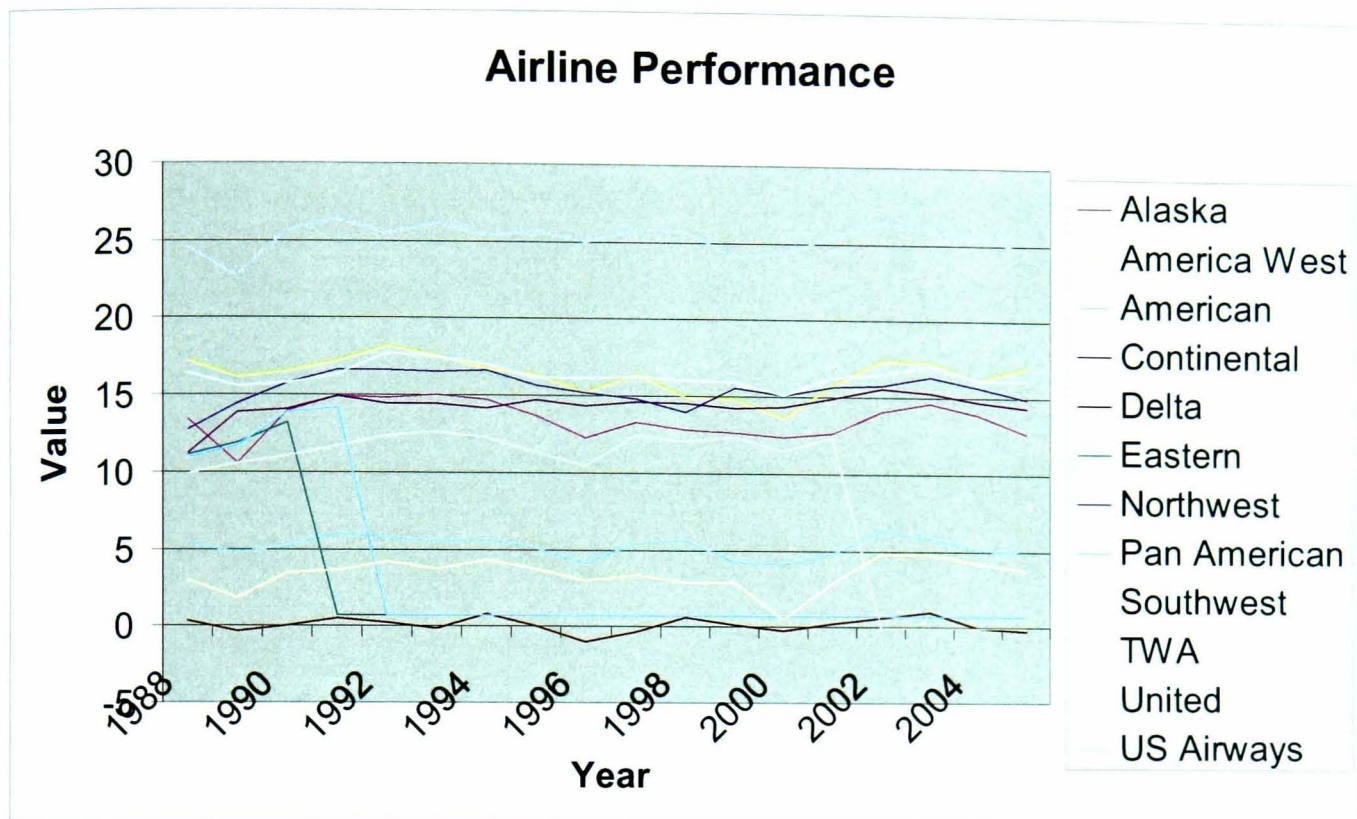
O.R. $_{ij}$ = Other Ratings available by the three on-line ratings for airline $_i$ in year $_j$

Ratings $_{ij}$ = The rating of airline $_i$ in year $_j$ * (number of ratings for airline $_i$ / the total number of ratings)

The initial findings were based on consensus weights from the expert panel, and on this basis Airline Quality indicators were calculated for each airline for each year. The model was subsequently rerun with adjusted weights, but no significant effect on overall findings was observed. Furthermore, a number of reruns were performed in which each of the four data categories received different weights ranging from the lowest of the set to the highest. In all cases the impact on the final service quality “ranking” of the twelve selected carriers was minimal, therefore the analysis presented here is based on initial consensus weights. The 12 carriers can be categorized in three clusters according to their final score performance. It can be seen in figure 2 that half of the airlines are performing consistently throughout the eighteen year period, and remaining within a very narrow range of each other. Of the remaining six, five perform poorly and only one outclasses every other airline. Of the five performing poorly two were initially part of the “average” performers but they both subsequently filed for bankruptcy (PanAm and Eastern Airlines) and since then data is not available for these carriers.

FIGURE 2

Service quality performance of the air carriers used in the study (1988-2005)



In general, all twelve air carriers included in this study, tend to follow the fluctuations of the market in terms of service quality throughout the years. In both the six carriers that are alliance members and the six that are not, the different cyclical phases of the airline market tend to have a much greater effect on service quality than the joining of an alliance. In some cases airlines were part of an alliance that ceased its operations and a few years later they joined another alliance. In one case, the first alliance membership does not show any effect in terms of service quality while the second is too recent for the researchers to notice any changes (US Airways joined the Star Alliance in 2004).

ANOVA analysis followed by a Tukey-Kramer procedure were performed in order to investigate whether variance in service quality between the different carriers could be better explained by common underlying airline

cycles, rather than factors that are specific to an individual airline, including membership of a co-brand alliance. It can be seen from Appendix D that the probability of obtaining an F statistic greater than 1.82 is almost zero. Since this value is less than the specified significance level (α of 0.05) the hypothesis that there is no difference in mean service quality performance over time of the selected airlines is rejected. The results indicate that although alliance members offer higher service quality, joining alliance does not have an effect over time on an airline's existing level of service quality. The observation that alliance and non-alliance members offer different levels of service quality can probably be explained by the fact that only high quality airlines constitute desired alliance candidates, therefore low performers stay out of the alliances while high quality performers join one of the three major alliances. In particular American, Continental, Delta, Northwest, United and US Airways who all belong to one of the three major airline alliances did not show any convergence in their levels of service quality after joining an alliance. It is possible that any fluctuations for both alliance and non-alliance members in terms of service quality are driven by macro-environmental factors and are not affected by the alliance status of any airline.

TABLE 2

Anova Analysis Results

<u>ANOVA single factor</u>				
Summary				
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Alaska	18	242,2895984	13,460533	1,3893647
America West	18	294,4315994	16,357311	1,3180628
American	18	93,39936846	5,1888538	0,3994675
Continental	18	258,9321093	14,385117	0,8130402
Delta	18	1,813987721	0,1007771	0,2362458
Eastern	18	47,0728971	2,615161	19,057017
Northwest	18	278,1499599	15,452776	1,0479854
Pan American	18	60,801168	3,3778427	26,538498
Soutwest	18	294,1196896	16,339983	0,4271987
TWA	18	162,7117156	9,0395398	25,715329
United	18	60,61536457	3,3675203	1,0673956
US Airways	18	454,4949341	25,249719	0,8554835

The causes of the variation both between the different airlines and within the same airline but for different years can be numerous. Starting with the variance between airlines it is evident that in highly competitive service industries such as the airline industry, all competitors try to differentiate their product from others. One of the major areas that an airline can differentiate is service quality, where airlines that offer high service quality (e.g. Singapore Airlines) and others that offer lower service quality (e.g. "no frills" carriers) can profitably coexists. Although the level of service provision amongst the different airlines studied here varies greatly, this study is concerned with whether the

promised level of service (whether high or low) was delivered. It should be recalled that the formula for airline service quality used in this study referred to the actual delivery of the promised level of service. The variation within airlines throughout the years, also shown in Figure 1 is not as easy as the one between airlines to explain. Although based on Figure 1 it can be suggested that the variability between the airlines' service quality is mainly driven by macro-environmental factors, further analysis is required. Therefore, in order to better understand the causes of variability in service quality within airlines over time, a Tukey-Kramer procedure was followed. Table 3 below shows which airlines' service quality performance was significantly matched to other airlines throughout the period studied.

TABLE 3

AIRLINES WITH SIMILAR SERVICE QUALITY PERFORMANCE

Airlines with means not different at the .05 significance level	
Alaska to Continental	Continental to Northwest
Alaska to Northwest	Continental to Southwest
America West to Continental	Delta to Eastern
America West to Northwest	Eastern to Pan American
America West to Southwest	Eastern to United
American to Eastern	Northwest to Southwest
American to Pan American	Pan American to United
American to United	

As it was initially indicated in Figure 1 and substantiated with the data of Table 2 the twelve airlines included in the study can be categorized according to their service quality in three groups. Of the twelve carriers five are low performers (American, United, Pan Am, Eastern and Delta), six average (Southwest, America West, Northwest, Continental, TWA and Alaska), and only one, US Airways is a top performer. It was mentioned earlier that Eastern, Pan Am and TWA ceased their operations in 1990, 1991 and 2002 respectively. None of the matches shown in Table 3 includes pairs of airlines that share membership of a co-brand alliance.

Finally, a Chi-square analysis was performed in order to validate the previously reported results. The computed Chi-square value of 43,19575 is greater than the critical value (27.585) leading us to reject the null hypothesis that there is no difference in terms of service quality between alliance and non-alliance members.

CONCLUSION AND MANAGEMENT IMPLICATIONS

The purpose of this study was to investigate the effects of co brand alliances on service quality levels achieved by individual alliance members. While there had been previous published research into the financial implications of alliances for airlines, there have been little published research on the effects of co-airline brand alliances on service quality. Specifically, a hypothesis was developed, based on the literature on brand alliances, which stated that the service quality levels of airlines would converge when they become members of a co brand alliance. In order to investigate these effects, twelve U.S. major air carriers were studied. Five of the majors (United, American, Northwest,

Continental and US Airways) have recently enjoyed alliance membership while the remaining seven did not.

The study employed a weighted average index in order to calculate service quality levels for airlines before and after joining a co-brand alliance. The index was based on a number of secondary sources ranging from raw quality related data collected by the U.S. Department of Transportation to quality awards by governing bodies within the aviation industry and internet forums. A panel of industry experts assigned weights to the different sources of service quality. The index has made a useful contribution by longitudinally combining quantitative and qualitative sources of service quality data in a sector where quantitative sources have tended to be operationally focused, and qualitative sources have tended to change their assessment criteria over time.

The study showed no significant effect of joining a co-brand alliance on individual airlines' variation in service quality levels over time, compared with significant variation in their quality level over time which could be attributed to industry wide factors. This is seen graphically in Figure 1 and verified by an ANOVA followed by a Tukey-Kramer analysis. According to the findings only US Airways stands out as having superior quality performance, but as there is no data to show that this change only occurred after it joined the Star Alliance it cannot be implied that alliance membership had any effect on the high service quality performance of the airline.

The hypothesis that service quality levels of co brand alliance members will converge over time is not supported. The study showed that when using a broadly based measure of service quality, there was much greater influence of general industry forces on service quality, compared with the effects of co brand alliance membership. These findings were robust to variations in assumptions

about the weighting of the service quality index. This observation may be consistent with the concept of institutional isomorphism, described by Meyer and Rowan as a tendency of firms in a given environment to converge toward similarity (Meyer and Rowan 1977). They suggested that elements in the environment likely to promote isomorphic convergence include legal mandate, administrative/ regulatory agencies, technology, etc. In the airline sector during the period of this study, isomorphic convergence is likely to have been triggered by, among other things, economic expansion/recession, fuel and other operating cost fluctuations, and security threats, especially following September 2001.

Concept combination theory had suggested that the values of individual brands would be incorporated into the global brand and vice versa. However, when measured using the index of service quality, there appeared to be little evidence either of individual airline brands influencing the global brand, or of the global brand influencing individual brand members. However, it is possible that the weighted index of service quality was insufficiently subtle to record differences in the *style* of delivered quality, as distinct from more technical measures of quality which tended to be emphasized by the index. However, it is evident that within alliances, style may differ quite significantly, for example United Airlines and Lufthansa are both members of the Star Alliance, yet many customers may detect subtle differences in the attitudes of staff and visual appearance of cabins, for example. These subtle differences may call for the idea of “customer experience” to become a more overarching concept than service quality for understanding the features that unite a common perception by customers of different suppliers. There is a practical problem of managing the perceived customer of a co-brand alliance in which member airlines concentrate their targeting on different national markets, for example, within the Star

Alliance co-brand, a focus by Singapore Airlines on “Asian values” may appeal to its dominant target market in Asia, while on-time departure through busy hubs may be a bigger appeal to US based customers of United Airlines.

Finally, it should be noted that airline co brand alliances are created for a number of reasons other than promoting one shared brand with a consistent level of quality. These reasons typically include shared operational facilities, resulting in economies of scale for alliance members. Similarly, economies of scale, and economies of scope can apply to individual members promotional efforts, for example shared advertising campaigns, and the facilitation of ticket sales across other members networks to provide "seamless" networks of origins and destinations.

Co branding is becoming increasingly important in many sectors, and indeed between service sectors, with notable examples of regional and international co-branding between distribution, banking and mobile-phone operators. Many of the issues discussed in this paper are likely to be shared with these sectors, particularly the need to maintain consistency in standards between co brand members, while at the same time each member appeals to what may be the particular preferences of their own dominant target markets. Defining service quality is likely to be just as difficult as in the case of airlines, and researching these sectors is likely to be more difficult because of the relative absence of published time series data. Although the banking and telephone sectors are highly regulated, with extensive reporting requirements to governments on a range of criteria, the available data is similar to the airline sector in focusing on operational factors rather than customer perceived quality.

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APPENDIX A

On-Time Performance for US Major Carriers (Quarterly Data, 1988-2005)

	Year/Air lines	Alas ka	America West	Ameri can	Contin ental	Del ta	East ern	North west	Pan America n	South west	T W A	Unit ed	US Airway s
1988	1st Quarter	76.3	87.4	80.1	69.4	72. 2	69.2	66.4	77.1	86.6	69. 8	73.8	75.5
	2nd Quarter	80.7	91.5	86.9	82.8	87. 2	78	84.2	72.5	91.2	80. 7	81.1	74.9
	3rd Quarter	85.5	92.7	86.5	85.3	87. 1	82.4	77.8	75.4	90.5	79	82	77.6
	4th Quarter	73.5	81.6	79.2	78.3	82. 4	87.9	77.3	78	79.9	78. 1	74.2	77.7
	Year Total	79.0	88.3	83.2	79.0	82. 2	79.4	76.4	75.8	87.1	76. 9	77.8	76.4
	1st Quarter	77.2	81.5	71.3	77.4	75. 8	81.6	80.4	73	74.5	70. 1	67.1	70.1
	2nd Quarter	84.8	91.7	81.3	79.4	79. 3	87.5	82.7	68.4	79.2	79. 4	72.5	78.2
1989	3rd Quarter	80.4	87.7	84	80.9	80. 2	83.6	75.6	75.8	85.6	80	66.1	68.3
	4th Quarter	76.5	75.6	81.7	78.3	78. 4	78	76.9	75.7	81.9	77. 4	75.2	66.1
	Year Total	60.4	84.1	79.6	79.0	78. 4	82.7	78.9	73.2	80.3	76. 7	70.2	70.7
	1st Quarter	78.3	78.1	76	73.2	73. 6	72.9	79.9	82.1	79.5	78. 5	73.6	75.8
	2nd Quarter	85	90.4	79.2	76.8	79. 3	88	83.3	85.1	84.2	77	76.5	82.8
	3rd Quarter	80.2	87.1	83.6	79.2	78. 1	82.7	82.5	82.5	84.4	78. 9	80.4	81.2
	4th Quarter	75.2	79.2	77	78.4	77. 2	81	82.5	85.6	74.9	73. 7	78.7	83.3
1990	Year Total	79.7	83.7	79.0	76.9	77. 1	81.2	82.1	83.8	80.8	77. 0	77.3	80.8
	1st Quarter	80.1	76.6	82.1	78.8	77. 2		82.9	82.8	72.1	70. 1	72.3	83.5
	2nd Quarter	89.5	87.7	87.2	80.9	81. 7		87.8	85.1	84.1	82. 1	77.9	86
	3rd Quarter	87.8	87.1	84.9	83.8	79. 83		90	82.2	91.2	83. 3	83.1	84.3
	4th Quarter	80	87	79.6	81.8	80. 9		84.2	83.9	88.2	80. 7	79.3	83.8
	Year Total	84.4	84.6	83.5	81.3	77. 5	0.0	86.2	83.5	83.9	79. 1	78.2	84.4
	1st Quarter	83.8	88.1	82.2	76.5	77. 9		84.7		90	80. 9	80.5	82.7
1992	2nd Quarter	88.9	91	83.9	80.4	82. 1		89.8		93.7	83. 9	84.9	81.5
	3rd Quarter	84.3	90.1	80.7	81.9	78. 7		84.9		94.6	79	80.9	76.6
	4th Quarter	81.2	86.3	81.6	77.1	77. 6		84.9		89.9	84. 9	79.1	77.3
	Year Total	84.6	88.9	82.1	79.0	79. 1	0.0	86.1	0.0	92.1	82. 2	81.4	79.5
	1st Quarter	85.9	81.2	76.6	74.1	69. 6		79.7		84.6	77. 3	72	77.1
	2nd Quarter	88.3	88.1	81.8	82.1	79. 7		88		90.9	87. 2	82.5	87.2
	3rd Quarter	86	88.7	85	83.4	79. 5		88		94.1	81. 84	81.1	86.6
1993	4th Quarter	77.4	83.8	79.8	76.6	77. 9		87.9		88.6	81. 4	77.9	80.7
	Year Total	84.4	85.5	80.8	79.1	76. 7	0.0	85.9	0.0	89.6	82. 5	78.4	82.9
	1st Quarter	80.8	79.5	76.4	67.8	76. 5		80		86.3	74. 1	74	70
	2nd Quarter	86.6	83.7	84	81.6	82. 3		88.2		89.8	84. 2	82	83.2
	3rd Quarter	87	79	84.1	82	81. 2		87.4		90.5	85. 7	84.3	79.5
	4th Quarter	76.6	79.4	79.7	81.5	81. 5		87		80.5	80. 76	85.8	83.1
	Year Total	82.8	80.4	81.1	78.2	80. 4	0.0	85.7	0.0	86.8	80. 0	81.5	79.0
1994	1st Quarter	75.5	75.1	73.3	77.7	79. 1		80.1		78	71. 5	77.9	78.3
	2nd Quarter	79.9	78.3	77.1	75.5	77. 9		81.6		83	72. 5	80	82
	3rd Quarter	74.3	80.8	81.9	84.5	78. 6		80.7		87.5	79. 9	80	83.5
	4th Quarter	77.2	76.1	78	80.7	69. 1		80.4		80.4	72. 9	72.8	75.5
	Year Total	76.7	77.6	77.6	79.6	76. 2	0.0	80.7	0.0	82.2	74. 2	77.7	79.8
	1st Quarter	73.8	69.7	70.6	74.7	60. 4		74.4		81.3	62. 9	70.1	67.1
	2nd Quarter	75	73.8	74	78.7	77		79.2		85.9	70. 2	76.6	78.9
1995	3rd Quarter	62.3	70.8	69.2	75.2	75		79.8		85.4	69. 8	76.6	78.6
	4th Quarter	64	69	75.1	77.9	72. 4		72.8		74.5	71. 3	72.1	78.2
	Year Total	68.8	70.8	72.2	76.6	71. 2	0.0	76.6	0.0	81.8	68. 6	73.9	75.7
	1st Quarter	76.1	74.8	72.9	76.3	71. 2		66		78.8	73. 1	72.1	78.7
	2nd Quarter	82.3	80	79.5	77.7	72. 4		78.5		83.8	84. 1	78.7	80.4

On-Time Performance for US Major Carriers (Annual Data, 1988-2005)

Year/Airlines	Alaska	America West	American	Continental	Delta	Eastern	Northwest	Pan American	Southwest	TWA	United	US Airways
1988	79.0	88.3	83.2	79.0	82.2	79.4	76.4	75.8	87.1	76.9	77.8	76.4
1989	60.4	84.1	79.6	79.0	77.4	82.7	78.9	73.2	80.3	76.7	70.2	70.7
1990	79.7	83.7	79.0	76.9	80.1	81.2	82.1	83.8	80.8	77.0	77.3	80.8
1991	84.4	84.6	83.5	81.3	79.5	0.0	86.2	83.5	83.9	79.1	78.2	84.4
1992	84.6	88.9	82.1	79.0	76.1	0.0	86.1	0.0	92.1	82.2	81.4	79.5
1993	84.4	85.5	80.8	79.1	80.7	0.0	85.9	0.0	89.6	80.5	78.4	82.9
1994	82.8	80.4	81.1	78.2	76.4	0.0	85.7	0.0	86.8	74.0	81.5	79.0
1995	76.7	77.6	77.6	79.6	71.2	0.0	80.7	0.0	82.2	68.2	77.7	79.8
1996	68.8	70.8	72.2	76.6	74.2	0.0	76.6	0.0	81.8	80.6	73.9	75.7
1997	75.3	77.6	79.1	78.1	79.0	0.0	74.9	0.0	81.9	78.3	76.0	80.1
1998	72.0	68.5	80.1	77.2	78.6	0.0	70.7	0.0	80.8	80.3	73.8	78.9
1999	71.0	69.6	73.3	76.6	75.0	0.0	79.9	0.0	80.0	76.9	74.4	71.4
2000	68.0	65.5	72.9	78.1	78.3	0.0	77.4	0.0	75.2	80.9	61.5	72.2
2001	69.1	75.3	76.1	80.9	80.4	0.0	79.8	0.0	81.7	80.9	74.0	78.6
2002	77.9	83.0	83.9	83.4	82.0	0.0	80.7	0.0	82.7	0.0	83.9	83.5
2003	81.0	82.0	81.7	82.0	76.4	0.0	82.9	0.0	86.3	0.0	83.4	79.7
2004	76.3	75.7	76.8	78.9	76.2	0.0	79.1	0.0	80.1	0.0	79.7	79.4
2005	69.8	81.2	76.9	76.9	76.3	0.0	75.0	0.0	80.8	0.0	77.6	76.4

Missing Baggage per 1,000 Passengers for US Major Carriers (Annual Data, 1988-2005)

Year/Airlines	Alaska	America West	American	Continental	Delta	Eastern	Northwest	Pan Am	Southwest	TWA	United	US Airways
1988	8.37	9.6	8.89	7.93	8.17	7.51	9.63	5.05	4.59	11.19	7.74	8.58
1989	9.03	13.71	11.76	9.49	11.32	18.12	13.59	7.96	4.99	14.42	11.36	18.96
1990	7.6	9.36	6.45	5.8	6.92	8.56	7.23	5.25	4.13	8.27	6.69	7.01
1991	5.86	6.62	4.55	5.13	5.96	0.0	5.44	0	4.34	6.25	6.03	5.19
1992	6.97	4.67	5.38	6.42	6.15	0.0	5.75	0	4.01	6.99	6.03	6.56
1993	5.74	4.39	5.68	6.07	5.64	0.0	5.84	0	3.78	5.02	6.41	5.83
1994	5.13	4.53	4.78	6.59	4.96	0.0	6.03	0	4.16	5.82	5.49	6.01
1995	5.75	4.82	5.08	4.69	5.28	0.0	6.33	0	4.26	6.37	5.23	4.9
1996	7	4.38	5.47	4.05	5.19	0.0	5.34	0	3.96	6.12	6.73	5.14
1997	7.19	3.39	4.87	3.78	4.54	0.0	6.05	0	3.92	5.44	6.7	4.24
1998	7.27	3.88	4.4	4.06	4.27	0.0	6.63	0	4.53	5.35	7.79	4.09
1999	5.75	4.52	5.21	4.42	4.39	0.0	4.81	0	4.22	5.38	7.01	5.08
2000	3.48	6.62	5.5	5.35	4.49	0.0	5.24	0	5	6.06	6.57	4.76
2001	3	4.22	4.6	4.29	4.11	0.0	4.19	0	4.77	6.35	5.07	3.86
2002	2.63	3.55	4.27	3.14	3.57	0.0	4.52	0	3.52	0	3.76	2.95
2003	2.56	3.3	4.45	3.11	3.84	0.0	3.42	0	3.35	0	3.93	3.55
2004	3.51	3.98	4.73	3.58	5.17	0.0	4.22	0	3.35	0	3.93	5.33
2005	5.03	4.33	5.92	4.12	7.09	0.0	4.86	0	4.25	0	4.28	9.62

Consumer Complaints per 100,000 Passengers for US Major Carriers (Annual Data, 1988-2005)

Year/Airlines	Alaska	America West	American	Continental	Delta	Eastern	Northwest	Pan American	Southwest	TWA	United	US Airways
1988	4.84	3.45	4.26	30.72	2.83	19.53	17.75	14.45	1.93	11.44	5.33	3.33
1989	1.55	1.41	1.18	3.33	2.05	6.49	1.95	6.11	0.81	5.24	1.97	2.15
1990	0.59	1.65	1.04	2.09	0.45	0.00	1.33	3.91	0.56	5.63	1.37	1.26
1991	0.48	1.76	1.42	1.21	0.47	0.00	0.98	0.00	0.46	4.46	1.47	0.63
1992	0.48	1.50	1.40	1.17	0.58	0.00	0.74	0.00	0.24	2.82	1.05	0.85
1993	0.33	1.11	1.05	1.62	0.50	0.00	0.62	0.00	0.18	1.92	0.84	0.66
1994	0.51	1.28	0.70	2.15	0.45	0.00	0.63	0.00	0.23	1.58	0.71	0.76
1995	0.52	0.94	0.62	1.04	0.58	0.00	0.52	0.00	0.21	1.34	0.76	0.66
1996	0.51	1.22	0.93	0.58	0.72	0.00	0.85	0.00	0.21	1.25	0.74	0.68
1997	0.63	1.51	1.06	0.77	0.64	0.00	1.39	0.00	0.28	0.83	0.95	0.78
1998	0.54	2.11	1.14	1.02	0.79	0.00	2.21	0.00	0.25	1.29	1.28	0.84
1999	1.64	3.72	3.49	2.62	1.81	0.00	2.92	0.00	0.40	3.44	2.65	3.13
2000	2.04	7.51	3.54	2.85	2.01	0.00	2.61	0.00	0.47	3.47	5.31	2.59
2001	1.27	3.72	2.51	2.23	2.16	0.00	1.97	0.00	0.38	2.54	3.24	1.87
2002	0.91	1.63	1.29	1.41	1.37	0.00	1.45	0.00	0.33	0.00	1.71	1.13
2003	0.52	0.84	0.88	0.96	0.79	0.00	0.95	0.00	0.14	0.00	0.83	0.90
2004	0.58	1.03	0.87	0.82	0.79	0.00	0.89	0.00	0.18	0.00	0.89	1.20
2005	0.77	0.96	1.02	0.92	1.09	0.00	0.94	0.00	0.18	0.00	1.02	1.86

Denied Boardings per 10,000 Passengers for US Major Carriers (Annual Data, 1988-2005)

Year/Airlines	Alaska	America West	American	Continental	Delta	Eastern	Northwest	Pan American	Southwest	TWA	United	US Airways
1988	2.1	5.79	0.07	3.31	0.97	0	4.33	11.85	7.1	7.82	0.57	
1989	2.72	8.75	0.09	2.38	1.29	3.21	4.01	5.47	5.81	3.57	0.68	3.97
1990	2.19	6.81	0.14	1.48	0.53	0.79	0.95	2.64	5.45	3.74	0.41	1.7
1991	1.55	2.41	0.28	1.45	0.38	0	0.61	2.99	3.82	3.58	0.68	0.68
1992	1.82	1.36	0.37	0.72	0.51	0	0.78	0	3.6	2.59	0.45	0.78
1993	0.87	1.75	0.35	1.52	0.77	0	1.19	0	3.46	1.68	0.34	0.58
1994	1.71	2.19	0.36	1.97	0.82	0	0.67	0	3.67	1.56	0.54	1.26
1995	1.63	2.43	0.44	0.77	0.81	0	0.31	0	3.2	0.83	0.36	1.35
1996	1.98	1.99	0.54	0.18	1.25	0	0.54	0	2.3	0.89	0.6	1.41
1997	2.78	1.98	0.63	0.1	1.53	0	0.53	0	2.16	1.36	0.49	0.81
1998	1.49	1.12	0.42	0.13	1.24	0	0.33	0	1.84	1.69	0.59	0.23
1999	0.99	1.38	0.42	0.28	1.98	0	0.2	0	1.4	0.88	0.69	0.57
2000	1.53	1.27	0.44	1.44	0.34	0	0.43	0	1.84	3.11	1.64	0.67
2001	1.36	0.38	0.36	1.51	0.77	0	0.45	0	1.5	0.7	0.92	0.34
2002	1.17	0.2	0.31	0.87	1.11	0	0.6	0	1.09	0.1	0.69	0.35
2003	0.81	0.4	0.59	1.06	1.12	0	0.7	0	1.02	0.1	0.65	0.34
2004	1.22	0.7	0.52	1.76	1.12	0	0.78	0	0.95	0.1	0.49	0.65
2005	1.58	1.06	0.63	1.92	1.31	0	0.96	0	0.69	0.1	0.48	0.64

APPENDIX B

Web-site Ratings Summary for US Majors- <http://www.my3cents.com>

Comment type/Airline	Alaska	America West	American 1998	Continental 2004	Delta 1999	Eastern	Northwest 2004	Pan American	Southwest	TWA	United 1997	US Airways 2004
Positive Comments Preceding Date												
Delays	0	0	0	0	0		2		2	0		
Baggage Denied boardings	0	0	0	0	0		0		0	0		
Other	2	1	0	0	0		8		5	0		
Category total Succeeding Date	2	1	0	0	0		10		7	0		
Delays			0	1	1		1				0	2
Baggage Denied boardings			1	1	0		1				1	0
Other			0	1	1		0				0	1
Category total Negative Comments Preceding Date			2	4	6		5				1	4
Delays	2	3		1	0		11		3	0		20
Baggage Denied boardings	3	3	1	1	0		5		1	0		14
Other	0	2		0	1		6		1	0		10
Category total Succeeding Date	7	5		2	0		11		7	0		32
Category total Succeeding Date	12	13	1	4	1		33		12	0		76
Delays			15	3	13		6				14	4
Baggage Denied boardings			13	2	17		2				8	8
Other			4	3	13		5				6	7
Category total			42	8	71		20				44	25

Web-site Ratings Summary for US Majors-<http://www.airguideonline.com>

Comment type/Airline	Alaska	American West	American 1998	Continental 2004	Delta 1999	Eastern	Northwest 2004	Pan American	Southwest	TWA	United 1997	US Airways 2004
Positive Comments												
Preceding Date												
Delays	3	1	0	0	0	0	2	0	2	0		8
Baggage Denied boardings	0	0	0	0	0		0	0	0	0		0
Other	1	0	0	0	0	0	1	0	1	0		3
Category total	6	1	0	4	0	0	3	0	1	0		15
Succeeding Date												
Delays	10	2	0	4	0	0	6	0	4	0		26
Delays			2	0	2		0				1	0
Baggage Denied boardings			0	0	0		0				0	0
Other			1	0	1		0				1	0
Category total			5	0	5		0				5	1
Negative Comments												
Preceding Date												
Delays	0	1	0	3	0	0	1	0	1	0		6
Baggage Denied boardings	0	0	0	1	0	0	1	0	1	0		3
Other	0	1	0	1	0	0	0	0	0	0		2
Category total	5	5	0	7	0	0	8	0	10	0		35
Succeeding Date												
Delays	5	7	0	12	0	0	10	0	12	0		46
Delays			1	0	1		0				2	3
Baggage Denied boardings			1	0	1		0				1	1
Other			0	0	0		0				0	1
Category total			6	0	6		0				7	9
Tot. Comment No.:												
	15	9	16	16	16	1	16	1	16	1	17	87

Web-site Ratings Summary for US Majors-<http://www.airlinereviews.com>

Comment type/Airline	Alaska	American West	American 1998	Continental 2004	Delta 1999	Eastern	Northwest 2004	Pan American	Southwest	TWA	United 1997	US Airways 2004	
Positive Comments													
Preceding Date													
Delays	0	0	0	0	0	0	0	0	2	2		4	
Baggage Denied boardings	0	0	0	0	0	0	0	0	0	0		0	
Other	3	0	0	0	0	0	0	0	3	2		8	
Category total	3	0	0	0	0	0	0	0	5	4		12	
Succeeding Date													
Delays			0	1	2		2				1	3	9
Baggage Denied boardings			0	0	0		2				1	1	4
Other			0	0	0		0				0	0	0
			4	3	3		1				4	3	8
Category total			4	4	5		5				6	7	11
Negative Comments													
Preceding Date													
Delays	1	4	0	0	0	0	1	0	0	0		6	
Baggage Denied boardings	0	0	0	0	0	0	0	0	0	0		0	
Other	4	4	0	0	0	0	3	0	0	0		11	
Category total	5	8	0	0	0	0	4	0	0	0		17	
Succeeding Date													
Delays			1	2	3		1				2	1	0
Baggage Denied boardings			0	1	2		0				0	0	3
Other			0	0	2		1				1	1	5
			9	5	5		5				4	1	2
Category total			10	8	12		7				7	3	7
Tot. Comment No.:	8	8	18	16	22	1	25	1	10	8	19	51	
Other Ratings (X out of Y)	3 of 5	1 of 5	3 of 5	3 of 5	3 of 5	0	2 of 5	0	5 of 5	4 1/2 of 5	3 of 5	4 of 5	

APPENDIX C

Time Series of Airline Ratings for US carriers from Airline Ratings.Net (1988-2005)

	Alaska	American West	American	Continental	Delta	Eastern	Northwest	Pan American	Southwest	TWA	United	US Airways
1988	8	0	0	0	0	0	0.0	0	0	0	0	0
1989	0	0	0	0	0	0	0.0	0	0	0	0	0
1990	0	0	0	0	8.2	0	0.0	0	0	0	0	6
1991	0	0	0	0	0	0	0.0	0	0	0	0	0
1992	0	0	0	0	0	0	0.0	0	0	0	0	0
1993	0	0	0	0	0	0	0.0	0	5.6	0	0	0
1994	0	0	0	0	8.8	0	5.8	0	6.8	5.6	0	0
1995	0	5	0	0	7.6	0	0.0	0	0	0	0	3.2
1996	0	0	0	0	0	0	6.3	0	0	7.8	5	0
1997	7.6	7	6.6	0	6	0	5.4	0	6.4	4.4	5	6.4
1998	9	6.9	7.6	7.3	5.9	0	4.2	0	7.5	5	7.8	0
1999	5.6	5.5	6.4	6.9	6.5	0	5.2	0	6.9	5.7	6.1	7.8
2000	6	5.2	5.8	6.2	6	0	6.4	0	5.8	5.9	5.4	5.5
2001	9.4	0	6.1	5.2	5.7	0	7.1	0	6.8	5	3.8	4.6
2002	0	5	8.4	6.7	2.9	0	0.0	0	9	0	3.6	3.7
2003	0	0	2.2	4.2	4.5	0	5.7	0	7.5	0	4.1	6.4
2004	5.3	2.8	5.5	3.7	4.8	0	6.8	0	6.6	0	4.9	4.8
2005	9	3.7	2.8	3.8	4.3		7.7	0	4.5	0	0	0
No. of Ratings	41	49	100	81	127	0	84.0	0	86	37	90	51

APPENDIX D

ANOVA Results for Variance between Airlines

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	11457,274	11	1041,5703	158,48387	1,65E-93	1,835819
Within Groups	1340,7065	204	6,5720907			
Total	12797,98	215				

APPENDIX E

Years	fo (non-alliance members)	fe (alliance members)	fo-fe	(fo-fe) ²	(fo-fe) ² /fe
1988	78,55586301	57,1641492	21,3917	457,605	8,00511
1989	75,76777516	57,3178741	18,4499	340,398	5,93879
1990	83,92397596	64,0246278	19,8993	395,984	6,18487
1991	74,98853461	68,0394238	6,94911	48,2901	0,70973
1992	64,48011751	66,6503872	-2,17027	4,71007	0,07066
1993	64,18845653	66,1416454	-1,95319	3,81494	0,05767
1994	62,15118664	66,8718098	-4,72062	22,2842	0,33323
1995	58,9019855	64,8659915	-5,96401	35,5693	0,54835
1996	55,531049	60,5921213	-5,06107	25,6144	0,42273
1997	59,89229132	63,6028402	-3,71055	13,7681	0,21647
1998	57,34628518	63,2010344	-5,85475	34,2780	0,54236
1999	57,27928786	61,1445890	-3,8653	14,9405	0,24434
2000	53,94037152	58,0940195	-4,15365	17,2527	0,29698
2001	58,51521893	64,0239889	-5,50877	30,3465	0,47398
2002	49,38070138	69,3248694	-19,9442	397,769	5,73776
2003	50,4426158	69,0508111	-18,6082	346,264	5,01464
2004	47,49140761	65,0905488	-17,5991	309,729	4,75844
2005	47,15843301	62,2049915	-15,0466	226,398	3,63956
					43,1957

Ho: there is no difference between non alliance members and alliance members
H1: there is difference between non alliance members and alliance members

df= 18-1= 17
crit.value at the .05= 27.585
Decision rule: reject Ho if $X^2 > \text{critical value}$

Appendix 3 Sample of Loyalty Measurement Instruments Reviewed for the Purposes of this Study

Author (year)	Reliability	Validity	Method of collection of data	Scale use	Measurement of loyalty
Ganesh, Arnold, and Reynolds (2000)	An alpha of .77 was reported for the scale (Ganesh, Arnold, and Reynolds 2000)	No examination of the scale's validity was reported by Ganesh, Arnold, and Reynolds (2000). They did, however, factor analyze the items in this scale along with those of a related scale. The items for this scale loaded highest on the same dimensions with no substantial loadings on the other dimension.	Survey questionnaire method	Five-point Likert Scale	Measures the extent to which a customer intends to engage in certain proactive activities with regard to a service provider such as spreading positive word of mouth about it and using more of its services.
Sen, Gurhan-Canli, and Morwitz (2001)	An alpha of .91 (n=166) was reported for the scale by Sen, Gurhan-Canli, and Morwitz (2001)	No examination of the scales's validity was described in the article by Sen, Gurhan-Canli, and Morwitz (2001)	Survey questionnaire method	Seven-point Likert Scale	Assess a person's tendency over time to purchase a specified brand within a specified product category.
Ganesh, Arnold, and Reynolds (2000)	An alpha of .72 was reported for the scale of Ganesh, Arnold, and Reynolds (2000)	No examination of the scales's validity was reported by Ganesh, Arnold, and Reynolds (2000). They did, however, factor analyze the items in this scale along with those of a related scale (#263). The items for this scale loaded highest on the same dimension with no substantial loadings on the other dimension.	Survey questionnaire method	Five-point Likert Scale	The scale measures the extent to which a customer intends to remain a customer of a specific service provider for the foreseeable future despite typical market actions that it or its competitors might take, e.g. , change in prices charged.
Campo, Gijsbrechts, and Nisol (2000) indicated that their scale was based on the by Baumgartner and Steenkamp (1996)	Alphas of .856(cereals) and .890(margarine) were reported for the scale by Campo, Gijsbrechts, and Nisol (2000).	No information about the scales's validity was provided by Campo, Gijsbrechts, and Nisol (2000). They did imply, however, that the scale was unidimensional based on the results of a principal components factor analysis of all scale items in their questionnaire.	Personal interview		The scale measures a consumer's tendency to buy the same brand within a specified product category rather than seek variation.

<p>inspiration for the sales came from earlier work by the authors (Beatty et al. 1996) as well as others (Higie, Leck, and Price 1987)</p>	<p>Reynolds and Beatty (1999a) reported a composite reliability of .91 for both versions of the scale. In Reynolds and Beatty (1999b), the alphas were .86 (sales associate) and .83 (store).</p>	<p>A claim of convergent validity was made by Reynolds and Beatty (1999a) based upon the significance of the item loadings in the CFA. Evidence of the discriminant validity of their two loyalty measures came from noting that the variance extracted for each was much higher than the correlation between them.</p>	<p>Survey questionnaire method</p>	<p>Seven-point Likert Scale</p>	<p>The scale measures a person's commitment to a specific marketer. Reynolds and Beatty (1999a, 1999b) used two versions of the scale, one with respect to a company that customers had done business with and one with 'sales associate' they had interacted with at the store/ business. The phrasing of the two is similar enough that they are discussed together here.</p>
<p>Campo, Gijsbrechts and Nisol (2000) indicated that their scale was based on one by Baumgartner and Steenkamp (1996).</p>	<p>Alphas of .676 (cereals) and .714 (margarine) were reported for the scale by Campo, Gijsbrechts and Nisol (2000).</p>	<p>No information about the scale's validity was provided by Campo, Gijsbrechts and Nisol (2000). They did imply that the scale was unidimensional based on the results of a principal components factor analysis of all scale items in their questionnaire.</p>	<p>Survey questionnaire method</p>		<p>The three-item scale attempts to measure a consumer's tendency to concentrate purchases at one store. Although the items refer to supermarkets, that term could be easily changed when wanting to measure loyalty to other types of retailers.</p>
<p>Ailawadi, Nelsin and Gedenk (2001).</p>	<p>A composite reliability of .876 was reported for the scale (Ailawadi, Nelsin and Gedenk 2001).</p>	<p>The items in this scale along with those belonging to 14 other scales were included in a confirmatory factor analysis. The fit of the measurement model was acceptable and general evidence was cited in support of the scale's discriminant validity.</p>	<p>Survey questionnaire method</p>	<p>Five-point Likert Scale</p>	<p>The scale attempts to assess the degree to which a consumer has a favourite grocery store (unspecified) and express a willingness to go to the effort to shop there in particular.</p>
<p>Sirohi, McLaughlin and Witting (1998)</p>	<p>Construct reliability was reported to be .87 (Sirohi, McLaughlin and Witting 1998).</p>	<p>An average variance extracted of .70 was reported for the scale by Sirohi, McLaughlin and Witting (1998).</p>	<p>Survey questionnaire method</p>	<p>Five-point Likert Scale</p>	<p>The scale measures a consumers stated likelihood of shopping at a specified supermarket as well as recommending it to a friend.</p>
<p>Ailawadi, Nelsin and Gedenk (2001).</p>	<p>A composite reliability of .865 was reported for the scale (Ailawadi, Nelsin and Gedenk 2001).</p>	<p>The items in this scale along with those belonging to 14 other scales were included in a confirmatory factor analysis. The fit of the measurement model was acceptable and general evidence was cited in support of the scale's discriminant validity.</p>	<p>Telephone interviews</p>	<p>Five-point Likert Scale</p>	<p>The scale attempts to assess the degree to which a consumer expresses having favorite brands in many product categories and the tendency to focus on those brands when shopping. This is in contrast to being brand loyal in only a few select product categories or having little loyalty at all.</p>

tenstein, meyer and on (1990).	Lichtenstein, Netemeyer and Burton (1990) reported the reliability of the scale to be .88.	No test of validity was reported by either Burton et al. (1998) or Lichtenstein, Netemeyer and Burton (1990).	Survey questionnaire method	Five-point Likert Scale	The scale assesses a consumers general tendency to buy the same brands over time rather than switching around to try other brands. The measure is not as specific as normally considered of 'brand loyalty' where the tendency to purchase a particular brand is assessed rather than the propensity to be loyal in all sorts of purchases.
Wulf, Odekerken-Schroder and Iacobucci (2001)	Composite reliabilities were calculated for two types of stores for each of three countries. The reliabilities for food stores were .87, .88, .87 for the U.S., Netherlands, and Belgium, respectively. For apparel stores, the reliabilities were .89, .89 and .85 for the U.S., Netherlands, and Belgium, respectively.	Although De Wulf, Odekerken-Schroder and Iacobucci (2001) provided a lot of information about most of the measures they used, evidence of this scale's validity was not specifically given.	Survey questionnaire method		Assess a consumer's expressed desire to be a regular customer of a retailer within a certain product category. This is in contrast to being a regular customer simply out of routine.
Ruyter, k., Wetzels, M., and Bloemer, J. (1997)	An alpha of .76 was reported for the scale of De Ruyter, k., Wetzels, M., and Bloemer, J. (1997)	No examination of the scale's validity was reported by De Ruyter, k., Wetzels, M., and Bloemer, J. (1997)	Survey questionnaire method	Five-point Likert scale	The scale measures negative comments about a particular brand to friends and family.
Bloemer J., de Ruyter, K., and Wetzels, M. (1999)	An alpha of .88 was reported for the scale of Bloemer J., de Ruyter, K., and Wetzels, M. (1999).	No examination of the scale's validity was reported by Bloemer J., de Ruyter, K., and Wetzels, M. (1999)	Survey questionnaire method	Five-point Likert scale	The scale assesses a consumers general tendency to discourage friends or family from using a particular brand.
Ganesh, J., Arnold, M.J., and Reynolds K.E. , (2000)	An alpha of .65 was reported for the scale of Ganesh, J., Arnold, M.J., and Reynolds K.E. , (2000)	No examination of the scale's validity was reported by Ganesh, J., Arnold, M.J., and Reynolds K.E. , (2000)	Survey questionnaire method	Five-point Likert scale	The scale measures consumers' intention of buying more of a particular brand.
Nijssen, E., Singt, J., Sirdeshmukh, D., and Holzmueller, H. (2003)	An alpha of .74 was reported for the scale of Nijssen, E., Singt, J., Sirdeshmukh, D., and Holzmueller, H. (2003)	No examination of the scale's validity was reported by Nijssen, E., Singt, J., Sirdeshmukh, D., and Holzmueller, H. (2003)	Survey questionnaire method	Five-point Likert scale	The scale measures the use of a brand for most of the consumer's future brand purchasing needs.
Narayandas (1999)	An alpha of .68 was reported for the scale of Narayandas (1999)	No examination of the scale's validity was reported by Narayandas (1999)	Survey questionnaire method	Seven-point Likert scale	The scale measures the extent of recommendation of a brand to friends and relatives.

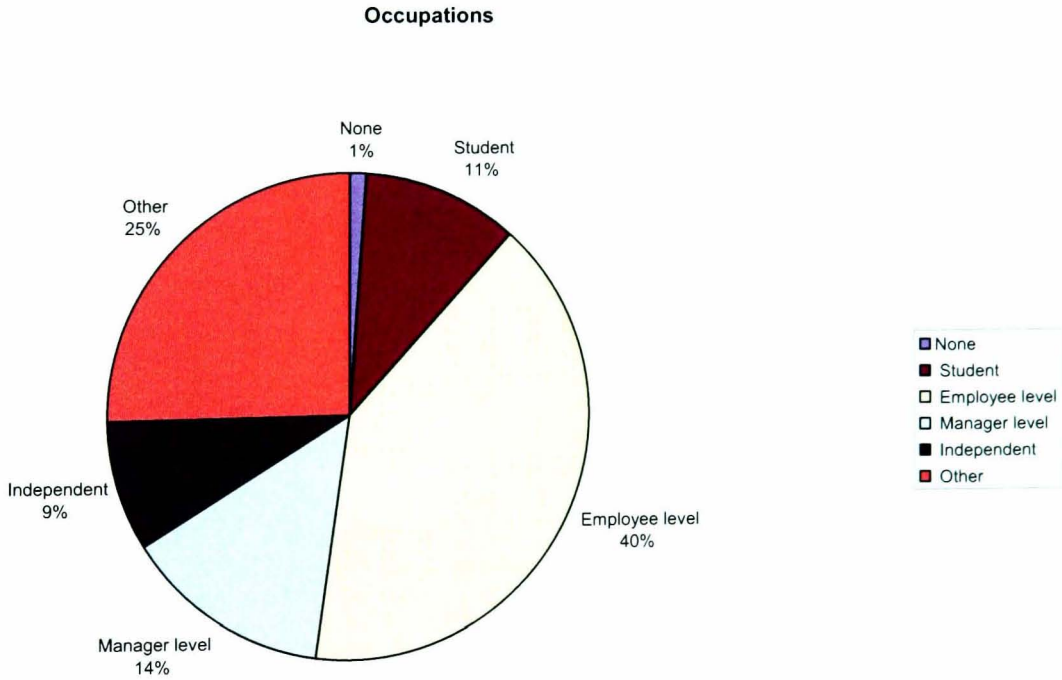
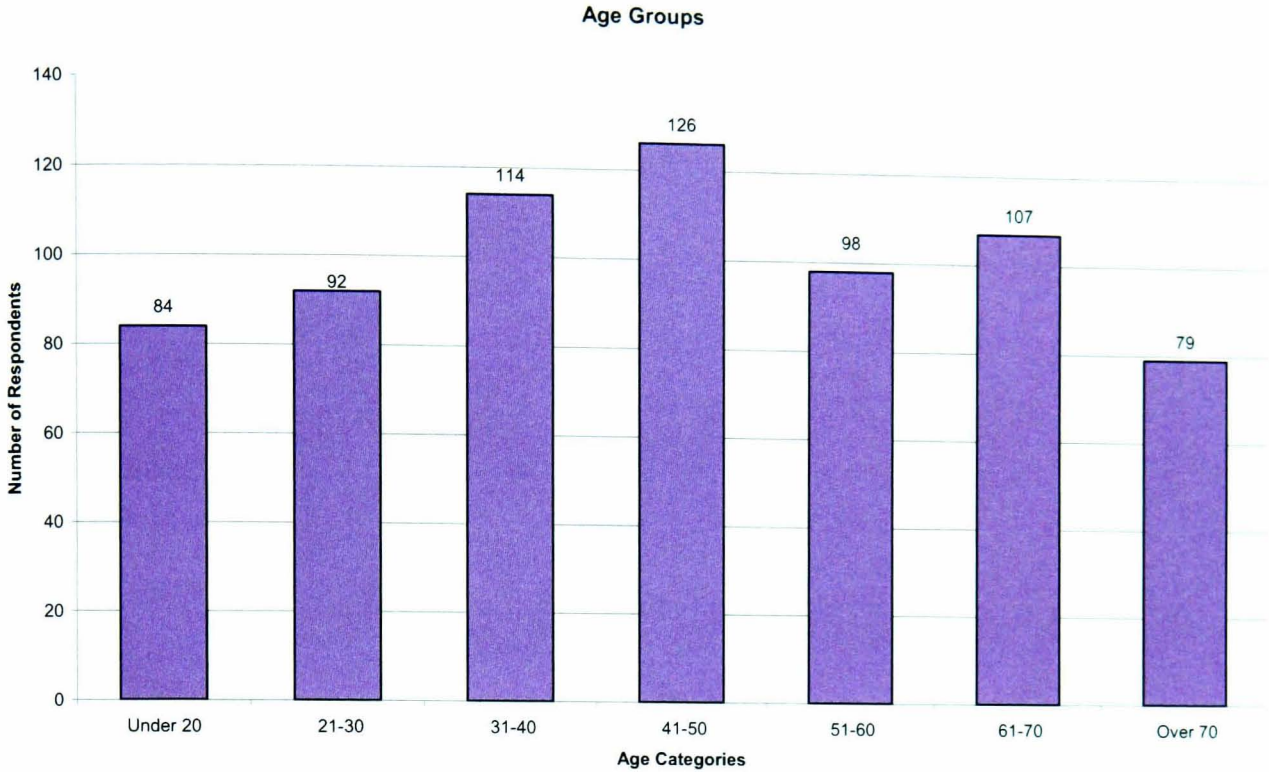
Price and Amould (1999)	An alpha of .72 was reported for the scale of Price and Amould (1999)	No examination of the scale's validity was reported by Price and Amould (1999)	Survey questionnaire method	Five-point Likert scale	The scale measures consumers' intention of buying the same brand even if its price was raised.
Odin, Y., Odin, N. Valette-Florence, P., (2001)	An alpha of .86 was reported for the scale of Odin, Y., Odin, N. and Valette-Florence, P., (2001)	No examination of the scale's validity was reported by Odin, Y., Odin, N. and Valette-Florence, P., (2001)	Survey questionnaire method	Five-point Likert scale	The scale attempts to assess the degree to which a consumer continues to buy a particular brand even if a magazine had a highly critical review of it.
Chaudhuri and Holbrook (2001)	An alpha of .69 was reported for the scale of Chaudhuri and Holbrook (2001)	No examination of the scale's validity was reported by Chaudhuri and Holbrook (2001)	Survey questionnaire method	Five-point Likert scale	The scale measures a consumer's commitment to a particular brand even if there was a small difference in price.
Knox and Walker (2001)	An alpha of .701 was reported for the scale of Knox and Walker (2001)	No examination of the scale's validity was reported by Knox and Walker (2001)	Survey questionnaire method	Five-point Likert scale	The scale attempts to assess the degree to which a consumer is strongly committed to buying this brand.
Macintosh and Lockshin (1997)	An alpha of .86 was reported for the scale of Macintosh and Lockshin (1997)	No examination of the scale's validity was reported by Macintosh and Lockshin (1997)	Survey questionnaire method	Five-point Likert scale	The scale measures the degree to which purchasing a particular brand would be good versus bad.
Bennett and Rundle-Thiele (2000), (2002)	An alpha of .92 was reported for the scale of Bennett and Rundle-Thiele (2000), (2002)	No examination of the scale's validity was reported by Bennett and Rundle-Thiele (2000), (2002)	Survey questionnaire	Five-point Likert scale	The scale measures the degree to which purchasing a particular brand would be positive versus negative.

Appendix 4 Sample of Trust Measurement Instruments Reviewed for the Purposes of this Study

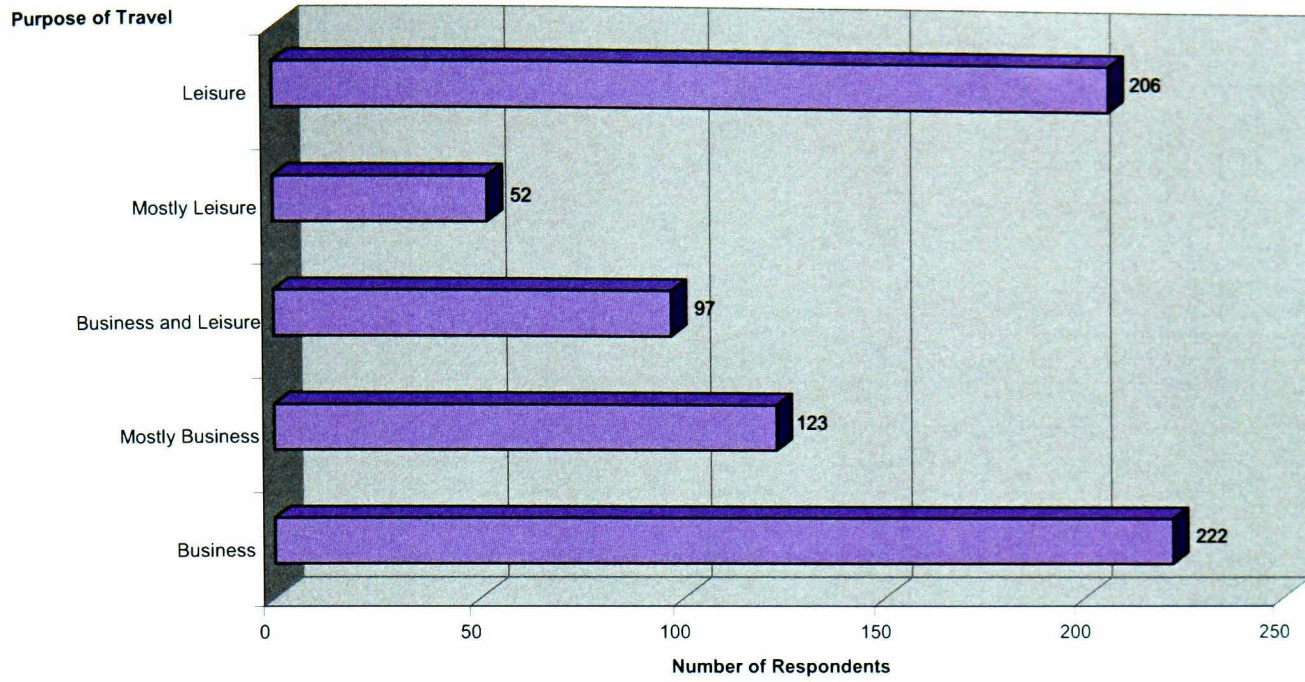
Author (year)	Reliability	Validity	Method of collection of data	Scale use	Measurement of trust
Chaudhuri and Holbrook (2001)	An alpha of .81 was reported for the scale by Chaudhuri and Holbrook (2001).	The only information bearing on the scales validity reported was that there was evidence of its discriminant validity given that its average variance extracted was much higher than its squared correlation with the three other constructs with which it was compared.	Survey questionnaire method	Seven-point Likert-scale	The scale measures the degree of confidence a consumer has in a brand and belief that it can be counted on to do what it is supposed to do.
Tax, Brown and Chandrashekar (1998)	An alpha of .96 (n=257) was reported for the scale by Tax, Brown and Chandrashekar (1998)	It is not clear what support if any was found for the validity of the scale in the study by Tax, Brown and Chandrashekar (1998).	Survey questionnaire method	Five-point Likert-scale	The scale is used to measure the degree to which a customer believes that an organization is honest and can be counted on. The context in which the respondents were given this scale was after being told to remember a recent service experience that led to their lodging a complaint.
Price and Arnould (1999)	An alpha of .84 was reported for the scale.	No information about the scale's validity was provided by Price and Arnould (1999).	Survey questionnaire method	Five-point Likert-scale	The scale measures the extent to which one person believes that another person 'knows best' in a certain situation. Due to the phrasing of the items and the context in which it was developed, the focus of the scale is on the perceived trust a client has in a specific service provider. The type of service provider studied by Price and Arnould (1999) was a hairstylist.
Cummings and Bromiley (1996)	An alpha of .66 was reported for the scale by Cummings and Bromiley (1996)	No information about the scale's validity was provided by Cummings and Bromiley (1996)	Survey questionnaire method	Five-point Likert-scale	The scale measures benevolence and integrity.
Holmes (1991)	An alpha of .82 was reported for the scale by Holmes (1991)	No information about the scale's validity was provided by Holmes (1991)	Survey questionnaire method	Five-point Likert-scale	The scale measures benevolence and responsiveness.

Husted (1990)	An alpha of .77 was reported for the scale by Husted (1990)	No information about the scale's validity was provided by Husted (1990)	Survey questionnaire method	Five-point Likert-scale	The scale measures morality.
Kasperson, R., Golding, S., Tuler (1992)	An alpha of .69 was reported for the scale by Kasperson, R., Golding, S., Tuler (1992)	No information about the scale's validity was provided by Kasperson, R., Golding, S., Tuler (1992)	Survey questionnaire method	Five-point Likert-scale	The scale measures competence, benevolence and predictability.
McLain and Hackman (1995)	An alpha of .93 was reported for the scale by McLain and Hackman (1995)	No information about the scale's validity was provided by McLain and Hackman (1995)	Survey questionnaire method	Seven-point Likert-scale	The scale measures competence and benevolence.
Mishra (1996)	An alpha of .92 was reported for the scale by Mishra (1996)	No information about the scale's validity was provided by Mishra (1996)	Survey questionnaire method	Five-point Likert-scale	The scale measures competence, benevolence and reliability.
Ring and Van de Ven (1994)	An alpha of .87 was reported for the scale by Ring and Van de Ven (1994)	No information about the scale's validity was provided by Ring and Van de Ven (1994)	Survey questionnaire method	Five-point Likert-scale	The scale measures goodwill and morality.
Sitkin and Roth (1993)	An alpha of .71 was reported for the scale by Sitkin and Roth (1993)	No information about the scale's validity was provided by Sitkin and Roth (1993)	Survey questionnaire method	Five-point Likert-scale	The scale measures competence.
Yamagishi and Yamagishi (1994)	An alpha of .65 was reported for the scale by Yamagishi and Yamagishi (1994)	An alpha of .65 was reported for the scale by Yamagishi and Yamagishi (1994)	Survey questionnaire method	Five-point Likert-scale	The scale measures goodwill.
Zaheer and Venkatraman (1993)	An alpha of .65 was reported for the scale by Zaheer and Venkatraman (1993)	An alpha of .65 was reported for the scale by Zaheer and Venkatraman (1993)	Survey questionnaire method	Five-point Likert-scale	The scale measures integrity and morality.

Appendix 5 Sample Demographics

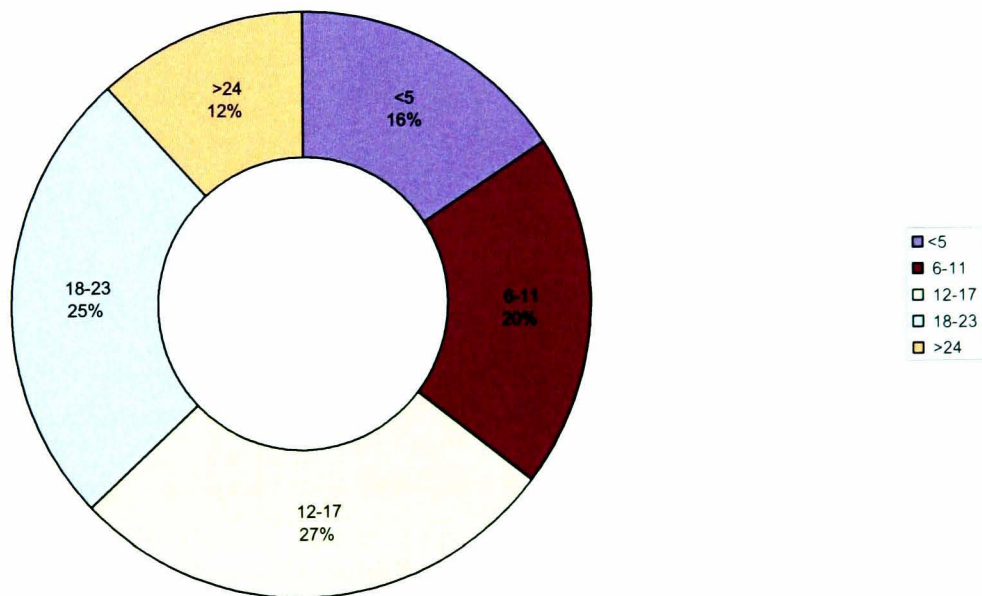


Purpose of Air Travel

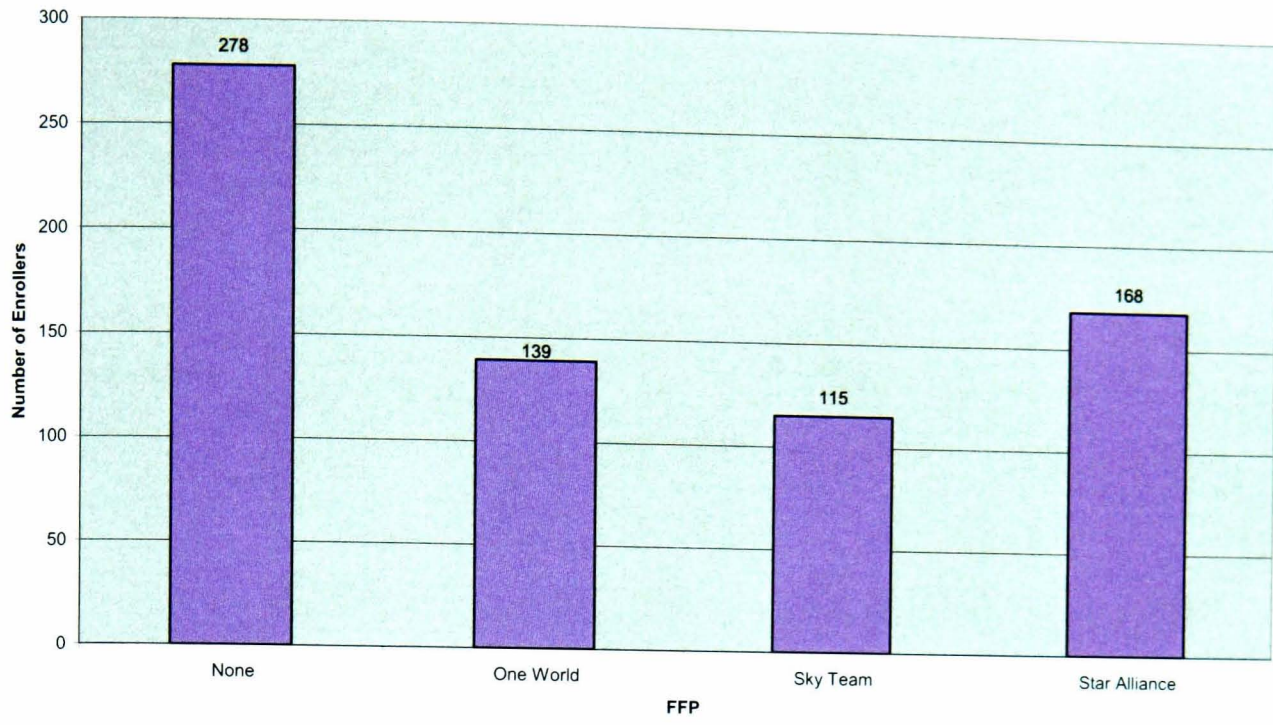


Frequency of Air Travel

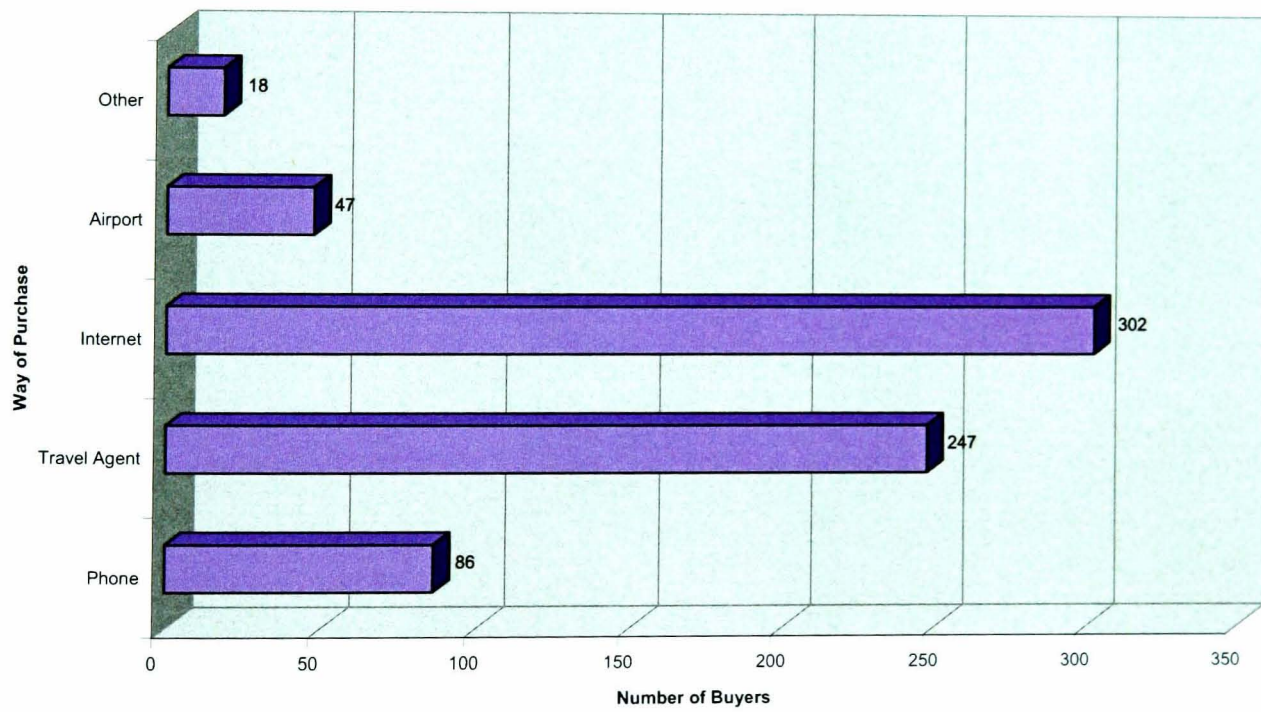
Number of times flown per year



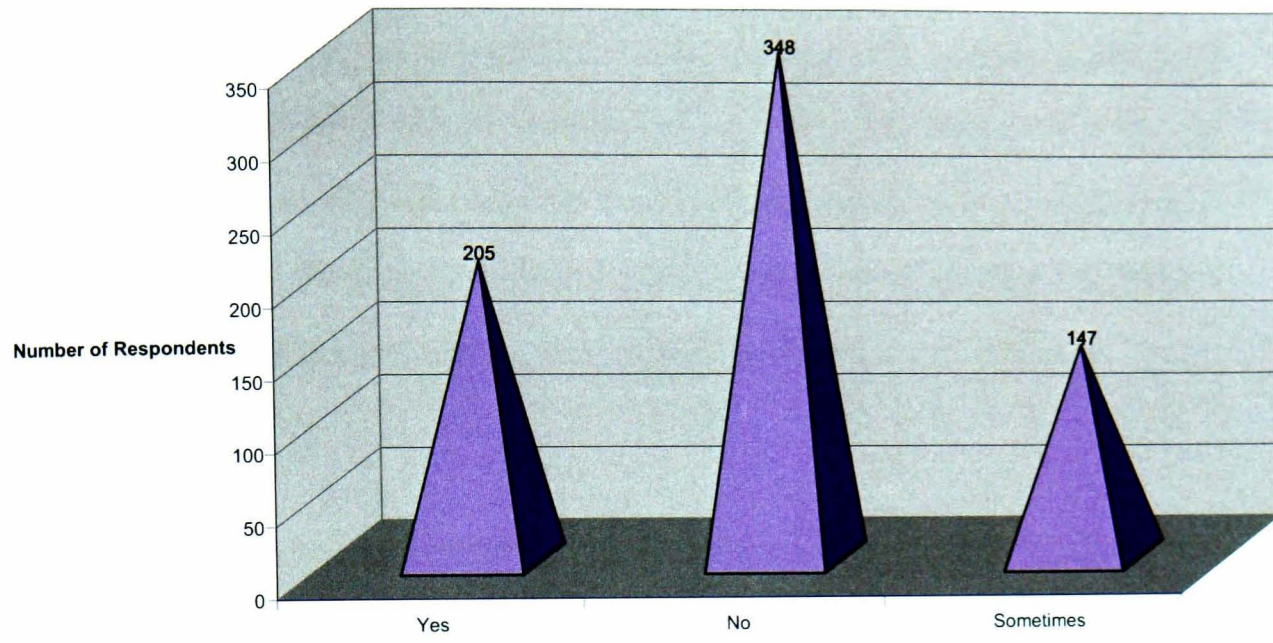
Frequent Flyer Programs (FFP) Enrollment



Airline Ticket Way of Purchase



Freedom of Choice



Appendix 6 Questionnaire

Purpose of the Questionnaire:

This questionnaire investigates the extent to which you are willing to show **trust and loyalty** to an **airline** that is member of an airline alliance. Moreover, the questionnaire attempts to unveil whether the **trust or loyalty** you possibly show towards a particular **airline** conveys any effects on **the rest of the members of the airline alliance**. The questionnaire is anonymous and confidential.

Instructions:

At the bottom of each of the three lists of airlines please fill out the name of the airline alliance that all the airlines in that particular list belong to.



Name of the Alliance

▪ _____



Name of the Alliance

▪ _____



Name of the Alliance

▪ _____

If you were NOT able to fill out any of the names of the alliances please answer only questions 1. and 2. and hand the questionnaire back. If you filled out at least one alliance name please continue with the questionnaire to the end.

1. Please fill-out the name(s) of the airline(s) with which you are flying today.

.....

2. Please fill-out below the name(s) of the airline(s) with which you have flown during the last year.

.....

If you have not filled out any of the names of the alliances on the first page please return the questionnaire otherwise continue to the end.

Please fill out the right column of the table indicating first one airline which you have frequently flown with and is a member of an airline alliance, second the alliance this airline belongs to and third a journey you frequent where further airlines to the one you have specified offer their service as it has been done in the example in the table below.



<u>QUESTION</u>	<u>EXAMPLE</u>	<u>YOUR ANSWER</u>
Please specify one <i>AIRLINE</i> which you have frequently flown with and is a member of an airline alliance.	<i>American Airlines</i>	
Please specify the <i>ALLIANCE</i> this airline belongs to.	<i>OneWorld Alliance</i>	
Please specify a <i>JOURNEY</i> you frequent where further airlines to the one you have specified offer their service.	<i>New York- London</i>	

In questions where the words *THE AIRLINE*, *THE ALLIANCE* or *THE JOURNEY* are included the name of the particular airline, alliance or journey you filled in the box should be considered.



For each question, you may circle one number in the scale that best fits your opinion unless otherwise indicated.

About the AIRLINE you specified above...



1. I am consistently pleased with the service level of *THE AIRLINE*.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



2. I like *THE AIRLINE* because it offers the promised level of service quality.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



3. *THE AIRLINE* knows the kind of service quality customers are looking for.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



4. The service of *THE AIRLINE* appears to be reliable.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



5. The services offered by *THE AIRLINE* are of high quality.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



6. I trust *THE AIRLINE*.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



7. I believe *THE AIRLINE* can be relied upon to keep its promised level of service.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



8. *THE AIRLINE* will offer its promised level of service.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



9. I perceive *THE AIRLINE* to be safe.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



10. I believe what *THE AIRLINE* says in its communications.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



11. How much would you say you like or dislike *THE AIRLINE*?

1	2	3	4	5	6	7
 Like very much	Like	Tend to Like	Neither Like nor Dislike	Tend to Dislike	Dislike	 Dislike very much



12. I am willing to make an effort (i.e. disregard lower price, more convenient schedule, etc. offered by competition) to fly on *THE AIRLINE*.

1	2	3	4	5	6	7
 Always	Very Frequently	Frequently	About Half the Time	Rarely	Very Rarely	 Never



13. When you buy an airline ticket for *THE JOURNEY* to what extent do you buy from *THE AIRLINE*?

1	2	3	4	5	6	7
 Always	Very Frequently	Frequently	About Half the Time	Rarely	Very Rarely	 Never

14. If a competing air carrier were to offer a better price for *THE JOURNEY*, I would switch.



1	2	3	4	5	6	7
 Always	Very Frequently	Frequently	About Half the Time	Rarely	Very Rarely	 Never

15. I think of my self as a loyal customer of *THE AIRLINE*.



1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree

About the ALLIANCE you specified above...



16. I will offer positive word-of-mouth to (talk positively about) *THE ALLIANCE*.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



17. I am consistently pleased with the service level of *THE ALLIANCE*.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



18. I like *THE ALLIANCE* because it offers the promised level of service quality.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



19. *THE ALLIANCE* knows the kind of service quality customers are looking for.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



20. The service of *THE ALLIANCE* appears to be reliable.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



21. The services offered by *THE ALLIANCE* are of high quality.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



22. I trust *THE ALLIANCE*.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



23. I believe *THE ALLIANCE* can be relied upon to keep its promised level of service.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



24. *THE ALLIANCE* will offer its promised level of service.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



25. I perceive a high level of safety across *THE ALLIANCE* members.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



26. I believe what *THE ALLIANCE* says in its communications.

1	2	3	4	5	6	7
 Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	 Strongly Disagree



27. How much would you say you like or dislike *THE ALLIANCE*?

1	2	3	4	5	6	7
 Like very much	Like	Tend to Like	Neither Like nor Dislike	Tend to Dislike	Dislike	 Dislike very much

28. I am willing to make an effort (i.e. disregard lower price, more convenient schedule, etc. offered by competition) to fly on *THE ALLIANCE*.



1	2	3	4	5	6	7
 Always	Very Frequently	Frequently	About Half the Time	Rarely	Very Rarely	 Never

29. When you buy an airline ticket for *THE JOURNEY* to what extent do you buy from an airline that is a member of *THE ALLIANCE*?



1	2	3	4	5	6	7
 Very Frequently	Very Frequently	Frequently	About Half the Time	Rarely	Very Rarely	

Always						Never
--------	--	--	--	--	--	-------

30. If a competing air carrier that is not member of *THE ALLIANCE* was to offer a better price on their services, I would switch.

1	2	3	4	5	6	7
						
Always	Very Frequently	Frequently	About Half the Time	Rarely	Very Rarely	Never

31. I think of my self as a loyal customer of *THE ALLIANCE* .

1	2	3	4	5	6	7
						
Strongly Agree	Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Disagree	Strongly Disagree

Please provide the following demographic information so that we can better process your answers:

1) Age

- Under 20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- Over 70

2) Gender

- Male
- Female

3) Occupation

- None
- Student
- Employee level
- Manager level
- Independent

4) Purpose of Air Travel

(Please indicate the main purpose of air travel during the last year)

- Business
- Mostly Business
- Business and Leisure
- Mostly Leisure
- Leisure

5) Frequency of Air Travel

(Please indicate number of flights boarded during the last year)

- <5
- 6-11
- 11-16
- 17-22
- >22

7) Frequent Flyer Program (FFP) Membership

(Please indicate the Alliance Loyalty Program you are a member of)

- None
- One World
- Sky Team
- Star Alliance

8) FFP Beneficiary

(Please indicate the beneficiary of the accrued FFP miles)

- I am
- My employer is

8) Way of Purchase

(Please indicate the most common way used to purchase airline tickets)

- Phone
- Travel Agent
- Internet
- Airport
- Other

9) Freedom of Choice

My employer insist that I fly on a particular Airline

- Yes
- No
- Sometimes

Thank you very much for your time and effort!!!

Please return the questioner to the individual that handed it to you.